IBM Z Performance and Capacity Analytics Version 3.1

Capacity Planning Guide and Reference

SC28-3213-01

Note

Before using this information and the product it supports, read the information in “Notices” on page 225.

This edition applies to version 3, release 1 of IBM Z Performance and Capacity Analytics (program number 5698-AS3) and to all subsequent releases and modifications until otherwise indicated in new editions.

Last updated: March 2021

© Copyright International Business Machines Corporation 2018, 2021.
US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.
© Teracloud S.A. 2018, 2021.

Contents

Figures

Tables

Preface

This book provides information about the capacity planning and forecasting feature of IBM Z Performance and Capacity Analytics.

You should use this book in conjunction with the documentation for IBM Z Performance and Capacity Analytics .

Who should read this book

IBM Z Performance and Capacity Analytics, Capacity Planning Guide and Reference is intended for those who are responsible for monitoring system capacity and ensuring that sufficient capacity is available.

Publications

This section describes how to access the IBM Z Performance and Capacity Analytics publications online.

For a list of publications and related documents, refer to "IBM Z Performance and Capacity Analytics publications" on page 227.

Accessing publications online

Publications for this and all other IBM products, as they become available and whenever they are updated, can be viewed on the IBM Knowledge Center website from where you can also download the associated PDF.

IBM Z Performance and Capacity Analytics V3.1.0
https://www.ibm.com/support/knowledgecenter/SSPNK7_3.1.0

IBM Knowledge Center
https://www.ibm.com/support/knowledgecenter

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully. With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface.

For additional information, refer to the IBM Accessibility website:

https://www.ibm.com/accessibility

Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

- Searching knowledge bases: You can search across a large collection of known problems and workarounds, Technotes, and other information.
- Obtaining fixes: You can locate the latest fixes that are already available for your product.
- Contacting IBM Support: If you still cannot solve your problem, and you need to work with someone from IBM, you can use a variety of ways to contact IBM Support.

For more information about these ways of resolving problems, see Appendix A, "Support information," on page 223.

© Copyright IBM Corp. 2018, 2021

Conventions used in this book

This guide uses several conventions for special terms and actions, operating system-dependent commands and paths, and margin graphics.

The following terms are used interchangeably throughout this book:

- MVS, OS/390, and z/OS.
- OPC, OPC/ESA, Tivoli Workload Scheduler for z/OS, and TWS.
- TCP/IP and TCP/IP for z/OS.
- VM and z/VM.
- WebSphere MQ for z/OS and MQSeries.

Typeface conventions

This guide uses the following typeface conventions:

Bold

- Lowercase commands and mixed case commands that are otherwise difficult to distinguish from surrounding text
- Interface controls (check boxes, push buttons, radio buttons, spin buttons, fields, folders, icons, list boxes, items inside list boxes, multicolumn lists, containers, menu choices, menu names, tabs, property sheets), labels (such as **Tip**, and **Operating system considerations**)
- Column headings in a table
- Keywords and parameters in text

Italic

- Citations (titles of books, diskettes, and CDs)
- Words defined in text
- Emphasis of words (words as words)
- Letters as letters
- New terms in text (except in a definition list)
- Variables and values you must provide

Monospace

- Examples and code examples
- File names, programming keywords, and other elements that are difficult to distinguish from surrounding text
- Message text and prompts addressed to the user
- Text that the user must type
- Values for arguments or command options

Except for editorial changes, updates to this edition are marked with a vertical bar to the left of the change.

What's new in this edition (March 2021)

The changes in this edition relate to IBM Z Performance and Capacity Analytics 3.1.0 new function and enhancements.

This list summarizes changes made in the previous edition:

Capacity Planning for z/OS
Added new lookup table: “CP_LPAR_GROWTH” on page 12

Capacity Planning CPU subcomponent

New data tables added for CPU component:

- "CP_CPU_LPAR_M" on page 16
- "CP_LSPR_WKLD_M" on page 24
- "CP_CPU_WKLD_M" on page 26

Updated attributes for:

- "CP_CPU_LPAR_M" on page 16
- "CP_CPU_LPAR_W" on page 17
- "CP_CPU_LPAR_D" on page 18
- "CP_CPU_LPAR_H" on page 19
- "CP_CPU_LPAR_T" on page 20
- "CP_CPU_LPAR_F" on page 21

Capacity Planning CPU subcomponent reports

Added new reports:

- "Processor Model Analysis Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 70
- "LPAR zIIP Offload Analysis Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 71
- "Workload zIIP Offload Analysis report" on page 71

Changes in the previous edition (February 2021)

This list summarizes changes made in the previous edition:

Capacity Planning for z/OS

Added new information about Tailored Fit Pricing: "Subcomponents" on page 5

Added new lookup tables: "CP_EVENT_TYPE" on page 12 and "CP_EVENT_DATE" on page 13

Capacity Planning CPU usage reports

Updated information for the following reports:

- "CP CEC MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 40
- "CP LPAR MIPS by CEC Average Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 40
- "CP LPAR MIPS by CEC Peak Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 41
- "CP LPAR MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 44
- "CP Workload MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 47
- "CP Application MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 48
- "CP Service Class MIPS by Workloads Average Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 49
- "CP Service Class MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 51

Added new reports:

- "CP LPAR MIPS by Sysplex Average Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 42
- "CP LPAR MIPS by Sysplex Peak Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 43
- "CP Workload MIPS by LPARs Average Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 45
- "CP Workload MIPS by LPARs Peak Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 46
- "CP Service Class MIPS by Workloads Peak Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 50
- "CP Job Top Consumers Monthly/Weekly/Daily/Hourly/SMF Interval report" on page 52

Capacity Planning CPU forecast reports
Added new reports to CPU forecasting:

- "CP CEC Event Forecast" on page 57
- "CP LPAR Event Forecast" on page 58

Capacity Planning Tailored Fit Pricing reports
Added new reports:

- "CP Containers Annual MSU % To Date Monthly/Weekly/Daily report" on page 65
- "CP Container MSU Detail Monthly/Weekly/Daily report" on page 66
- "CP LPAR MSU by Container Monthly/Weekly/Daily report" on page 67
- "CP Container MSU Forecast report" on page 68

Updated Supplied forecasts and utilities
Added new attributes to Forecast Configurations: "Supplied forecasts and utilities" on page 213

Updated Projection algorithms
Added new subsection for Projection algorithms: "Fractal projection algorithm" on page 217

Updated Forecasting
Added new instructions for Fractal Forecasting: "Preparing for a Fractal Forecast" on page 218 and "Running Fractal Forecast" on page 220

Added new attributes to Tailoring a supplied forecast: "Tailoring a supplied forecast" on page 221

Technical changes are marked in the PDF with a vertical bar in the margin to the left of the change. Editorial changes are unmarked.

Changes in the December 2020

The following changes are implemented with the PTF for APAR PH14003.

Configuring lookup tables for z/OS
Updated attributes for CP_BUSINESS_APPL. "CP_BUSINESS_APPL" on page 8

Technical changes are marked in the PDF with a vertical bar in the margin to the left of the change.

Changes in the November 2020 edition

This list summarizes changes made in the previous edition:

Product scope
Updated list outlining capabilities of IBM Z Performance and Capacity Analytics in Chapter 1, "Introduction," on page 1

Reports for z/OS
Updated figures for several reports for z/OS: "Reports" on page 38

CICS component
New data tables added for CICS component: Chapter 3, "Capacity Planning for CICS," on page 79

CICS reporting
Updated attributes for CICS transaction detail analysis reports: "CICS Transaction Detail Analysis Hourly/Daily/Weekly" on page 162

IMS component
New chapter added for IMS component: Chapter 4, "Capacity Planning for IMS," on page 171

Projection algorithms
New information added on installing and configuring the Forecaster: "Step 1: Unpacking the Forecaster module" on page 212 and "Step 2: Updating the table mapping files" on page 212

New information added on supplied forecasts: "Supplied forecasts and utilities" on page 213

New information added on available projection algorithms: "Projection algorithms" on page 215

New information added on tailoring supplied forecasts: “Tailoring a supplied forecast” on page 221

Chapter 1. Introduction

IBM Z Performance and Capacity Analytics is a curating and reporting engine that processes performance data generated by various systems, and stores the curated metrics in a Db2 database. IBM Z Performance and Capacity Analytics provides predictive analysis to manage future resource needs; to help understand when capacity or resource shortfalls might occur.

IBM Z Performance and Capacity Analytics includes the following:

- Automated gathering of SMF records
- Real time curation of SMF records via Continuous Collect
- zIIP eligible Continuous Collect
- Storing of curated metrics in Db2
- Streaming curated metrics off-platform (Optional)
- Out of the box dashboards with drill down for root-cause analysis
- Multiple reporting platforms integrated - Cognos, Splunk, ELK
- Predictive analysis and forecasting
- Exceptions and alerting with dashboards provided to investigate when anomalies occur
- Machine learning with built in profiling of expected usage
- System LSPR workload analytics for calculating LSPR MIPS system capacity level
- What-if capabilities
- Native support for Tailored Fit Pricing

Implementing IBM Z Performance and Capacity Analytics consists of two steps:

1. Considering which sub-components to install
2. Installing IBM Z Performance and Capacity Analytics

Introduction to capacity planning

With IBM Z Performance and Capacity Analytics you can plan the future capacity needs of multiple resource types.

CPU

Evaluating the utilization of your environment in MIPS allows you to determine the portion of usage of the CPU that is attributable to certain workloads. Reports are available at the CEC, LPAR, Workload, Business Application and Workload Manager Service Class or Report Class level. CEC and LPAR views of the data show the utilization at an aggregated level to understand the cumulative utilization of the available capacity, while Application and Workload reports offer a more granular view.

CEC and LPAR reports are typically used for machine capacity planning purposes and to understand the nature and behavior of workload trends across the environment. For example, an hourly CEC MIPS usage report can identify specific times of day when the entire CEC may be saturated because of heavy utilization across all LPARs. This information can identify the opportunity for a workload shift to different times during the day to flatten the utilization, or the need for a capacity upgrade. Similarly, peak utilization reports can identify certain busy days, such as end of month, or seasonal spikes that allow for proactive planning to defer or reschedule workloads, or adjust capacity by LPAR re-weighting or activating Capacity on Demand.

Application and Workload Manager Service Class and Report Class reports provide a more granular view of utilization allowing for more fine-tuning of the environment. Using the CEC and LPAR reports to zero in

© Copyright IBM Corp. 2018, 2021

on specific LPARs or peak periods in conjunction with the more granular reports allows for a drill-down approach to focus on specific areas to address.

Identifying the MIPS utilization of certain types of work can pinpoint specific stress points. Showing growth trends across time, or behavior tied to application changes or business growth allows you to extrapolate capacity needs and impact for the future. For example, reporting that an application's MIPS utilization doubled after a code change can detect the need to investigate the application's efficiency or to plan for more capacity if the new behavior is expected to continue.

MIPS capacity planning can be done using a focus shift which covers a short period of time each day or particular times each week when usage of the machine is heaviest and you are most concerned about having sufficient capacity. By restricting the scope of the data analyzed to a narrow window, you can get better forecast results (because the input data is more consistent) and reduce the CPU and elapsed time used to perform forecasting.

The default settings allow for forecasting for average CPU usage.

Business Application focused reporting provides a means of aggregating the reports and forecasts for a number of service and/or reporting classes to give a total value for the specific line of business.

Storage (memory)

Having sufficient central storage is vital to the overall performance and throughput of your mainframe. The ability to use storage effectively can mean the difference between meeting business service levels and suffering workload degradation. Monitoring the overall usage, and the highs and lows of storage available for use, ensures that you can plan for sufficient resources for the workload. Supplied reports to show the minimum, average and maximum central storage available over time.

The default settings allow for forecasting for minimum available storage.

Channel

I/O operations contribute significantly to the overall performance of a system's workloads. The faster the round trip to a peripheral device such as disk or tape, the better the performance of a workload and the faster it completes. Channels are the highway from the CEC to the device. Having the information to report on channel utilization and plan for capacity allows you to keep I/O traffic flowing as quickly as possible.

Available reports show the peak busy utilization of channels over various time periods. The forecasting capability can pinpoint when channels will reach a saturation point that will begin to degrade performance. For example, a report showing peak utilization of disk channels at a certain day and time during the week can reveal that an overload of weekly backups are taking place and degrading production work. Rescheduling the backups or adding channel capacity can avoid a missed service level for the business.

The default settings allow for channel peak busy loading.

Disk

Disk usage trends, as well as forecasted future disk storage usage, must be assessed in order to plan for future needs, allowing you to plan for enough space to meet the storage usage requirements of your systems.

Default configurations are provided to allow for forecasting on allocated space per storage group.

Tape

Tape usage trends, as well as forecasted future tape storage usage, must be assessed in order to plan for future needs, allowing you to plan for enough space to meet the storage usage requirements of your systems.

Default configurations are provided to allow for forecasting on allocated space per storage group.

Architecture

The IBM Z Performance and Capacity Analytics collection engine transforms input log records into curated metrics that consolidate data from multiple SMF intervals.

These metrics are stored in Db2 data tables. Forecaster modules then analyze the historic data in the data tables, apply forecasting algorithms and store the results in Db2 Forecast data tables. Both Db2 tables provide input for capacity planning and forecasting reports. Dashboards are provided to plot actual usage against forecasted values.

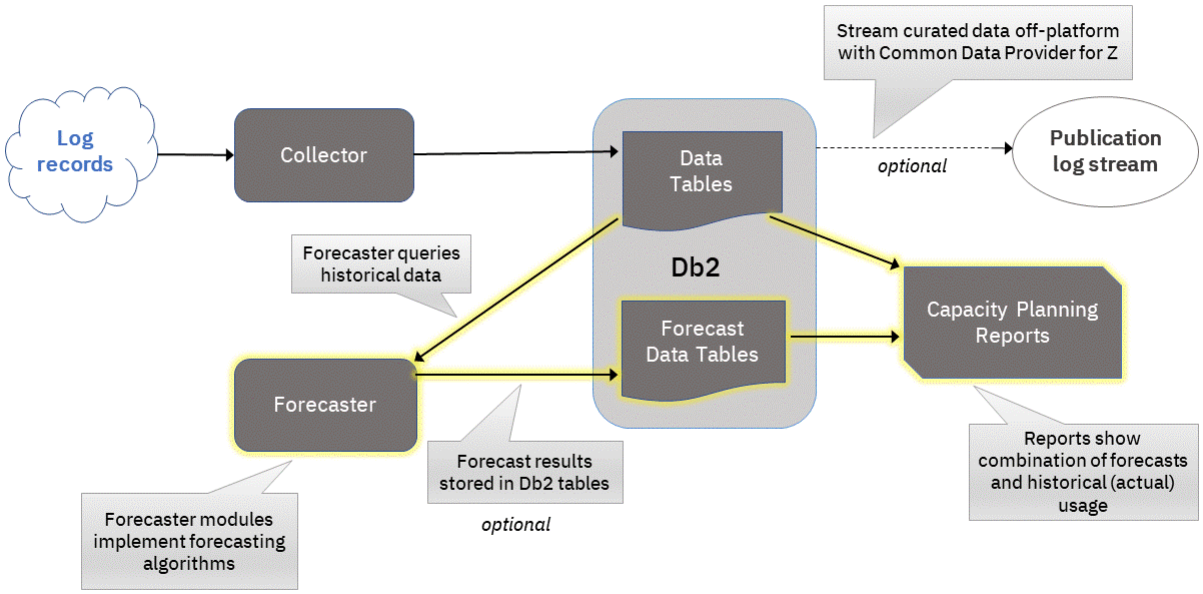


Figure 1. IBM Z Performance and Capacity Analytics Architecture

The Forecaster module is written in Java and is zIIP eligible. A number of default configurations are provided.

The Forecast data table primary key mirrors the data table structure of the data table on which the forecast was run, but the Forecast data table structure also allows multiple forecasts to be stored, over time, against a single set of data.

Table 1. IBM Z Performance and Capacity Analytics Db2 tables, primary key structure

Data Table primary key columns	Forecast Data Table primary key columns
COLUMNA COLUMNB COLUMNC	COLUMNA COLUMNB COLUMNC F_ALGORITHM F_TIMESTAMP

Getting started with IBM Z Performance and Capacity Analytics

You can use IBM Z Performance and Capacity Analytics with existing IBM Z Performance and Capacity Analytics reports and metrics, to provide a complete system capacity planning and performance management solution.

About this task

Follow these steps to start using IBM Z Performance and Capacity Analytics for capacity planning and forecasting.

Procedure

1. Identify your capacity planning shifts.

   Identify the days and hours for which you need to plan capacity (those shifts where resource usage is high and availability must be guaranteed). You can use IBM Z Performance and Capacity Analytics key performance measures (KPM) reports to identify peak shifts.

   - KPMZLP01 (KPMZOS CEC CPU Busy, Hourly)
   - KPMZLP02 (KPMZOS LPAR CPU Busy, Hourly)

2. Set up your capacity planning shifts.

   Refer to section "CP_SHIFT" on page 9 for information about updating the CP_SHIFT lookup table to define your capacity planning shifts.

3. Set up your Business Applications.

   If you want to report and forecast at the Business Application level, you must define your Business Applications. Refer to "CP_BUSINESS_APPL" on page 8 for information about updating the CP_BUSINESS_APPL lookup table to define your business applications.

4. Determine and set your capacity thresholds.

   Review the default thresholds in the CP_THRESHOLDS lookup table and adjust them if necessary. You can set different thresholds for different shifts, and for different LPARs. Refer to "CP_THRESHOLDS" on page 11 for information about updating the CP_THRESHOLDS lookup table with your thresholds.

5. Make your input data available.

   Ensure that you are collecting the SMF and other record types that are required for capacity planning. Refer to "Making input data available" on page 6 for information about making your data available.

6. Install the Capacity Planning for z/OS component.

   Refer to "Installing and configuring Capacity Planning for z/OS" on page 5 for information.

7. Collect data.

   Collect data using the IBM Z Performance and Capacity Analytics collect engine.

8. Configure the Forecaster module.

   Refer to "Installing and configuring the Forecaster module" on page 212 for information.

9. Do forecasting.

   When you have sufficient data collected, use this data to forecast the required capacity during the shifts you are monitoring. The Forecaster will write the forecast values back to the IBM Z Performance and Capacity Analytics database.

Results

You can now use the capacity planning reports to monitor your usage compared with the forecast, and to make resource planning decisions.

Chapter 2. Capacity Planning for z/OS

The Capacity Planning for z/OS reports are designed to provide a routine health check of your z/OS system, whilst also providing drill-down reporting, enabling investigation of anomalies.

Installing and configuring Capacity Planning for z/OS

About this task

Before you install the Capacity Planning for z/OS component, you must complete the following steps.

Procedure

1. Decide which subcomponents to install.
2. Make input data available.
3. Customize.

Subcomponents

Although IBM Z Performance and Capacity Analytics can analyze data and produce reports for all the supported resources, you might not need all that data. The Capacity Planning for z/OS component has multiple subcomponents that you can configure to meet your needs.

Subcomponents are groups of objects (for example, predefined update definitions, data tables, and reports). You can install one, some, or all of the subcomponents. When deciding which subcomponents to install, be aware that if you find that you need reports from a subcomponent that you have not installed, you must install that subcomponent and then wait several days or weeks until enough data has been collected to create reports. However, if you install more subcomponents than you need, IBM Z Performance and Capacity Analytics collects needless data, which takes up disk space and uses processor time.

Note: Install only the subcomponents that are necessary to meet your requirements. This ensures that the data you collect is relevant and useful, while minimizing performance impact.

The Capacity Planning for z/OS component is made up of the following subcomponents:

- CPU
- Storage
- Channel
- Disk
- Tape

CPU

This subcomponent provides key capacity planning metrics on processor activity, collected on SMF timestamp, hourly, daily, and weekly level. It aggregates the data by capacity planning shift as well as CEC level, LPAR level, Workload level, Service or Report Class level, and Business Application level.

A Business Application is a grouping of Service or Report Classes, as defined in lookup table CP_BUSINESS_APPL.

A shift is a short period of time each day or particular times each week when the resource usage is at peak level and where planning of sufficient capacity is important. MIPS capacity planning is most effectively done on predefined shift levels. A more accurate forecasting result is obtained by restricting the scope of the data analyzed to the narrow window of a specific shift, because the input data is more consistent.

© Copyright IBM Corp. 2018, 2021

Forecasting by shift would also result in less CPU and elapsed time used by the Forecaster to predict future usage.

Select this subcomponent if you are planning to create Software Cost Analysis reports for Tailored Fit Pricing or 4HRA.

This subcomponent requires the collection of data from the following SMF records:

- SMF type 70
- SMF type 71
- SMF type 72 (subtype 3)
- SMF type 73
- SMF type 89 (subtype 1)
- SMF type 113 (subtype 2) - These records are used to calculate MIPS usage and capacity. IBM Z Performance and Capacity Analytics calculates MIPS based on the LSPR Workload.

Storage

This subcomponent provides key capacity planning metrics on storage availability, collected on hourly, daily, and weekly level. It aggregates the data by capacity planning shift as well as MVS System ID.

This subcomponent requires the collection of data from the following SMF records:

- SMF type 71

Channel

This subcomponent provides metrics on channel availability, collected on hourly, daily, and weekly level. It aggregates the data by capacity planning shift as well as MVS System ID.

This subcomponent requires the collection of data from the following SMF records:

- SMF type 73

Disk

This subcomponent provides metrics on disk usage collected on daily and monthly level and by MVS System ID.

This subcomponent requires the collection of data from the following DCOLLECT records:

- DCOLLECT_V

Tape

This subcomponent provides metrics on tape usage collected on daily and weekly level and by MVS System ID.

This subcomponent requires the collection of data from the following RMM records:

- DFRMM_DATASET

Making input data available

In order to perform capacity planning and forecasting, you must make the relevant input records available for processing by IBM Z Performance and Capacity Analytics.

Procedure

1. Ensure that the following SMF record types are available for processing by IBM Z Performance and Capacity Analytics :

- 70
- 71
- 72 (subtype 3)
- 73
- 89 (subtype 1)
- 113 (subtype 2) - This is mandatory for CPU reporting. These records are used to calculate and forecast MIPS usage and capacity because IBM Z Performance and Capacity Analytics calculates MIPS based on the LSPR Workload.

Refer to *MVS System Management Facilities (SMF)* for information on how to make SMF records available.

2. Ensure that the interval at which the SMF records are written must be the same for the following SMF records:
   - 70
   - 72 (subtype 3)
   - 113 (subtype 2)
3. Ensure that the following RMM and DFSMS records are available:
   - DFRMM_DATASET
   - DCOLLECT_V

   Refer to *System Performance Feature Reference 1* for information on these record types and how to generate the records.

Lookup tables and control tables

IBM Z Performance and Capacity Analytics uses lookup tables and control tables to contain user-specified parameters specific to your installation. These tables are used when storing data in the IBM Z Performance and Capacity Analytics database and must be configured before data collection and reporting.

Lookup tables
The lookup tables contain installation-specific parameters including Business Application groups, Capacity Planning periods and threshold values for MIPS and Channel capacity.

Control tables
The Capacity Planning for CICS component uses one control table which must be initialized with the MIPS ratings of your installation. It is a prerequisite to reporting MIPS values.

Configuring lookup tables

The Capacity Planning for z/OS component uses several lookup tables when storing data in the IBM Z Performance and Capacity Analytics database. Before collecting any data, you must update the lookup tables to include parameters that are specific to your installation.

Procedure

To update each of the following lookup tables, copy the corresponding member from *HLQ*.SDRLDEFS to your *HLQ*.LOCAL.DEFS data set, then edit the sample INSERT statements to suit your requirements.

Table 2. Lookup tables			
Table name	**Lookup table function**	**Used by Capacity Planning for z/OS component**	**Member in *HLQ*.SDRLDEFS**
CP_BUSINESS_APPL	To define Business Applications for reporting and forecasting purposes. A business application is a combination of either Service Classes or Report Classes.	CPU	DRLTCPL3
CP_SHIFT	To define capacity planning shifts. For example: Online or Batch.	CPU Storage Channel MSU	DRLTCPL2
CP_THRESHOLDS	To specify threshold values for capacity planning reporting.	CPU	DRLTCPL1
CP_TIME_RES	To defines the time to use for each row of data stored in a set of tables.	CPU	DRLTCPL6
CP_LPAR_GROWTH	Defines the growth percentage of an LPAR, can be negative or positive growth.	CPU	DRLTCPLG
CP_EVENT_TYPE	Identifies the event classification codes and maps them to textual descriptions.	CPU (Fractal Forecasting)	DRLTCPF1
CP_EVENT_DATE	Identifies specific days that correspond to unusual system loads and classifies them using one of the event codes defined in the CP_EVENT_TYPE table.	CPU (Fractal Forecasting)	DRLTCPF1
CP_CONTAINER_LPAR	To define which LPARs are within a software pricing container. Applicable to Tailored Fit Pricing Reporting.	CPU	DRLTCPL4
CP_CONTAINER_PRICE	To define software container details. Applicable to Tailored Fit Pricing Reporting.	CPU	DRLTCPL4

CP_BUSINESS_APPL

Reporting and forecasting can be done on Service Class, Report Class, and Business Application level. A Business Application is a grouping of specified Service Classes or Report Classes. In order to report at the Business Application level, you must define your Business Applications in CP_BUSINESS_APPL.

CP_BUSINESS_APPL provides the ability to define your Business Application groups. If Business Applications are defined in this lookup table, the IBM Z Performance and Capacity Analytics Collector will use this information to aggregate curated SMF data by the specified Business Application groups, before it is stored in the Db2 data tables. Similarly, the Forecaster will forecast on Service Class, Report Class, as well as Business Application level, if Business Applications are defined in this lookup table.

You do not need to specify Business Applications in the lookup table, if you do not want to report or forecast on Business Application level.

Table 3. CP_BUSINESS_APPL lookup table			
Column name	**Key**	**Data type**	**Description**
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID.
WORKLOAD	K	CHAR(8)	MVS workload name.
SERVICE_CLASS	K	CHAR(8)	WLM service class or report class name.
SERV_CLASS_PERIOD	K	CHAR(1)	WLM service class or report class period.
BUSINESS_APPL		CHAR(10)	Business application name.

This lookup table is used to populate column BUSINESS_APPL of the following data tables:

CP_CPU_WKLD_H
CP_CPU_WKLD_D
CP_CPU_WKLD_W
CP_CPU_WKLD_F
CP_CPU_WKLD_T
CP_CPU_WKLD_M
CP_CPU_WKLDB_H
CP_CPU_WKLDB_D
CP_CPU_WKLDB_W
CP_CPU_WKLDB_F
CP_CPU_WKLDB_M
CP_CPU_WKLDB_T

The following is an example of how CP_BUSINESS_APPL might look.

```
MVS_SYSTEM_ID    WORKLOAD      SERVICE_CLASS    SERV_CLASS_PERIOD    BUSINESS_APPL
-------------    --------      -------------    -----------------    -------------
SYSA             BATCH         WEBPAY1          1                    PAYMENTS
SYSA             BATCH         WEBPAY2          2                    PAYMENTS
SYSA             BATCH         WEBPAY2          3                    PAYMENTS
SYSB             SYSTEM        SYSCARD          1                    CREDITCARD
```

Figure 2. Example: CP_BUSINESS_APPL lookup table

The first two rows are used to create a Business Application called PAYMENTS. Business Application PAYMENTS consists of Service or Report Class WEBPAY1 period 1, as well as Service Class or Report Class WEBPAY2 for periods 2 & 3. The fourth row is used to create a Business Application called CREDITCARD for another MVS_SYSTEM, Workload, Service Class and Period.

There are no default values provided for this lookup table.

CP_SHIFT

CP_SHIFT provides the ability to define the capacity planning shifts for which you need to plan the continued availability and capacity of resources.

Capacity planning should not be done for a 24 hour period. Instead, it should be done for identified capacity planning shifts only, where resource usage is high and availability must be guaranteed. You should define the capacity planning shifts that reflect the time periods that you need to measure for capacity planning purposes.

CP_SHIFT contains these columns:

Table 4. CP_SHIFT lookup table			
Column name	**Key**	**Data type**	**Description**
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This can contain global search characters.
CP_SHIFT_NM	K	CHAR(10)	Name of the capacity planning shift.
DAY_TYPE	K	CHAR(8)	Day type the period applies to. This can be any of the day types specified in the DAY_OF_WEEK and SPECIAL_DAY control tables.
START_TIME	K	TIME	Time when the shift starts.
END_TIME	K	TIME	Time when the period ends.
SHIFT_DESC		CHAR(40)	Description of the shift.

Refer to the *Administration Guide and Reference* for more information on the DAY_OF_WEEK and SPECIAL_DAY control tables.

This lookup table is used to populate column SHIFT, which is present in all of the Capacity Planning for CICS component data tables of the following sub-components: CPU, Storage, and Channel.

The following is an example of how CP_SHIFT might look.

```
MVS_SYSTEM_ID  CP_SHIFT_NM  DAY_TYPE  START_TIME  END_TIME  SHIFT_DESC
-------------- -----------  --------  ----------  --------  --------------
%              ONLINE       MON       10.00.00    14.00.00  Online
%              ONLINE       TUE       10.00.00    14.00.00  Online
%              ONLINE       WED       10.00.00    14.00.00  Online
%              ONLINE       THU       10.00.00    14.00.00  Online
%              ONLINE       FRI       10.00.00    14.00.00  Online
%              BATCH        MON       20.00.00    23.00.00  Overnight Batch
%              BATCH        TUE       20.00.00    23.00.00  Overnight Batch
%              BATCH        WED       20.00.00    23.00.00  Overnight Batch
%              BATCH        THU       20.00.00    23.00.00  Overnight Batch
%              BATCH        FRI       20.00.00    23.00.00  Overnight Batch
%              OTHER        SAT       00.00.00    24.00.00  Not used
%              OTHER        SUN       00.00.00    24.00.00  Not used
%              OTHER        HOLIDAY   00.00.00    24.00.00  Not used
```

Figure 3. Example: CP_SHIFT lookup table

In this example, two capacity planning shifts are defined:

Online
Includes every week day from 10am to 2pm

Batch
Includes every week day from 8pm to 11pm

There are no default values provided for this lookup table. If there is no capacity planning shift defined for a particular hour of a particular day, IBM Z Performance and Capacity Analytics will populate column SHIFT with the value OTHER for all rows in all Capacity Planning for z/OS component data tables, for that particular day/hour.

CP_THRESHOLDS

CP_THRESHOLDS is used to calculate resource capacity threshold.

Table 5. CP_THRESHOLDS lookup table

Column name	Key	Data type	Description
SYSPLEX_NAME	K	CHAR(8)	Sysplex name. This can contain global search characters.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This can contain global search characters.
LPAR_NAME	K	CHAR(8)	LPAR name. This can contain global search characters.
SHIFT	K	CHAR(10)	Capacity Planning shift. This can contain global search characters.
EXCEPTION_ID	K	CHAR(10)	The exception identifier. Default supplied values are: CEC_BUSY, LPAR_BUSY
THRESHOLD		DECIMAL(10,1)	The threshold value.
EXCEPTION_DS		CHAR(40)	The threshold exception description.

The following is an example of how CP_THRESHOLDS might look.

```
SYSPLEX_NAME  MVS_SYSTEM_ID  LPAR_NAME  SHIFT   EXCEPTION_ID   THRESHOLD  EXCEPTION_DS
------------  -------------  ---------  -----   -------------  ---------  ----------------
%             %              %          ONLINE  CEC_BUSY            90.0  CEC Busy > 90%
%             %              %          BATCH   CEC_BUSY            70.0  CEC Busy > 90%
%             %              %          %       LPAR_BUSY           90.0  LPAR Busy > 90%
```

Figure 4. Example: CP_THRESHOLDS lookup table

In this example a threshold of 90% busy is specified for all CECs during the Online shift, and a threshold of 70% busy is specified for all CECs during the batch shift. All LPARs have a threshold of 90% busy, regardless of the shift.

The following default values are supplied in this lookup table:

CEC Busy 90%
LPAR Busy 90%

CP_TIME_RES

CP_TIME_RES defines the time to use for each row of data stored in a set of tables.

Table 6. CP_TIME_RES lookup table

Column name	Key	Data type	Description
HOUR	K	CHAR(2)	Hour of the day (that the time resolution applies to), 00 to 23.
SHIFT	K	CHAR(10)	Name of the Capacity Planning shift. This can contain global search characters.
SYSTEM_ID	K	CHAR(8)	Name of the system. This can contain global search characters.
TABLE_SET_NAME	K	CHAR(18)	Name that identifies the set of tables the time resolution is defined for.

Table 6. CP_TIME_RES lookup table (continued)			
Column name	**Key**	**Data type**	**Description**
TIME_RESOLUTION		SMALLINT(2)	Time resolution for the set of tables, in minutes. This defines the time period for which data is to be recorded.

The following is an example of how CP_TIME_RES might look.

```
HOUR          SHIFT             SYSTEM_ID        TABLE_SET_NAME   TIME_RESOLUTION
------------  --------------    -------------    --------------   ------------------
%             %                 %                CP_CICS_TRAN_T   15
%             %                 %                CP_CPU_JOB_T     15
%             %                 %                CP_CPU_JOB_T     30
```

Figure 5. Example: CP_TIME_RES lookup table

CP_LPAR_GROWTH

CP_LPAR_GROWTH is used to model the growth percentage for an LPAR.

Table 7. CP_LPAR_GROWTH lookup table			
Column name	**Key**	**Data type**	**Description**
MVS_SYSTEM_ID	K	CHAR(4)	MVS System ID of the growth factor.
LPAR_NAME	K	CHAR(8)	LPAR name of the growth factor.
SHIFT	K	CHAR(10)	Capacity Planning Shift of the growth factor.
PROCESSOR_TYPE	K	CHAR(4)	Processor Type of the growth factor.
GROWTH_PERCENT		DECIMAL(5,2)	Growth factor percentage.

CP_EVENT_TYPE

CP_EVENT_TYPE defines special events for Fractal Forecasting.

This table, in conjunction with CP_EVENT_DATE, is used for Fractal Forecasting to define and categorize specific dates with special events that have, or will occur.

In order to categorize a date in CP_EVENT_DATE with a special event, the special event must first be defined in CP_EVENT_TYPE. Where an event occurs over multiple days, a separate special event should be defined for each day of the event. For example, Black Friday might be defined as a sequence of 7 event types:

Table 8. CP_EVENT_TYPE	
Code	**Description**
TG_EVE	Thanksgiving Eve
TG	Thanksgiving
BF	Black Friday
BF_SAT	Black Friday Saturday
BF_SUN	Black Friday Sunday
CM	Cyber Monday
CM_TUE	Tuesday after Cyber Monday

Table 9. CP_EVENT_TYPE lookup table			
Column name	**Key**	**Data type**	**Description**
EVENT_TYPE	Y	CHAR(8)	The 8-character event type.
Description	N	VARCHAR(124)	A human readable description of the associated event.

Each defined event type must be unique.

If any rows from CP_EVENT_TYPE must be deleted, then any rows in CP_EVENT_DATE with matching EVENT_TYPEs must be deleted from CP_EVENT_DATE first.

CP_EVENT_DATE

CP_EVENT_DATE defines dates categorized by special events.

This table is used by the Fractal Forecasting algorithm to identify days in the past and in the future which have, or are expected to have, unusual workloads, and to transfer knowledge of those workloads from historical days into future forecasts. These would, typically, be global events such as Easter or the Spring Festival, super sales (Black Friday), national holidays (The Queen's Birthday, Memorial Day, Thanksgiving, ANZAC day) or even special company days. Essentially, any event that contributes to unusual workloads could be defined in the CP_EVENT_TYPE table, and then mapped to specific dates in the CP_EVENT_DATE table.

The idea is not to simply provide a list of dates for these events, but to specify the dates of those days where your system is expected to encounter an unusual workload associated with the event. For example, Thanksgiving occurs on the last Thursday in November, but a lot of people will take the 3 days before Thanksgiving off, changing their behavior and interaction profile with the system during those days. Thus, the number of employees interacting with your internal systems may be significantly lower during those three days, but the number of customer interactions your web site may be significantly higher. A US based company might define those three days in the CP_EVENT_TYPE and CP_EVENT_DATE tables as well as Thanksgiving and Black Friday (the day after Thanksgiving). A European company, that does not celebrate Thanksgiving, but which does sell into the US market, might just define Thanksgiving and Black Friday as those are the only days they have historically seen significantly changed workloads on.

The Fractal Forecasting algorithm works by looking for similarities between historical days and future days. It does this through an event typing mechanism. Types for days that are specific to each company are imported from the EVENT_DATE table. Default event types are automatically generated for other days. The forecast usage for each future day is based upon the usage on all historical days marked with the same event type.

For example, forecasting for a day marked ‘BF’ (Black Friday) would take no input from a day with the default marking ‘FRIDAY_NOVEMBER’, but would be matched by other days marked ‘BF’. The calculated value for days marked ‘FRIDAY_NOVEMBER’ would, conversely, ignore days marked ‘BF’.

Table 10. CP_EVENT_DATE lookup table			
Column name	**Key**	**Data type**	**Description**
DATE	Y	DATE(4)	The date of the day that the event is associated with.
EVENT_TYPE	N	CHAR(8)	An event code from the CP_EVENT_TYPE table. Only a single code may be specified.

The actual value of the event codes is not significant, but what is important is that the same event is categorized with the same event type code, each time it occurs. For example, tagging December 25th with “XMAS” one year and “CRMAS” the next year will not work because the two dates will be seen as distinct events and the Fractal Forecaster will not recognize that they refer to the same event. Thus, it would not

infer that the workload reduction on the historical day tagged “XMAS” should be applied to the future day tagged “CRMAS”.

Dates categorized by special events in CP_EVENT_DATE are re-revaluated every time you run the FRACTAL_CALENDAR configuration. You may add, change or remove events from historical and future dates between Fractal Forecaster runs. New forecasts will be made using your revised set of event classifications as long as the FRACTAL_CALENDAR configuration is executed prior to running the Fractal Forecast.

CP_CONTAINER_LPAR

CP_CONTAINER_LPAR defines which LPARs are within a software pricing container. CP_CONTAINER_LPAR is only applicable to Tailored Fit Pricing.

CP_CONTAINER_LPAR contains these columns:

Table 11. CP_CONTAINER_LPAR lookup table

Column name	Key	Data type	Description
CONTAINER_NAME	K	CHAR(8)	Name of the container.
MVS_SYSTEM_ID	K	CHAR(4)	The MVS system ID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition.
START_DATE		DATE(4)	Start date of the software licensing contract.

CP_CONTAINER_PRICE

CP_CONTAINER_PRICE defines software container details. CP_CONTAINER_PRICE is only applicable for Tailored Fit Pricing.

CP_CONTAINER_PRICE contains these columns:

Table 12. CP_CONTAINER_PRICE lookup table

Column name	Key	Data type	Description
CONTAINER_NAME	K	CHAR(8)	Name of the container.
MSU_TIER	K	SMALLINT(2)	Possible values 1, 2, 3 etc. Tier 1 = Base MSU
MSU_CAPACITY		FLOAT(8)	Annual MSU baseline for the container
PRICE		SMALLINT(2)	Start date of the software licensing contract.

Configuring control tables

IBM Z Performance and Capacity Analytics uses the LSPR_MIPS control table to calculate MIPS capacity.

About this task

The LSPR_MIPS control table is automatically initialized during installation with the LSPR-provided multi image MIPS ratings for all processor model and submodel combinations.

The following table contains the default values, which can be customized if required.

Table 13. LSPR_MIPS Control table			
Column name	**Key**	**Data type**	**Description**
CPU_MODEL_NO	K	SMALLINT	Machine type
CPU_SUB_MODEL	K	CHAR(16)	CPU submodel
PROCESSOR_TYPE	K	CHAR(4)	Processor pool type
LSPR_WORKLOAD	K	CHAR(4)	LSPR workload
MIPS_RATING		SMALLINT	Processor pool MIPS rating

Data tables

The Capacity Planning for z/OS component has various data tables within each subcomponent.

Naming conventions for data tables

The names of the data tables use this format:

CP_*tablename_suffix*

Where:

- ***suffix*** indicates the summarization level of the data in the table, or whether the table is populated by the Forecaster. A table name can have these suffixes:

  A table name can have these summarization-level suffixes:

  _M
  The table holds data summarized by month (monthly data)

  _W
  The table holds data summarized by week (weekly data)

  _D
  The table holds data summarized by day (daily data)

  _H
  The table holds data summarized by hour (hourly data)

  _T
  The table holds nonsummarized data (timestamped data)

  _F
  The table is populated by the Forecaster, and holds forecasting data

Table descriptions

Each table description includes information about the table, a description of each of the key columns, and a description of each of the data columns:

Key columns
Marked K and form the primary key. They are sorted in the sequence they appear in the table.

Data columns
They follow the last key column and are sorted in alphabetic order with the underscore ignored.

CPU subcomponent data tables

The CPU subcomponent data tables contain CPU usage information.

CP_CPU_LPAR_M

This table provides capacity planning metrics on logical partitions and processor activity, aggregated to a weekly level. It contains data from SMF type 70 records processed through a record procedure (DRL2S070).

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started, grouped by first day of the week. From SMF70DAT.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Logical processor type. Possible values are: CP,ICF+ (includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
CPU_USED_AVG		FLOAT	Average CPU used, in seconds.
CPU_PEAK_AVG		FLOAT	Average peak processor dispatch time during the week, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.Peak processor dispatch time during the week, in seconds.
NUM_CONSUM_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is or on the weight of the shared processors allocated to the partition.
NUM_RECORDS		FLOAT	Number of records aggregated to this interval.
FROM_LPAR_NO		SMALLINT	Number of the logical partition that wrote the record. From SMF70PTN.
LPAR_NO		SMALLINT	Number of the logical partition. From SMF70LPN.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number. From SMF70SER.
PEAK_DATE		DATE	Reserved for future use.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of the SMF interval, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_LPAR_W

This table provides capacity planning metrics on logical partitions and processor activity, aggregated to a weekly level. It contains data from SMF type 70 records processed through a record procedure (DRL2S070).

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started, grouped by first day of the week. From SMF70DAT.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Logical processor type. Possible values are: CP,ICF+ (includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
CPU_USED_AVG		FLOAT	Average CPU used, in seconds.
CPU_PEAK_AVG		FLOAT	Average peak processor dispatch time during the week, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
NUM_CONSUM_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is or on the weight of the shared processors allocated to the partition.
NUM_RECORDS		FLOAT	Number of records aggregated to this interval.
FROM_LPAR_NO		SMALLINT	Number of the logical partition that wrote the record. From SMF70PTN.
LPAR_NO		SMALLINT	Number of the logical partition. From SMF70LPN.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number. From SMF70SER.
PEAK_DATE		DATE	Reserved for future use.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of the SMF interval, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_LPAR_D

This table provides capacity planning metrics on logical partitions and processor activity, aggregated to a daily level. It contains data from SMF type 70 records processed through a record procedure (DRL2S070).

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started. From SMF70DAT.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Name of the logical processor type. Possible values are: CP,ICF+(includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF70INT
CPU_USED_AVG		FLOAT	Average CPU used, in seconds.
CPU_PEAK_AVG		FLOAT	Average peak processor dispatch time during the day, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
NUM_CONSUM_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is or on the weight of the shared processors allocated to the partition.
NUM_RECORDS		FLOAT	Number of records aggregated to this interval.
FROM_LPAR_NO		SMALLINT	Number of the logical partition that wrote the record. From SMF70PTN.
LPAR_NO		SMALLINT	Number of the logical partition. From SMF70LPN.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number. From SMF70SER.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of the SMF interval, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_LPAR_H

This table provides capacity planning metrics on logical partitions and processor activity, aggregated to an hourly level. It contains data from SMF type 70 records processed through a record procedure (DRL2S070).

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started. From SMF70DAT.
TIME	K	TIME	Time that the RMF measurement interval started, rounded down to the nearest hour. From SMF70IST.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Name of the logical processor type. Possible values are: CP,ICF+(includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF70INT
CPU_USED_AVG		FLOAT	Average CPU used, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is based on the number of dedicated processors assigned to the partition, or on the weight of the shared processors allocated to the partition.
NUM_RECORDS		FLOAT	Number of records aggregated to this interval.
FROM_LPAR_NO		SMALLINT	Number of the logical partition that wrote the record. From SMF70PTN.
LPAR_NO		SMALLINT	Number of the logical partition. From SMF70LPN.
MSU_4HRA		FLOAT	Long-term average of CPU service (millions of service units). Available only from the partition where the SMF type70 records were written. From SMF70LAC.
NUM_CONSUMED_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number. From SMF70SER.
PEAK_TIME		TIME	Reserved for future use.

Column name	Key	Data type	Column description
MEASURED_SEC_TOT		FLOAT	Sum of the SMF interval, in seconds. From SMF70INT.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_LPAR_T

This table provides timestamp-level capacity planning metrics on logical partitions and processor activity. It contains data from SMF type 70 records processed through a record procedure (DRL2S070).

This table is updated by the CP_SHIFT_NM lookup table.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started. From SMF70DAT.
TIME	K	TIME	Time that the RMF measurement interval started. From SMF70IST.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Name of the logical processor type. Possible values are: CP,ICF+(includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
CPU_USED		FLOAT	Total processor dispatch time during the SMF interval, in seconds. Calculated as the sum of SMF70PDT/1000000.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is based on the number of dedicated processors assigned to the partition, or on the weight of the shared processors allocated to the partition.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is or on the weight of the shared processors allocated to the partition.
FROM_LPAR_NO		SMALLINT	Number of the logical partition that wrote the record. From SMF70PTN.
LPAR_NO		SMALLINT	Number of the logical partition. From SMF70LPN.

Column name	Key	Data type	Column description
MSU_4HRA		FLOAT	Long-term average of CPU service (millions of service units). Available only from the partition where the SMF type70 records were written. From SMF70LAC.
NUM_CONSUMED_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number. From SMF70SER.

CP_CPU_LPAR_F

This table contains forecasted CPU metrics, generated by the Forecaster, on logical partition and processor level.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the RMF measurement interval started.
AGGR_LEVEL	K	CHAR(1)	Aggregation level of the data contained in this table. Possible values are: D - Daily and W - Weekly.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Logical processor type. Possible values are: CP,ICF+ (includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast.
CPU_USED_AVG		FLOAT	Average CPU used in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
MEASURED_SEC		FLOAT	SMF interval, in seconds.
MEASURED_SEC_TOT		FLOAT	Total SMF interval, in seconds.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
LPAR_PHYS_PROC		FLOAT	Total number of physical processors, of this processor type, assigned to this logical partition. This number is or on the weight of the shared processors allocated to the partition.
F_CPU_USED_AVG		FLOAT	Forecasted average CPU seconds.
FV_CPU_USED_AVG		FLOAT	Standard variance calculated by the Forecaster.

Column name	Key	Data type	Column description
NUM_CONSUM_MSU		FLOAT	Actual number of consumed MSUs during the interval. Valid only for CP processors. Calculated as logical processor effective dispatch time / adjustment factor.
F_NUM_CONSUM_MSU		FLOAT	Forecast number of consumed MSUs during the interval. Valid only for CP processors. Calculated as Dispatch Time.
FV_NUM_CONSUM_MSU		FLOAT	Forecast Variance of consumed MSU.
F_CPU_PEAK		FLOAT	Forecast Peak CPU for the interval.
FV_CPU_PEAK		FLOAT	Forecast Peak CPU Variance.
F_CPU_PEAK_CF		FLOAT	Forecast Peak CPU Confidence Factor.
F_CPU_PEAK_CF_HIGH		FLOAT	Forecast Peak CPU Confidence Factor (HIGH)
F_CPU_PEAK_CF_LOW		FLOAT	Forecast Peak CPU Confidence Factor (LOW)

CP_CPU_LPAR_FH

This table contains forecasted CPU metrics, generated by the Forecaster, on logical partition and processor level.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date of the forecast value point DD.MM.YYYY
TIME	K	INTEGER	Time of the forecast value point
AGGR_LEVEL	K	CHAR(1)	Aggregation level of the data contained in this table. Current possible value is: H- Hourly, future values may include D- Daily or W- Weekly
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	CHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	CHAR(4)	Logical processor type. Possible values are: CP,ICF+ (includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast. (When it was run)
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
F_CPU_USED_AVG		FLOAT	Average CPU seconds calculated by the Forecaster.
FV_CPU_USED_AVG		FLOAT	Standard variance calculated by the Forecaster.
C_FACTOR		FLOAT	Confidence factor specified.
FC_FACTOR_HIGH		FLOAT	Confidence factor High Value calculated by the Forecaster.
FC_FACTOR_LOW		FLOAT	Confidence factor Low Value calculated by the Forecaster.

Column name	Key	Data type	Column description
LPAR_PHYS_PROC		FLOAT	Total number of physical processors available to the LPAR, of this processor type.
F_CPU_PEAK		FLOAT	Forecast Peak CPU for the interval.
FV_CPU_PEAK		FLOAT	Forecast Peak CPU Variance.
F_CPU_PEAK_CF		FLOAT	Forecast Peak CPU Confidence Factor.
F_CPU_PEAK_CF_HIGH		FLOAT	Forecast Peak CPU Confidence Factor (HIGH)
F_CPU_PEAK_CF_LOW		FLOAT	Forecast Peak CPU Confidence Factor (LOW)

CP_CPU_LPAR_PH

This table contains forecasted CPU metrics, generated by the Profiler, on logical partition and processor level.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date of the profile value point DD.MM.YYYY
TIME	K	INTEGER	Time of the profile value point (Hourly).
PROFILE_NAME	K	VARCHAR(20)	The name of the profile.
SHIFT	K	VARCHAR(10)	Name of the capacity planning shift. This is derived using fields SMF70DAT and SMF70IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
SYSPLEX_NAME	K	VARCHAR(8)	Name of the sysplex. From SMF70XNM.
MVS_SYSTEM_ID	K	VARCHAR(4)	MVS system ID. From SMF70SID.
LPAR_NAME	K	VARCHAR(8)	Name of the logical partition. From SMF70LPM.
PROCESSOR_TYPE	K	VARCHAR(4)	Name of the logical processor type. Possible values are: CP,ICF+(includes IFA,IFL,ICF),IFA,IFL,ICF,IIP. From SMF70CIX.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF72INT.
WEEKDAY		CHAR(3)	Day of the week as character string. Possible values are: MON, TUE, WED, THU, FRI, SAT, SUN.)
P_ALGORITHM	K	VARCHAR(10)	Algorithm used by the Profiler.
P_CPU_USED_AVG		FLOAT	Profiled Average CPU seconds for the specified hour.
PV_CPU_USED_AVG		FLOAT	Standard variance calculated by the Profiler.
P_C_FACTOR		FLOAT	Confidence factor specified.
PC_FACTOR_HIGH		FLOAT	Confidence factor High Value calculated by the Profiler.
PC_FACTOR_LOW		FLOAT	Confidence factor Low Value calculated by the Profiler.

CP_LSPR_WKLD_M

This table provides CPU Measurement Facility metrics on weekly level, calculated from table KPMZ_CPUMFM_PT_T, which is sourced from SMF type 113 subtype 2 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the SMF record was created, grouped by the first day of the week. From SMF113DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF113ID.
PROCESSOR_TYPE	K	CHAR(4)	The processor type. Possible values are CP, IFA or IIP. From SMF113_2_CPU_CLS.
LSPR_LOW_CNT		FLOAT	The number of occurrences when the LSPR Workload was LOW.
LSPR_AVG_CNT		FLOAT	The number of occurrences when the LSPR Workload was AVG.
LSPR_HIGH_CNT		FLOAT	The number of occurrences when the LSPR Workload was HIGH.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
CPU_MODEL_NO		SMALLINT	CPU model number.
CPU_SUB_MODEL		CHAR(16)	CPU submodel number.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number

CP_LSPR_WKLD_W

This table provides CPU Measurement Facility metrics on weekly level, calculated from table KPMZ_CPUMFM_PT_T, which is sourced from SMF type 113 subtype 2 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the SMF record was created, grouped by the first day of the week. From SMF113DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF113ID.
PROCESSOR_TYPE	K	CHAR(4)	The processor type. Possible values are CP, IFA or IIP. From SMF113_2_CPU_CLS.
LSPR_LOW_CNT		FLOAT	The number of occurrences when the LSPR Workload was LOW.
LSPR_AVG_CNT		FLOAT	The number of occurrences when the LSPR Workload was AVG.

Column name	Key	Data type	Column description
LSPR_HIGH_CNT		FLOAT	The number of occurrences when the LSPR Workload was HIGH.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
CPU_MODEL_NO		SMALLINT	CPU model number.
CPU_SUB_MODEL		CHAR(16)	CPU submodel number.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number

CP_LSPR_WKLD_D

This table provides CPU Measurement Facility metrics on daily level, calculated from table KPMZ_CPUMFM_PT_T, which is sourced from SMF type 113 subtype 2 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the SMF record was created. From SMF113DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF113ID.
PROCESSOR_TYPE	K	CHAR(4)	The processor type. Possible values are CP, IFA or IIP. From SMF113_2_CPU_CLS.
LSPR_LOW_CNT		FLOAT	The number of occurrences when the LSPR Workload was LOW.
LSPR_AVG_CNT		FLOAT	The number of occurrences when the LSPR Workload was AVG.
LSPR_HIGH_CNT		FLOAT	The number of occurrences when the LSPR Workload was HIGH.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
CPU_MODEL_NO		SMALLINT	CPU model number.
CPU_SUB_MODEL		CHAR(16)	CPU submodel number.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number

CP_LSPR_WKLD_H

This table provides CPU Measurement Facility metrics on hourly level, calculated from table KPMZ_CPUMFM_PT_T, which is sourced from SMF type 113 subtype 2 records.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the SMF record was created. From SMF113DTE.
TIME	K	TIME	Time when the SMF record was created. From SMF113TME.

Column name	Key	Data type	Column description
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF113ID.
PROCESSOR_TYPE	K	CHAR(4)	The processor type. Possible values are CP, IFA or IIP. From SMF113_2_CPU_CLS.
LSPR_LOW_CNT		FLOAT	The number of occurrences when the LSPR Workload was LOW.
LSPR_AVG_CNT		FLOAT	The number of occurrences when the LSPR Workload was AVG.
LSPR_HIGH_CNT		FLOAT	The number of occurrences when the LSPR Workload was HIGH.
TOT_PHYS_PROC		FLOAT	Total number of physical processors available, of this processor type.
CPU_MODEL_NO		SMALLINT	CPU model number.
CPU_SUB_MODEL		CHAR(16)	CPU submodel number.
CPU_SERIAL_NO6		CHAR	The 6 digit CPU serial number

CP_CPU_WKLD_M

This table provides capacity planning metrics on service and report classes, aggregated by weekly level.

It contains data from SMF type 72 subtype 3 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written, grouped by the first day of the week. From SMF72DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF72SID.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF72XNM.
POLICY	K	CHAR(8)	Service policy name. From R723MNSP.
BUSINESS_APPL	K	CHAR(10)	Business application name, as derived fromlookup table CP_BUSINESS_APPL.
WORKLOAD_NAME	K	CHAR(8)	Workload name. From R723MWNM.
SERVICE_CLASS	K	CHAR(8)	Service or report class name. From R723MCNM.
SERV_CLASS_PERIOD	K	CHAR(1)	Service or report class period number. From R723CPER.
SERV_OR_RPRT_FL	K	CHAR(1)	Service or Report Class. Possible values: S - Service Class, R - Report class.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF72INT.

Column name	Key	Data type	Column description
CPU_PEAK		FLOAT	Peak processor dispatch time during the week, in seconds.
CPU_USED_AVG		FLOAT	Average peak CPU seconds observed on SMF interval level.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
GOAL_IMPORTANCE		SMALLINT	Relative importance of the goal to be achieved for this service class period. Calculated as the maximum of R723CIMP. Set to 6 for discretionary goal type.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
ZIIP_ON_CP_TOT		F;PAT	Total zIIP eligible CPU seconds consumed on CP processors.
PEAK_DATE		DATE	Reserved for future use.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of all SMF intervals, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_WKLD_W

This table provides capacity planning metrics on service and report classes, aggregated by weekly level.

It contains data from SMF type 72 subtype 3 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written, grouped by the first day of the week. From SMF72DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF72SID.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF72XNM.
POLICY	K	CHAR(8)	Service policy name. From R723MNSP.
BUSINESS_APPL	K	CHAR(10)	Business application name, as derived fromlookup table CP_BUSINESS_APPL.
WORKLOAD_NAME	K	CHAR(8)	Workload name. From R723MWNM.
SERVICE_CLASS	K	CHAR(8)	Service or report class name. From R723MCNM.
SERV_CLASS_PERIOD	K	CHAR(1)	Service or report class period number. From R723CPER.
SERV_OR_RPRT_FL	K	CHAR(1)	Service or Report Class. Possible values: S - Service Class, R - Report class.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF72INT.
CPU_PEAK		FLOAT	Peak processor dispatch time during the week, in seconds.
CPU_USED_AVG		FLOAT	Average peak CPU seconds observed on SMF interval level.

Column name	Key	Data type	Column description
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
GOAL_IMPORTANCE		SMALLINT	Relative importance of the goal to be achieved for this service class period. Calculated as the maximum of R723CIMP. Set to 6 for discretionary goal type.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
ZIIP_ON_CP_TOT		F;PAT	Total zIIP eligible CPU seconds consumed on CP processors.
PEAK_DATE		DATE	Reserved for future use.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of all SMF intervals, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_WKLD_D

This table provides capacity planning metrics on service and report classes, aggregated by daily level.

It contains data from SMF type 72 subtype 3 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written. From SMF72DTE.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF72SID.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF72XNM.
PROCESSOR_TYPE	K	CHAR(4)	The processor type. Possible values are CP or IIP.
POLICY	K	CHAR(8)	Service policy name. From R723MNSP.
BUSINESS_APPL	K	CHAR(10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
WORKLOAD_NAME	K	CHAR(8)	Workload name. From R723MWNM.
SERVICE_CLASS	K	CHAR(8)	Service or report class name. From R723MCNM.
SERV_CLASS_PERIOD	K	CHAR(1)	Service or report class period number. From R723CPER.
SERV_OR_RPRT_FL	K	CHAR(1)	Service or Report Class. Possible values: S - Service Class, R - Report class.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
CPU_PEAK_AVG		FLOAT	Average peak CPU seconds observed on SMF interval level.
CPU_USED_AVG		FLOAT	Average processor dispatch time during the day, in seconds.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.

Column name	Key	Data type	Column description
GOAL_IMPORTANCE		SMALLINT	Relative importance of the goal to be achieved for this service class period. Calculated as the maximum of R723CIMP. Set to 6 for discretionary goal type.
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
ZIIP_ON_CP_TOT		FLOAT	Total zIIP eligible CPU seconds consumed on CP processors.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of all SMF intervals, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_WKLD_H

This table provides capacity planning metrics on service and report classes, aggregated by hourly level.

It contains data from SMF type 72 subtype 3 records.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written. From SMF72DTE.
TIME	K	TIME	Time when the record is written, rounded down to the nearest hour. From SMF72IST.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF72XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF72SID.
PROCESSOR_TYPE	K	CHAR(4)	Processor type
POLICY	K	CHAR(8)	Service policy name. From R723MNSP.
BUSINESS_APPL	K	CHAR(10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
WORKLOAD_NAME	K	CHAR(8)	Workload name. From R723MWNM.
SERVICE_CLASS	K	CHAR(8)	Service or report class name. From R723MCNM.
SERV_CLASS_PERIOD	K	CHAR(1)	Service or report class period number. From R723CPER.
SERV_OR_RPRT_FL	K	CHAR(1)	Service or Report Class. Possible values: S - Service Class, R - Report class.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
CPU_PEAK		FLOAT	Peak CPU seconds observed on SMF interval level.
CPU_USED_AVG		FLOAT	Average CPU used, in seconds.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
GOAL_IMPORTANCE		SMALLINT	Relative importance of the goal to be achieved for this service class period. Calculated as the maximum of R723CIMP. Set to 6 for discretionary goal type.

Column name	Key	Data type	Column description
CPU_USED_TOT		FLOAT	Total CPU used in seconds.
ZIIP_ON_CP_TOT		FLOAT	Total zIIP eligible CPU seconds consumed on CP processors.
PEAK_TIME		TIME	Reserved for future use.
MEASURED_SEC_TOT		FLOAT	Sum of all SMF intervals, in seconds.
NUM_RECORDS_TOT		INTEGER	Total number of records aggregated.

CP_CPU_WKLD_F

This table contains forecast CPU metrics, generated by the Forecaster, on workload and service or report class level.

It contains data from SMF type 72 subtype 3 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date to which forecast applies.
AGGR_LEVEL	K	CHAR	Aggregation level of the data contained in this table. Possible values are: D - Daily and W - Weekly.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF72SID.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF72XNM.
PROCESSOR_TYPE	K	CHAR(4)	The processor type.
POLICY	K	CHAR(8)	Service policy name. From R723MNSP.
BUSINESS_APPL	K	CHAR(10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
WORKLOAD_NAME	K	CHAR(8)	Workload name. From R723MWNM.
SERVICE_CLASS	K	CHAR(8)	Service or report class name. From R723MCNM.
SERV_CLASS_PERIOD	K	CHAR(1)	Service or report class period number. From R723CPER.
SERV_OR_RPRT_FL	K	CHAR(1)	Service or Report Class. Possible values: S - Service Class, R - Report class.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast.
CPU_USED_AVG		FLOAT	Average CPU used in seconds.
CPU_PEAK		FLOAT	Average CPU used in seconds.
MEASURED_SEC		FLOAT	Length of the SMF interval, in seconds.
MEASURED_SEC_TOT		FLOAT	Sum of all SMF intervals, in seconds.
F_CPU_USED_AVG		FLOAT	Peak CPU seconds observed on SMF interval level.
FV_CPU_USED_AVG		FLOAT	Standard variance calculated by the Forecaster.

Column name	Key	Data type	Column description
F_CPU_PEAK		FLOAT	Forecast peak CPU seconds.
FV_CPU_PEAK		FLOAT	Forecast peak CPU variance.

Storage subcomponent data tables

The Storage subcomponent data tables contain storage availability information.

CP_STORAGE_H

This table provides capacity planning metrics on storage, aggregated by hourly level.

It contains data from SMF type 71 records.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written. From SMF71DAT.
TIME	K	TIME	Time when the record is written, rounded down to the nearest hour. From SMF71IST.
SYSPLEX_NAME	K	CHAR(8)	SYSPLEX_NAME. From SMF71XNM.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF71DAT and SMF71IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF71SID.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF71INT.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
CSTOR_AVLBL_AVG		FLOAT	Central storage average available frames. This is the average of SMF71AVF.
CSTOR_AVLBL_MIN		FLOAT	Central storage minimum available frames. This is the minimum of SMF71MNF.
CSTOR_TOTAL_AVG		FLOAT	Central storage average total frames. This is the average of (SMF71AVT+SMF71FIN).
CSTOR_OK_THRESH		FLOAT	Central storage OK Threshold. This value indicates the number of frames on the available frame queue when stealing ends. This is the average of (SMF71AVF-SMF71CAA).

CP_STORAGE_D

This table provides capacity planning metrics on storage, aggregated by daily level.

It contains data from SMF type 71 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written. From SMF71DAT.
SYSPLEX_NAME	K	CHAR(8)	SYSPLEX_NAME. From SMF71XNM.

Column name	Key	Data type	Column description
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF71DAT and SMF71IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF71SID.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF71INT.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
CSTOR_AVLBL_AVG		FLOAT	Central storage average available frames. This is the average of SMF71AVF.
CSTOR_AVLBL_MIN		FLOAT	Central storage minimum available frames. This is the minimum of SMF71MNF.
CSTOR_TOTAL_AVG		FLOAT	Central storage average total frames. This is the average of (SMF71AVT+SMF71FIN).
CSTOR_OK_THRESH		FLOAT	Central storage OK Threshold. This value indicates the number of frames on the available frame queue when stealing ends. This is the average of (SMF71AVF-SMF71CAA).

CP_STORAGE_W

This table provides capacity planning metrics on storage, aggregated by weekly level.

It contains data from SMF type 71 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written, and grouped by the first day of the week. From SMF71DAT.
SYSPLEX_NAME	K	CHAR(8)	SYSPLEX_NAME. From SMF71XNM.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF71DAT and SMF71IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF71SID.
MEASURED_SEC		FLOAT	Length of the RMF interval, in seconds. From SMF71INT.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.
CSTOR_AVLBL_AVG		FLOAT	Central storage average available frames. This is the average of SMF71AVF.
CSTOR_AVLBL_MIN		FLOAT	Central storage minimum available frames. This is the minimum of SMF71MNF.
CSTOR_TOTAL_AVG		FLOAT	Central storage average total frames. This is the average of (SMF71AVT+SMF71FIN).
CSTOR_OK_THRESH		FLOAT	Central storage OK Threshold. This value indicates the number of frames on the available frame queue when stealing ends. This is the average of (SMF71AVF-SMF71CAA).

CP_STORAGE_F

This table contains forecasted storage metrics, generated by the Forecaster.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written.
AGGR_LEVEL	K	CHAR(1)	Aggregation level of the data contained in this table. Possible values are: D - Daily and W - Weekly.
SYSPLEX_NAME	K	CHAR(8)	Sysplex name. From SMF71XNM.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF71DAT and SMF71IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF71SID.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast.
CSTOR_AVLBL_AVG		FLOAT	Central storage average available frames.
CSTOR_AVLBL_MIN		FLOAT	Central storage minimum available frames.
CSTOR_OK_THRESH		FLOAT	Central storage OK Threshold. This value indicates the number of frames on the available frame queue when stealing ends.
F_CSTOR_AVLBL_AVG		FLOAT	Forecasted average available frames.
FV_CSTOR_AVLBL_AVG		FLOAT	Standard variance calculated by the Forecaster.
F_CSTOR_AVLBL_MIN		FLOAT	Forecasted central storage minimum available frames.
FV_CSTOR_AVLBL_MIN		FLOAT	Standard variance calculated by the Forecaster on forecasted central storage minimum available frames.

Channel subcomponent data tables

The Channel subcomponent data tables contain channel utilization information.

CP_CHANNEL_H

This table provides capacity planning metrics on channels, aggregated by hourly level.

It contains data from SMF type 73 records.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record is written. From SMF73DAT.
TIME	K	TIME	Time when the record is written, rounded down to the nearest hour. From SMF73IST.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF73DAT and SMF73IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF73SID.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF73XNM.
CHANNEL	K	CHAR(7)	Channel path ID and channel subsystem number.
CHANNEL_TYPE		CHAR(8)	Type of channel. From SMF73ACR.
CHAN_BUSY_AVG		FLOAT	Channel average total busy, calculated as the average of SMF73BSY*100/SMF73SMP.
CHAN_BUSY_PEAK		FLOAT	Channel peak total busy, calculated as the maximum of SMF73BSY*100/SMF73SMP.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.

CP_CHANNEL_D

This table provides capacity planning metrics on channels, aggregated by Daily level.

It contains data from SMF type 73 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record is written. From SMF73DAT.
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF73DAT and SMF73IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF73XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF73SID.
CHANNEL	K	CHAR(7)	Channel path ID and channel subsystem number.
CHANNEL_TYPE		CHAR(8)	Type of channel. From SMF73ACR.
CHAN_BUSY_AVG		FLOAT	Channel average total busy, calculated as the average of SMF73BSY*100/SMF73SMP.
CHAN_BUSY_PEAK		FLOAT	Channel peak total busy, calculated as the maximum of SMF73BSY*100/SMF73SMP.
NUM_RECORDS		INTEGER	Number of records aggregated to this interval.

CP_CHANNEL_W

This table provides capacity planning metrics on channels, aggregated by weekly level.

It contains data from SMF type 73 records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when the record was written, grouped by the first day of the week

Column name	Key	Data type	Column description
SHIFT	K	CHAR	Name of the capacity planning shift. This is derived using fields SMF73DAT and SMF73IST from the record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
SYSPLEX_NAME	K	CHAR(8)	Name of the sysplex. From SMF73XNM.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. From SMF73SID.
CHANNEL	K	CHAR(7)	Channel path ID and channel subsystem number.
CHANNEL_TYPE		CHAR(8)	Type of channel. From SMF73ACR.
CHAN_BUSY_AVG		FLOAT	Channel average total busy, calculated as the average of SMF73BSY*100/SMF73SMP.
CHAN_BUSY_PEAK		FLOAT	Channel peak total busy, calculated as the maximum of SMF73BSY*100/SMF73SMP.
NUM_RECORDS		FLOAT	Number of records aggregated.

Disk subcomponent data tables

The Disk subcomponent data tables contain disk storage information.

DFSMS_VOLUME_D

This table provides daily statistics on DASD volumes. It contains data written by the DFSMS DCOLLECT facility as type V records. Use this table for trend reporting on the overall utilization of DASD space.

The default retention periods for this table is 30 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when DCOLLECT was run against the volume. From DCUDATE.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This is the ID of the system running DCOLLECT. From DCUSYSID.
STORAGE_GROUP	K	VARCHAR(30)	Storage group name for the volume. From DCVSTGGP or set to the character string NON-SMS.
VOLSER	K	CHAR(6)	Volume serial number. From DCVVOLSR.
CAPACITY_TOTAL		FLOAT	Total capacity of the volume, in kilobytes. From DCVVLCAP .
SPACE_ALLOC_TOTAL		FLOAT	Total amount of allocated space in the volume, in kilobytes. From DCVALLOC.
SPACE_FREE_TOTAL		FLOAT	Total amount of free space in the volume, in kilobytes. From DCVFRESP .
SPACE_FREE_PCT		FLOAT	Total amount of free space in the volume, as a percentage of the total volume capacity. From DCVPERCT.
DS_CTRL_BLOCKS		FLOAT	Total number of free data set control blocks in the VTOC. From DCVFDSCB.
EXTENTS_FREE		FLOAT	Total number of free extents in the volume. From DCVFREXT.

Column name	Key	Data type	Column description
EXTENT_MAX		FLOAT	Largest extent in the volume, in kilobytes. From DCVLGEXT.
VTOC_INDEX_RECORDS		FLOAT	Total number of free VTOC index records in the volume. From DCVFVIRS.
FRAGMENT_INDEX		FLOAT	Fragmentation index of the volume. From DCVFRAGI.

DFSMS_VOLUME_M

This table provides monthly statistics for DASD volumes. It contains data written by the DFSMS DCOLLECT facility as type V records. Use this table for trend reporting on the overall utilization of DASD space.

The default retention period for this table is 765 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when DCOLLECT was run against the volume. This is the date of the first day of the month. From DCUDATE.
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This is the ID of the system running DCOLLECT. From DCUSYSID.
STORAGE_GROUP	K	VARCHAR(30)	Storage group name for the volume. From DCVSTGGP or set to the character string NON-SMS.
VOLSER	K	CHAR(6)	Volume serial number. From DCVVOLSR.
VOL_COUNT		INTEGER	Number of times the volume has been referenced. This is the count of DCVVOLSR. This is the counter used for calculating averages in this table.
CAPACITY_TOTAL		FLOAT	Total capacity of the volume, in kilobytes. From DCVVLCAP
SPACE_ALLOC_AVG		FLOAT	Average amount of allocated space in the volume, in kilobytes.
SPACE_ALLOC_MAX		INTEGER	Maximum amount of allocated space in the volume, in kilobytes. This is the maximum of SPACE_ALLOC_TOTAL in the DFSMS_VOLUME_D table.
SPACE_ALLOC_MIN		INTEGER	Minimum amount of allocated space in the volume in kilobytes. This is the minimum of SPACE_ALLOC_TOTAL in the DFSMS_VOLUME_D table.
SPACE_FREE_AVG		FLOAT	Average amount of free space in the volume, in kilobytes.
SPACE_FREE_AVG_PCT		FLOAT	Average amount of free space in the volume, as a percentage of the total volume capacity.
SPACE_FREE_MAX_PCT		INTEGER	Maximum amount of free space in the volume, as a percentage of the total volume capacity. Calculated as the maximum of SPACE_FREE_PCT in the DFSMS_VOLUME_D table.
SPACE_FREE_MIN_PCT		INTEGER	Minimum amount of free space in the volume, as a percentage of the total volume capacity. Calculated as the minimum of SPACE_FREE_PCT in the DFSMS_VOLUME_D table.
DS_CTRL_BLOCKS_AVG		FLOAT	Average number of free data set control blocks in the VTOC.
EXTENTS_FREE_AVG		FLOAT	Average number of free extents in the volume.

Column name	Key	Data type	Column description
EXTENT_MAX		INTEGER	Largest extent in the volume, in kilobytes. This is the maximum of EXTENT_MAX in the DFSMS_VOLUME_D table.
VTOC_INDEX_REC_AVG		FLOAT	Average number of free VTOC index records in the volume.
FRAGMENT_INDEX_AVG		FLOAT	Average fragmentation index of the volume.

CP_DISK_F

This table provides monthly forecast metrics on DASD volumes.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date when DCOLLECT was run against the volume. From DCUDATE.
AGGR_LEVEL	K	CHAR(1)	Aggregation level of the data contained in this table. Possible values are: D - Daily and M - Monthly.
MVS_SYSTEM_ID	K	CHAR(8)	MVS system ID. This is the ID of the system running DCOLLECT. From DCUSYSID.
STORAGE_GROUP	K	CHAR(8)	Storage group name for the volume. From DCVSTGGP or set to the character string NON-SMS.
VOLSER	K	CHAR(6)	Volume serial number. From DCVVOLSR.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast.
SPACE_ALLOC_MAX		INTEGER	Amount of allocated space in the volume, in kilobytes.
CAPACITY_TOTAL		FLOAT	Total capacity, in kilobytes.
SPACE_FREE_AVG		FLOAT	Average free space, in kilobytes.
F_ SPACE_ALLOC_MAX		FLOAT	Forecasted amount of allocated space in the volume, in kilobytes.
FV_SPACE_ALLOC_MAX		FLOAT	Standard variance allocated space calculated by Forecaster.

Tape subcomponent data tables

The Tape subcomponent data tables contain tape storage information.

CP_TAPE_D

This table provides daily capacity planning metrics from RRM extract file dataset records.

The default retention period for this table is 60 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date set by pre-processor.
MVS_SYSTEM_ID	K	CHAR(8)	MVS system ID from RVCRSID.
STORAGE_GROUP	K	CHAR(8)	SMS storage group name from RDSGNAME.

Column name	Key	Data type	Column description
KB_USED		FLOAT	Total storage used, in kilobytes. Calculated as the sum of RDDSSIZE.

CP_TAPE_W

This table provides weekly capacity planning metrics from RRM extract file dataset records.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date rounded to the week.
MVS_SYSTEM_ID	K	CHAR(8)	MVS system ID from RVCRSID.
STORAGE_GROUP	K	CHAR(8)	SMS storage group name from RDSGNAME.
KB_USED		FLOAT	Total storage used, in kilobytes. Calculated as the sum of RDDSSIZE.

CP_TAPE_F

This table contains forecasted tape metrics, generated by the Forecaster.

The default retention period for this table is 366 days.

Column name	Key	Data type	Column description
DATE	K	DATE	Date set by pre-processor.
AGGR_LEVEL	K	CHAR(1)	Aggregation level of the data contained in this table. Possible values are: D - Daily and W - Monthly.
MVS_SYSTEM_ID	K	CHAR(8)	MVS system ID from RVCRSID.
STORAGE_GROUP	K	CHAR(8)	SMS storage group name from RDSGNAME.
F_ALGORITHM	K	CHAR(10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTAMP	Timestamp of the forecast.
KB_USED		FLOAT	Storage used, in kilobytes.
F_KB_USED		FLOAT	Forecasted storage used, in kilobytes.
FV_ KB_USED		FLOAT	Standard variance calculated by the Forecaster.

Reports

IBM Z Performance and Capacity Analytics provides many types of reports that use curated historical data to provide predictive analysis both for managing future resource needs and to ensure that capacity shortfalls do not occur.

The forecasting features in the reports enable you to use data-driven practices to more accurately determine when the environment will reach a capacity threshold and require hardware upgrades. This can help you plan upgrades in a timely way that can enable you to save money and maintain business service levels.

The reports are grouped by subcomponent of the Capacity Planning for z/OS component:

- CPU
- Storage
- Channel

- Disk
- Tape

CPU subcomponent reports

The CPU reports provide key capacity planning metrics on processor activity, collected on SMF timestamp, hourly, daily, and weekly level. Data is aggregated by capacity planning shift as well as CEC level, LPAR level, Workload level, Service or Report Class level, and Business Application level.

The CPU reports are grouped by report type:

- "CPU usage" on page 39
- "CPU forecasting" on page 52
- "LSPR workload analysis" on page 59
- "Software cost analysis" on page 60
- "Tailored Fit Pricing" on page 65
- "Analytics and Exceptions" on page 70

Understanding MIPS calculations in the CPU subcomponent reports

A control table is used by the CPU subcomponent for MIPS calculations. This is the LSPR_MIPS control table and must be initialized before use with parameters specific to your installation. Refer to "Configuring control tables" on page 14 for more information.

MIPS Capacity

The CEC MIPS capacity is calculated using the MIPS rating from the LSPR_MIPS control table. The LSPR_MIPS control table contains MIPS ratings for the following LSPR Workload categories: LOW, AVG, and HIGH. The LSPR category used for MIPS calculations is based on the most popular LSPR Workload during the reporting period. For example, if most of the SMF intervals in the reporting period reported an LSPR Workload of HIGH, then the MIPS rating for the LSPR HIGH Workload will used when calculating MIPS capacity on the report.

The LPAR MIPS capacity is calculated as a percentage of the CEC MIPS capacity, and this percentage is calculated using the number of physical processors in the LPAR as well as the weight distribution of the logical processors in the LPAR.

MIPS Usage

MIPS usage is calculated on various levels, for example, CEC, LPAR, Workload, Service/Report Class or Business Application. MIPS usage is calculated as a percentage of the MIPS Capacity. This is the calculation used to calculate MIPS:

*CPU Seconds Used / Available Seconds * MIPS Capacity*

The Available Seconds is calculated as:

*Interval * Number of Physical Processors*

The MIPS Capacity is calculated using the MIPS rating from the LSPR_MIPS control table.

The LSPR_MIPS control table contains MIPS ratings for the following LSPR Workload categories: LOW, AVG and HIGH. The LSPR category used for MIPS calculations is based on the most popular LSPR Workload during the reporting period. For example, if most of the SMF intervals in the reporting period reported an LSPR Workload of HIGH, then the MIPS rating for the LSPR HIGH Workload will used when calculating MIPS usage on the report.

CPU usage

CPU usage reports.

CP CEC MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report

CP CEC MIPS usage reports show MIPS statistics on CEC level on an monthly, weekly, daily or SMF interval basis.

This information identifies the report:

Report ID
CPCPU82 / CPCPU06 / CPCPU05 / CPCPU01 / CPCPU41

Report group
Capacity Planning - CPU

Source
CP_CPU_CEC_MV / CP_CPU_CEC_WV / CP_CPU_CEC_DV / CP_CPU_CEC_HV / CP_CPU_CEC_TV

Attributes

MVS, CAPACITY, CEC, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

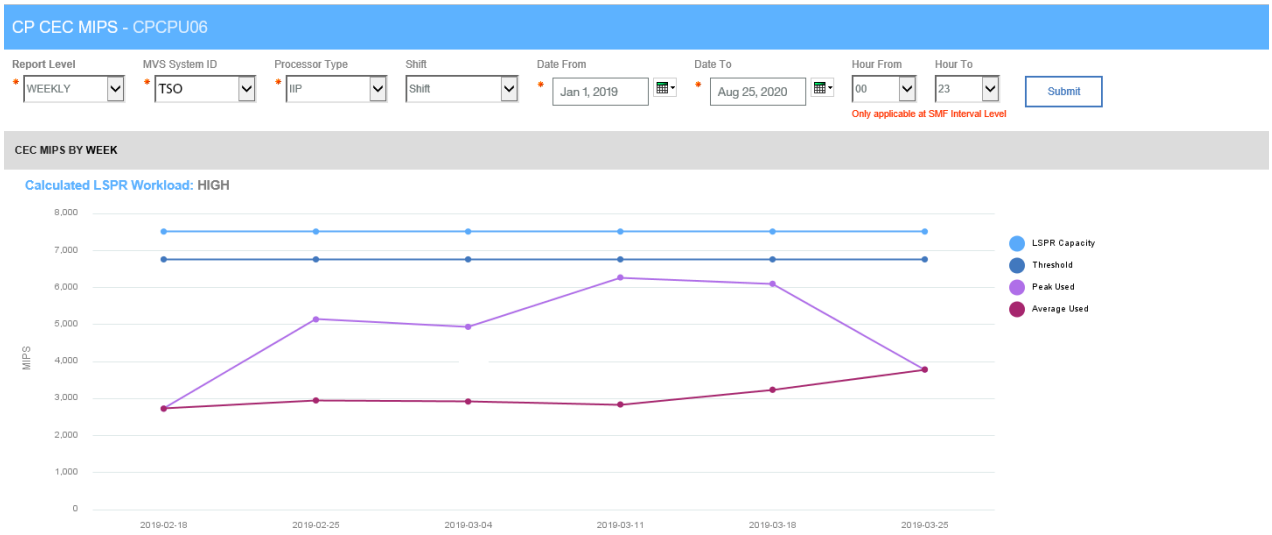


Figure 6. CP CEC MIPS Weekly report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Average Used
Average MIPS used by the CEC during the interval.

Peak Used
Peak MIPS used by the CEC during the interval.

Threshold
The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity
This is the CEC MIPS capacity, based on the most popular LSPR Workload during the reporting period.

CP LPAR MIPS by CEC Average Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics for all LPARs within a CEC.

This information identifies the report:

Report ID

CPCPU83 / CPCPU32 / CPCPU30 / CPCPU03 / CPCPU43

Report group

Capacity Planning - CPU

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV/ CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

MVS, AVERAGE, CEC, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

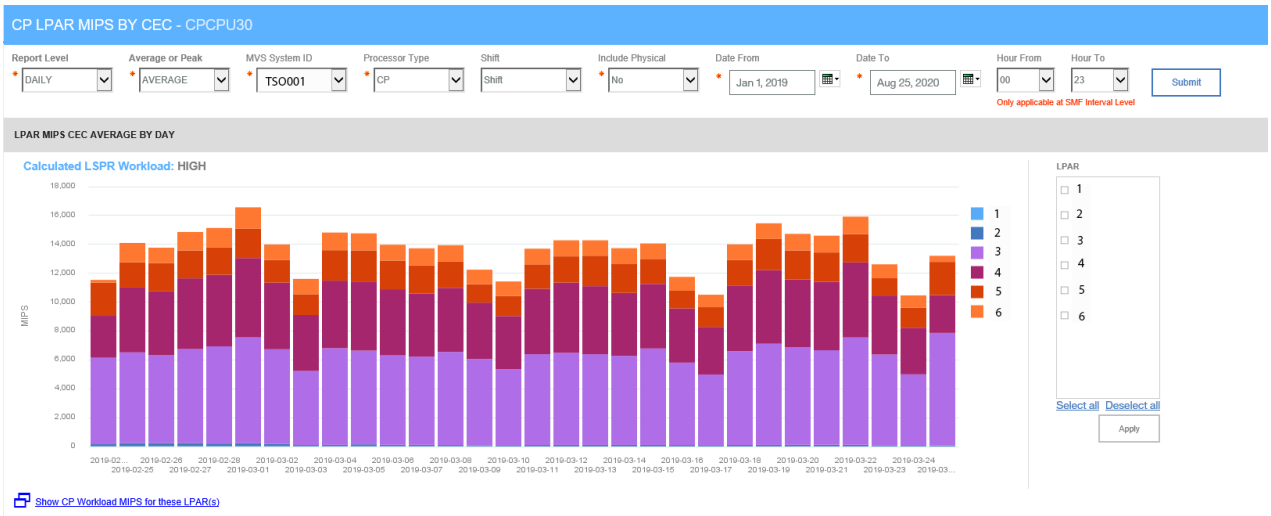


Figure 7. CP LPAR MIPS by CEC Average Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

LPAR

Logical partition name.

Average used

Average MIPS used by each LPAR during the interval.

CP LPAR MIPS by CEC Peak Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics for all LPARs within a CEC.

This information identifies the report:

Report ID

CPCPU84 / CPCPU33 / CPCPU31 / CPCPU04 / CPCPU43

Report group

Capacity Planning - CPU

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV/ CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

MVS, PEAK, CEC, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

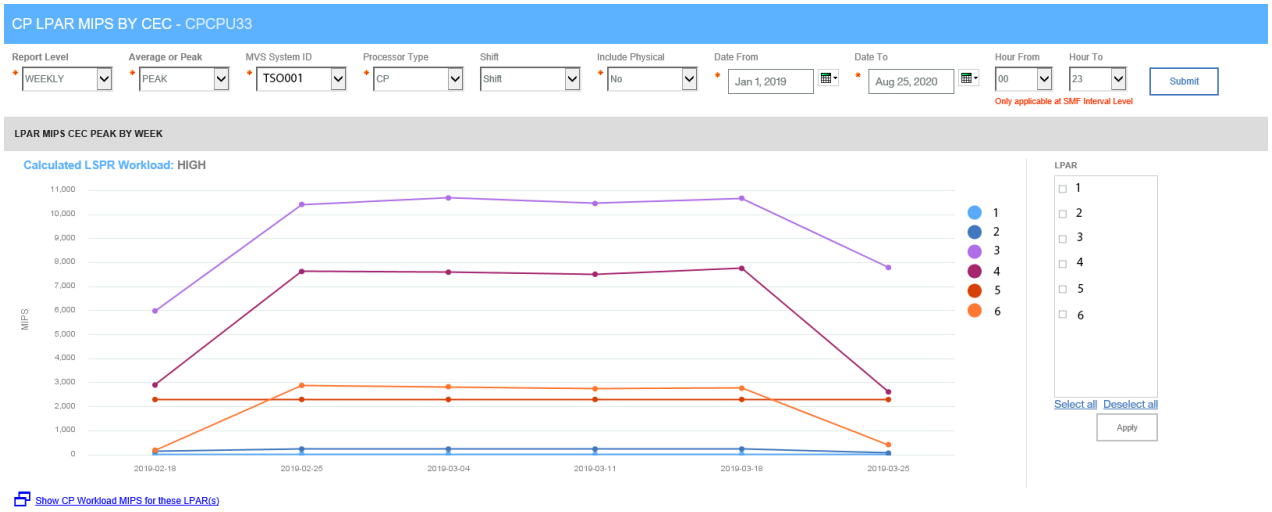


Figure 8. CP LPAR MIPS by CEC Peak Weekly report

The report contains this information:

Time of day / Date

Time / date of the measurement.

LPAR

Logical partition name.

Peak Used

Peak MIPS used by each LPAR during the interval.

CP LPAR MIPS by Sysplex Average Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics on LPAR level.

This information identifies the report:

Report ID

CPCPU85 / CPCPU75 / CPCPU76 / CPCPU77 / CPCPU78

Report group

Capacity Planning - CPU

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

MVS, CAPACITY, LPAR, MIPS, SYSPLEX, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

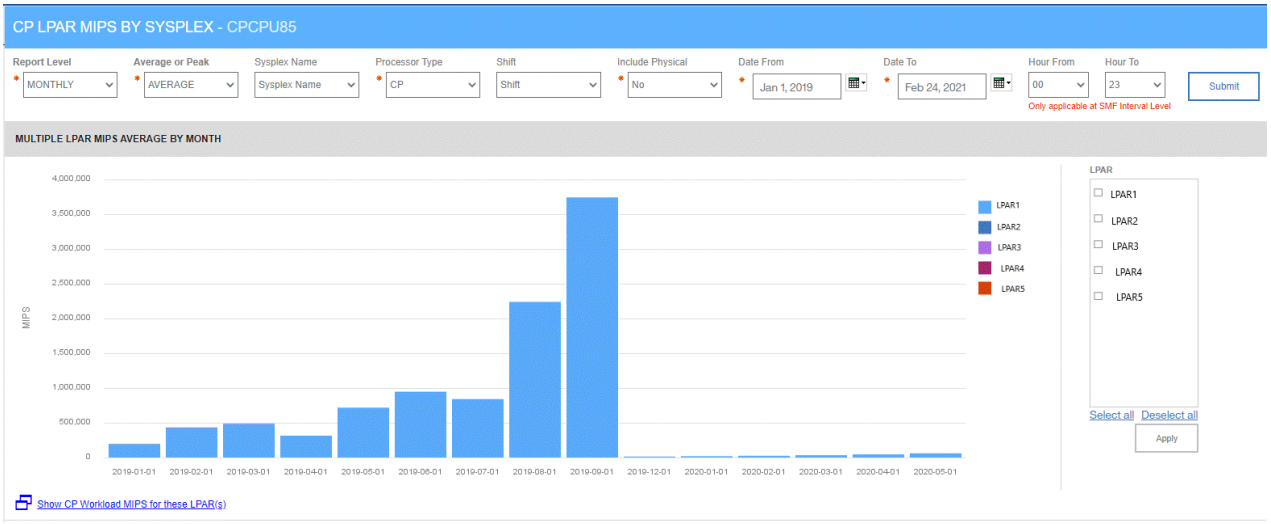


Figure 9. CP LPAR MIPS by SYSPLEX Average Monthly report

The report contains this information:

Time of day / Date
Time / date of the measurement.

LPAR

Logical partition name.

Average used

Average MIPS used by each LPAR during the interval.

CP LPAR MIPS by Sysplex Peak Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics on LPAR level.

This information identifies the report:

Report ID

CPCPU86 / CPCPU79 / CPCPU80 / CPCPU81 / CPCPU78

Report group
Capacity Planning - CPU

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

MVS, CAPACITY, LPAR, MIPS, SYSPLEX, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

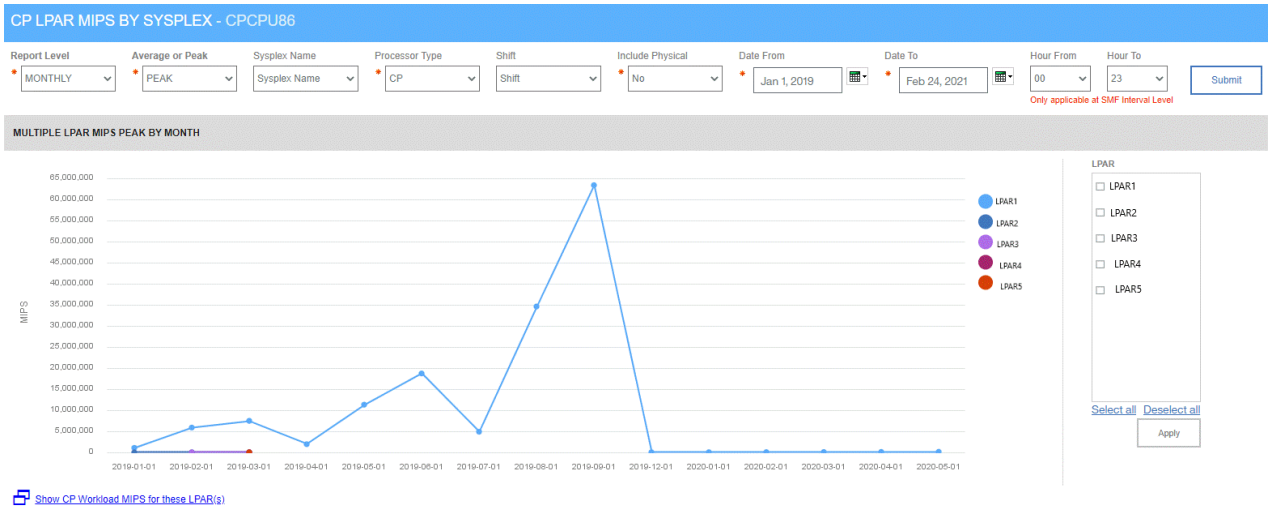


Figure 10. CP LPAR MIPS by SYSPLEX Peak Monthly report

The report contains this information:

Time of day / Date
Time / date of the measurement.

LPAR

Logical partition name.

Peak used

Peak MIPS used by each LPAR during the interval.

CP LPAR MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics on LPAR level.

This information identifies the report:

Report ID

CPCPU87 / CPCPU08 / CPCPU07 / CPCPU02 / CPCPU42

Report group
Capacity Planning - CPU

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

MVS, CAPACITY, LPAR, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

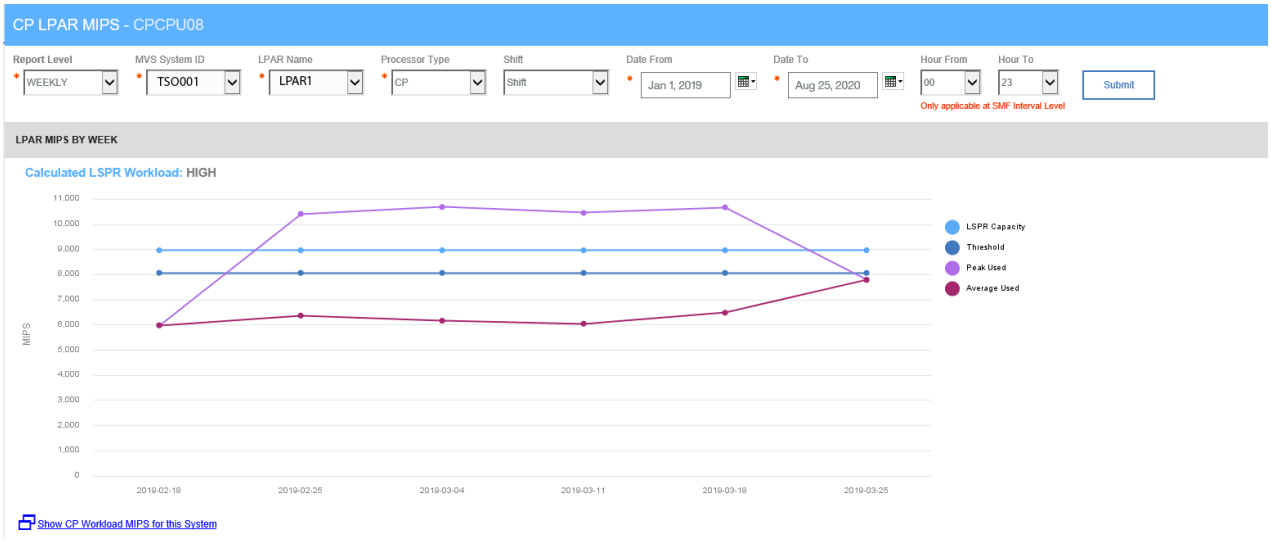


Figure 11. CP LPAR MIPS Weekly report

The report contains this information:

Time of day / Date
Time / date of the measurement.

Average Used

Average MIPS used by the LPAR during the interval.

Peak Used

Peak MIPS used by the LPAR during the interval.

Threshold

The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity

This is the LPAR MIPS capacity, which is calculated as a percentage of the CEC MIPS capacity, and this percentage is calculated using the number of physical processor in the LPAR as well as the weight distribution of the logical processors in the LPAR. The CEC MIPS capacity is based on the most popular LSPR Workload during the reporting period.

CP Workload MIPS by LPARs Average Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics on LPAR level.

This information identifies the report:

Report ID

CPCPU88 / CPCPU51 / CPCPU49 / CPCPU50 / CPCPU55

Report group
Capacity Planning - CPU

Source

CP_CPU_WKLDA_MV / CP_CPU_WKLDA_WV / CP_CPU_WKLDA_DV / CP_CPU_WKLDA_HV / CP_CPU_WKLDA_TV

Attributes

MVS, CAPACITY, LPAR, MIPS, WORKLOAD, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

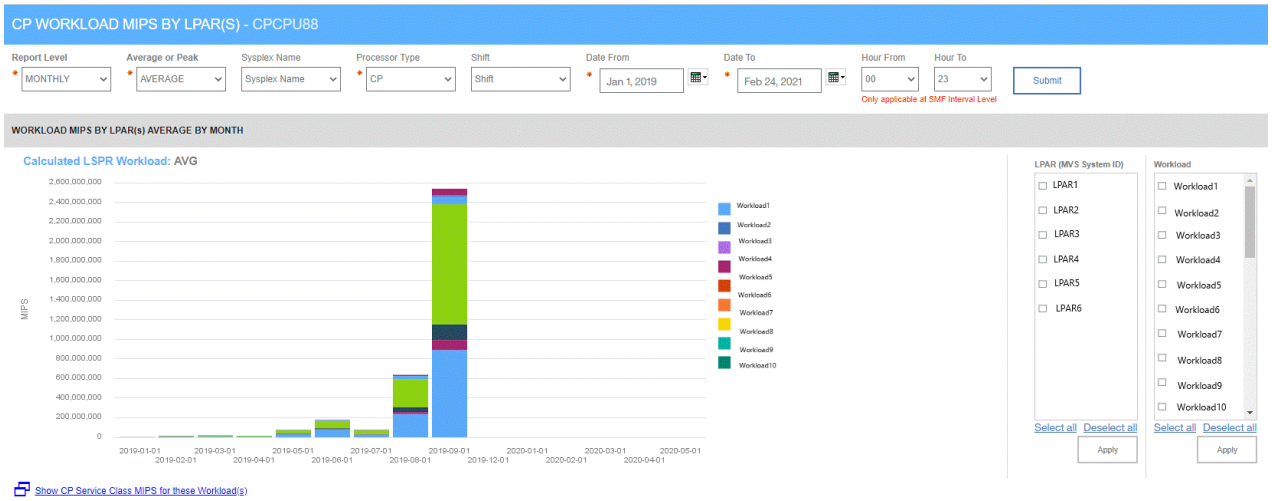


Figure 12. CP Workload MIPS by LPARs Average Monthly report

The report contains this information:

Time of day / Date
Time / date of the measurement.

LPAR

Logical partition name.

Workload Name

Workload name.

MIPS Used Average

Average MIPS used by each Workload during the interval.

CP Workload MIPS by LPARs Peak Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS statistics on LPAR level.

This information identifies the report:

Report ID

CPCPU89 / CPCPU54 / CPCPU52 / CPCPU53 / CPCPU55

Report group
Capacity Planning - CPU

Source

CP_CPU_WKLDA_MV / CP_CPU_WKLDA_WV / CP_CPU_WKLDA_DV / CP_CPU_WKLDA_HV / CP_CPU_WKLDA_TV

Attributes

MVS, CAPACITY, LPAR, MIPS, WORKLOAD, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

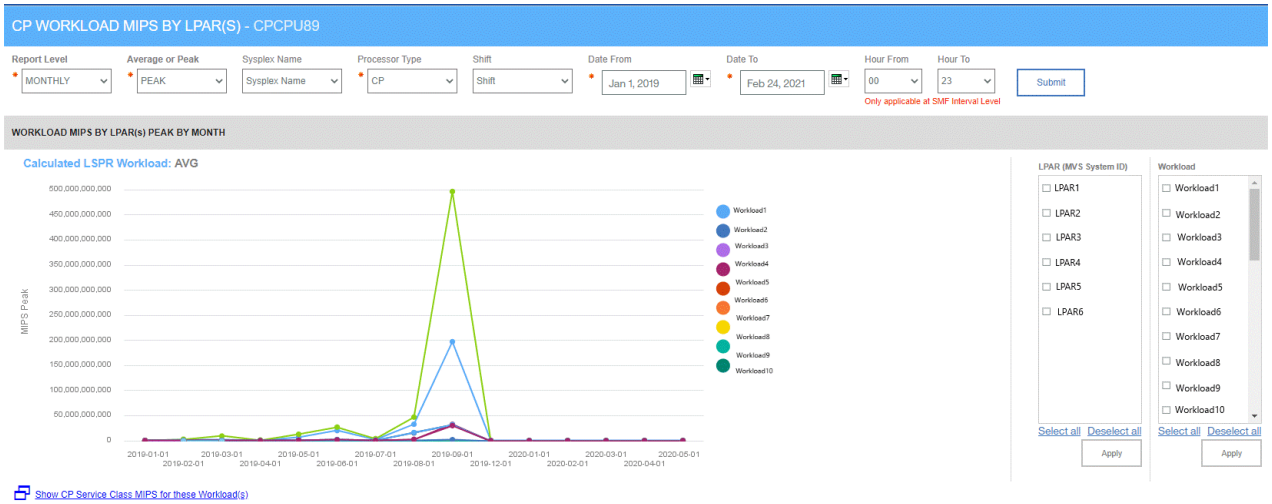


Figure 13. CP Workload MIPS by LPARs Peak Monthly report

The report contains this information:

Time of day / Date
Time / date of the measurement.

LPAR

Logical partition name.

Workload Name

Workload name.

MIPS Peak Used

Peak MIPS used by each Workload during the interval.

CP Workload MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows WLM Workload MIPS statistics.

This information identifies the report:

Report ID

CPCPU90 / CPCPU19 / CPCPU18 / CPCPU13 / CPCPU45

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLDA_MV / CP_CPU_WKLDA_WV / CP_CPU_WKLDA_DV / CP_CPU_WKLDA_HV / CP_CPU_WKLDA_TV

Attributes

MVS, CAPACITY, WORKLOAD, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

Figure 14. CP Workload MIPS Usage Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

CP Application MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows Business Application MIPS statistics. A Business Application is a grouping of Service or Report classes, as defined in lookup table CP_BUSINESS_APPL.

This information identifies the report:

Report ID

CPCPU91 / CPCPU23 / CPCPU21 / CPCPU15 / CPCPU47

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLDB_MV / CP_CPU_WKLDB_WV / CP_CPU_WKLDB_DV / CP_CPU_WKLDB_HV / CP_CPU_WKLDB_TV

Attributes

MVS, CAPACITY, APPLICATION, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

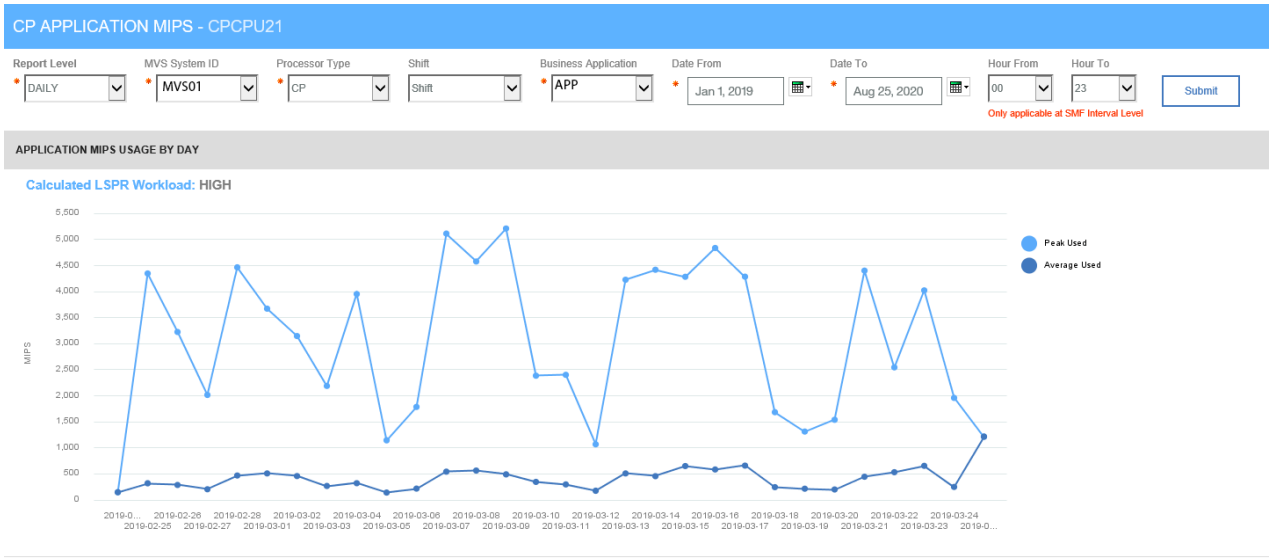


Figure 15. CP Application MIPS Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

CP Service Class MIPS by Workloads Average Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS usage of all Service Classes within a WLM Workload.

This information identifies the report:

Report ID

CPCPU92 / CPCPU36 / CPCPU34 / CPCPU16 / CPCPU48

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_MV / CP_CPU_WKLD_WV / CP_CPU_WKLD_DV / CP_CPU_WKLD_HV / CP_CPU_WKLD_TV

Attributes

MVS, WORKLOAD, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

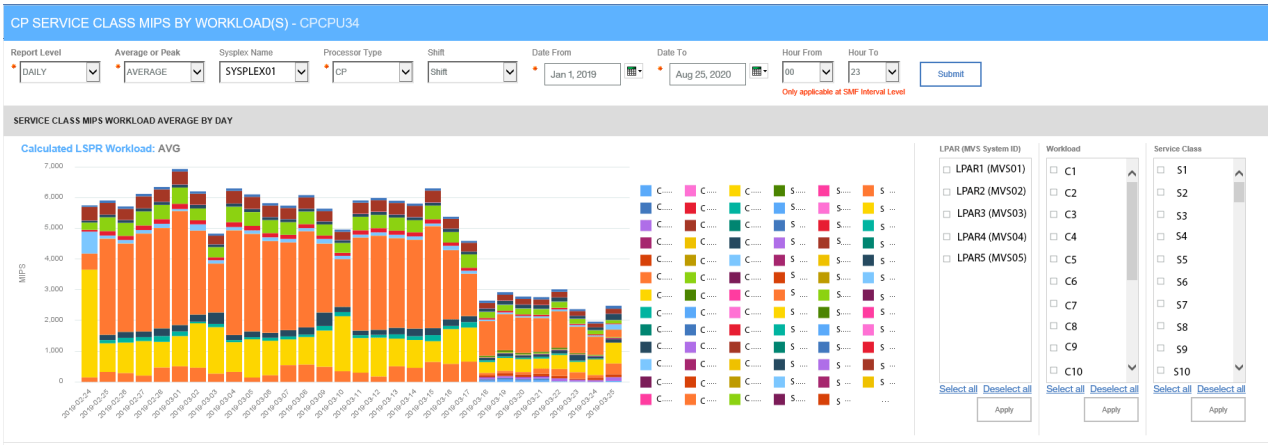


Figure 16. CP Service Class MIPS by Workload Average Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Average Used

Name of the WLM Service Class.

CP Service Class MIPS by Workloads Peak Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows MIPS usage of all Service Classes within a WLM Workload.

This information identifies the report:

Report ID

CPCPU93 / CPCPU37 / CPCPU35 / CPCPU17 / CPCPU48

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_MV / CP_CPU_WKLD_WV / CP_CPU_WKLD_DV / CP_CPU_WKLD_HV / CP_CPU_WKLD_TV

Attributes

MVS, WORKLOAD, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

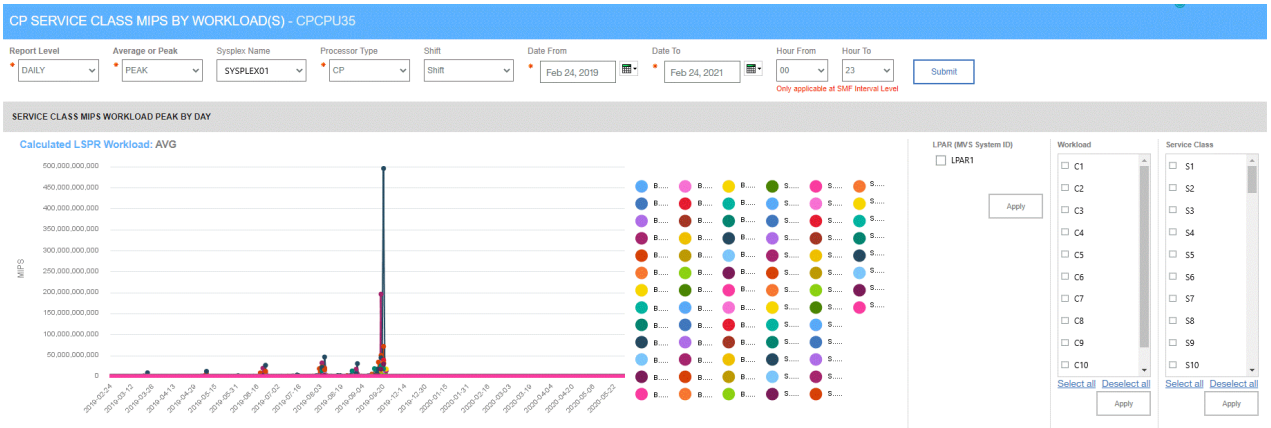


Figure 17. CP Service Class MIPS by Workload Peak Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Peak Used

Average MIPS used each WLM Service Class during the interval.

CP Service Class MIPS Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows WLM Service or Report Class MIPS statistics.

This information identifies the report:

Report ID

CPCPU94 / CPCPU22 / CPCPU20 / CPCPU14 / CPCPU46

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_MV / CP_CPU_WKLD_WV / CP_CPU_WKLD_DV / CP_CPU_WKLD_HV / CP_CPU_WKLD_TV

Attributes

MVS, CAPACITY, WORKLOAD, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

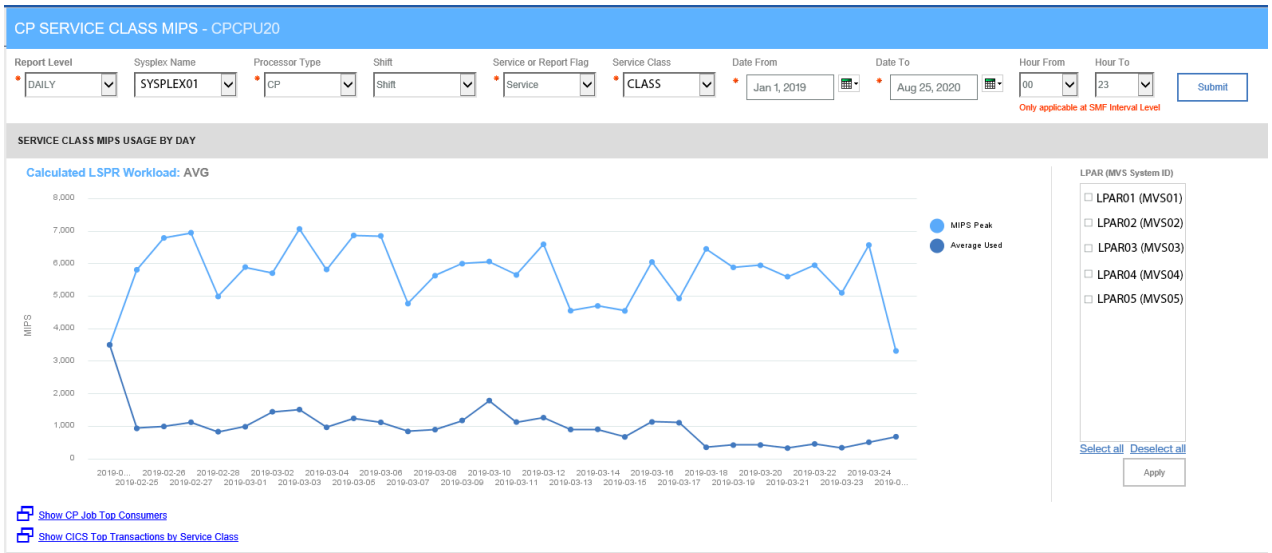


Figure 18. CP Service Class MIPS Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Average Used

Average MIPS used by the CEC during the interval.

MIPS Peak

Peak MIPS used by the CEC during the interval.

CP Job Top Consumers Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows top job consumers for LSPR workload.

This information identifies the report:

Report ID

CPCPU97 / CPCPU98 / CPCPU99 / CPCPU100 / CPCPU101

Report group

Capacity Planning - CPU

Source

CP_CPU_JOB_MV / CP_CPU_JOB_WV / CP_CPU_JOB_DV / CP_CPU_JOB_HV / CP_CPU_JOB_TV

Attributes

MVS, JOB, MIPS, MONTHLY/WEEKLY/DAILY/HOURLY/SMF INTERVAL

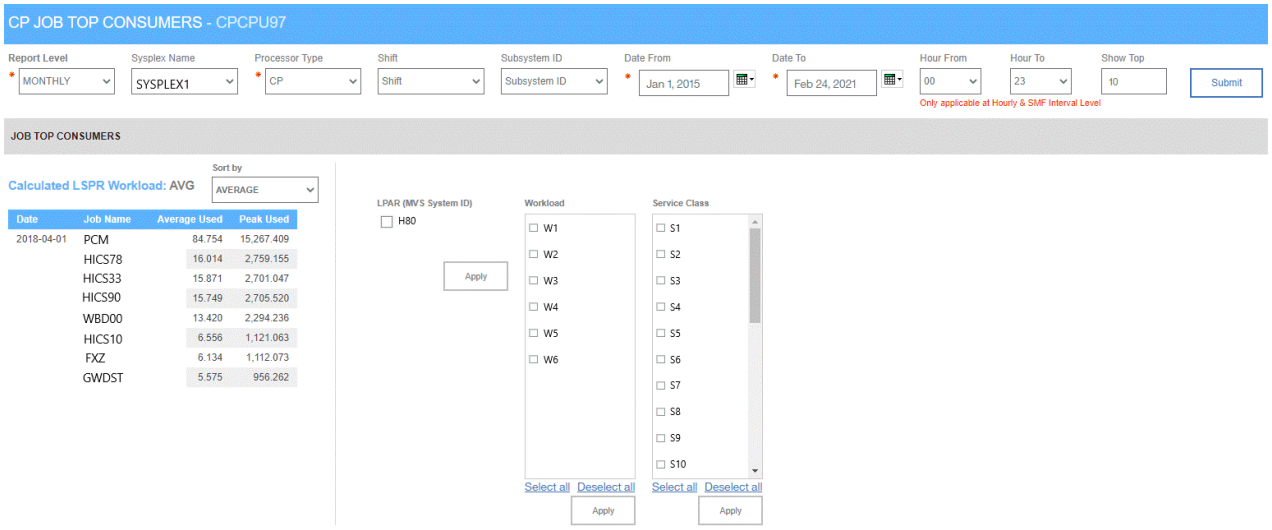


Figure 19. CP Service Class MIPS Daily report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Job Name

Job name used by LSPR workload.

Average Used

Average MIPS used by the LSPR workload during the interval.

MIPS Peak

Peak MIPS used by the LSPR workload during the interval.

CPU forecasting

CPU forecasting reports.

CP CEC MIPS Forecast report

This report shows MIPS statistics and forecast values on CEC level.

This information identifies the report:

Report ID

CPCPU10

Report group

Capacity Planning - CPU

Source

CP_CPU_LPAR_FV

Attributes

MVS, CAPACITY, CEC, MIPS, FORECAST

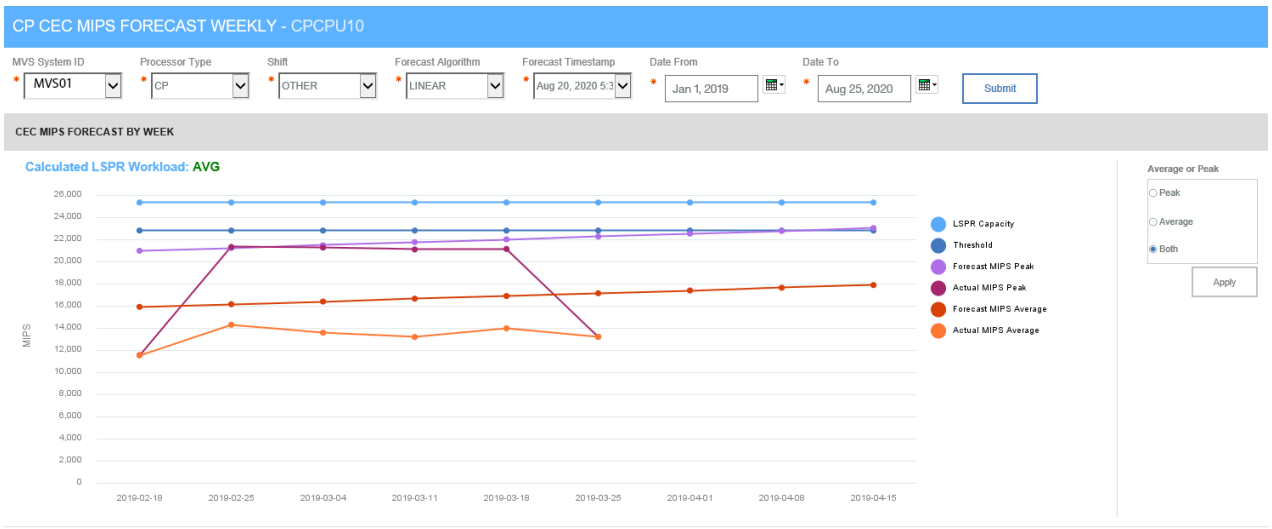


Figure 20. CP CEC MIPS Forecast report

The report contains this information:

Date

Date of the measurement.

Forecast

Forecast average MIPS for the CEC during the interval.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

Threshold

The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity

This is the CEC MIPS capacity, based on the most popular LSPR Workload during the reporting period.

CP LPAR MIPS Forecast report

This report shows MIPS statistics and forecast values on LPAR level.

This information identifies the report:

Report ID

CPCPU12

Report group

Capacity Planning - CPU

Source

CP_CPU_LPAR_FV

Attributes

MVS, CAPACITY, LPAR, MIPS, FORECAST

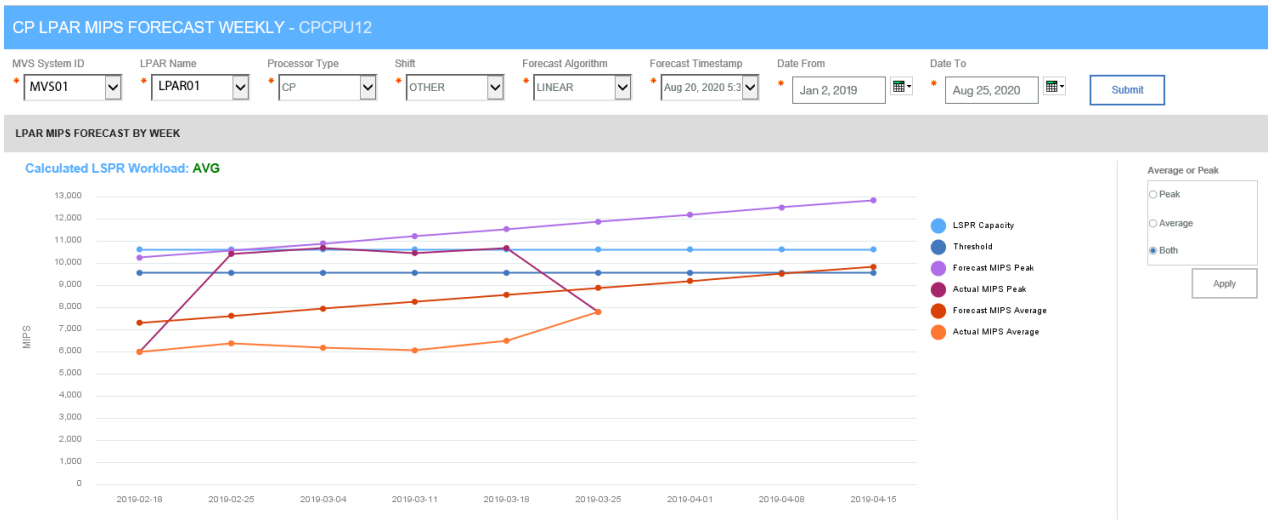


Figure 21. CP LPAR MIPS Forecast report

The report contains this information:

Date

Date of the measurement.

Forecast

Forecasted average MIPS for the LPAR during the interval.

Average Used

Average MIPS used by the LPAR during the interval.

Peak Used

Peak MIPS used by the LPAR during the interval.

Threshold

The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity

This is the LPAR MIPS capacity, which is calculated as a percentage of the CEC MIPS capacity, and this percentage is calculated using the number of physical processor in the LPAR as well as the weight distribution of the logical processors in the LPAR. The CEC MIPS capacity is based on the most popular LSPR Workload during the reporting period.

CP Workload MIPS Forecast Weekly report

This report shows WLM Workload MIPS usage and forecast statistics.

This information identifies the report:

Report ID

CPCPU25

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_FV

Attributes

MVS, CAPACITY, WORKLOAD, MIPS, WEEKLY, FORECAST

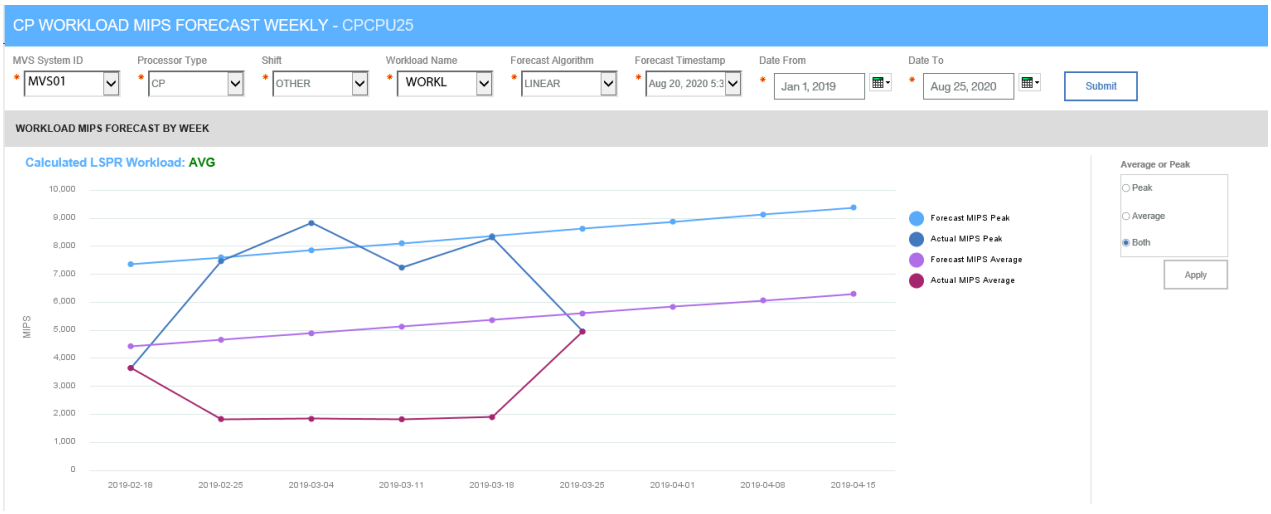


Figure 22. CP Workload MIPS Forecast Weekly report

The report contains this information:

Date

Date of the measurement.

Forecast

Forecast average MIPS for the CEC during the interval.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

CP Serv Class MIPS Forecast Weekly report

This report shows WLM Service or Report Class MIPS usage and forecast statistics.

This information identifies the report:

Report ID

CPCPU28

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_FV

Attributes

MVS, CAPACITY, WORKLOAD, MIPS, WEEKLY, FORECAST

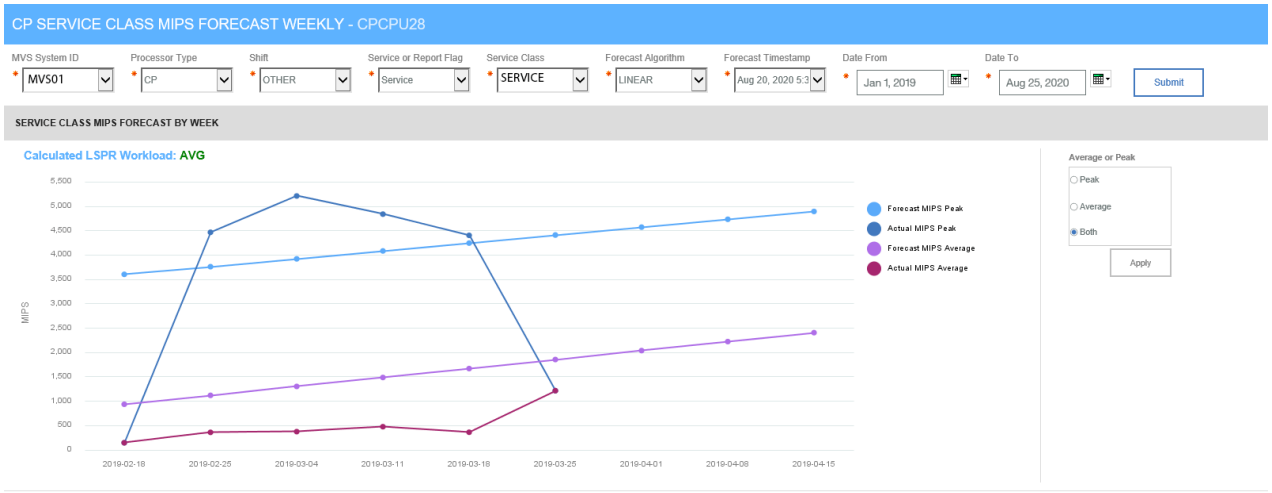


Figure 23. CP Serv Class MIPS Forecast Weekly report

The report contains this information:

Date

Date of the measurement.

Forecast

Forecast average MIPS for the CEC during the interval.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

CP Application MIPS Forecast Weekly report

This report shows Business Application MIPS usage and forecast statistics.

This information identifies the report:

Report ID

CPCPU29

Report group

Capacity Planning - CPU

Source

CP_CPU_WKLD_FV

Attributes

MVS, CAPACITY, APPLICATION, MIPS, WEEKLY, FORECAST

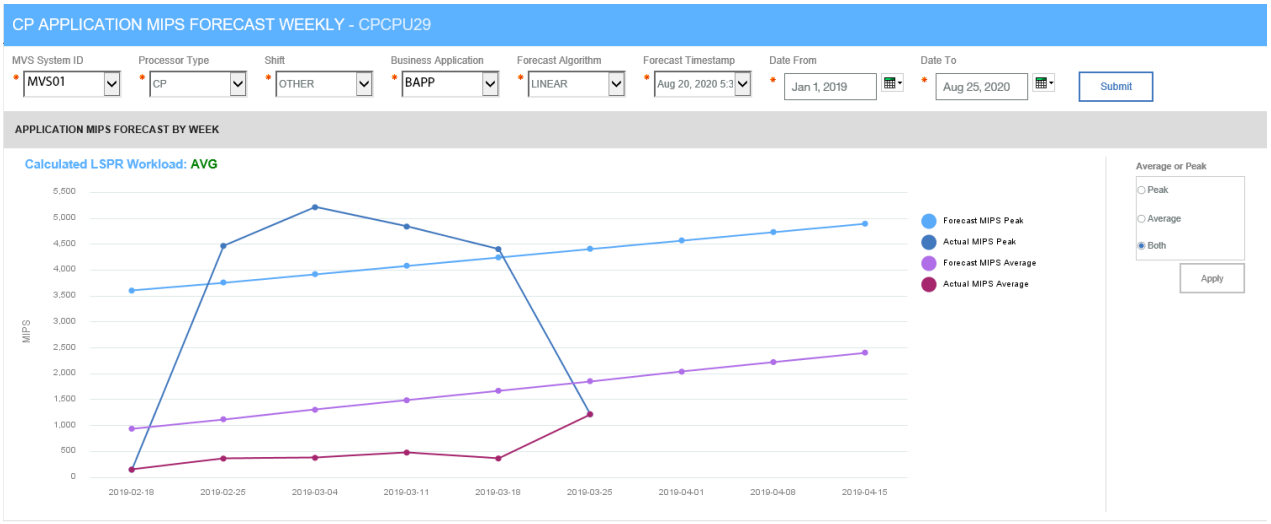


Figure 24. CP Application MIPS Forecast Weekly reports

The report contains this information:

Date

Date of the measurement.

Forecast

Forecasted average MIPS for the CEC during the interval.

Average Used

Average MIPS used by the CEC during the interval.

Peak Used

Peak MIPS used by the CEC during the interval.

CP CEC Event Forecast

This report shows MIPS statistics and forecast values on CEC level, by Event Types. This report provides an optional filter called Event Type which allows the report to be filtered by Event Types defined in CP_EVENT_DATE. Note that any changes to the CP_EVENT_DATE table will be reflected on all forecast timestamps in this report.

This information identifies the report:

Report ID

CPEF01

Report group

Capacity Planning – CPU – Forecast Reports – Event Forecasting

Source

CP_CPU_CEC_FV

Attributes

MVS, CAPACITY, THRESHOLD, MIPS, EVENT TYPE

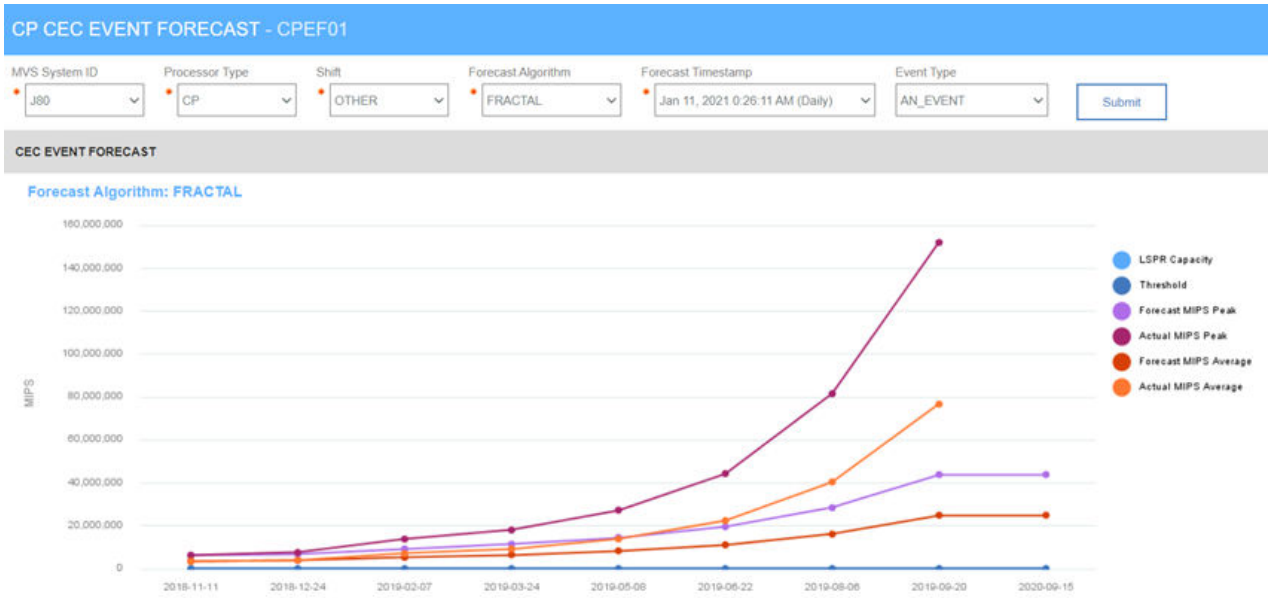


Figure 25. CP CEC Event Forecast reports

The report contains this information:

Date

Date of the measurement.

Forecast MIPS Peak

Forecasted peak MIPS for the CEC during the interval.

Actual MIPS Peak

Peak MIPS used by the CEC during the interval.

Forecast MIPS Average

Forecasted average MIPS for the CEC during the interval.

Actual MIPS Average

Average MIPS used by the CEC during the interval.

Threshold

The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity

This is the CEC MIPS capacity, based on the most popular LSPR Workload during the reporting period.

CP LPAR Event Forecast

This report shows MIPS statistics and forecast values on LPAR level, by Event Types. This report provides an optional filter called Event Type which allows the report to be filtered by Event Types defined in CP_EVENT_DATE. Note that any changes to the CP_EVENT_DATE table will be reflected on all forecast timestamps in this report.

This information identifies the report:

Report ID

CPEF02

Report group

Capacity Planning – CPU – Forecast Reports – Event Forecasting

Source

CP_CPU_LPAR_FV

Attributes

MVS, LPAR NAME, CAPACITY, THRESHOLD, MIPS, EVENT TYPE

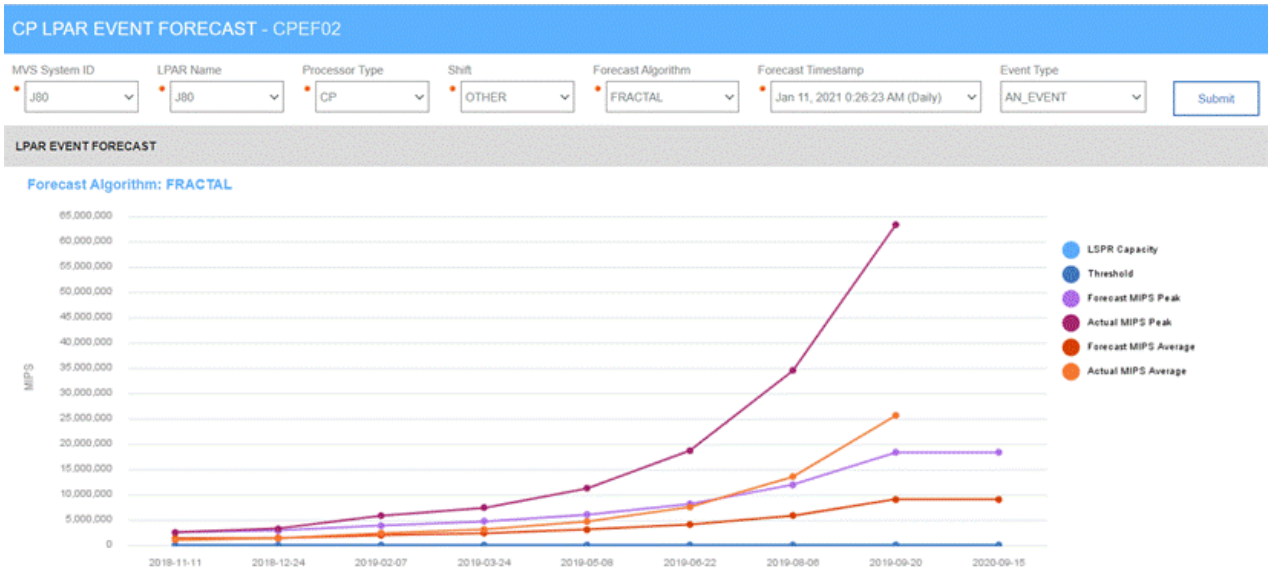


Figure 26. CP LPAR Event Forecast reports

The report contains this information:

Date

Date of the measurement.

Forecast MIPS Peak

Forecasted peak MIPS for the LPAR during the interval.

Actual MIPS Peak

Peak MIPS used by the LPAR during the interval.

Forecast MIPS Average

Forecasted average MIPS for the LPAR during the interval.

Actual MIPS Average

Average MIPS used by the LPAR during the interval.

Threshold

The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

LSPR Capacity

This is the LPAR MIPS capacity, which is calculated as a percentage of the CEC MIPS capacity, and this percentage is calculated using the number of physical processors in the LPAR as well as the weight distribution of the logical processors in the LPAR. The CEC MIPS capacity is based on the most popular LSPR Workload during the reporting period.

LSPR workload analysis

LSPR workload analysis reports.

CP LSPR Workload Analysis Weekly/Daily/Hourly report

These reports show the LSPR Workload of your system, as calculated from SMF type 113 records.

This information identifies the report:

Report ID

CPCPU40 / CPCPU39 / CPCPU38

Report group

Capacity Planning - CPU

Source

CP_LSPR_WKLD_W / CP_LSPR_WKLD_D / CP_LSPR_WKLD_H

Attributes

MVS, CAPACITY, WORKLOAD, LSPR, WEEKLY/DAILY/HOURLY

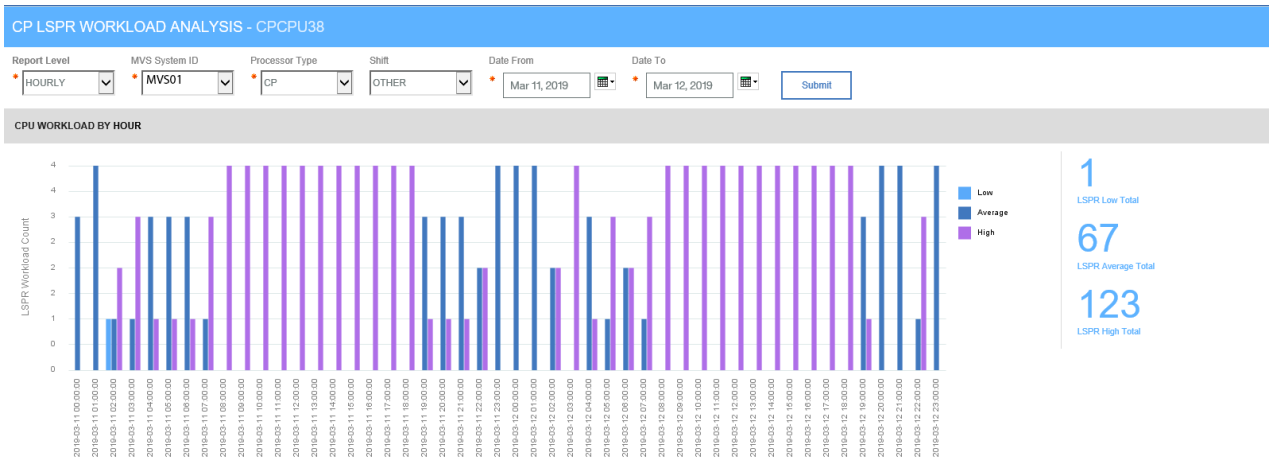


Figure 27. CP LSPR Workload Analysis Hourly report

The report contains this information:

LSPR Workload High Count

The total number of SMF intervals where the LSPR Workload is HIGH.

LSPR Workload Average Count

The total number of SMF intervals where the LSPR Workload is AVERAGE.

LSPR Workload Low Count

The total number of SMF intervals where the LSPR Workload is LOW.

Software cost analysis

CPU software cost analysis reports.

CP LPAR 4 Hour MSU Utilization Hourly report

This report shows LPAR 4 hour rolling average MSU usage.

This information identifies the report:

Report ID

CPMSU01

Report group

Software Cost Analysis

Source

CP_CPU_LPAR_H

Attributes

CP, LPAR, MSU, 4HRA, HOURLY

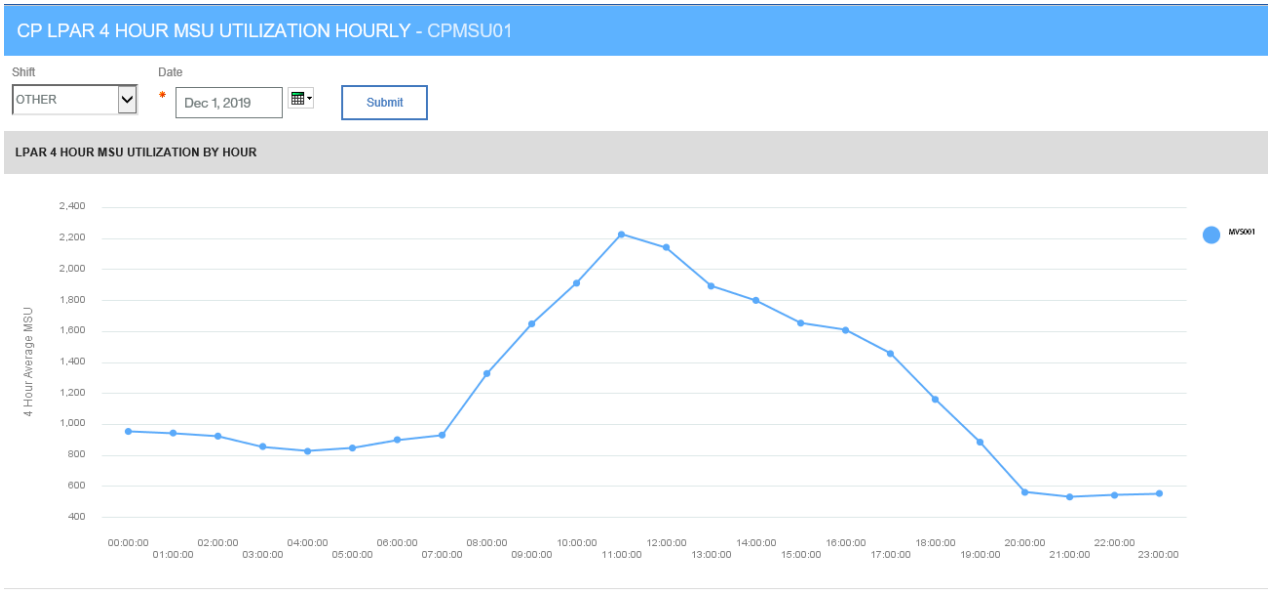


Figure 28. CP LPAR 4 Hour MSU Utilization Hourly report

The report contains this information:

Time of day

Time of the measurement.

LPAR Name

Name of the logical partition.

4 hour average

Four hour rolling average MSU.

CP LPAR MSU Statistics Hourly report

This report shows MSU usage statistics for a given LPAR per hour.

This information identifies the report:

Report ID

CPMSU02

Report group

Software cost analysis

Source

CP_CPU_LPAR_H

Attributes

CP, LPAR, MSU, HOURLY

Figure 29. CP LPAR MSU Statistics Hourly report

The report contains this information:

Time of day
Time of the measurement.

4 hour average
Four hour rolling average MSU.

Actual consumed
Actual MSU consumed by the partition.

CP LPAR Product Matrix Daily report

This report shows the distribution of products on partitions. It lists all partitions, and for each partition, it lists all the products which ran on that partition for a given day.

This information identifies the report:

Report ID

CPMSU03

Report group

Software cost analysis

Source

CP_PROD_MSU_H

Attributes

CP, LPAR, PRODUCT, DAILY

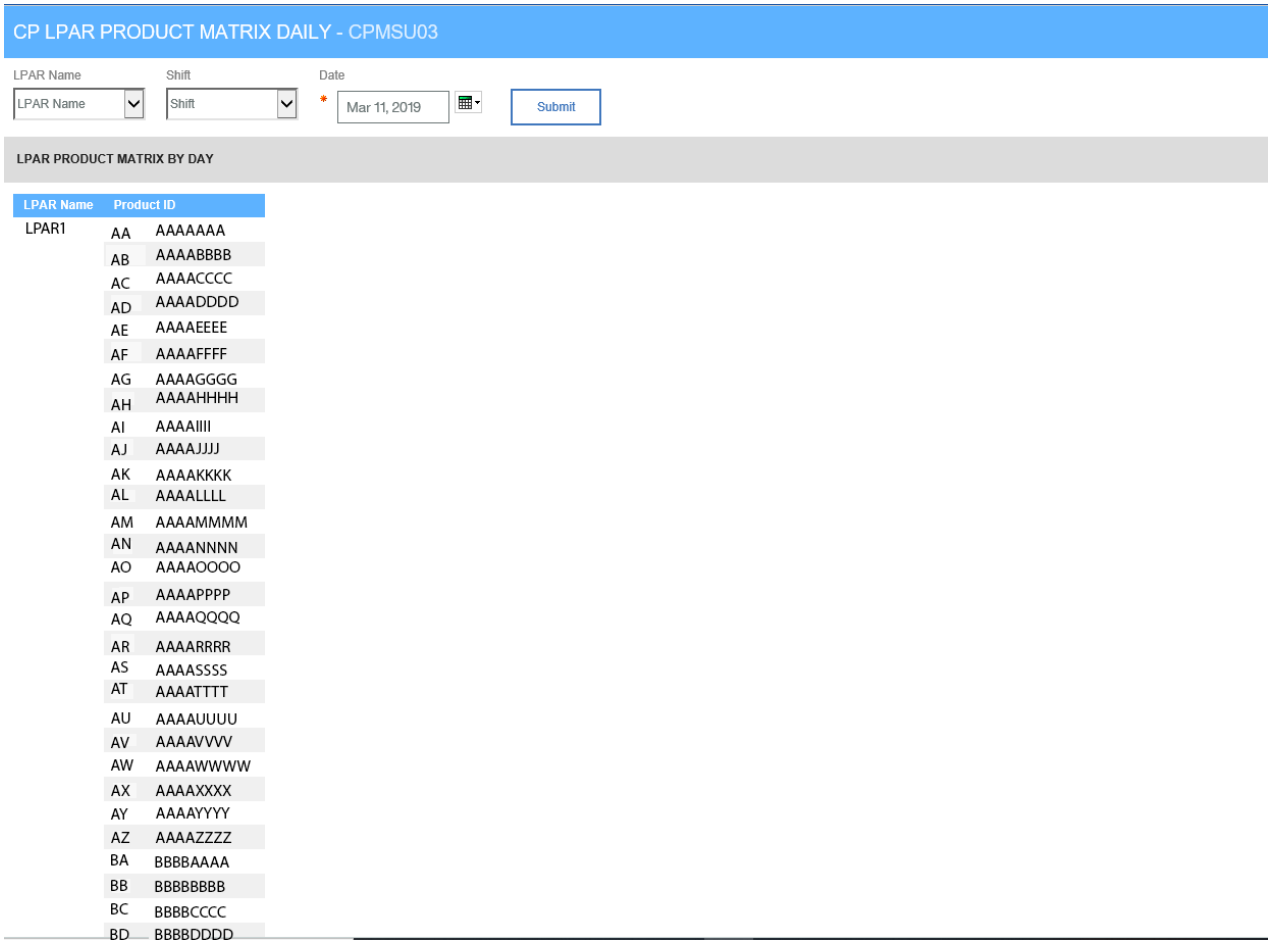


Figure 30. CP LPAR Product Matrix Daily report

The report contains this information:

Product

Product ID and name.

LPAR

Name of the logical partition.

CP Product LPAR Matrix Daily report

This report shows the distribution of products on partitions. It lists all partitions, and for each partition, it lists all the products which ran on that partition for a given day.

This information identifies the report:

Report ID

CPMSU04

Report group

Software cost analysis

Source

CP_PROD_MSU_H

Attributes

CP, LPAR, PRODUCT, DAILY

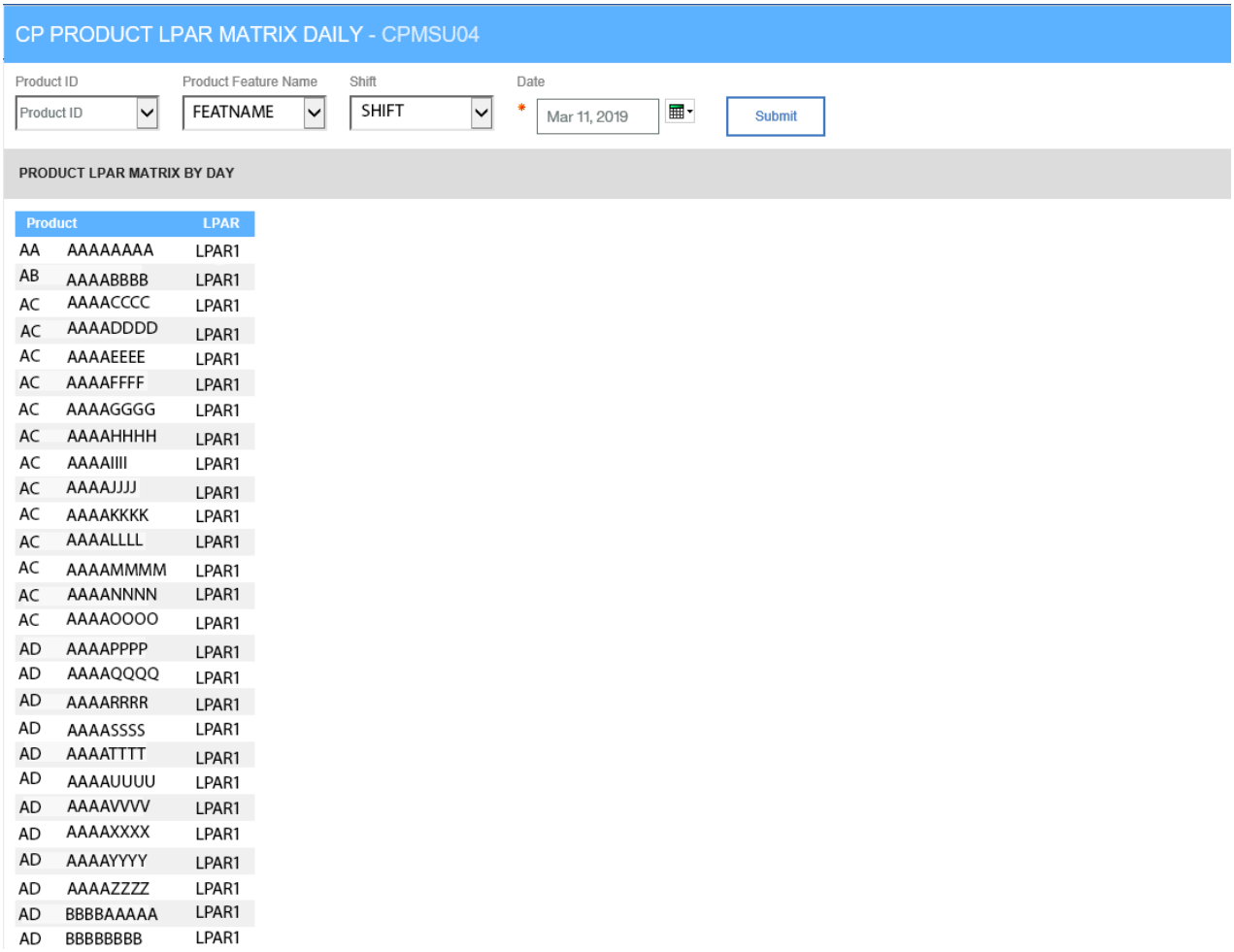


Figure 31. CP Product LPAR Matrix Daily report

The report contains this information:

Product

Product ID and name.

LPAR

Name of the logical partition.

CP LPAR Product MSU Hourly report

This report shows the MSU usage of products which ran on a specific LPAR during a given day. It lists the Products and MSU consumption per hour.

This information identifies the report:

Report ID

CPMSU05

Report group

Software cost analysis

Source

CP_PROD_MSU_H

Attributes

CP, MSU, PRODUCT, HOURLY

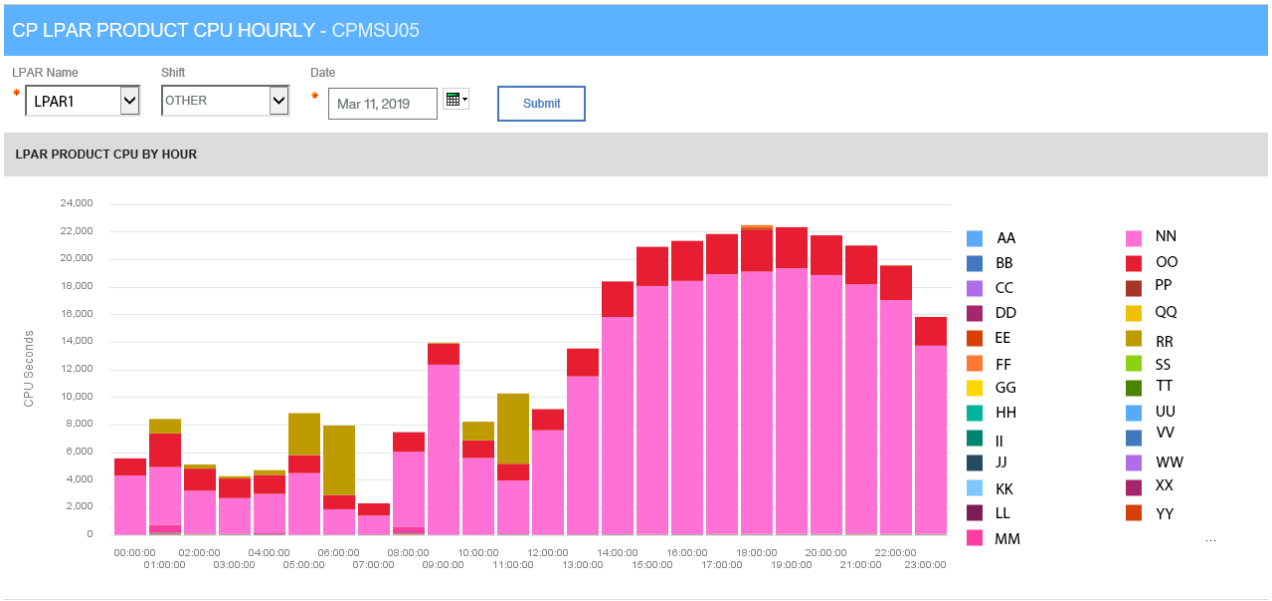


Figure 32. CP LPAR Product MSU Hourly report

The report contains this information:

Time of day

Time of the measurement.

Product

Product ID and name.

MSU

MSU consumed by the product during the interval.

Tailored Fit Pricing

Tailored Fit Pricing reports are designed to show the high level overview of MSU consumption vs entitlement to manage your Tailored Fit Pricing agreement, also providing capabilities for root cause analysis when a spike in MSU consumption is observed.

CP Containers Annual MSU % To Date Monthly/Weekly/Daily report

This report shows the annual MSU percentage used for the container.

This information identifies the report:

Report ID

CPENT01 / CPENT39 / CPENT40

Report group

Tailored Fit Pricing

Source

CP_MSU_LPAR_MV / CP_MSU_LPAR_WV / CP_MSU_LPAR_DV

Attributes

CP, MSU, MONTHLY / WEEKLY / DAILY

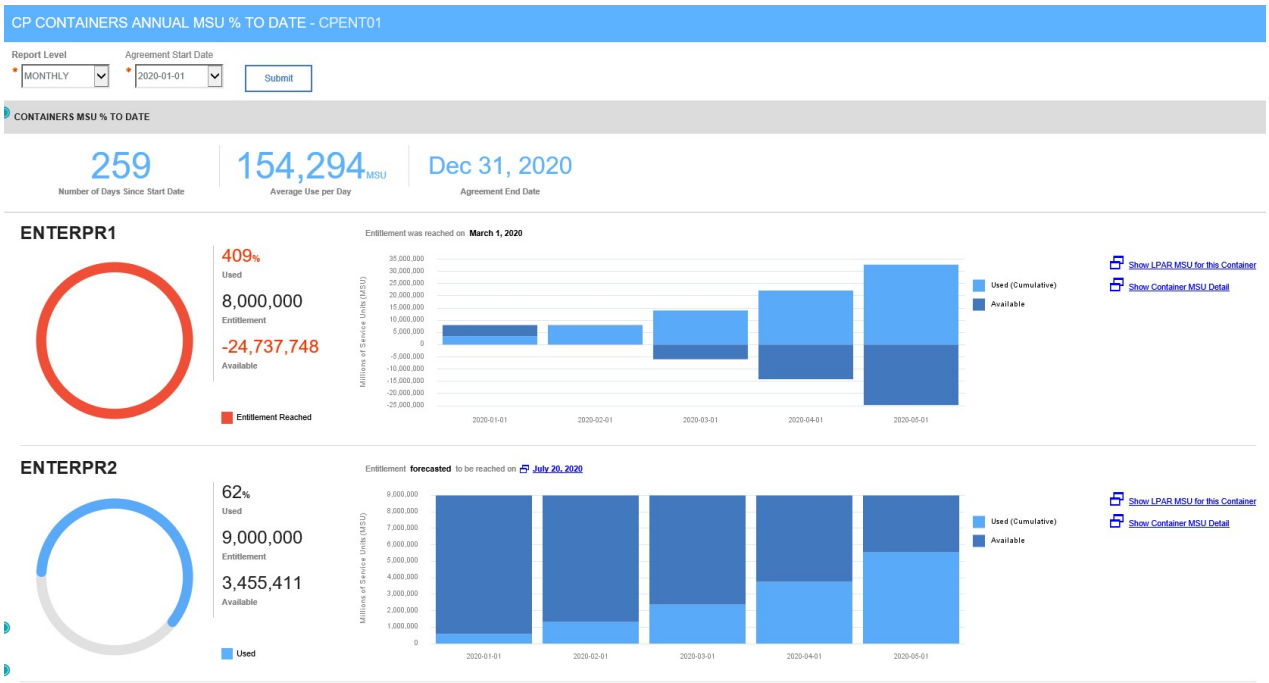


Figure 33. CP Containers Annual MSU % To Date Monthly report

The report contains this information:

Number of days
Time of days elapsed day since the start of agreement.

Used (Cumulative)
Total consumed MSU since the start of the agreement for the container.

Available
Unconsumed MSU available for the container in the agreement.

Entitlement
Total number of MSU entitlement for this agreement.

Agreement End Date

End of entitlement agreement date.

CP Container MSU Detail Monthly/Weekly/Daily report

This report shows MSU statistics for the container.

This information identifies the report:

Report ID

CPENT02 / CPENT41 / CPENT42

Report group

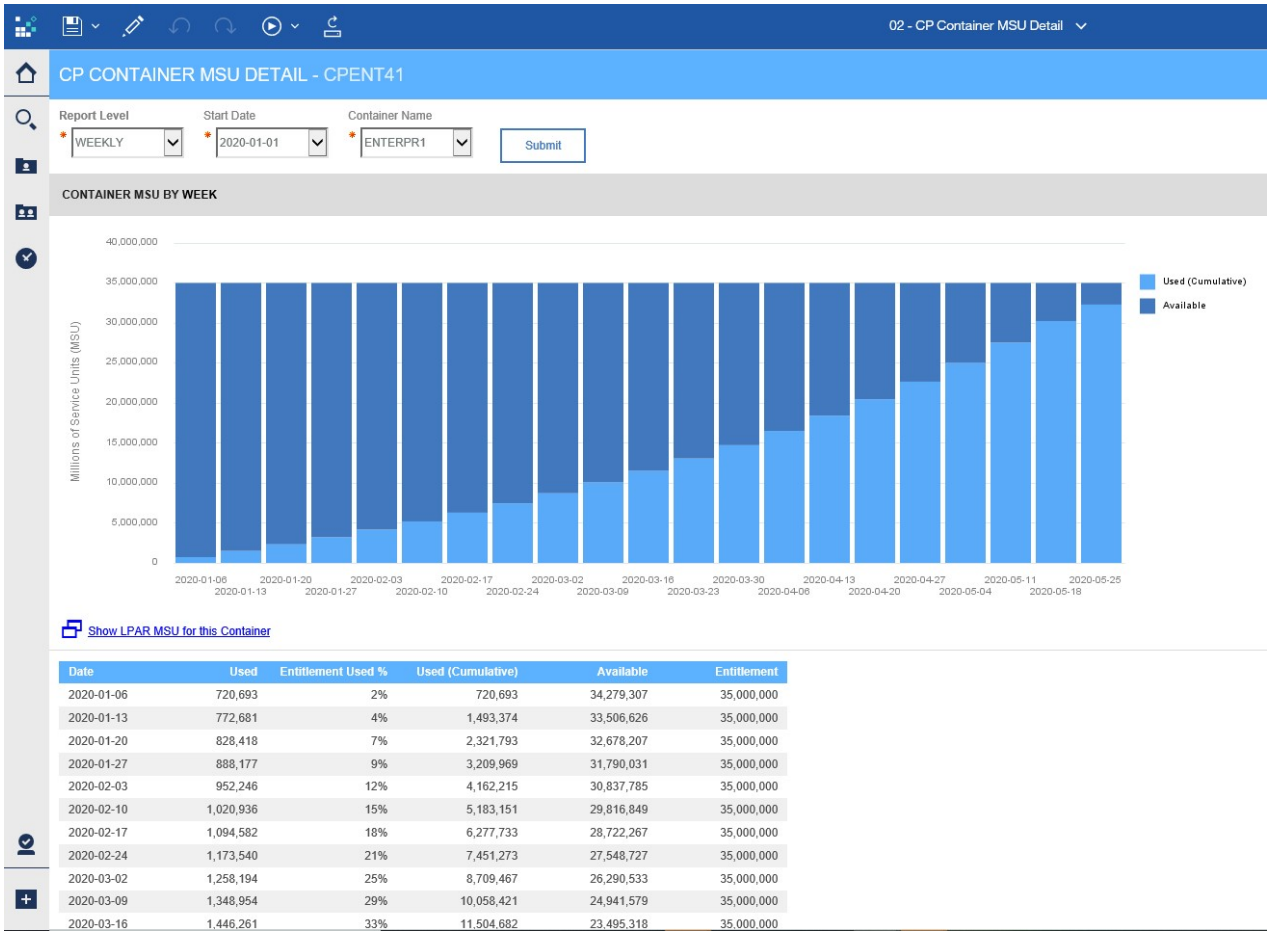
Tailored Fit Pricing

Source

CP_MSU_LPAR_MV / CP_MSU_LPAR_WV / CP_MSU_LPAR_DV

Attributes

CP, MSU, MONTHLY / WEEKLY / DAILY



Date	Used	Entitlement Used %	Used (Cumulative)	Available	Entitlement
2020-01-06	720,693	2%	720,693	34,279,307	35,000,000
2020-01-13	772,681	4%	1,493,374	33,506,626	35,000,000
2020-01-20	828,418	7%	2,321,793	32,678,207	35,000,000
2020-01-27	888,177	9%	3,209,969	31,790,031	35,000,000
2020-02-03	952,246	12%	4,162,215	30,837,785	35,000,000
2020-02-10	1,020,936	15%	5,183,151	29,816,849	35,000,000
2020-02-17	1,094,582	18%	6,277,733	28,722,267	35,000,000
2020-02-24	1,173,540	21%	7,451,273	27,548,727	35,000,000
2020-03-02	1,258,194	25%	8,709,467	26,290,533	35,000,000
2020-03-09	1,348,954	29%	10,058,421	24,941,579	35,000,000
2020-03-16	1,446,261	33%	11,504,682	23,495,318	35,000,000

Figure 34. CP Container MSU Detail Weekly report

The report contains this information:

Date
Date of the measurement.

Used
Number of used MSU.

Entitlement Used %
Number of used MSU divided by Capacity.

Used (Cumulative)
Total consumed MSU since the start of the agreement for the container.

Available
Unconsumed MSU available for the container in the agreement.

Entitlement
Total number of MSU entitlement for this agreement.

CP LPAR MSU by Container Monthly/Weekly/Daily report

This report shows MSU statistics for all LPARs within a container.

This information identifies the report:

Report ID

CPENT03 / CPENT43 / CPENT44

Report group

Tailored Fit Pricing

Source

CP_MSU_LPAR_MV / CP_MSU_LPAR_WV / CP_MSU_LPAR_DV

Attributes

CP, MSU, MONTHLY, WEEKLY, DAILY

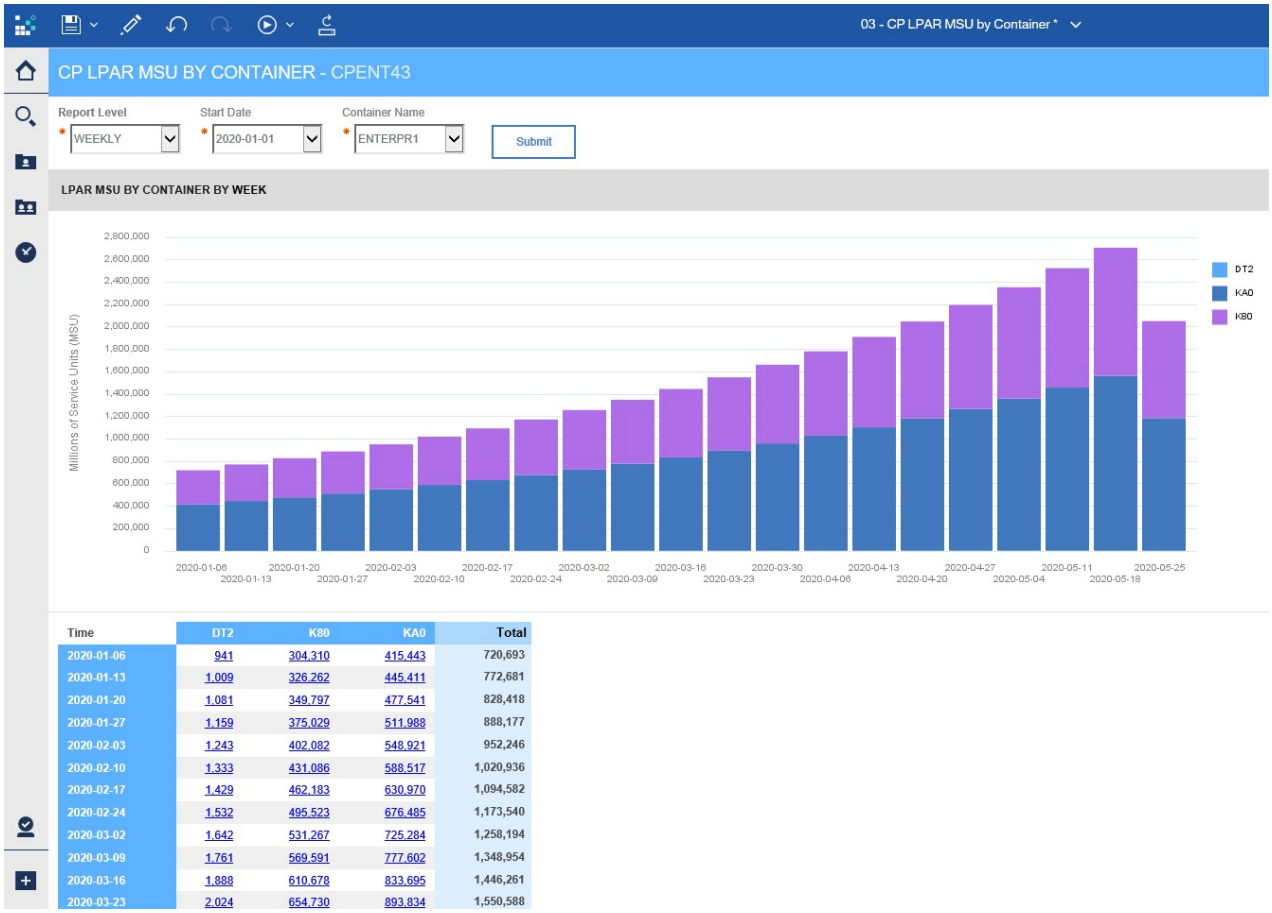


Figure 35. CP LPAR MSU by Container Weekly report

The report contains this information:

Date

Date of the measurement.

LPAR Name

Name of the logical partition.

MSU

Millions of service units.

CP Container MSU Forecast report

This report shows the future estimation to CP container MSU.

This information identifies the report:

Report ID

CPENT04

Report group

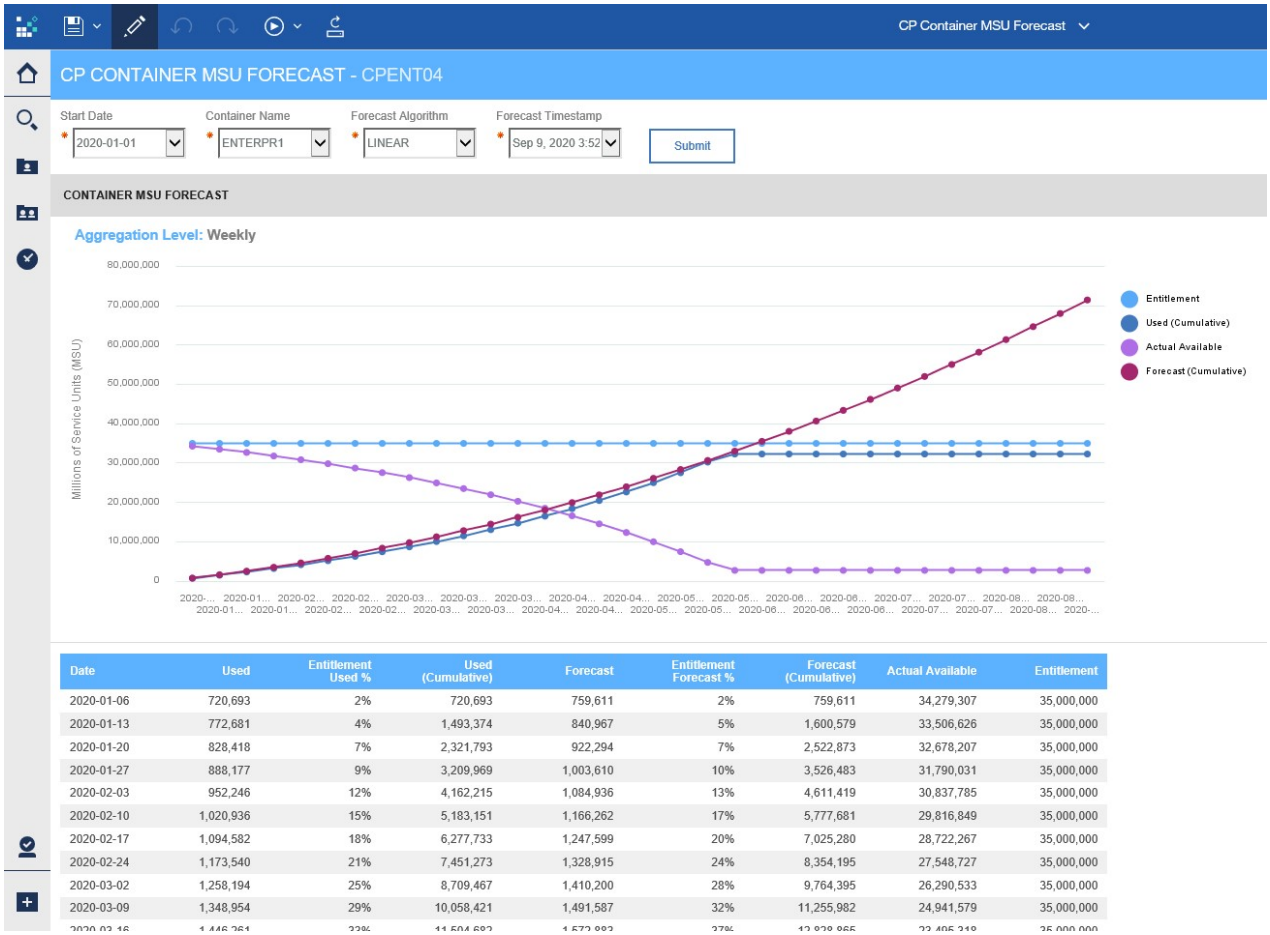
Tailored Fit Pricing

Source

CP_MSU_LPAR_FV

Attributes

CP, MSU, FORECAST



Date	Used	Entitlement Used %	Used (Cumulative)	Forecast	Entitlement Forecast %	Forecast (Cumulative)	Actual Available	Entitlement
2020-01-06	720,693	2%	720,693	759,611	2%	759,611	34,279,307	35,000,000
2020-01-13	772,681	4%	1,493,374	840,967	5%	1,600,579	33,506,626	35,000,000
2020-01-20	828,418	7%	2,321,793	922,294	7%	2,522,873	32,678,207	35,000,000
2020-01-27	888,177	9%	3,209,969	1,003,610	10%	3,526,483	31,790,031	35,000,000
2020-02-03	952,246	12%	4,162,215	1,084,936	13%	4,611,419	30,837,785	35,000,000
2020-02-10	1,020,936	15%	5,183,151	1,166,262	17%	5,777,681	29,816,849	35,000,000
2020-02-17	1,094,582	18%	6,277,733	1,247,599	20%	7,025,280	28,722,267	35,000,000
2020-02-24	1,173,540	21%	7,451,273	1,328,915	24%	8,354,195	27,548,727	35,000,000
2020-03-02	1,258,194	25%	8,709,467	1,410,200	28%	9,764,395	26,290,533	35,000,000
2020-03-09	1,348,954	29%	10,058,421	1,491,587	32%	11,255,982	24,941,579	35,000,000

Figure 36. CP Container MSU Forecast report

The report contains this information:

Date
Date of the measurement.

Used
Number of used MSU.

Entitlement Used %
Number of used MSU divided by Capacity.

Used (Cumulative)
Total consumed MSU since the start of the agreement for the container.

Forecast
MSU estimated for future agreement.

Entitlement Forecast %
Total MSU estimated for future agreement divided by Capacity.

Forecast (Cumulative)
Total MSU estimated for future agreement.

Actual Available
Capacity minus number of used MSU.

Entitlement
Total number of MSU entitlement for this agreement.

Following Tailored Fit Pricing reports are “CP Workload MIPS by LPARs Average Monthly/Weekly/Daily/Hourly/SMF Interval report” on page 45

Analytics and Exceptions

Processor Model Analysis Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows CEC processor model analysis.

This information identifies the report:

Report ID

CPAWI01

Report group

What-If

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

Attributes

CP, MONTHLY / WEEKLY / DAILY / HOURLY / SMF INTERVAL

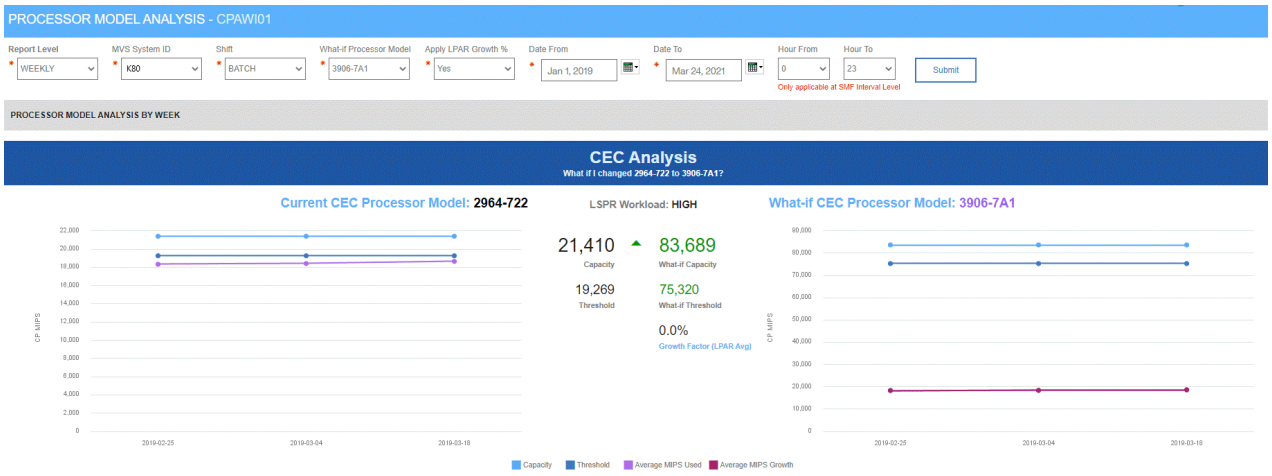


Figure 37. Processor Model Analysis Weekly report

The report contains this information:

Date
Date of the measurement.

Capacity
This is the CEC MIPS capacity, based on the most popular LSPR Workload during the reporting period.

Threshold
The threshold of the MIPS capacity. The threshold is calculated as a percentage of the LSPR MIPS Capacity. The threshold percentage is obtained from lookup table CP_THRESHOLDS.

Average MIPS Used
CEC MIPS used average.

Average MIPS Growth
CEC MIPS used growth average.

What-if Capacity
Potential CEC MIPS capacity.

What-if Threshold
Potential CEC MIPS threshold.

Growth Factor (LPAR Avg)
A negative or positive percentage applied to the LPAR's MIPS Used Average to show potential future growth.

LPAR zIIP Offload Analysis Monthly/Weekly/Daily/Hourly/SMF Interval report

This report shows LPAR zIIP offload analysis

This information identifies the report:

Report ID

CPAWI02

Report group

What-If

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

CP_CPU_WKLDA_MV / CP_CPU_WKLDA_WV / CP_CPU_WKLDA_DV / CP_CPU_WKLDA_HV / CP_CPU_WKLDA_TV

Attributes

CP, LPAR, zIIP, MONTHLY / WEEKLY / DAILY / HOURLY / SMF INTERVAL

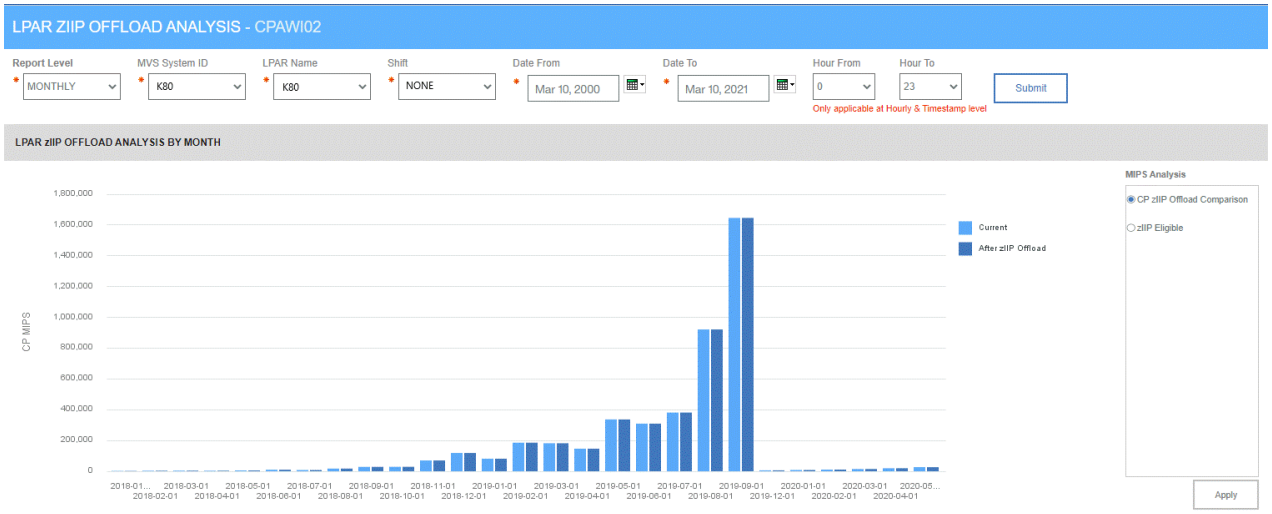


Figure 38. LPAR zIIP Offload Analysis Monthly report

The report contains this information:

Date
Date of the measurement.

Current
Total MIPS used divided by measured seconds total.

After zIIP Offload
Total MIPS after offloading to zIIP.

Workload zIIP Offload Analysis report

This report shows the zIIP offload analysis for workloads.

This information identifies the report:

Report ID

CPAWI03

Report group

What-If

Source

CP_CPU_LPAR_MV / CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CPU_LPAR_TV

CP_CPU_WKLDA_MV / CP_CPU_WKLDA_WV / CP_CPU_WKLDA_DV / CP_CPU_WKLDA_HV / CP_CPU_WKLDA_TV

Attributes

CP, WORKLOAD, zIIP, MONTHLY / WEEKLY / DAILY / HOURLY / SMF INTERVAL

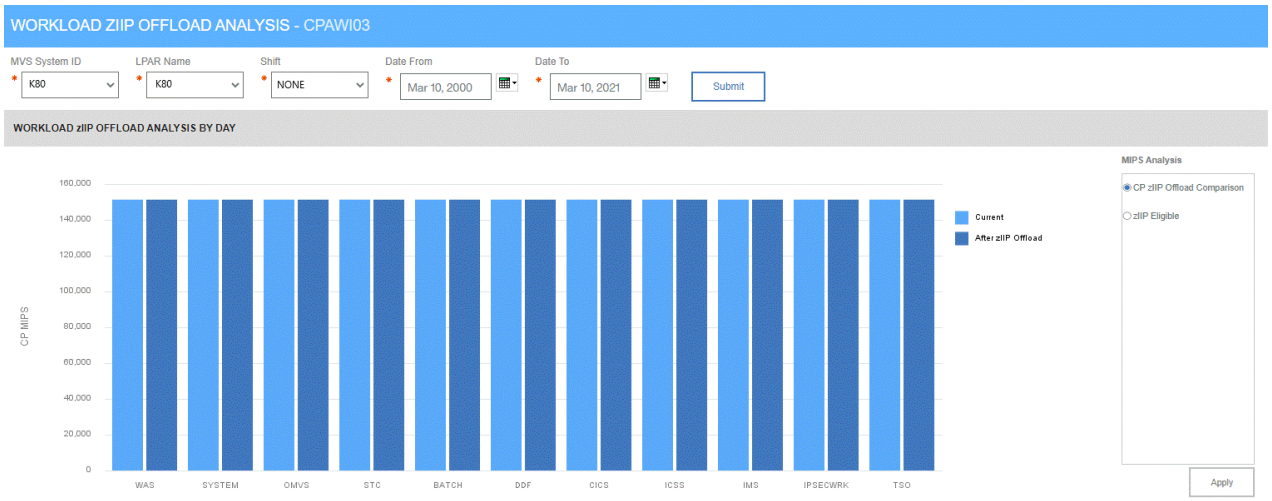


Figure 39. Workload zIIP Offload Analysis Monthly report

The report contains this information:

Workload Name

Workload name.

Current

Total MIPS used divided by measured seconds total.

After zIIP Offload

Total MIPS after offloading to zIIP.

Storage subcomponent reports

Storage reports provide information on CPU storage and help you monitor the overall usage, and the highs and lows of storage available for use.

Available reports show the minimum, average and maximum central storage that is available over time as well as a definable threshold of acceptable levels. Reports are also provided which show the actual usage versus the predicted usage, over time.

The Storage reports are grouped by report type:

- Storage usage
- Storage forecasting

Storage usage

Storage usage reports.

CP Central Storage Available Hourly/Daily/Weekly report

This report shows memory statistics on system level, per hour, day or week.

This information identifies the report:

Report ID

CPSTO01 / CPSTO02 / CPSTO03

Report group

Capacity Planning - Storage

Source

CP_STORAGE_H / CP_STORAGE_D / CP_STORAGE_W

Attributes

MVS, STORAGE, AVAILABLE, FRAMES, HOURLY/DAILY/WEEKLY

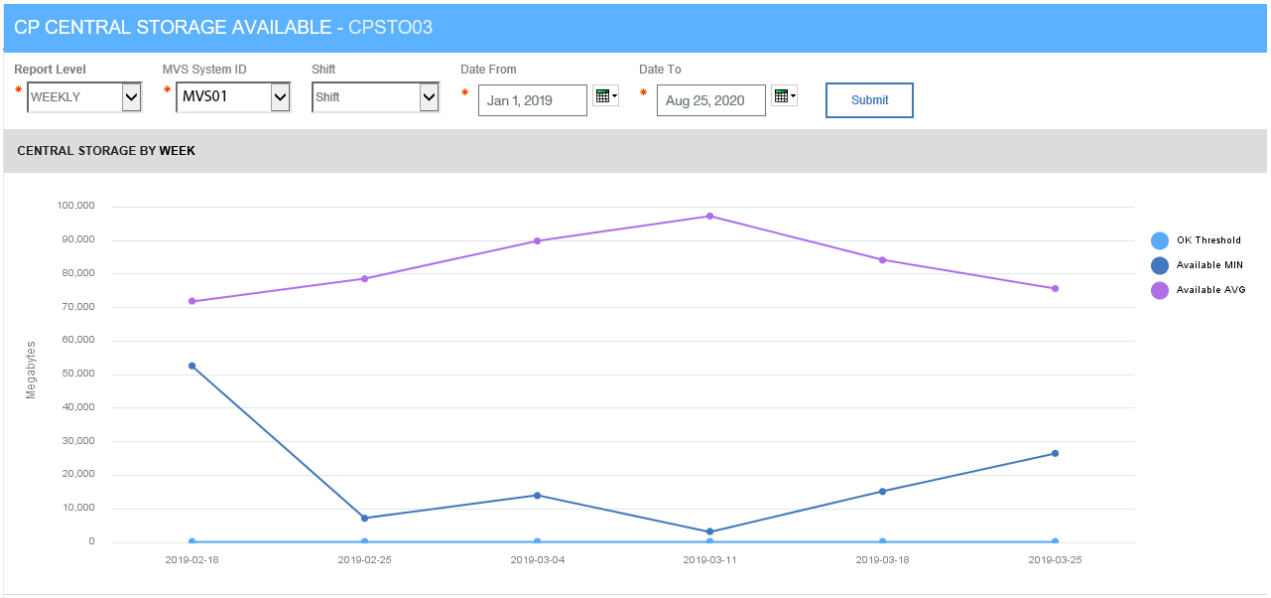


Figure 40. CP Central Storage Available Weekly report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Available AVG

Average memory available during the interval, in megabytes.

Available MIN

Minimum memory available during the interval, in megabytes.

OK Threshold

This threshold indicates the number of frames on the available frame queue when stealing ends.

Storage forecasting

Storage forecasting reports.

CP Central Storage Forecast Weekly report

This report shows memory statistics, included forecast values, on system level, by week.

This information identifies the report:

Report ID

CPSTO05

Report group

Capacity Planning - Storage

Source

CP_STORAGE_F

Attributes

MVS, STORAGE, AVAILABLE, FRAMES, WEEKLY

The report contains this information:

Date

Date of the measurement.

Forecast available MIN

Forecast minimum memory available during the interval, in megabytes.

Available AVG

Average memory available during the interval, in megabytes.

Available MIN

Minimum memory available during the interval, in megabytes.

OK Threshold

This threshold indicates the number of frames on the available frame queue when stealing ends.

Channel subcomponent reports

Channel reports provide information on the speed of the I/O operations in a system. Reports are also provided that show the channel busy percentage versus the predicted channel busy percentage, over time.

The Channel reports are grouped by report type:

- Channel usage
- Channel forecasting

Channel usage

Channel usage reports.

CP Channel Peak Busy Hourly/Daily/Weekly report

This report shows channel utilization statistics on system level, by hour, day or week.

This information identifies the report:

Report ID

CPCHAN01 / CPCHAN02 / CPCHAN03

Report group

Capacity Planning - Channel

Source

CP_CHANNEL_H / CP_CHANNEL_D / CP_CHANNEL_W

Attributes

MVS, CHANNEL, PEAK, BUSY, HOURLY /DAILY/WEEKLY

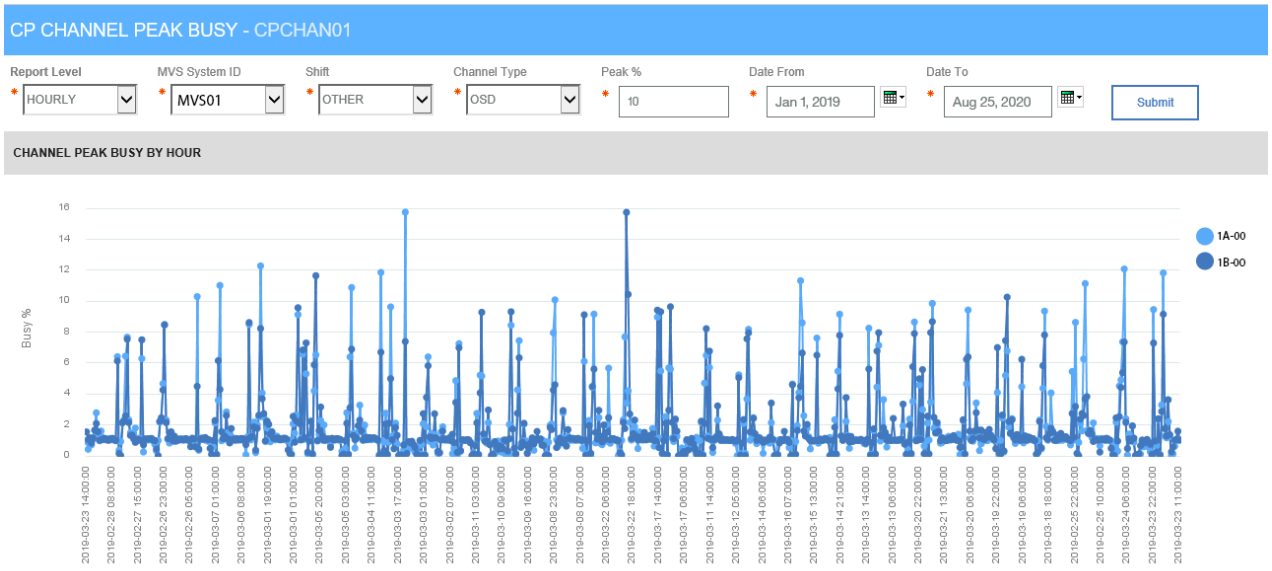


Figure 41. CP Channel Peak Busy Hourly report

The report contains this information:

Time of day / Date

Time / date of the measurement.

Channel

Channel name.

Peak busy

Highest percentage busy during the interval.

Channel forecasting

Channel forecasting reports.

CP Channel Peak Busy Forecast Weekly report

This report shows channel utilization and forecasting statistics on system level.

This information identifies the report:

Report ID

CPCHAN05

Report group

Capacity Planning - Channel

Source

CP_CHANNEL_F

Attributes

MVS, CHANNEL, PEAK, BUSY, FORECAST, WEEKLY

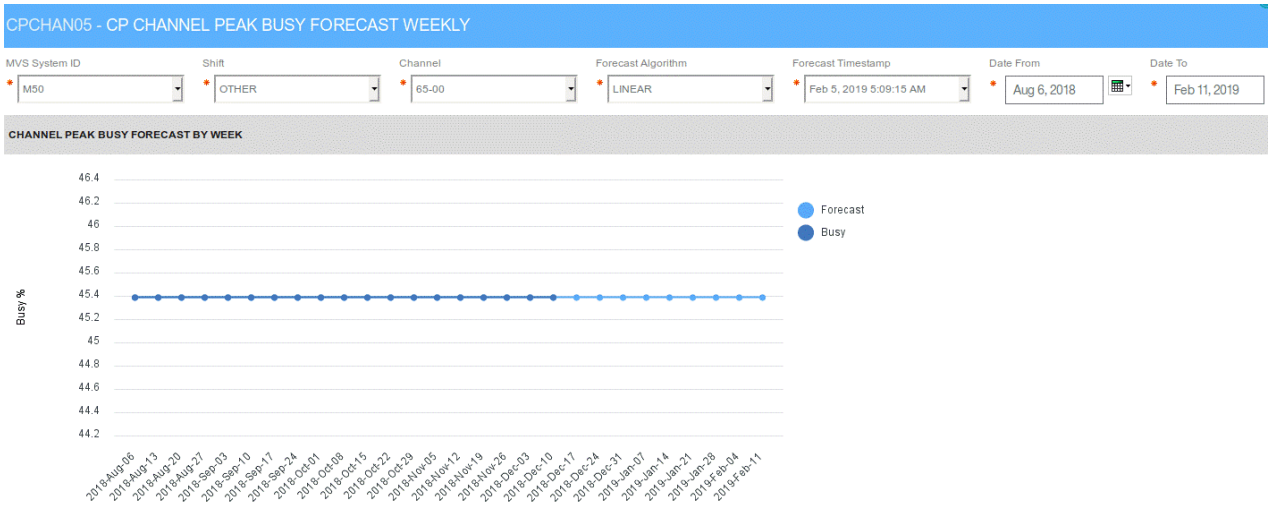


Figure 42. CP Channel Peak Busy Forecast Weekly report

The report contains this information:

Date

Date of the measurement.

Channel

Channel name.

Forecast peak busy

Forecast highest percentage busy during the interval.

Peak busy

Highest percentage busy during the interval.

Disk subcomponent reports

Disk reports provide information on the actual storage usage, as well as predicted usage, per storage group over time.

The Disk reports are grouped by report type:

- Disk usage
- Disk forecasting

Disk usage

Disk reports provide information on the actual storage usage, as well as predicted usage, per storage group over time.

Disk forecasting

Disk reports provide information on the actual storage usage, as well as predicted usage, per storage group over time.

CP Disk Storage Group Space Forecast Monthly report

This report shows disk statistics on storage group level.

This information identifies the report:

Report ID
CPDISK03

Report group

Capacity Planning - Disk

Source

CP_DISK_F

Attributes

MVS, DISK, STORAGE, MONTHLY, FORECAST

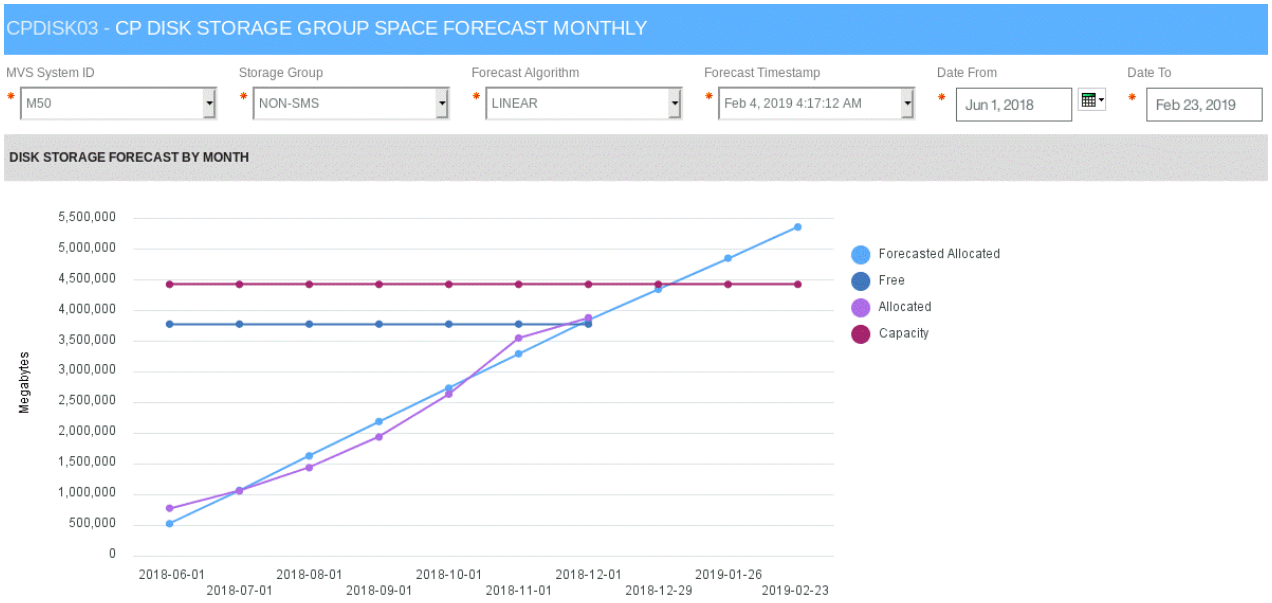


Figure 43. CP Disk Storage Group Space Forecast Monthly report

The report contains this information:

Date

Date of the measurement.

Storage group

Storage group name.

Allocated space

Space allocated in the storage group, in megabytes.

Tape subcomponent reports

Tape reports provide information on the actual storage usage, as well as predicted usage, per storage group over time.

The Tape reports are grouped by report type:

- Tape usage
- Tape forecasting

Tape usage

Tape reports provide information on the actual storage usage, as well as predicted usage, per storage group over time.

Tape forecasting

Tape forecasting reports.

CP Tape Storage Group Space Forecast Weekly report

This report shows tape usage and forecast statistics on storage group level.

This information identifies the report:

Report ID

CPTAPE03

Report group

Capacity Planning - Tape

Source

CP_TAPE_F

Attributes

MVS, TAPE, STORAGE, WEEKLY, FORECAST

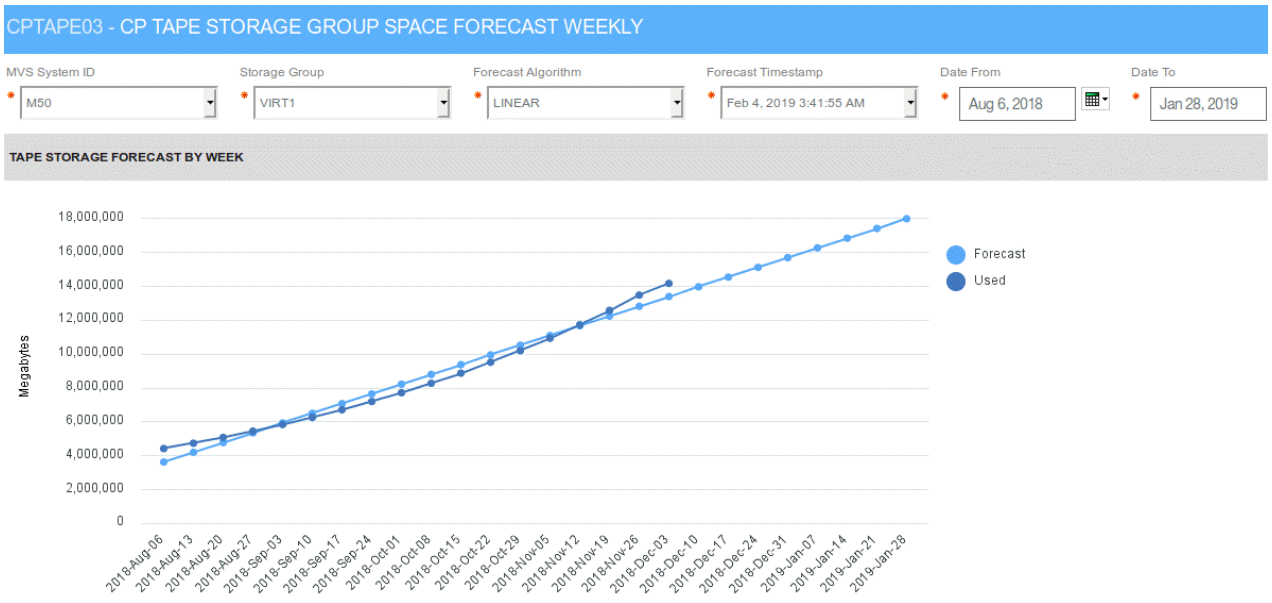


Figure 44. CP Tape Storage Group Space Forecast Weekly report

The report contains this information:

Date

Date of the measurement.

Storage group

Storage group name.

Forecast space

Forecast allocated space in the storage group, in megabytes.

Allocated space

Space allocated in the storage group, in megabytes.

Chapter 3. Capacity Planning for CICS

The Capacity Planning for CICS reports are designed to provide a routine health check of your CICS system, whilst also providing drill-down reporting, enabling investigation of anomalies.

Installing and configuring Capacity Planning for CICS

About this task

Before you install the Capacity Planning for CICS component, you must do the following steps.

Procedure

1. Decide which subcomponents to install.
2. Make input data available.
3. Customize.

Making input data available

In order to perform capacity planning and forecasting, you must make the relevant input records available for processing by IBM Z Performance and Capacity Analytics.

Procedure

1. Ensure that the following SMF record types are available for processing by IBM Z Performance and Capacity Analytics :
   - 70
   - 71
   - 72 (subtype 3)
   - 73
   - 89 (subtype 1)
   - 113 (subtype 2) - This is mandatory for CPU reporting. These records are used to calculate and forecast MIPS usage and capacity because IBM Z Performance and Capacity Analytics calculates MIPS based on the LSPR Workload.

   Refer to *MVS System Management Facilities (SMF)* for information on how to make SMF records available.
2. Ensure that the interval at which the SMF records are written must be the same for the following SMF records:
   - 70
   - 72 (subtype 3)
   - 113 (subtype 2)
3. Ensure that the following RMM and DFSMS records are available:
   - DFRMM_DATASET
   - DCOLLECT_V

   Refer to *System Performance Feature Reference 1* for information on these record types and how to generate the records.

© Copyright IBM Corp. 2018, 2021

Lookup tables and control tables

IBM Z Performance and Capacity Analytics uses lookup tables and control tables to contain user-specified parameters specific to your installation. These tables are used when storing data in the IBM Z Performance and Capacity Analytics database and must be configured before data collection and reporting.

Lookup tables
The lookup tables contain installation-specific parameters including Business Application groups, Capacity Planning periods and threshold values for MIPS and Channel capacity.

Control tables
The Capacity Planning for CICS component uses one control table which must be initialized with the MIPS ratings of your installation. It is a prerequisite to reporting MIPS values.

Configuring lookup tables

The Capacity Planning for CICS component uses several lookup tables when storing data in the IBM Z Performance and Capacity Analytics database. Before collecting any data, you must update the lookup tables to include parameters that are specific to your installation.

Procedure

To update each of the following lookup tables, copy the corresponding member from *HLQ*.SDRLDEFS to your *HLQ*.LOCAL.DEFS data set, then edit the sample INSERT statements to suit your requirements.

Table 14. Lookup tables

Table name	Lookup table function	Member in *HLQ*.SDRLDEFS
CICS_LOOKUP_APPL	To convert the CICS transaction ID's to application names, and contains the response-time boundaries for applications and transactions	DRLTCIAP
CP_SHIFT	To define capacity planning shifts. For example: Online or Batch.	DRLTCPL2
CP_TIME_RES	To define the time to use for each row of data stored in a set of tables.	DRLTCPL6

CP_CICS_LOOKUP_APPL

CP_CICS_LOOKUP_APPL table converts the CICS transaction ID's to application names, and contains the response-time boundaries for applications and transactions. It is maintained from the administration dialog by the administrator.

Table 15. CP_CICS_LOOKUP_APPL lookup table

Column name	Key	Data type	Description
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This can contain global search characters.
CICS_SYSTEM_ID	K	CHAR	CICS generic ID. This is the VTAM application ID that is used when requesting a session with this CICS system.
APPLICATION_NAME	K	CHAR	Application name.

Table 15. CP_CICS_LOOKUP_APPL lookup table (continued)			
Column name	**Key**	**Data type**	**Description**
TRANSACTION_ID	K	CHAR	Transaction ID.
TRAN_RESP_BND1_SEC		FLOAT	First transaction response-time boundary, in seconds. The default is 1 second. This can be used for counting transactions in each response time range.
TRAN_RESP_BND2_SEC		FLOAT	Second transaction response-time boundary, in seconds. The default is 2 seconds. This can be used for counting transactions in each response time range.
TRAN_RESP_BND3_SEC		FLOAT	Third transaction response-time boundary, in seconds. The default is 5 seconds. This can be used for counting transactions in each response time range.
TRAN_RESP_BND4_SEC		FLOAT	Fourth transaction response-time boundary, in seconds. The default is 10 seconds. This can be used for counting transactions in each response time range.
APPL_RESP_BND1_SEC		FLOAT	First application response-time boundary, in seconds. The default is 1 second. This can be used for counting transactions in each response time range.
APPL_RESP_BND2_SEC		FLOAT	Second application response-time boundary, in seconds. The default is 2 seconds. This can be used for counting transactions in each response time range.
APPL_RESP_BND3_SEC		FLOAT	Third application response-time boundary, in seconds. The default is 5 seconds. This can be used for counting transactions in each response time range.
APPL_RESP_BND4_SEC		FLOAT	Fourth application response-time boundary, in seconds. The default is 10 seconds. This can be used for counting transactions in each response time range.

The following is an example of how CP_CICS_LOOKUP_APPL might look.

```
MVS_SYSTEM_ID  CICS_SYSTEM_ID      APPLICATION_NAME  TRANSACTION_ID   TRAN_RESP_BND1_SEC
-------------  --------------      ----------------  --------------   ------------------
SYS1           IYK2Z1V1            TEST              CRTP                  +0.0  E+00
SYS2           PC20CICS            TEST2             F62B                  +0.0  E+00
SYS3           PC20CICS            TEST2             CTSN                  +0.0  E+00
SYS4           PC20CICS            TEST2             SLBL                  +0.0  E+00


TRAN_RESP_BND2_SEC  TRAN_RESP_BND3_SEC  TRAN_RESP_BND4_SEC  APPL_RESP_BND1_SEC
------------------  ------------------  ------------------  ------------------
      +0.0 E+00           +0.0 E+00           +0.0 E+00           +0.0 E+00
      +0.0 E+00           +0.0 E+00           +0.0 E+00           +0.0 E+00
      +0.0 E+00           +0.0 E+00           +0.0 E+00           +0.0 E+00
      +0.0 E+00           +0.0 E+00           +0.0 E+00           +0.0 E+00
```

Figure 45. Example: CP_CICS_LOOKUP_APPL lookup table

CP_SHIFT

CP_SHIFT provides the ability to define the capacity planning shifts for which you need to plan the continued availability and capacity of resources.

Capacity planning should not be done for a 24 hour period. Instead, it should be done for identified capacity planning shifts only, where resource usage is high and availability must be guaranteed. You should define the capacity planning shifts that reflect the time periods that you need to measure for capacity planning purposes.

CP_SHIFT contains these columns:

Table 16. CP_SHIFT lookup table

Column name	Key	Data type	Description
MVS_SYSTEM_ID	K	CHAR(4)	MVS system ID. This can contain global search characters.
CP_SHIFT_NM	K	CHAR(10)	Name of the capacity planning shift.
DAY_TYPE	K	CHAR(8)	Day type the period applies to. This can be any of the day types specified in the DAY_OF_WEEK and SPECIAL_DAY control tables.
START_TIME	K	TIME	Time when the shift starts.
END_TIME	K	TIME	Time when the period ends.
SHIFT_DESC		CHAR(40)	Description of the shift.

Refer to the *Administration Guide and Reference* for more information on the DAY_OF_WEEK and SPECIAL_DAY control tables.

This lookup table is used to populate column SHIFT, which is present in all of the Capacity Planning for CICS component data tables of the following sub-components: CPU, Storage, and Channel.

The following is an example of how CP_SHIFT might look.

```
MVS_SYSTEM_ID  CP_SHIFT_NM  DAY_TYPE  START_TIME  END_TIME  SHIFT_DESC
-------------- -----------  --------  ----------  --------  --------------
%              ONLINE       MON       10.00.00    14.00.00  Online
%              ONLINE       TUE       10.00.00    14.00.00  Online
%              ONLINE       WED       10.00.00    14.00.00  Online
%              ONLINE       THU       10.00.00    14.00.00  Online
%              ONLINE       FRI       10.00.00    14.00.00  Online
%              BATCH        MON       20.00.00    23.00.00  Overnight Batch
%              BATCH        TUE       20.00.00    23.00.00  Overnight Batch
%              BATCH        WED       20.00.00    23.00.00  Overnight Batch
%              BATCH        THU       20.00.00    23.00.00  Overnight Batch
%              BATCH        FRI       20.00.00    23.00.00  Overnight Batch
%              OTHER        SAT       00.00.00    24.00.00  Not used
%              OTHER        SUN       00.00.00    24.00.00  Not used
%              OTHER        HOLIDAY   00.00.00    24.00.00  Not used
```

Figure 46. Example: CP_SHIFT lookup table

In this example, two capacity planning shifts are defined:

Online
Includes every week day from 10am to 2pm

Batch
Includes every week day from 8pm to 11pm

There are no default values provided for this lookup table. If there is no capacity planning shift defined for a particular hour of a particular day, IBM Z Performance and Capacity Analytics will populate column

SHIFT with the value OTHER for all rows in all Capacity Planning for z/OS component data tables, for that particular day/hour.

CP_TIME_RES

CP_TIME_RES defines the time to use for each row of data stored in a set of tables.

Table 17. CP_TIME_RES lookup table

Column name	Key	Data type	Description
HOUR	K	CHAR(2)	Hour of the day (that the time resolution applies to), 00 to 23.
SHIFT	K	CHAR(10)	Name of the Capacity Planning shift. This can contain global search characters.
SYSTEM_ID	K	CHAR(8)	Name of the system. This can contain global search characters.
TABLE_SET_NAME	K	CHAR(18)	Name that identifies the set of tables the time resolution is defined for.
TIME_RESOLUTION		SMALLINT(2)	Time resolution for the set of tables, in minutes. This defines the time period for which data is to be recorded.

The following is an example of how CP_TIME_RES might look.

```
HOUR          SHIFT             SYSTEM_ID        TABLE_SET_NAME   TIME_RESOLUTION
------------  --------------    -------------    --------------   ------------------
%             %                 %                CP_CICS_TRAN_T   15
%             %                 %                CP_CPU_JOB_T     15
%             %                 %                CP_CPU_JOB_T     30
```

Figure 47. Example: CP_TIME_RES lookup table

Configuring control tables

IBM Z Performance and Capacity Analytics uses the LSPR_MIPS control table to calculate MIPS capacity.

About this task

The LSPR_MIPS control table is automatically initialized during installation with the LSPR-provided multi image MIPS ratings for all processor model and submodel combinations.

The following table contains the default values, which can be customized if required. .

Table 18. LSPR_MIPS Control table

Column name	Key	Data type	Description
CPU_MODEL_NO	K	SMALLINT	Machine type
CPU_SUB_MODEL	K	CHAR(16)	CPU submodel
PROCESSOR_TYPE	K	CHAR(4)	Processor pool type
LSPR_WORKLOAD	K	CHAR(4)	LSPR workload
MIPS_RATING		SMALLINT	Processor pool MIPS rating

Data tables

The Capacity Planning for CICS component has various data tables within each subcomponent.

Naming conventions for data tables

The names of the data tables use this format:

CP_*tablename_suffix*

Where:

- ***suffix*** indicates the summarization level of the data in the table, or whether the table is populated by the Forecaster. A table name can have these suffixes:

  A table name can have these summarization-level suffixes:

  _F
  The table is populated by the Forecaster, and holds forecasting data

  _T
  The table holds nonsummarized data (timestamped data)

  _H
  The table holds data summarized by hour (hourly data)

  _D
  The table holds data summarized by day (daily data)

  _W
  The table holds data summarized by week (weekly data)

Table descriptions

Each table description includes information about the table, a description of each of the key columns, and a description of each of the data columns:

Key columns
Marked K and form the primary key. They are sorted in the sequence they appear in the table.

Data columns
They follow the last key column and are sorted in alphabetic order with the underscore ignored.

APPL subcomponent data tables

The APPL subcomponent data tables contain APPL usage information.

CP_CICS_APPL_D

This table provides daily CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.

Column name	Key	Data type	Column description
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_APPL_DV

This view provides daily CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data Type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.

Column name	Key	Data Type	Column description
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.

CP_CICS_APPL_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data Type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data Type	Column description
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_APPL_HV

This view provides hourly CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

Column name	Key	Data type	Column description
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.

CP_CICS_APPL_M

This table provides monthly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.

Column name	Key	Data type	Column description
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_APPL_T

This table provides timestamp CICS transaction metrics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.

Column name	Key	Data type	Column description
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_APPL_TV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.

Column name	Key	Data type	Column description
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.

CP_CICS_APPL_W

This table provides weekly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.

Column name	Key	Data type	Column description
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_APPL_WV

This view provides weekly CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.

Column name	Key	Data type	Column description
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.

APPLC subcomponent data tables

The APPLC subcomponent data tables contain APPLC usage information.

CP_CICS_APPLC_D

This table provides daily CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds.
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time during the day, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_APPLC_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.

Column name	Key	Data type	Column description
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_APPLC_T

This table provides timestamp CICS transaction metrics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.

Column name	Key	Data type	Column description
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

CP_CICS_APPLC_W

This table provides weekly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column Name	Key	Data Type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME	K	CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds.
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time during the day, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

CP_CICS_APPLC_DV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column Name	Key	Data Type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the day. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the day. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_APPLC_HV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column Name	Key	Data Type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.

Column Name	Key	Data Type	Column description
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the hour. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the hour. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_APPLC_TV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column Name	Key	Data Type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.

Column Name	Key	Data Type	Column description
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the SMF interval. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the SMF interval. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_APPLC_WV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column Name	Key	Data Type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
APPLICATION_NAME		CHAR (18)	Application name. This comes from the CICS_LOOKUP_APPL lookup table.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the week. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the week. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

REGN subcomponent data tables

The REGN subcomponent data tables contain REGN usage information.

CP_CICS_REGN_D

This table provides daily CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.

Column name	Key	Data type	Column description
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_REGN_DV

This view provides daily CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.

Column name	Key	Data type	Column description
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/QR_DISPATCH_SEC*100.

CP_CICS_REGN_F

This table contains forecasted CICS transaction metrics, on CICS region level.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
AGGR_LEVEL	K	CHAR (1)	Aggregation level of the data contained in this table. Possible values are: D - Daily and W - Weekly.

Column name	Key	Data type	Column description
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
F_ALGORITHM	K	CHAR (10)	Algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTMP(10)	Timestamp of the forecast.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
F_CPU_SEC		FLOAT (8)	Forecasted CPU time, in seconds.
FV_CPU_SEC		FLOAT (8)	Standard variance CPU time calculated by the Forecaster.
F_TRAN_COUNT		FLOAT (8)	Forecaster number of transactions.
FV_TRAN_COUNT		FLOAT (8)	Standard variance number of transactions calculated by the Forecaster.

CP_CICS_REGN_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.

Column name	Key	Data type	Column description
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_REGN_HV

This view provides hourly CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

CP_CICS_REGN_M

This table provides monthly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.

Column name	Key	Data type	Column description
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_REGN_T

This table provides timestamp CICS transaction metrics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.

Column name	Key	Data type	Column description
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_REGN_TV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.

Column name	Key	Data type	Column description
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

CP_CICS_REGN_W

This table provides weekly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.

Column name	Key	Data type	Column description
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_REGN_WV

This view provides weekly CICS transaction statistics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.

Column name	Key	Data type	Column description
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/QR_DISPATCH_SEC*100.

REGNC subcomponent data tables

The REGNC subcomponent data tables contain REGNC usage information.

CP_CICS_REGNC_D

This table provides daily CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.
CPU_USED_AVG		FLOAT (8)	Average CPU used, in seconds.
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time during the day, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_REGNC_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.

Column name	Key	Data type	Column description
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.
CPU_USED_AVG		FLOAT (8)	Average CPU used, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_REGNC_T

This table provides timestamp CICS transaction metrics on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data type	Column description
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

CP_CICS_REGNC_W

This table provides weekly CICS transaction metrics for capacity planning, on CICS region level. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_USED_AVG		FLOAT (8)	Average CPU used, in seconds.
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time during the day, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

CP_CICS_REGNC_DV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the day. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the day. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_REGNC_HV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data type	Column description
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the hour. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the hour. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_REGNC_TV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the SMF interval. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the SMF interval. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_REGNC_WV

This view provides CICS transaction statistics on CICS region level, aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.

Column name	Key	Data type	Column description
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the day. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the day. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

SYS subcomponent data tables

The SYS subcomponent data tables contain SYS usage information.

CP_CICS_SYS_DV

This view combines LPAR, Workload and CICS metrics, aggregated to a daily interval.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date of the interval.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
BUSINESS_APPL		CHAR (10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type. Possible values are: CP,IIP.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data type	Column description
WKLD_MIPS		FLOAT (8)	Workload MIPS used. Calculated using the LSPR MIPS capacity.
CICS_MIPS		FLOAT (8)	CICS MIPS used. Calculated using the LSPR MIPS capacity.
LPAR_MIPS		FLOAT (8)	LPAR MIPS used. Calculated using the LSPR MIPS capacity.

CP_CICS_SYS_HV

This view combines LPAR, Workload and CICS metrics, aggregated to a hourly interval.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date of the interval.
TIME		TIME (3)	Time of the interval.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
BUSINESS_APPL		CHAR (10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type. Possible values are: CP,IIP.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
WKLD_MIPS		FLOAT (8)	Workload MIPS used. Calculated using the LSPR MIPS capacity.
CICS_MIPS		FLOAT (8)	CICS MIPS used. Calculated using the LSPR MIPS capacity.
LPAR_MIPS		FLOAT (8)	LPAR MIPS used. Calculated using the LSPR MIPS capacity.

CP_CICS_SYS_TV

This view combines LPAR, Workload and CICS metrics, aggregated to a timestamp interval.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date of the interval.
TIME		TIME (3)	Time of the interval.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
BUSINESS_APPL		CHAR (10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.

Column name	Key	Data type	Column description
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type. Possible values are: CP,IIP.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
WKLD_MIPS		FLOAT (8)	Workload MIPS used. Calculated using the LSPR MIPS capacity.
CICS_MIPS		FLOAT (8)	CICS MIPS used. Calculated using the LSPR MIPS capacity.
LPAR_MIPS		FLOAT (8)	LPAR MIPS used. Calculated using the LSPR MIPS capacity.

CP_CICS_SYS_WV

This view combines LPAR, Workload and CICS metrics, aggregated to a weekly interval.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date of the interval.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
BUSINESS_APPL		CHAR (10)	Business application name, as derived from lookup table CP_BUSINESS_APPL.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type. Possible values are: CP,IIP.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
WKLD_MIPS		FLOAT (8)	Workload MIPS used. Calculated using the LSPR MIPS capacity.
CICS_MIPS		FLOAT (8)	CICS MIPS used. Calculated using the LSPR MIPS capacity.
LPAR_MIPS		FLOAT (8)	LPAR MIPS used. Calculated using the LSPR MIPS capacity.

TRAN subcomponent data tables

The TRAN subcomponent data tables contain TRAN usage information.

CP_CICS_TRAN_D

This table provides daily CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.

Column name	Key	Data type	Column description
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.

Column name	Key	Data type	Column description
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_TRAN_DV

This view provides daily CICS transaction statistics. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.

Column name	Key	Data type	Column description
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.

Column name	Key	Data type	Column description
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

CP_CICS_TRAN_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.

Column name	Key	Data type	Column description
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.

Column name	Key	Data type	Column description
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_TRAN_HV

This view provides hourly CICS transaction statistics. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.

Column name	Key	Data type	Column description
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.

Column name	Key	Data type	Column description
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.

Column name	Key	Data type	Column description
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

CP_CICS_TRAN_M

This table provides monthly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.

Column name	Key	Data type	Column description
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.

Column name	Key	Data type	Column description
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_TRAN_T

This table provides timestamp CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.

Column name	Key	Data type	Column description
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.

Column name	Key	Data type	Column description
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_TRAN_TV

This view provides CICS transaction statistics aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.

Column name	Key	Data type	Column description
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.

Column name	Key	Data type	Column description
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

CP_CICS_TRAN_W

This table provides weekly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.

Column name	Key	Data type	Column description
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.

Column name	Key	Data type	Column description
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.

Column name	Key	Data type	Column description
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.

CP_CICS_TRAN_WV

This view provides weekly CICS transaction statistics. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of USRCPUT.
DISPATCH_SEC		FLOAT (8)	Elapsed time for which tasks were dispatched, in seconds. This is the sum of USRDISPT.

Column name	Key	Data type	Column description
DISPATCH_WAIT_SEC		FLOAT (8)	Time that tasks were waiting for redispatch, in seconds. This is valid for CICS V3 and later. This is the sum of DISPWTT.
SUSPEND_SEC		FLOAT (8)	Total elapsed time, in seconds, for which tasks were suspended by the dispatcher. This is the sum of SUSPTIME.
RESPONSE_SEC		FLOAT (8)	Total response time for all tasks, in seconds. This is the sum of STOP - START.
RESPONSE_SEC_MAX		FLOAT (8)	Maximum response time for all tasks, in seconds. This is the maximum of STOP - START.
RESPONSE_SEC_MIN		FLOAT (8)	Minimum response time for all tasks, in seconds. This is the minimum of STOP - START.
TD_REQUESTS_TOTAL		FLOAT (8)	Total number of transient data requests. This is the sum of TDTOTCT.
TS_REQUESTS_TOTAL		FLOAT (8)	Total number of temporary storage requests. This is the sum of TSTOTCT.
PGM_LINK_REQUESTS		FLOAT (8)	Number of program LINK requests. This is the sum of PCLINKCT.
PGM_XCTL_REQUESTS		FLOAT (8)	Number of program XCTL (transfer control) requests. This is the sum of PCXCTLCT.
PGM_LOAD_REQUESTS		FLOAT (8)	Number of program LOAD requests. This is the sum of PCLOADCT.
FC_IO_WAIT_SEC		FLOAT (8)	File control I/O wait time, in seconds. This is the sum of FCIOWTT.
FC_REQUESTS_TOTAL		FLOAT (8)	Total number of file control requests. Incremented even if the request is function shipped. This is the sum of FCTOTCT.
FC_ACCESS_METHODS		FLOAT (8)	Number of file control access method calls. Not incremented if the request is function shipped. This is the sum of FCAMCT.
JC_IO_WAIT_SEC		FLOAT (8)	Journal control I/O wait time, in seconds. This is the sum of JCIOWTT.
EXCEPTION_WAIT_SEC		FLOAT (8)	Exception wait time, in seconds. This is the sum of EXWTTIME.
CHARS_INPUT_PRIME		FLOAT (8)	Number of characters received from the principal terminal. This is the sum of TCCHRIN1.
CHARS_OUTPUT_PRIME		FLOAT (8)	Number of characters sent to the principal terminal. This is the sum of TCCHROU1.
STORAGE_UDSA_MAX		FLOAT (8)	Peak user storage allocated below the 16MB line in the user dynamic storage area (UDSA), in bytes. This is the maximum of SCUSRHWM.
STORAGE_OCC_UDSA		FLOAT (8)	Storage occupancy below the 16MB line in the UDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTG.

Column name	Key	Data type	Column description
STORAGE_OCC_EUDSA		FLOAT (8)	Storage occupancy above the 16MB line in the EUDSA, in kilobyte-seconds. This measures the area under the curve of storage in use against elapsed time. This is the sum of SCUSRSTGE.
STORAGE_PGM_TOTAL		FLOAT (8)	Peak program storage both above and below the 16MB line, in bytes. This is the maximum of PCSTGHWM.
STORAGE_PGM_B16M		FLOAT (8)	Peak program storage below the 16MB line, in bytes. This includes CDSA and UDSA. This is the maximum of PC24BHWM.
DB2_REQUESTS		FLOAT (8)	Number of DB2 requests. This is the sum of DB2REQCT.
IMS_REQUESTS		FLOAT (8)	Number of IMS requests. This is the sum of IMSREQCT.
MQ_REQUESTS		FLOAT (8)	Number of MQ requests. This is the sum of WMQREQCT.
QR_TCB_SEC		FLOAT (8)	QR TCB seconds. This is the sum of QRCPUT_TOD/4096E6.
QR_DISPATCH_SEC		FLOAT (8)	QR dispatch seconds. This is the sum of QRDISPT_TOD/ 4096E6.
TRAN_BEL_SEC00005		FLOAT (8)	Number of transactions that completed in 0.005 seconds.
TRAN_BEL_SEC00025		FLOAT (8)	Number of transactions that completed in 0.025 seconds.
TRAN_BEL_SEC0005		FLOAT (8)	Number of transactions that completed in 0.05 seconds.
TRANS_BELOW_SEC001		FLOAT (8)	Number of transactions that completed in 0.1 seconds.
TRAN_BELOW_SEC0025		FLOAT (8)	Number of transactions that completed in 0.25 seconds.
TRANS_BELOW_SEC005		FLOAT (8)	Number of transactions that completed in 0.5 seconds.
TRANS_BELOW_SEC010		FLOAT (8)	Number of transactions that completed in 1.0 seconds.
TRANS_BELOW_SEC015		FLOAT (8)	Number of transactions that completed in 1.5 seconds.
TRANS_BELOW_SEC020		FLOAT (8)	Number of transactions that completed in 2.0 seconds.
TRANS_BELOW_SEC030		FLOAT (8)	Number of transactions that completed in 3.0 seconds.
TRANS_BELOW_SEC050		FLOAT (8)	Number of transactions that completed in 5.0 seconds.
TRANS_BELOW_SEC100		FLOAT (8)	Number of transactions that completed in 10.0 seconds.
TRANS_MAX_SEC		FLOAT (8)	Number of transactions that completed in 10.0+ seconds.
CPU_AVG_SEC		FLOAT (8)	Average transaction processor time, in seconds. Calculated as CPU_SEC/RECORDS.
RESPONSE_AVG_SEC		FLOAT (8)	Average transaction response time, in seconds. Calculated as RESPONSE_AVG_SEC/RECORDS.
DISPATCH_AVG_SEC		FLOAT (8)	Average transaction dispatch time, in seconds. Calculated as DISPATCH_SEC/RECORDS.
SUSPEND_AVG_SEC		FLOAT (8)	Average time, in seconds, when tasks were suspended by the dispatcher. Calculated as SUSPEND_SEC/RECORDS.
QR_RATIO		FLOAT (8)	Transaction ratio of accumulated CPU time to accumulated dispatch time. Calculated as QR_TCB_SEC/ QR_DISPATCH_SEC*100.

TRANC subcomponent data tables

The TRANC subcomponent data tables contain TRANC usage information.

CP_CICS_TRANC_D

This table provides daily CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time.

Column name	Key	Data type	Column description
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_TRANC_H

This table provides hourly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The hour when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_SEC		FLOAT (8)	Total CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

Column name	Key	Data type	Column description
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.

CP_CICS_TRANC_T

This table provides timestamp CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME	K	TIME (3)	The time when the performance records were initialized. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

CP_CICS_TRANC_W

This table provides weekly CICS transaction metrics for capacity planning. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT	K	CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID	K	CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID	K	CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID	K	CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE	K	CHAR (4)	Name of the logical processor type. Possible values are: CP,IIP.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
NUM_RECORDS		INTEGER (4)	Number of records aggregated.
CPU_USED_AVG		FLOAT (8)	Average CPU used in seconds.
CPU_PEAK_AVG		FLOAT (8)	Average peak CPU time during the day, in seconds.
CPU_PEAK		FLOAT (8)	Peak CPU seconds observed on SMF interval level.
CPU_SEC		FLOAT (8)	CPU time, in seconds. This is the sum of CPUTONCP or USRCPUT-CPUTONCP.

TRANM subcomponent data tables

The TRANM subcomponent data tables contain TRANM usage information.

CP_CICS_TRANM_DV

This view provides CICS transaction MIPS aggregated to a daily interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used, during the day. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used, during the day. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).

Column name	Key	Data type	Column description
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_TRANM_HV

This view provides CICS transaction MIPS aggregated to an hourly interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.
MIPS_USED_AVG		FLOAT (8)	Average MIPS used, during the hour. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.

Column name	Key	Data type	Column description
MIPS_USED_TOT		FLOAT (8)	Total MIPS used, during the hour. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_TRANM_TV

This view provides CICS transaction MIPS aggregated to a specified interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
TIME		TIME (3)	The hour when the performance records were initialized. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC		FLOAT (8)	Length of the SMF interval, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data type	Column description
MIPS_USED_AVG		FLOAT (8)	Average MIPS used during the SMF interval. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used during the SMF interval. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_CICS_TRANM_WV

This view provides CICS transaction MIPS aggregated to a weekly interval. It contains information from CICS performance monitoring records SMF type 110.

Column name	Key	Data type	Column description
DATE		DATE (4)	Date when the performance records were initialized. This is normally the task start date. From START.
SHIFT		CHAR (10)	Name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT_NM.
MVS_SYSTEM_ID		CHAR (4)	MVS system ID. This is the SMF system ID. From SMFMNSID.
CICS_SYSTEM_ID		CHAR (8)	CICS generic APPLID. This is the VTAM application ID that is used when requesting a session with this CICS system. From SMFMNPRN.
TRANSACTION_ID		CHAR (4)	Transaction name. From TRAN.
PROCESSOR_TYPE		CHAR (4)	Name of the logical processor type.
TERMINAL_ID		CHAR (4)	Terminal identifier. From TERM.
LU_NAME		CHAR (8)	VTAM logical unit name (if available) of the terminal associated with this transaction. From LUNAME.
OPERATOR_ID		CHAR (3)	Operator identification at task creation. From OPR.
USER_ID		CHAR (8)	User ID at task creation. This can also be the remote user ID for a task created as the result of receiving an ATTACH request across an MRO or APPC link with attach-time security. From USERID.
TRANSACTION_TYPE		CHAR (4)	Transaction start type. From T.
BRIDGE_TRANS_ID		FLOAT (8)	3270 Bridge transaction identification. From BRDGTRAN.
WORKLOAD_SERVCLASS		CHAR (8)	MVS Workload Manager (WLM) service class for this transaction. This field is null if the transaction was WLM-classified in another CICS region. From SRVCLASS.
MEASURED_SEC_TOT		FLOAT (8)	Sum of all SMF intervals, in seconds.
RECORDS		FLOAT (8)	Total number of performance class monitoring records. This is the number of log records summarized.
TRAN_COUNT		FLOAT (8)	Total number of performance class monitoring records with RTYPE = T indicating task termination. This is valid for CICS V3 and later. See RECORDS for earlier versions of CICS.

Column name	Key	Data type	Column description
MIPS_USED_AVG		FLOAT (8)	Average MIPS used, during the week. Calculated as CPU_USED/ (TOT_PHYS_PROC*MEASURED_SEC_TOT)*CEC_MIPS.
MIPS_USED_TOT		FLOAT (8)	Total MIPS used, during the week. Calculated as CPU_USED * (CEC_MIPS/TOT_PHYS_PROC).
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

Reports

IBM Z Performance and Capacity Analytics provides many types of reports that use curated historical data to provide predictive analysis both for managing future resource needs and to ensure that capacity shortfalls do not occur.

The forecasting features in the reports enable you to use data-driven practices to more accurately determine when the environment will reach a capacity threshold and require hardware upgrades. This can help you plan upgrades in a timely way that can enable you to save money and maintain business service levels.

The reports are grouped by subcomponent of the Capacity Planning for CICS component:

- CPU
- Storage
- Channel
- Disk
- Tape

CICS MVS System Analysis

CICS MVS System Analysis report show CICS volume and CPU utilization by MVS system level.

This information identifies the report:

Report ID
CPCICS01

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_REGN_DV

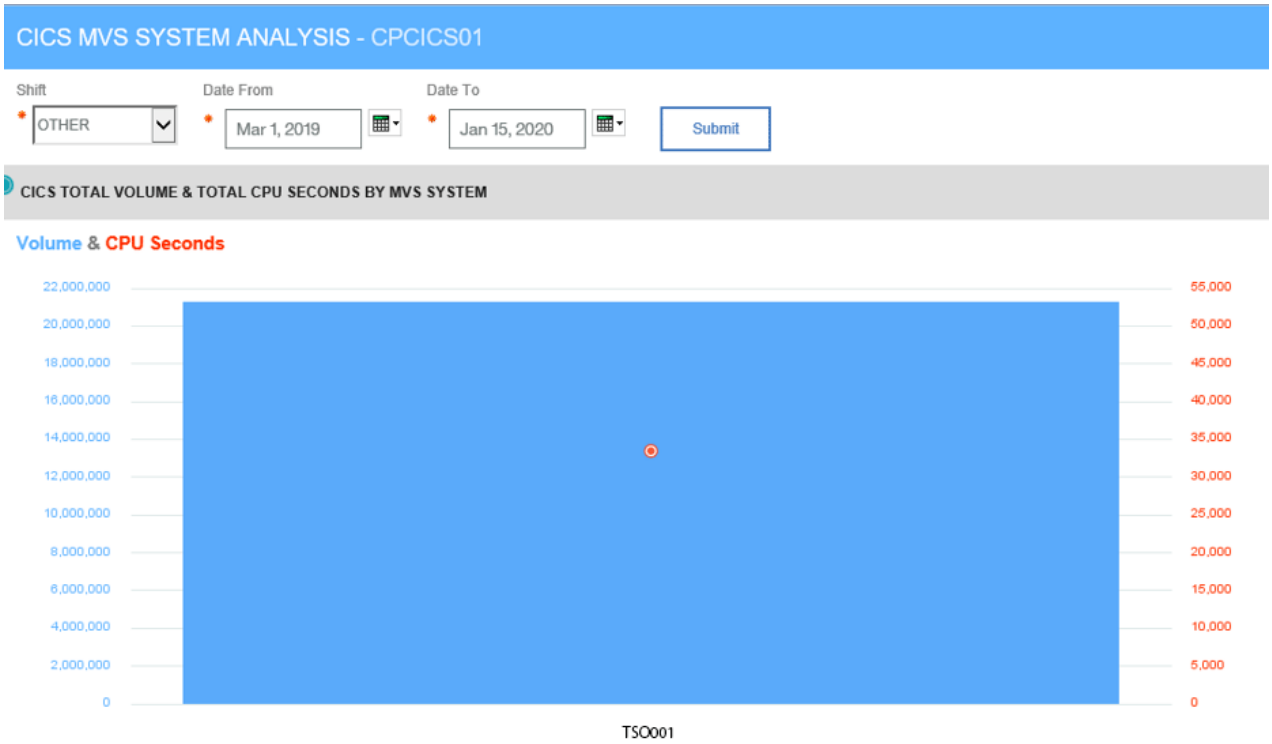


Figure 48. CICS Total Volumes & Total CPU Seconds by MVS System report

The report contains this information:

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU Seconds utilized per system

CICS Region Analysis

This information identifies the report:

Report ID
CPCICS02

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_REGN_DV

Figure 49. CICS Region Total Volume & CPU Seconds report

The report contains this information:

Transaction ID
Transaction ID

CICS Region ID
CICS ID by region

CPU Seconds
CPU utilization in seconds

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CICS Usage Trend Analysis Hourly Daily/Weekly

This information identifies the report:

Report ID
CPCICS03 / CPCICS04 / CPCICS05

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRAN_D / CP_CICS_TRAN_W

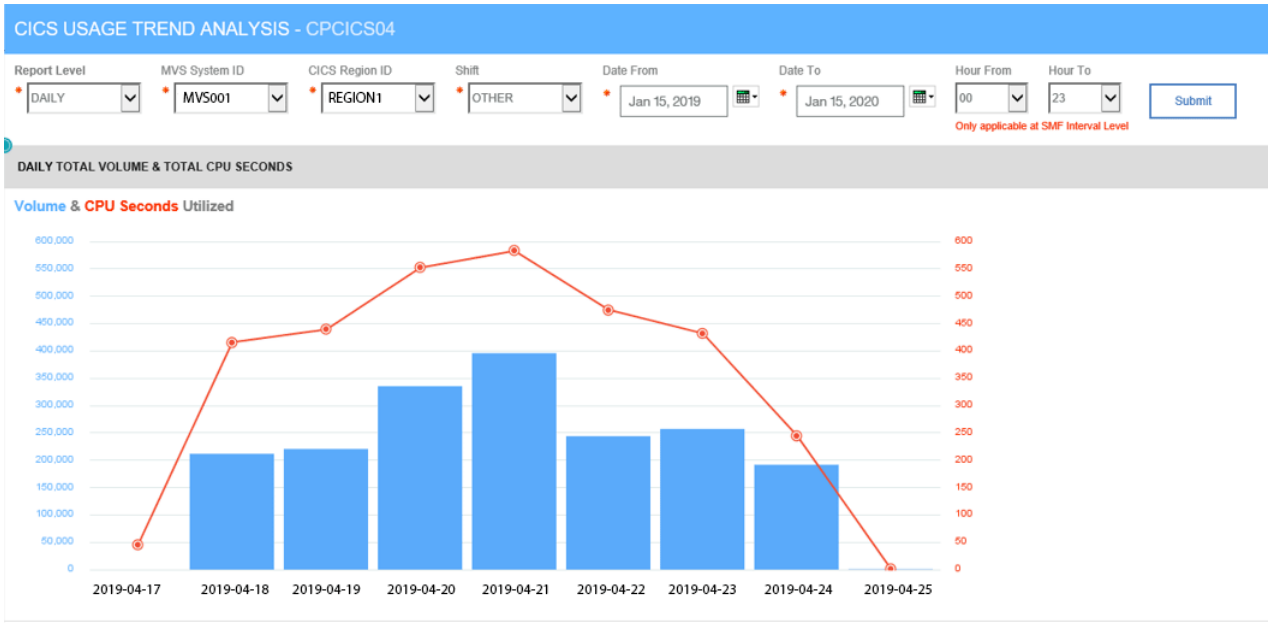


Figure 50. CICS Daily Total Volume & Total CPU Seconds report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Total Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

Total CPU Seconds
Total CPU utilization in seconds

CICS Top Consumers Hourly/Daily/Weekly

This information identifies the report:

Report ID
CPCICS07 / CPCICS08 / CPCICS09

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRAN_W, CP_CICS_TRAN_D, CP_CICS_TRAN_H

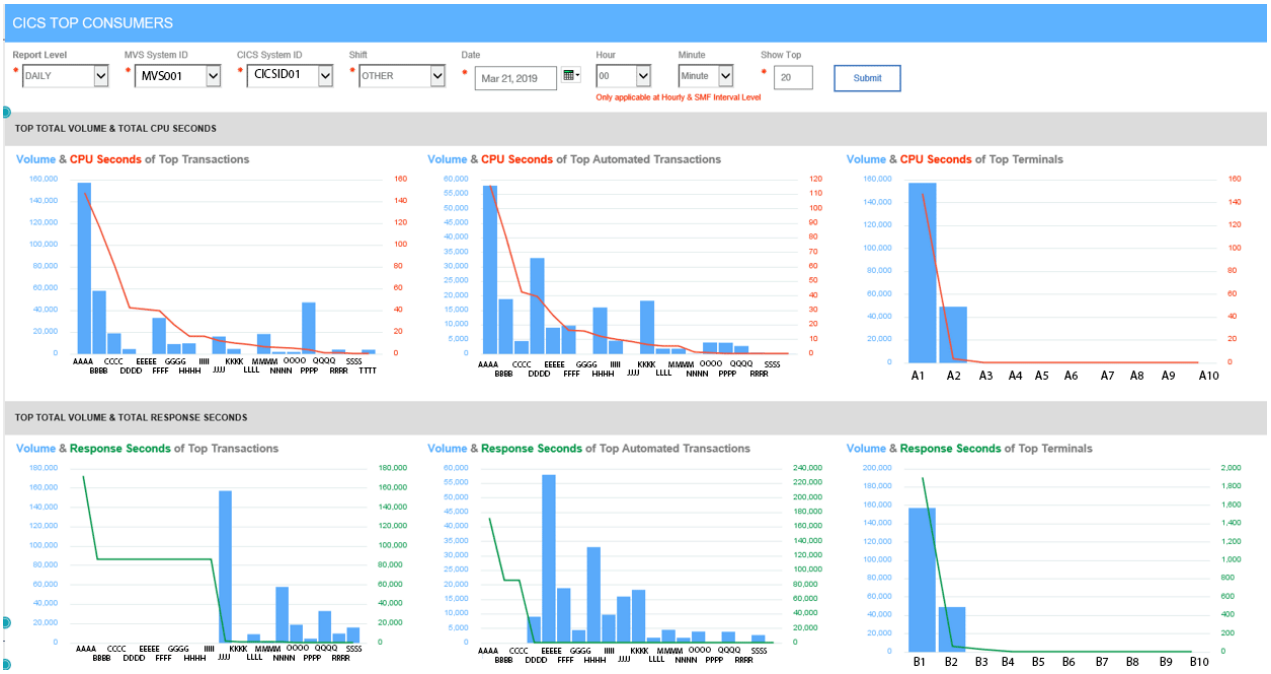


Figure 51. CICS Top Consumers report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Response Seconds
Response time in seconds

CICS Transaction Detail Analysis Hourly/Daily/Weekly

This information identifies the report:

Report ID
CPCICS11 / CPCICS12 / CPCICS13

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRAN_W, CP_CICS_TRAN_D, CP_CICS_TRAN_H

Attributes

MVS, CAPACITY, CEC, HOURLY/DAILY/WEEKLY

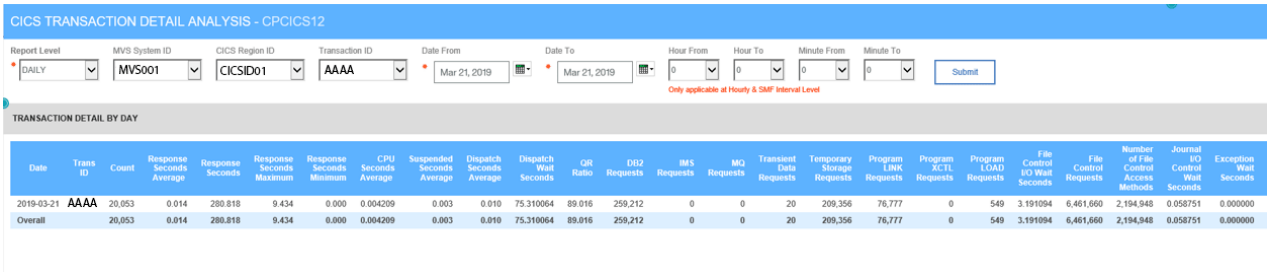


Figure 52. CICS Transaction Detail by Day report

The report contains this information:

Date
The date the report is targeting

Transaction ID
ID of the Transaction

Count
Number of transactions per ID

Response Seconds Average
Average response time in seconds

Response Seconds
Response time in seconds across all transaction associated with the transaction ID

Response Seconds Maximum
Maximum response time of any one transaction associated with that ID

Response Seconds Minimum
Minimum repose time of any one transaction associated with that ID

CPU Seconds Average
Average CP time spent on

Suspended Seconds Average
Average time spent in the Suspended state, in seconds

Dispatch Seconds Average
Average time spent in the Dispatch state, in seconds

Dispatch Wait Seconds
Time spent in Dispatch Wait state, in seconds

QR Ratio
Quasi-Reentrant ratio during measurement period

Db2 Requests
Number of Db2 requests

IMS Requests
Number of IMS requests

MQ Requests
Number of MQ requests

Transient Data Requests
Total number of transient data requests

Temporary Storage Requests
Total number of temporary storage requests

Program LINK Requests
Number of LINK requests

Program XCTL Requests
Number of XCTL requests

Program LOAD Requests
Number of LOAD requests

File Control I/O Wait Seconds
I/O Wait time, in seconds

File Control Requests
Number of file control requests made

Number of File Control Access Methods
Total number of available file control access methods

Journal I/O Control Wait Seconds
Number of MVS logger control wait seconds

Exception Wait Seconds
Number of seconds spent in WAIT due to exception

CICS Application Service Level Agreement

This information identifies the report:

Report ID
CPCICS16

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_APPL_D

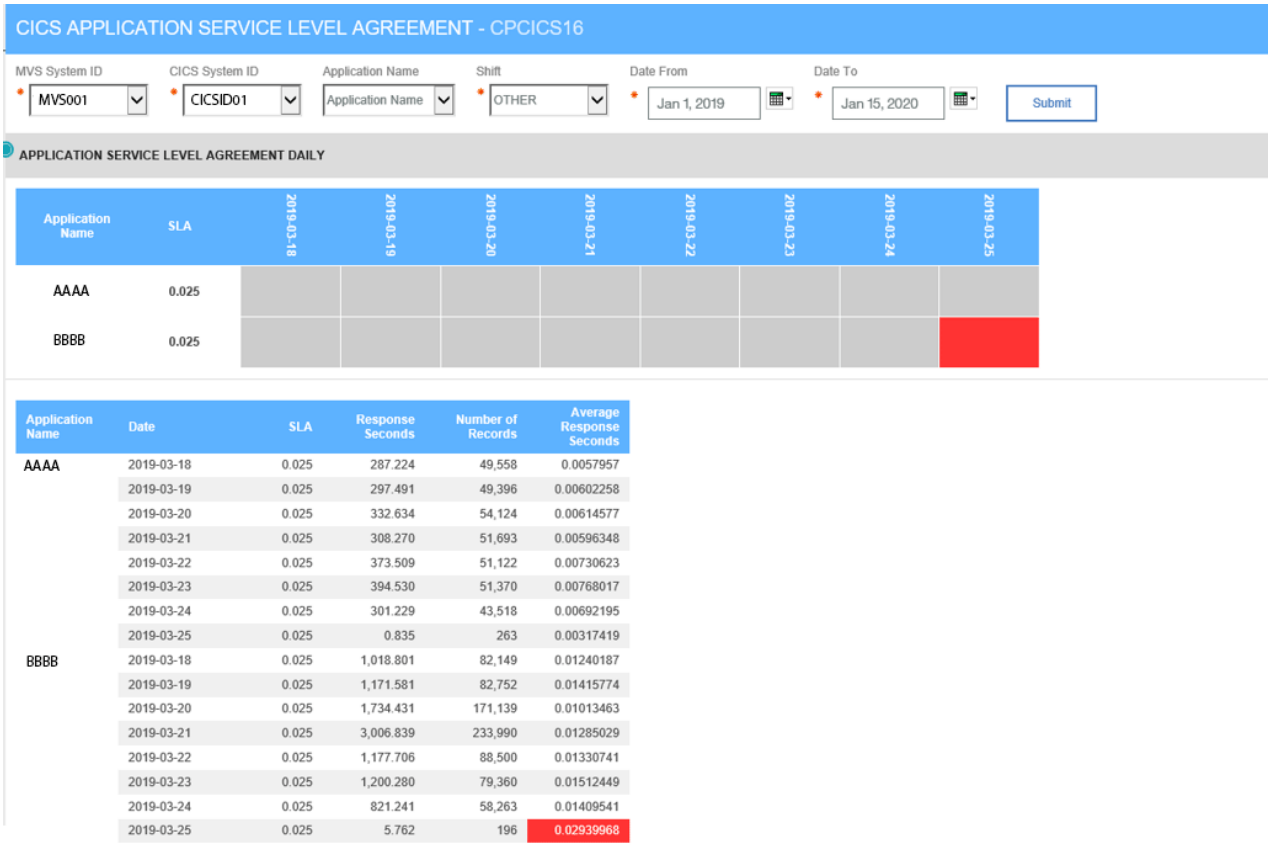


Figure 53. CICS Application Service Level Agreement Daily report

The report contains this information:

Application Name
Name of the application being reported on

Time of day / Date
Time of day / date of the measurement.

SLA
Service level analysis

Response Seconds
Total number of seconds spent per period on response

Number of Records
Number of records per period

Average Response Seconds
Average response time to individual records during measurement period

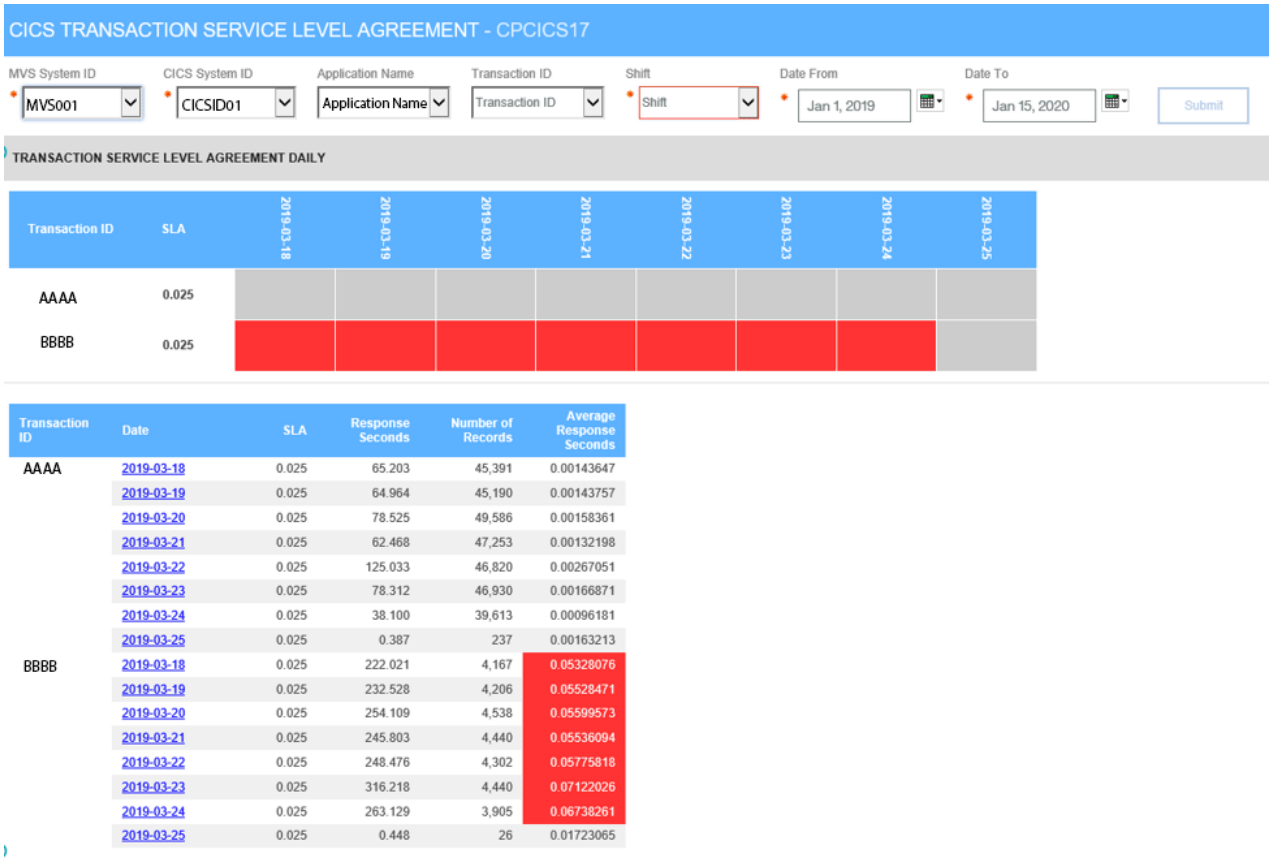
CICS Transaction Service Level Agreement

This information identifies the report:

Report ID
CPCICS17

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRAN_D



Transaction ID	Date	SLA	Response Seconds	Number of Records	Average Response Seconds
AAAA	2019-03-18	0.025	65.203	45,391	0.00143647
	2019-03-19	0.025	64.964	45,190	0.00143757
	2019-03-20	0.025	78.525	49,586	0.00158361
	2019-03-21	0.025	62.468	47,253	0.00132198
	2019-03-22	0.025	125.033	46,820	0.00267051
	2019-03-23	0.025	78.312	46,930	0.00166871
	2019-03-24	0.025	38.100	39,613	0.00096181
	2019-03-25	0.025	0.387	237	0.00163213
BBBB	2019-03-18	0.025	222.021	4,167	0.05328076
	2019-03-19	0.025	232.528	4,206	0.05528471
	2019-03-20	0.025	254.109	4,538	0.05599573
	2019-03-21	0.025	245.803	4,440	0.05536094
	2019-03-22	0.025	248.476	4,302	0.05775818
	2019-03-23	0.025	316.218	4,440	0.07122026
	2019-03-24	0.025	263.129	3,905	0.06738261
	2019-03-25	0.025	0.448	26	0.01723065

Figure 54. CICS Transaction Service Level Agreement Daily report

The report contains this information:

Transaction ID
ID of the transaction

Time of day / Date
Time of day / date of the measurement.

SLA
Service level agreement

Response Seconds
Total number of seconds spent per period on response

Number of Records
Number of records per period

Average Response Seconds
Average response time to individual records during measurement period

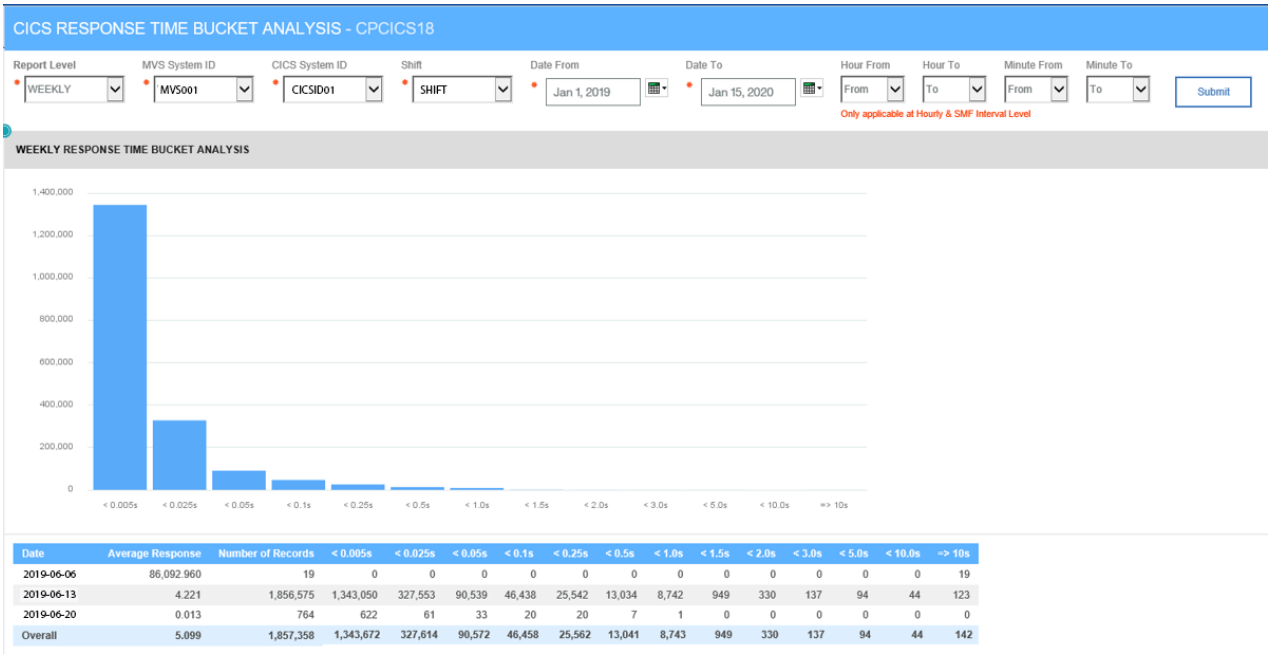
CICS Response Time Bucket Analysis SMF Interval/Hourly/Daily/Weekly

This information identifies the report:

Report ID
CPCICS18 / CPCICS19 / CPCICS20

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRAN_WV / CP_CICS_TRAN_DV / CP_CICS_TRAN_HV/ CP_CICS_TRAN_TV



Date	Average Response	Number of Records	< 0.005s	< 0.025s	< 0.05s	< 0.1s	< 0.25s	< 0.5s	< 1.0s	< 1.5s	< 2.0s	< 3.0s	< 5.0s	< 10.0s	=> 10s
2019-06-06	86,092.960	19	0	0	0	0	0	0	0	0	0	0	0	0	19
2019-06-13	4.221	1,856,575	1,343,050	327,553	90,539	46,438	25,542	13,034	8,742	949	330	137	94	44	123
2019-06-20	0.013	764	622	61	33	20	20	7	1	0	0	0	0	0	0
Overall	5.099	1,857,358	1,343,672	327,614	90,572	46,458	25,562	13,041	8,743	949	330	137	94	44	142

Figure 55. CICS Weekly Response Time Bucket Analysis report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Average Response
Average response time

Number of Records
Number of records per period

<Times>
Number of records resolved within specific time brackets

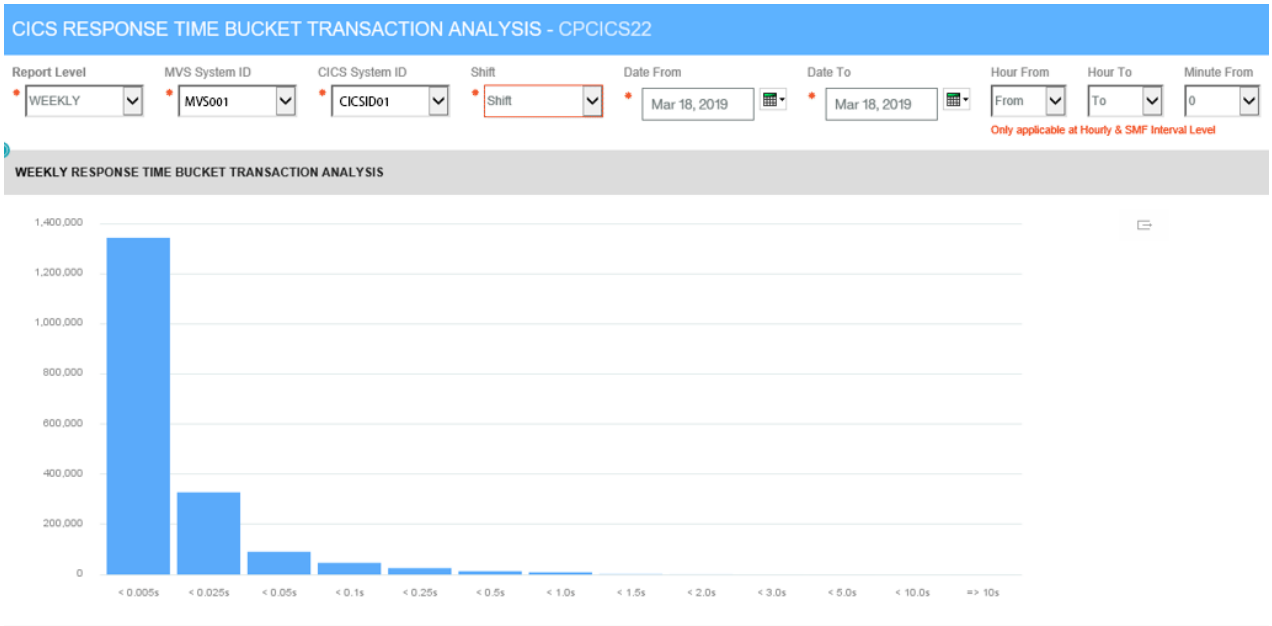
CICS Response Time Bucket Transaction Analysis SMF Interval/Hourly/ Daily/Weekly

This information identifies the report:

Report ID
CPCPU01 / CPCPU05 / CPCPU06

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CPU_LPAR_WV / CP_CPU_LPAR_DV / CP_CPU_LPAR_HV / CP_CICS_TRAN_TV



Date	Trans ID	Average Response	Number of Records	< 0.005s	< 0.025s	< 0.05s	< 0.1s	< 0.25s	< 0.5s	< 1.0s	< 1.5s	< 2.0s	< 3.0s	< 5.0s	< 10.0s	=> 10s
2019-06-06	AAAA	0.009	73	33	37	3	0	0	0	0	0	0	0	0	0	0
	BBBB	0.318	37	0	14	4	4	10	3	0	0	0	0	2	0	0
	CCCC	0.108	4	0	0	0	2	2	0	0	0	0	0	0	0	0
	DDDD	0.000	11,199	11,177	21	1	0	0	0	0	0	0	0	0	0	0
	EEEE	0.006	131	113	15	2	1	0	0	0	0	0	0	0	0	0
	FFFFF	0.014	110,301	72,695	26,787	5,827	1,719	2,324	847	94	5	0	2	0	1	0
	GGGG	0.012	59,200	42,695	9,084	3,425	2,960	995	33	7	0	0	0	0	0	1

Figure 56. CICS Response Time Bucket Transaction Analysis report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Trans ID
ID of the transaction

Average Response
Average response time

Number of Records
Number of records per period

<Times>
Number of records resolved within specific time brackets

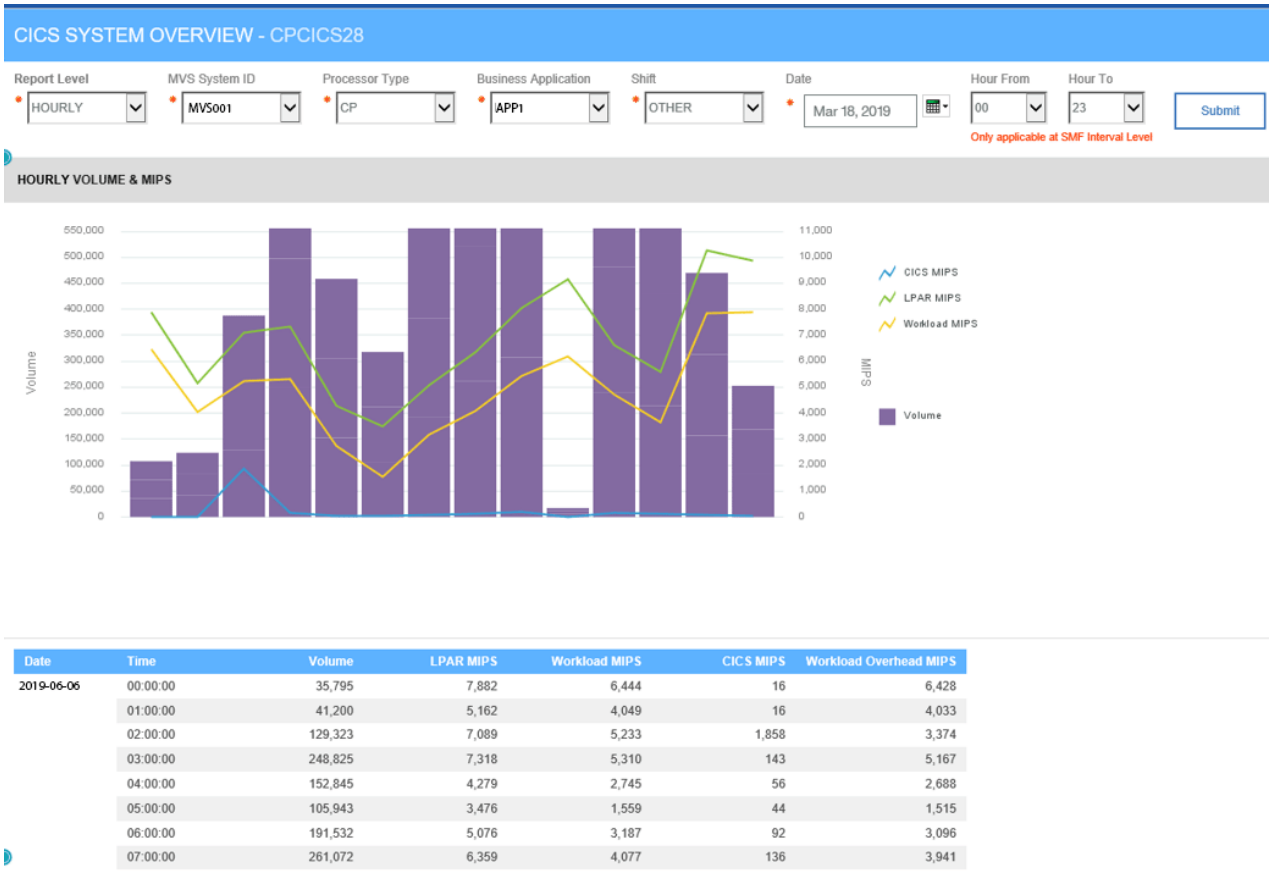
CICS System Overview SMF Interval/Hourly

This information identifies the report:

Report ID
CPCICS26 / CPCICS27 / CPCICS28

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CPU_SYS_HV / CP_CPU_SYS_TV



Date	Time	Volume	LPAR MIPS	Workload MIPS	CICS MIPS	Workload Overhead MIPS
2019-06-06	00:00:00	35,795	7,882	6,444	16	6,428
	01:00:00	41,200	5,162	4,049	16	4,033
	02:00:00	129,323	7,089	5,233	1,858	3,374
	03:00:00	248,825	7,318	5,310	143	5,167
	04:00:00	152,845	4,279	2,745	56	2,688
	05:00:00	105,943	3,476	1,559	44	1,515
	06:00:00	191,532	5,076	3,187	92	3,096
	07:00:00	261,072	6,359	4,077	136	3,941

Figure 57. CICS Hourly Volume & MIPS report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

LPAR MIPS
MIPS utilized by the LPAR during the measurement period

Workload MIPS
MIPS utilized by the Workload during the measurement period

CICS MIPS
MIPS utilized by CICS during the measurement period

Workload Overhead MIPS
Overhead estimate of MIPS requirement when compared to actual MIPS utilization

CICS Top Transactions by Service Class Weekly/Daily/Hourly/SMF Interval

This information identifies the report:

Report ID
CPCICS30 / CPCICS31 / CPCICS32

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_TRANM_WV / CP_CICS_TRANM_DV / CP_CICS_TRANM_HV / CP_CICS_TRANM_TV

Attributes
MVS, CAPACITY, CEC, MIPS, HOURLY/DAILY/WEEKLY

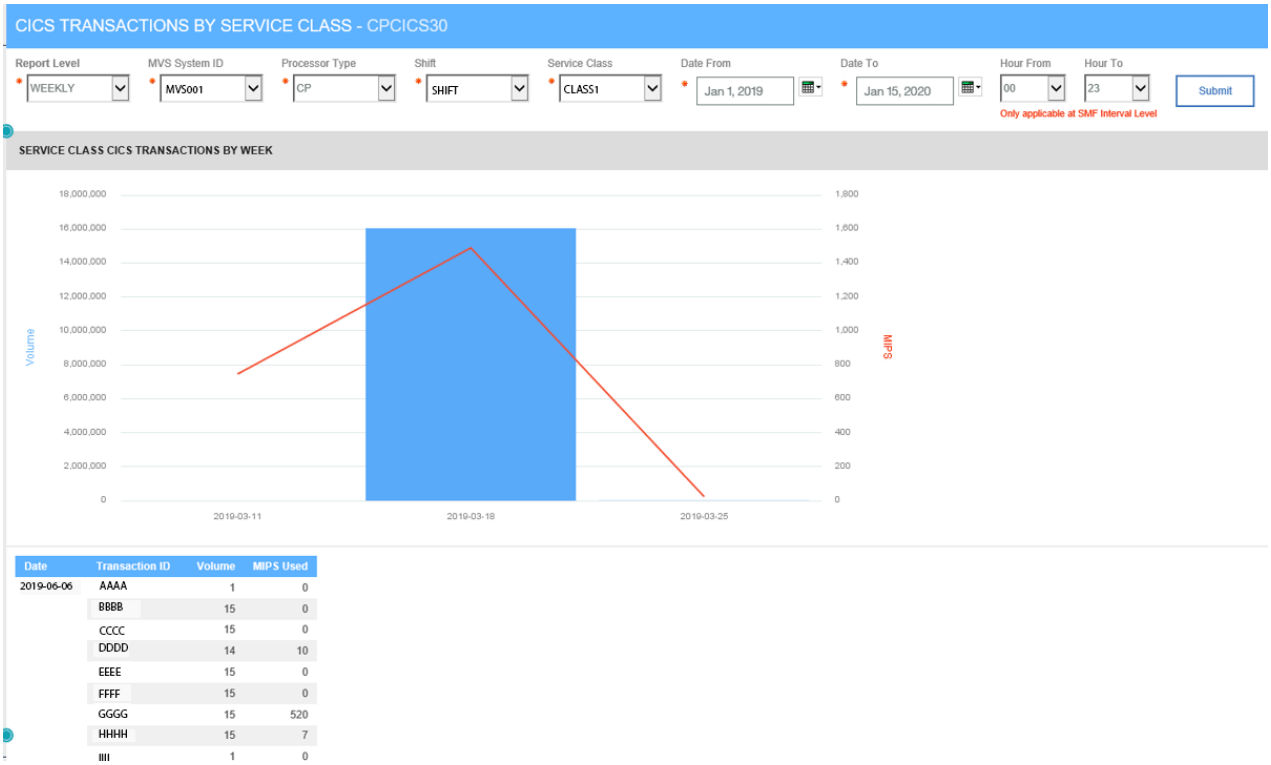


Figure 58. Service class CICS transactions by Week report

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Transaction ID
Transaction Identification

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

MIPS Used
Total volume of MIPS used during the measurement

CICS Region Transaction Forecast

This information identifies the report:

Report ID
CPCICS15

Report group
Capacity Planning - Capacity Planning CICS

Source
CP_CICS_REGN_F, CP_CICS_REGN_W

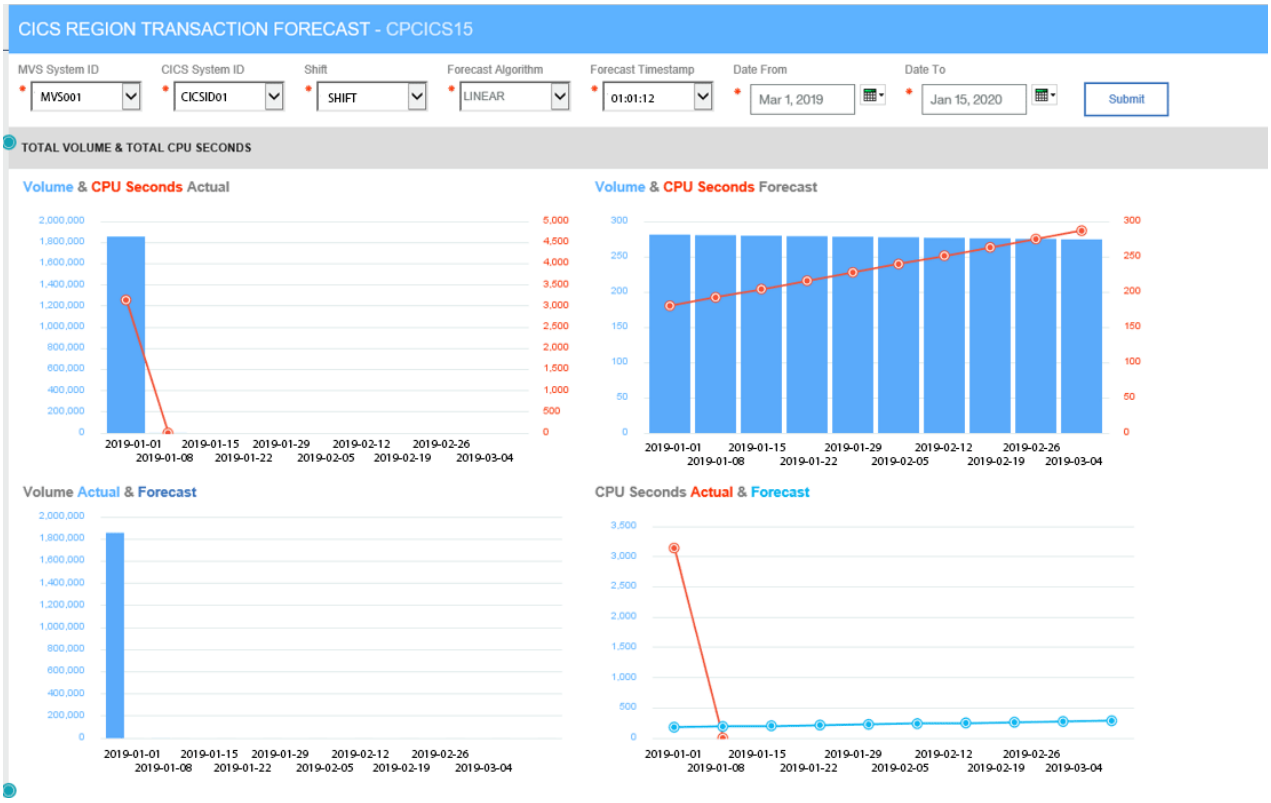


Figure 59. CICS Total Volume & Total CPU seconds reports

The report contains this information:

Time of day / Date
Time of day / date of the measurement.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU seconds
CPU utilization in seconds

Volume Forecast
Forecast transaction count

CPU Seconds Forecast
Forecast CPU utilization

Chapter 4. Capacity Planning for IMS

The Capacity Planning for IMS reports are designed to provide a routine health check of your IMS system, whilst also providing drill-down reporting, enabling investigation of anomalies.

Installing and configuring Capacity Planning for IMS

Before you begin

Before installing Capacity Planning for IMS, ensure you have already installed the Capacity Planning for z/OS CPU component.

About this task

Before you install the Capacity Planning for IMS component, you must also do the following steps.

Procedure

1. Decide which subcomponents to install.
2. Make input data available.
3. Customize.

Making input data available

Ensure that the IMS 56FA records are available for processing by IBM Z Performance and Capacity Analytics. See the *IMS Performance Feature Guide and Reference* for details on how to collect these records.

Lookup tables

IBM Z Performance and Capacity Analytics uses lookup tables and control tables to contain user-specified parameters specific to your installation. These tables are used when storing data in the IBM Z Performance and Capacity Analytics database and must be configured before data collection and reporting.

Lookup tables
The lookup tables contain installation-specific parameters including Capacity Planning periods, time intervals and System Identifiers.

Configuring lookup tables

The Capacity Planning for IMS component uses several lookup tables when storing data in the IBM Z Performance and Capacity Analytics database. Before collecting any data, you must update the lookup tables to include parameters that are specific to your installation.

Procedure

1. To update each of the following lookup tables, copy the corresponding member from *HLQ*.SDRLDEFS to your *HLQ*.LOCAL.DEFS data set, then edit the sample INSERT statements to suit your requirements.

© Copyright IBM Corp. 2018, 2021

Table 19. Lookup tables		
Table name	**Lookup table function**	**Member in *HLQ*.SDRLDEFS**
CP_SHIFT	To define capacity planning shifts. For example: Online or Batch.	DRLTCPL2
CP_TIME_RES	To define the time interval to use for each row of data stored in a set of tables.	DRLTCPL6

2. To map IMS System ID to MVS System IDs and Sysplex names the table IMS_SYSTEM_NAMES is used. Customize and run the migration job DRLJCP09 in HLQ.SDRLCNTL in order to populate this table with the correct IMS and MVS system IDs.

Data tables

The Capacity Planning for IMS component has various data tables within each subcomponent.

Naming conventions for data tables

The names of the data tables use this format:

CP_*tablename_suffix*

Where:

- ***suffix*** indicates the summarization level of the data in the table, or whether the table is populated by the Forecaster. A table name can have these suffixes:

  A table name can have these summarization-level suffixes:

  _F
  The table is populated by the Forecaster, and holds forecasting data

  _T
  The table holds data summarized to interval level. The default interval is 15 minutes.

  _H
  The table holds data summarized by hour (hourly data)

  _D
  The table holds data summarized by day (daily data)

  _W
  The table holds data summarized by week (weekly data)

  _M
  The table holds data summarized by month (monthly data)

Table descriptions

Each table description includes information about the table, a description of each of the key columns, and a description of each of the data columns:

Key columns
Marked K and form the primary key. They are sorted in the sequence they appear in the table.

Data columns
They follow the last key column and are sorted in the sequence they appear in the table

Transaction Level tables

The Transaction level data tables contain transaction level usage information.

CP_IMS_TRAN_T

This table contains IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the transaction. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The User ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES..
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.

Column name	Key	Data type	Column description
IMS_VERSION		CHAR (4)	The IMS version of the log that was processed to obtain this data.

CP_IMS_TRAN_H

This table contains hourly IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The Sysplex name that the resource is associated with. From lookup table IMS_SYSTEM_NAMES.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.

Column name	Key	Data type	Column description
CPU_USED_TOT		FLOAT (4)	The sum of CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_TRAN_D

This table contains daily Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with. This can contain global search characters.

Column name	Key	Data type	Column description
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The sum of CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_TRAN_W

This table contains weekly level statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS System ID that the resource is associated with. This can contain global search characters.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.

Column name	Key	Data type	Column description
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with. This can contain global search characters.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The sum of CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_TRAN_M

This table contains monthly Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.

Column name	Key	Data type	Column description
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with. This can contain global search characters.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The sum of CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

Region Level tables

The Region level tables contain Region Level usage information.

CP_IMS_REGN_T

This table contains IMS Region Level Statistics at interval level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.

Column name	Key	Data type	Column description
CPU_USED		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGN_H

This table contains hourly IMS Region Level Statistics information for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGN_D

This table contains daily Region Level Statistics information for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.

Column name	Key	Data type	Column description
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGN_W

This table contains weekly Region Level Statistics information for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.

Column name	Key	Data type	Column description
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGN_M

This table contains monthly Region Level Statistics information for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGN_F

This table contains forecast Region Level Statistics information for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The date to which the forecast applies.
AGGR_LEVEL	K	CHAR (1)	The aggregation level of the data contained in this table. D = Daily, W = Weekly M = Monthly.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
F_ALGORITHM	K	CHAR (10)	The algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTMP(10)	The timestamp of the forecast.
CPU_USED_TOT		FLOAT (8)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (8)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
F_CPU_USED_TOT		FLOAT (8)	The forecast total CPU seconds used.
F_CPU_PEAK		FLOAT (8)	The forecast peak CPU seconds used.
F_TRANSACTIONS		FLOAT (8)	The forecast number of transactions.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.

Region Transaction Level tables

The Region Transaction level views contain Region Transaction Level usage information.

CP_IMS_REGNT_T

This table contains IMS Region Transaction Level Statistics at interval level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.

Column name	Key	Data type	Column description
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGNT_H

This table contains IMS Region Transaction Level Statistics at hourly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGNT_D

This table contains IMS Region Transaction Level Statistics at daily level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.

Column name	Key	Data type	Column description
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGNT_W

This table contains IMS Region Transaction Level Statistics at weekly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

CP_IMS_REGNT_M

This table contains IMS Region Transaction Level Statistics at monthly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The sum of the CPU execution time for the Unit Of Recovery. From TPEXTUOR.
CPU_PEAK		FLOAT (4)	The maximum CPU execution time recorded.
MEASURED_SEC		INTEGER (4)	The number of seconds in one reporting interval. From lookup table CP_TIME_RES.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
IMS_VERSION		CHAR (4)	The IMS Version of the log that was processed to obtain this data.

Transaction Level views

The Transaction level views contain transaction level usage information.

CP_IMS_TRAN_TV

This view contains IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.

Column name	Key	Data type	Column description
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_TRAN_HV

This view contains hourly level IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.

Column name	Key	Data type	Column description
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_TRAN_DV

This view contains daily level IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.

Column name	Key	Data type	Column description
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_TRAN_WV

This view contains weekly level IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.

Column name	Key	Data type	Column description
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_TRAN_MV

This view contains monthly level IMS Transaction Level Statistics information for transaction name

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
ORIGIN_IMS	K	CHAR (8)	The IMS system ID. From TPIMSID.
PSB_NAME	K	CHAR (8)	The name of the IMS program used to process the transaction. This column contains the program specification block (PSB). From TPCPPSB.
TRANSACTION_NAME	K	CHAR (8)	The name of the IMS transaction user requested. From TPTRAN.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
PROCESS_IMS	K	CHAR (8)	The IMS process ID. From TPCPOSSN.
PROGRAM_NAME	K	CHAR (8)	The program name. From TPPGMNM.
PST_ID	K	CHAR (8)	The IMS assigned number for partition spec table(PST) mgt and control info for dependent region that processed the tran. From TPCPSTN.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
LTERM_NAME	K	CHAR (8)	The name of the logical terminal on which the activity occurred. From TPLTERM.
USER_ID	K	CHAR (8)	The user ID of the message processed in this dependent region. From TPCPUSID, or if TPCPUSID is blank, zero, or xFF the User ID is set from the value of TPTYPE: x01 = $MPP, X02 = $BMP, x10 = $CPIC-C, x21 = $JMP, x22 = $JBL.
SYSPLEX_NAME		CHAR (8)	The sysplex name that the resource is associated with.
GROUP_NAME		CHAR (8)	The group name for non RACF users, otherwise set to unknown. From TPCPGRPN.
TRANSACTION_CLASS		CHAR (4)	The transaction class. From TPCLASS.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.

Column name	Key	Data type	Column description
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

Region Level views

The Region level views contain Region Level usage information.

CP_IMS_REGN_TV

This view contains IMS Region Level Statistics at interval level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGN_HV

This view contains IMS Region Level Statistics at hourly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.

Column name	Key	Data type	Column description
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGN_DV

This view contains IMS Region Level Statistics at daily level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.

Column name	Key	Data type	Column description
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGN_WV

This view contains IMS Region Level Statistics at weekly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.

Column name	Key	Data type	Column description
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGN_MV

This view contains IMS Region Level Statistics at monthly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGN_FV

This view contains IMS Region Level forecast statistics for region name and region type.

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The date to which the forecast applies.
AGGR_LEVEL	K	CHAR (1)	The aggregation level of the data contained in this table. i.e. D = Daily W = Weekly.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
REGION_JOB_NAME	K	CHAR (8)	The MVS and JES identified job for IMS dependent region. This column uniquely identifies the transaction processing activity for each region, because the region id or PST ID can be reused by IMS. From TPJOBN.
F_ALGORITHM	K	CHAR (10)	The algorithm used by the forecaster.
F_TIMESTAMP	K	TIMESTMP(10)	The timestamp of the forecast.
F_MIPS_USED_AVG		FLOAT (8)	The forecast average CPU execution time in MIPS.
F_MIPS_PEAK		FLOAT (8)	The forecast peak CPU execution time in MIPS.
MEASURED_SEC		INTEGER (4)	The number of seconds in a reporting interval. From lookup table CP_TIME_RES.
F_TRANSACTIONS		FLOAT (8)	The forecast number of transactions.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

Region Transaction Level views

The Region Transaction Level views contain Region Transaction Level usage information.

CP_IMS_REGNT_TV

This view contains IMS Region Level Statistics at interval level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the UOR. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.

Column name	Key	Data type	Column description
MEASURED_SEC		INTEGER (4)	The number of seconds in this reporting interval. From lookup table CP_TIME_RES.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGNT_HV

This view contains IMS Region Level Statistics at the hourly level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
TIME	K	TIME (3)	The start time of the hour. From TPINTIME.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time recorded for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGNT_DV

This view contains IMS Region Transaction Level Statistics at daily level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the UOR. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.

Column name	Key	Data type	Column description
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGNT_WV

This view contains IMS Region Level Statistics at interval level

Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the week. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.

Column name	Key	Data type	Column description
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

CP_IMS_REGNT_MV

This view contains IMS Region Level Statistics at monthly level

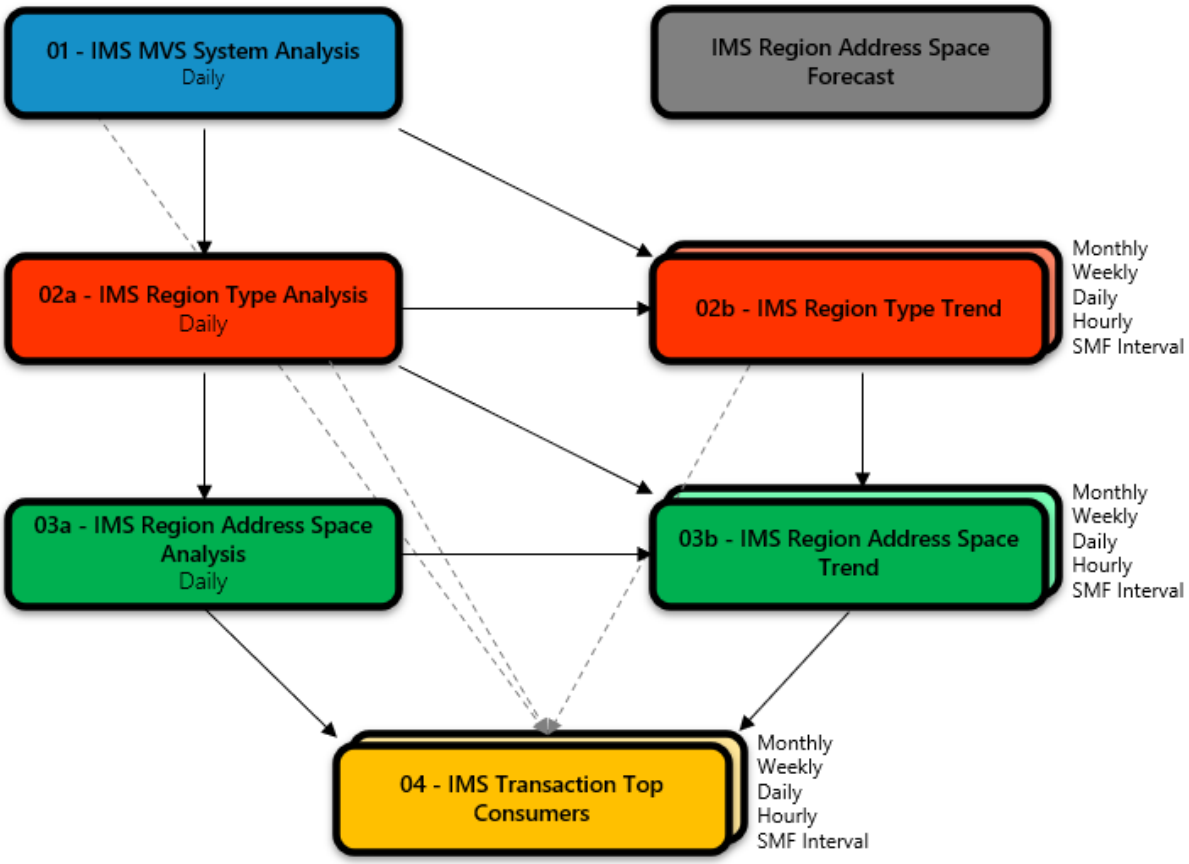
Column name	Key	Data type	Column description
DATE	K	DATE (4)	The start date of the month. From TPINDATE.
SHIFT	K	CHAR (10)	The name of the capacity planning shift. This is derived using date and time fields from the input record as parameters to look up a defined SHIFT in lookup table CP_SHIFT.
MVS_SYSTEM_ID	K	CHAR (4)	The MVS system ID, determined by lookup table IMS_SYSTEM_NAMES.
PROCESSOR_TYPE	K	CHAR (4)	The processor type.
REGION_TYPE	K	CHAR (5)	The type of IMS Region. From TPTYPE.
CPU_USED_TOT		FLOAT (4)	The total CPU execution time recorded for the Unit Of Recovery in CPU Seconds.
CPU_PEAK		FLOAT (4)	The peak CPU execution time recorded for the Unit Of Recovery in CPU seconds.
MIPS_USED_AVG		FLOAT (8)	The average CPU execution time for the Unit Of Recovery in MIPS.
MIPS_USED_TOT		FLOAT (8)	The total CPU execution time for the Unit Of Recovery in MIPS.
MIPS_PEAK		FLOAT (8)	The peak CPU execution time recorded for the Unit Of Recovery in MIPS.
MEASURED_SEC_TOT		INTEGER (4)	The sum of measured seconds.
TRANSACTIONS		FLOAT (8)	The total number of transactions recorded.
CPU_SERIAL_NO6		CHAR (6)	The 6 digit CPU serial number.

Reports

IBM Z Performance and Capacity Analytics provides many types of reports that use curated historical data to provide predictive analysis both for managing future resource needs and to ensure that capacity shortfalls do not occur.

The forecasting features in the reports enable you to use data-driven practices to more accurately determine when the environment will reach a capacity threshold and require hardware upgrades. This can help you plan upgrades in a timely way that can enable you to save money and maintain business service levels.

The reports are grouped by subcomponent of the Capacity Planning for IMS Component:



IMS MVS System Analysis

IMS MVS System Analysis report show IMS volume and CPU utilization by MVS system level.

This information identifies the report:

Report ID
CPIMS01

Report group
Capacity Planning - Capacity Planning IMS

Source
CP_IMS_REGNT_DV

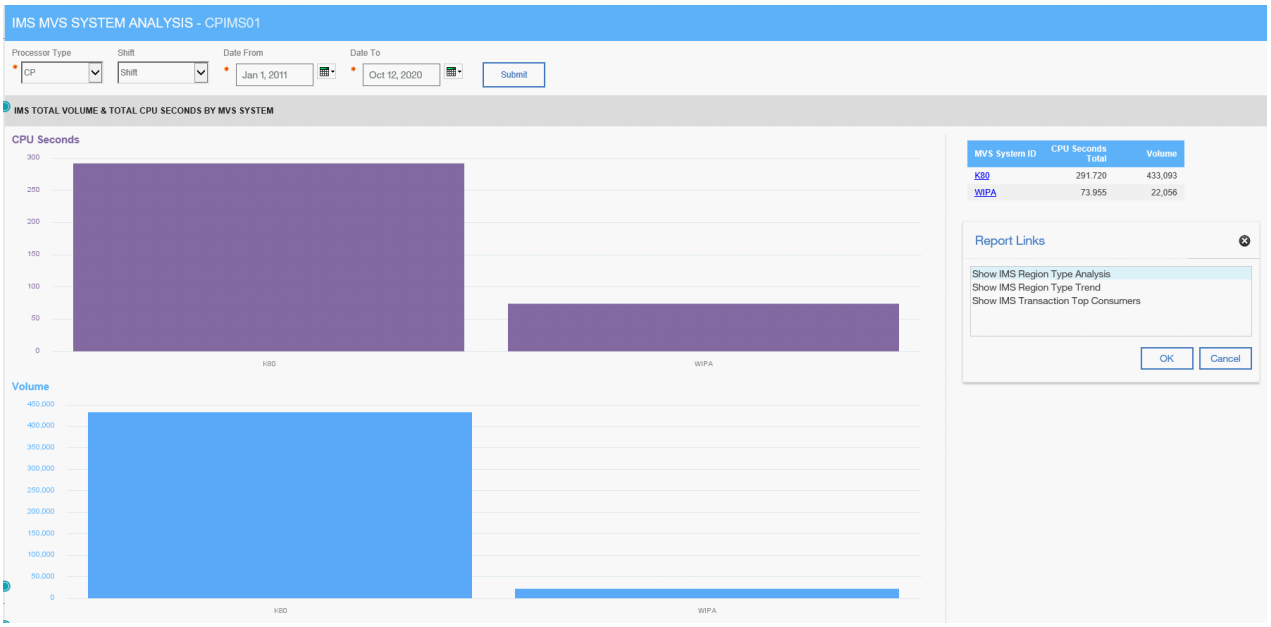


Figure 60. IMS Total Volume & Total CPU Seconds by MVS System report

The report contains this information:

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU Seconds utilized per system

IMS Region Type Analysis

This information identifies the report:

Report ID
CPIMS02

Report group
Capacity Planning - Capacity Planning IMS

Source
CP_IMS_REGNT_DV

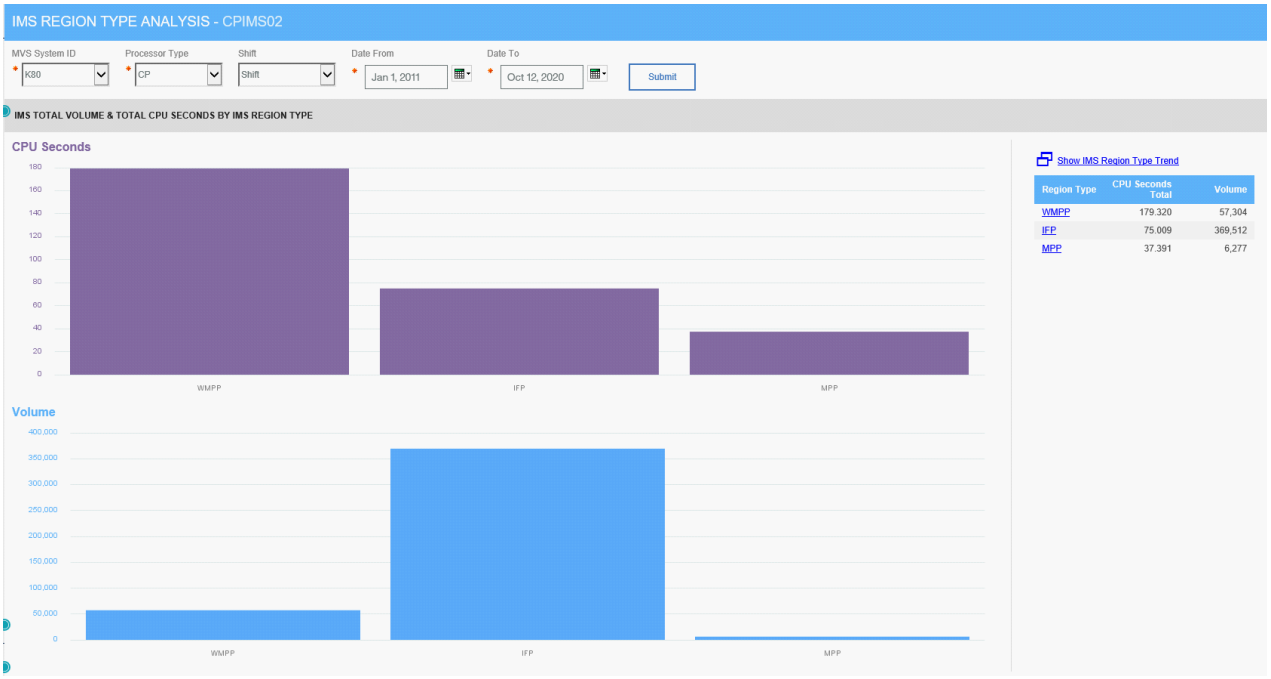


Figure 61. IMS Total Volume & Total CPU seconds by IMS Region report

The report contains this information:

Transaction ID
Transaction ID

IMS Region ID
IMS ID by region

CPU Seconds
CPU utilization in seconds

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

IMS Region Type Trend Monthly/Weekly/Daily/Hourly/Timestamp

This information identifies the report:

Report ID

- Monthly CPIMS03
- Weekly CPIMS04
- Daily CPIMS05
- Hourly CPIMS06
- Timestamp CPIMS07

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_REGNT_MV
- CP_IMS_REGNT_WV
- CP_IMS_REGNT_DV
- CP_IMS_REGNT_HV
- CP_IMS_REGNT_TV

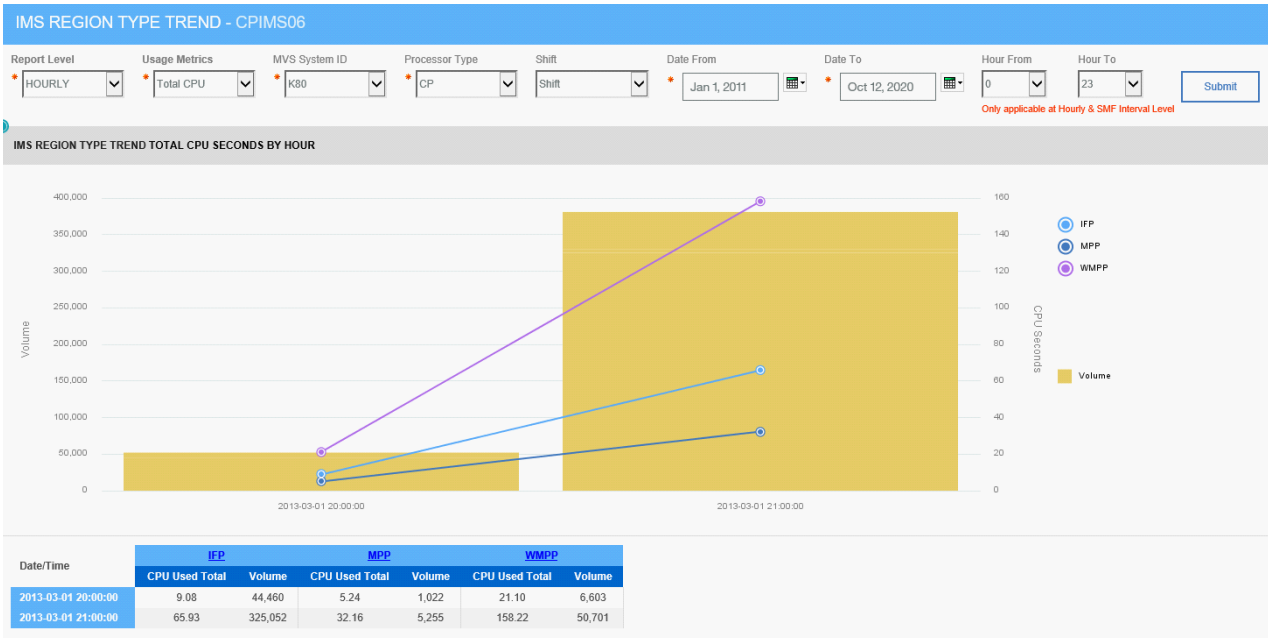


Figure 62. IMS Region Type Trend Total CPU Seconds by Hour report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Region Type Trend Average Monthly/Weekly/Daily/Hourly/Timestamp

This information identifies the report:

Report ID

- Monthly CPIMS03
- Weekly CPIMS04
- Daily CPIMS05
- Hourly CPIMS06
- Timestamp CPIMS07

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_REGNT_MV
- CP_IMS_REGNT_WV
- CP_IMS_REGNT_DV
- CP_IMS_REGNT_HV
- CP_IMS_REGNT_TV

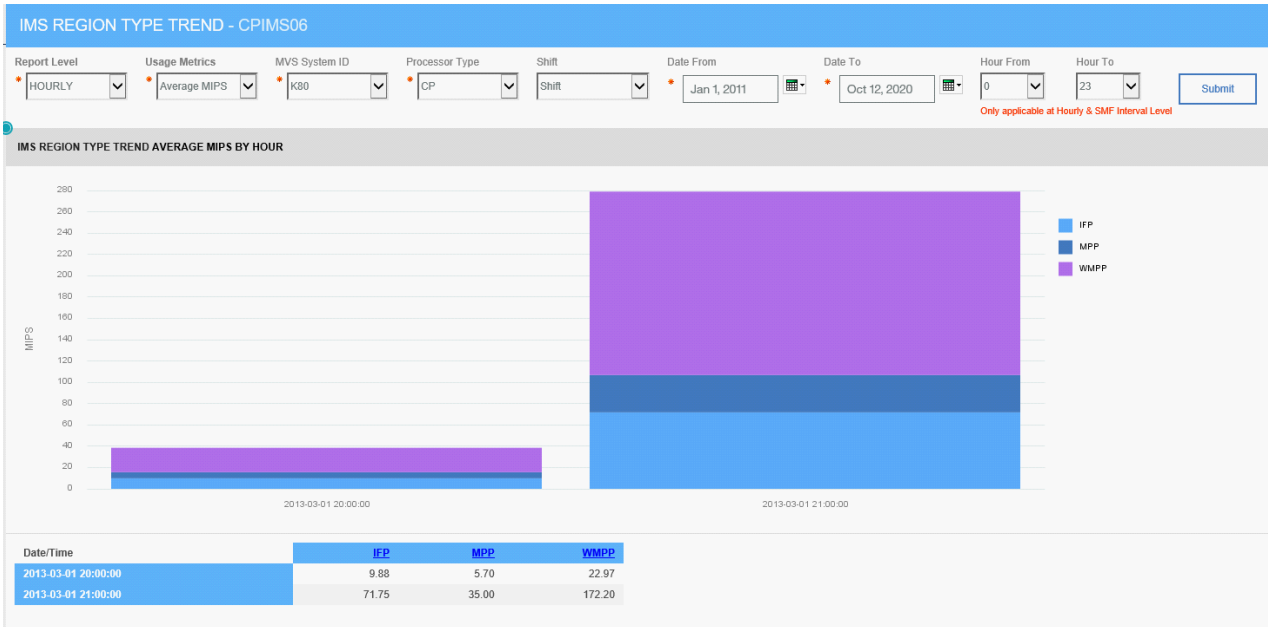


Figure 63. IMS Region Type Trend Average MIPS by Hour report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Region Type Trend Peak Monthly/Weekly/Daily/Hourly/Timestamp

This information identifies the report:

Report ID

- Monthly CPIMS03
- Weekly CPIMS04
- Daily CPIMS05
- Hourly CPIMS06
- Timestamp CPIMS07

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_REGNT_MV
- CP_IMS_REGNT_WV
- CP_IMS_REGNT_DV
- CP_IMS_REGNT_HV
- CP_IMS_REGNT_TV

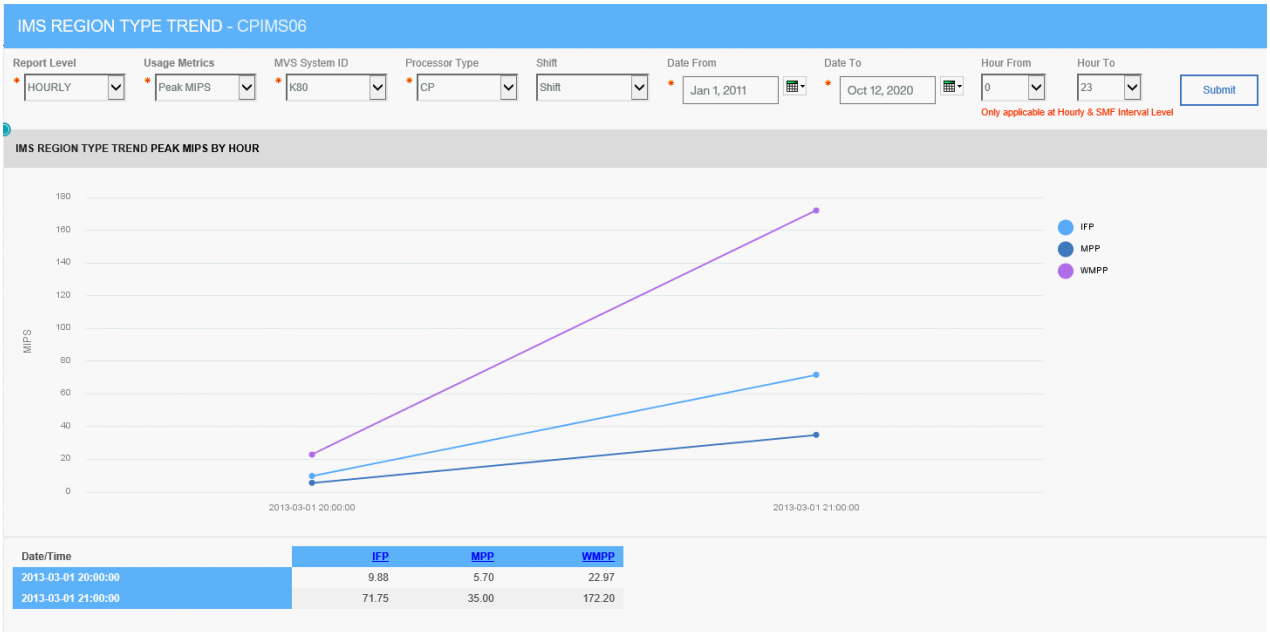


Figure 64. IMS Region Type Trend Peak MIPS by Hour

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Region Address Space Analysis

This information identifies the report:

Report ID
CPIMS08

Report group
Capacity Planning - Capacity Planning IMS

Source
CP_IMS_REGN_DV

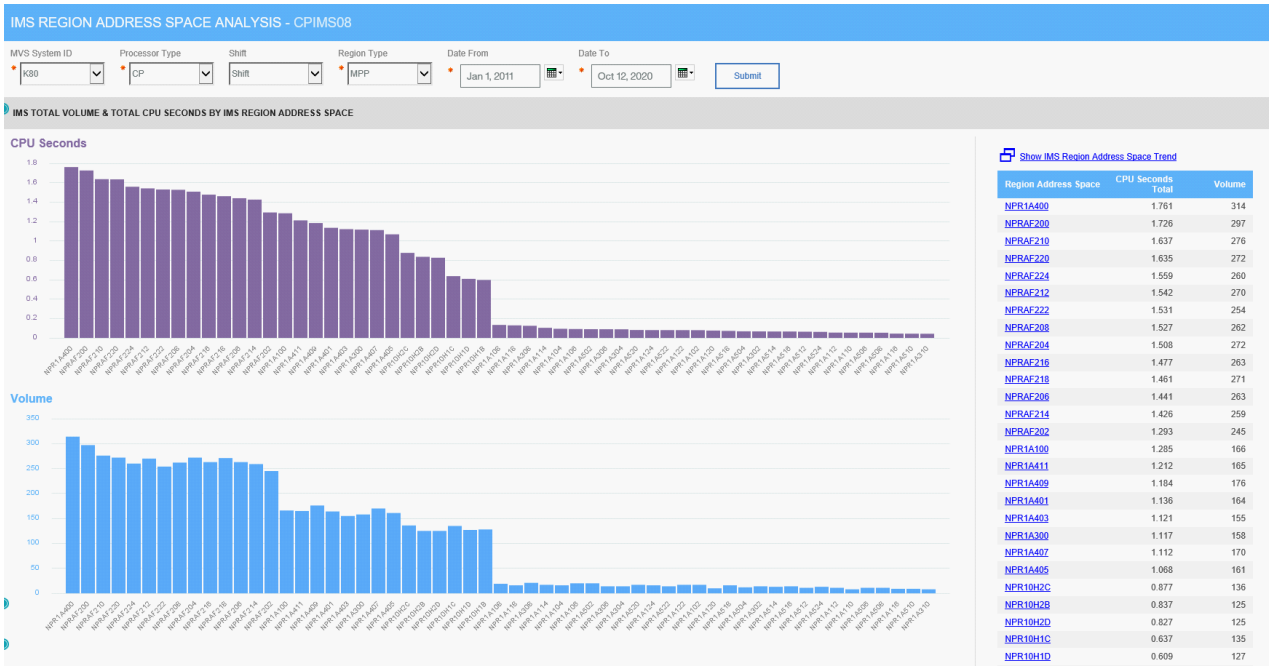


Figure 65. IMS Total Volume & Total CPU Seconds by IMS Region Address Space report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Region Address Space Trend Monthly/Weekly/Daily/Hourly/Timestamp

This information identifies the report:

Report ID

- Monthly CPIMS09
- Weekly CPIMS10
- Daily CPIMS11
- Hourly CPIMS12
- Timestamp CPIMS13

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_REGN_MV
- CP_IMS_REGN_WV
- CP_IMS_REGN_DV
- CP_IMS_REGN_HV

- CP_IMS_REGN_TV

Figure 66. IMS Region Address Space Trend Total CPU Seconds by Hour report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Transaction Top Consumers Monthly/Weekly/Daily/Hourly/Timestamp

This information identifies the report:

Report ID

- Monthly CPIMS11
- Weekly CPIMS12
- Daily CPIMS13
- Hourly CPIMS14
- Timestamp CPIMS15

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_TRAN_MV
- CP_IMS_TRAN_WV
- CP_IMS_TRAN_DV
- CP_IMS_TRAN_HV
- CP_IMS_TRAN_TV

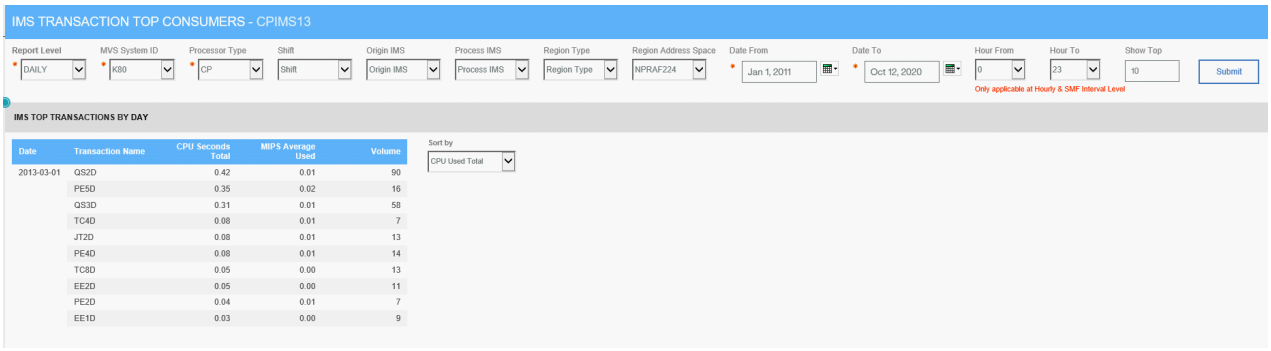


Figure 67. IMS Top Transactions by Day report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

IMS Region Address Space Forecast

This information identifies the report:

Report ID
CPIMS19

Report group
Capacity Planning - Capacity Planning IMS

Source

- CP_IMS_REGN_F
- CP_IMS_REGN_FV
- CP_IMS_REGN_MV
- CP_IMS_REGN_WV
- CP_IMS_REGN_DV
- CP_IMS_REGN_HV
- CP_IMS_REGN_TV

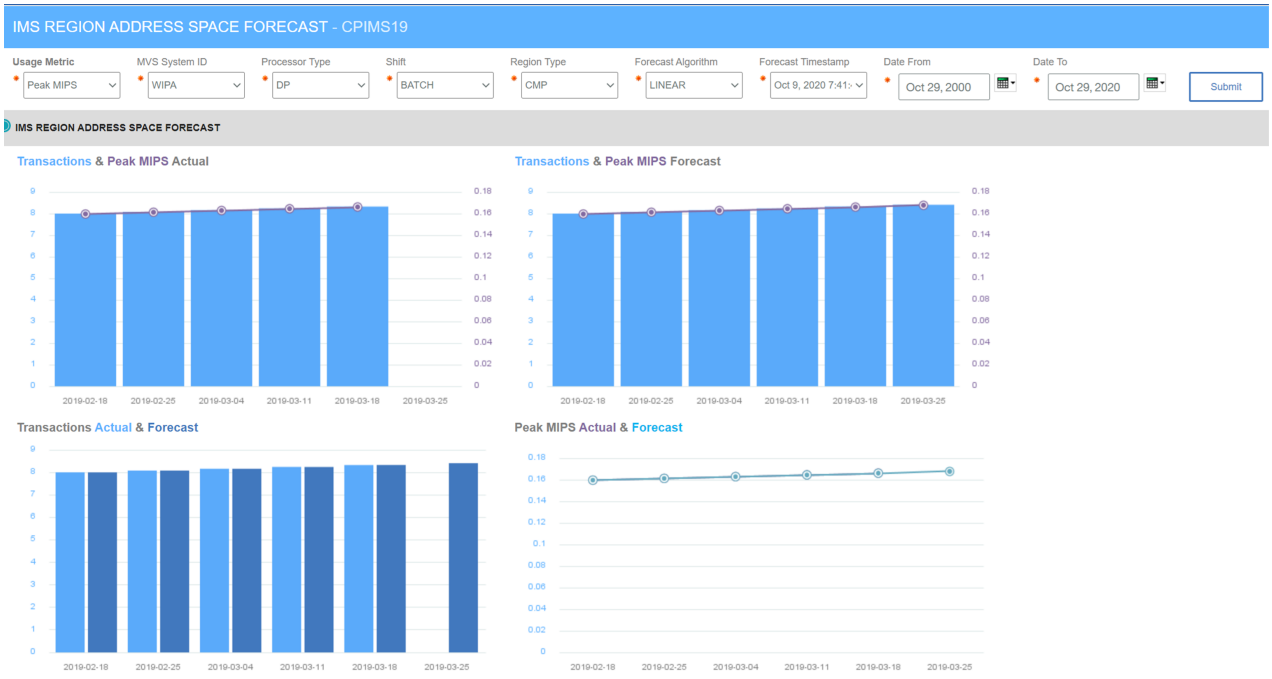


Figure 68. IMS Region Address Space Forecast report

The report contains this information:

Time of day / Date
Time of day / date of the measurement period.

Volume
Transaction count. Total number of performance class monitoring records with RTYPE = T.

CPU Seconds
CPU utilization in seconds

Average MIPS
Average MIPS used during the interval

Peak MIPS
Peak MIPS used during the interval

Chapter 5. Forecasting

You can use IBM Z Performance and Capacity Analytics to forecast necessary capacity and to compare actual capacity usage with the forecast.

- IBM Z Performance and Capacity Analytics calculates CPU capacity in MIPS, on the following levels:
  - CEC
  - LPAR
  - Service/Report class
  - Business Application (this is a grouping of service or report classes)
- MIPS usage is forecast based on those levels
- MIPS capacity and usage dynamically is calculated, based on the actual workloads that are running on the machine at the time. IBM Z Performance and Capacity Analytics calculates the LSPR workload for this purpose, from the SMF type 113 subtype 2 records. The machines behavior is mapped to the best matching LSPR benchmark value, either low, medium or high.
- IBM Z Performance and Capacity Analytics includes the multi image LSPR MIPS values. This means that you do not need to manually determine the MIPS rating of your processors and then manually insert the required MIPS values into a lookup table, in order for MIPS values to be calculated.
- You can specify capacity thresholds for reporting purposes on CEC, LPAR and shift level.

In order to forecast you must first configure IBM Z Performance and Capacity Analytics to collect data, then collect the data. After the data is collected IBM Z Performance and Capacity Analytics can use it to generate reports that can be used for forecasting.

Configuration

The forecasting process is controlled by a configuration file that is read from the forecaster config subdirectory. The configuration specifies:

- Which table in Db2 to pull the input data from
- How far back to go to fetch historical data
- How to partition that data for forecasting
- The forecasting algorithm to use
- How far into the future to make the forecast for
- The time intervals to use for the forecast
- The table to write the results of the forecast to

A single forecasting run is normally executed as a batch job and will make a number of forecasts for distinct data sets that are held within the same table. The flow of a forecasting run is as follows:

1. A JDBC stage extracts the data from Db2 and partitions it for forecasting
2. Each partition is passed to the forecasting stage and a forecast is made for it
3. The forecast is passed through a SQL stage to prepare it for insertion into Db2
4. A JDBC stage then takes the SQL and executes it against Db2

The process runs mostly in parallel, although there is a pacing parameter on the JDBC input stage that you can use to slow it down.

© Copyright IBM Corp. 2018, 2021

System resource usage

The Forecaster is written in Java. This means it will be moved onto a zIIP processor if one is available. Note that the forecaster probably has a significantly longer runtime than most tasks moved onto a zIIP. A weekly forecasting run can easily consumer 100+ CPU seconds and run for 2 to 3 minutes.

The forecasting method used is an iterative least squares approach, meaning it's around O(n3) - twice the number of data points means 8x the CPU used. You will see the CPU cost for forecasting continue to rise until you've gathered a full set of forecast input data - 6 month's worth for the weekly forecasts. The CPU cost of running a weekly forecast on 6 months data is almost 3 orders of magnitude higher than the cost of running the same forecast on only 1 month's data. The cost of running a daily forecast on a 90 day's worth of data is yet another order of magnitude higher (as it's related to the number of data points, not the time span that those data points cover).

The cost of forecasting is related to the number of data points used to make the forecast, not the capacity of the system that the forecast is being made for. A 600 MSU system is no more expensive to forecast for than a 20 MSU system. The cost of forecasting a Sysplex depends on the number of systems in the Sysplex. Twice as many systems is twice the cost. This technique can be used to reduce the cost of forecasting by limiting the forecasting functions to only certain systems. This technique can be used to spread the cost of forecasting out over multiple days by splitting the forecasting up by Sysplex.

There are several ways to reduce the system resources that are required to forecast. You can start by using the supplied forecasts to make your own variants. Doing so can significantly reduce the cost of the forecasting process while still delivering the results that are important to you.

Scope

If you modify the query field in the JDBC Input step to add additional conditional clauses you can reduce the scope of a forecast. The provided samples do forecasting for all systems in a single forecasting run. This means you only need to set up a single batch job to schedule it once a month. By restricting the query you can restrict forecasting to only some of your systems or split the forecasting up into multiple batch jobs that you can run on different nights.

If, for example, you had four SYSPLEXs - (PLEXA, PLEXB, PLEXC and PLEXD) - you could split the forecasting into two batch jobs by taking a copy of the forecasting configuration and adding an `AND SYSPLEX IN ( 'PLEXA', 'PLEXB' )` clause to one query and an `AND SYSPLEX IN ( 'PLEXC', 'PLEXD' )` to the other. You would then need to create and schedule a batch job to run each forecasting configuration.

Focus

You can set up the Capacity Planning SHIFT definitions in a look up table. This allows you to focus on the specific time of day and day of week when you are most concerned about your capacity. Refer to "CP_SHIFT" on page 9.

After you set this up, you can add an `AND SHIFT = '`*FOCUS*`'` (where *FOCUS* in the name you used) to the query and forecasts will only be made for your focus SHIFT. Depending on how small your focus shift is, this can drastically reduce the number of forecasts you need to make.

When selecting a focus shift, select a time range that usually has high usage for the workloads you are concerned about and within which the usage is fairly consistent. IBM Z Performance and Capacity Analytics projects the Average CPU usage, so if you focus shift has an equal mixture of 40% and 80% usage hours, then 60% will be the projected value. If you reduce the size of the focus shift so it just contains the 80% usage hours, 80% will be projected when you're using the machine the most heavily and it's capacity is the most critical. The reduction in the variation amongst the input values also reduces the uncertainty of the forecast output.

This approach can also be used to eliminate weekend data from forecasts. Adding a simple `AND SHIFT IN ( 'BATCH', 'ON LINE')` to the query will do this.

Data

By modifying the query in the JDBC query step you can increase or decrease the amount of source data that is used to make each forecast. The default for the weekly forecast is , which will generally

pull in 26 weeks worth of data after you have gathered it. Changing it to `CURRENT_DATE - 12 MONTHS` will pull in 52 weeks worth of data.

When deciding how much data to use, consider the following:

- Doubling the number of input data points gives about an order of magnitude increase in the CPU cost of running the forecast.
- More input data does not, necessarily, make for a better forecast. It is more important to get an input range that is representative of how you expect the system to behave for the forecast period. The longer the time range you specify, the more likely you are to include data from before some transformative change on the system. This will make forecasts less accurate as the data from before the change is no longer representative of the system's current behavior.

Projecting into the future

The length of time a forecast goes into the future is controlled by the "future" parameter on the forecast step. This is the percentage of the input time range that the forecast is extrapolated for. The default value is 50% (entered without the % sign), so input data covering a 6 month time span will end up producing a forecast for those 6 months plus an additional 3 months into the future. By increasing this number you can increase the time the forecast goes into the future.

- There’s no significant CPU cost to increasing the number.
- The accuracy of all forecasts should be considered to drop the further it gets into the future as the system is more likely to deviate from the behavioral patterns that are observed in the input data.
- A single transformative change can render all forecasts inaccurate and the further you look into the future, the more likely you are to encounter one.
- Once the projection exceeds 100% it starts to look less and less tenable. Although there are circumstances where it will be right, for a processor running general workload the accuracy of any forecast beyond 100 - 200% of the input time range becomes more and more questionable, especially if the input time range is short.
- Forecasts based on relatively short input ranges are very sensitive to minor fluctuations in the input data and projecting it over longer periods of time amplifies those inaccuracies.

CPU_LPAR Forecasts

When RMF runs on a z/OS system and collects LPAR performance data, it gathers it for all of the LPARs on the CPC that it is running on. So, if you have 3 z/OS LPARs running on the same CPC, then each one will gather a full set of LPAR data for all of the LPARs on the CPC. The MVS_SYSTEM_ID value you specify in the reports is to select the system whose gathered data will be used for the various LPARs on the CPC.

- The LPAR data gathered by each system is separately forecast. For example, if you have 3 systems on the same CPC and the forecast is restricted to only 1 of the systems, then you get a 60% reduction in the cost of running the CPU_LPAR forecasts for that CPC. When you do that, however, you must use that MVS_SYSTEM_ID to view reports including forecast data.
- If you have some LPARs that are always running on the same CPC and which have continuous availability, you could choose to do the forecasting only for them (and not for any of the other LPARs on the same CPC).
- If a system is down, it cannot gather data. this can skew some aggregated weekly values. Ideally you want to use data gathered by a system that’s up all the time for forecasting.
- If a system moves to an LPAR on a different CPC, then the LPAR data it’s gathered is going to be for a mixture of both CPC’s. Forecasts based on this data are likely to be highly inaccurate as the data is both incomplete and muddled up. If you have some systems that are expected to be moved, you might want to simply not use their data for forecasting.

Installing and configuring the Forecaster module

You must install and configure the Forecaster module before you can use the Capacity Planning for z/OS component.

Step 1: Unpacking the Forecaster module

The Forecaster is a USS application and it is shipped as a renamed .tgz file.

Procedure

1. Locate the DRLPJFC member.
2. Extract the .tar file by using the following command where *destination* is the location where you want the contents of the `.tar` file to reside and the path name specified is the default path name.

   ```
   tar -xvof /usr/lpp/IZPCA/v3r1m0/DRLPJFC -C /destination
   ```

   This creates the following subdirectories:

   ```
   Forecaster
   Forecaster/config
   Forecaster/secure
   Forecaster/mappings
   Forecaster/java
   ```

   The directories are as follows:

   forecaster
   The working directory for the forecaster instance.

   config
   Stores the .properties files that the forecaster uses as configurations. These tell it what to forecast and how to make the forecast.

   secure
   Holds your Db2 access credentials.

   mappings
   Requires a copy of the JSON mapping files.

   java
   Holds the code.
3. Create a working copy of the forecaster directory by copying it and its subdirectories to another location.

   This means you will not overwrite any changes to make to it when you unpack a service update to the forecaster and its configuration.

Step 2: Updating the table mapping files

You must update the table mapping files.

Procedure

1. Customize the sample JCL member DRL.SDRLCNTL(DRLJMTJS) to suit your environment, then run the customized sample. DRLJMTJS runs the DRLEMTJS utility program. DRLEMTJS creates a table.json file for every table in the database, as well as for every view based on these tables. Each file maps the contents of the table. The table.json files are required by the Forecaster.
2. Copy the .json mapping files that are produced by the table mapping utility into the Forecaster module's mapping subdirectory `IDSz/Forecaster/mappings`.

What to do next

If you subsequently make changes to the structure of any tables that are involved in the forecasting process or apply any updates to IBM Z Performance and Capacity Analytics or IBM Z Performance and Capacity Analytics, you must repeat this step.

Step 3: Configuring the Forecaster module

You must configure the Forecaster module.

About this task

Perform these steps in your working directory.

Procedure

1. Edit the Forecaster.sh shell script and update the values for the following variables to match your site:

   rundir
   The directory that contains the Forecaster.sh script.

   logfile
   The log file that sets the message output properties.

   config
   This maps the input parameter into a config file. By default the config files are stored in a subdirectory called config. You only need to change this if you want to store the configurations elsewhere.

   db2jdbc
   The directory that contains the JDBC .jar files for the Db2 that it is running against.

   JAVA_HOME
   The directory where you have an instance of the IBM Java SDK 8 installed.
2. Use the DRLJFCP sample to produce a JCL procedure to run the Forecaster module as a job.

   You will use this JCL to run the Forecaster module.
3. Create a user ID that can only access the Db2 database that is used by IBM Z Performance and Capacity Analytics. Ensure that the ID has read/write access.
4. Edit the `IDSz/forecaster/secure/db2access.properties` sample to specify the userid and password that you created.
5. Restrict access to the `IDSz/forecaster/secure` subdirectory to only the following users:

   - The administrator who manages the user ID and password for the Db2 access must have read/write access.
   - The Batch user ID that runs the forecasting must have read only access.

   When the password is changed, only the `IDSz/forecaster/secure/db2access.properties` file needs to be updated.

Supplied forecasts and utilities

IBM Z Performance and Capacity Analytics includes some supplied forecasts that you can use by configuring the associated properties files. These will help you get started with forecasting.

These supplied forecasts are designed to be used with the supplied capacity planning reports.

Forecasting configurations are supplied for both weekly and daily forecasting. As forecasting is a CPU intensive activity, it is recommended that you initially just do weekly forecasting on a monthly basis.

Forecast configurations

FC_CHANNEL_W_6M
This forecasts peak channel usage by Channel using weekly data gathered over the last six months. The forecast goes about 3 months into the future.

FC_CICS_REGN_W_6M
This forecasts takes the data from the CP_CICS_REGN_W table which contain aggregated weekly data for CICS Regions.

It uses the last 6 months' worth of data to generate a linear forecast for transaction volume and CPU usage out for another 3 months.

FC_CPU_LPAR_H_3M_PROFILE_WH
This forecasts takes data from the CP_CPU_LPAR_H table which contains aggregated hourly usage data for LPARS.

It uses the last 3 months worth of data to generate a week by hour Profile for average CPU usage.

FC_CPU_LPAR_H_3M_WH
This forecasts takes data from the CP_CPU_LPAR_H table which contains aggregated hourly usage data for LPARS.

It uses the last 3 months worth of data to generate a week by hour forecast for average CPU usage.

FC_CPU_LPAR_H_3M_FOURIER
This forecast takes data from the CP_CPU_LPAR_H table which contains aggregated hourly usage data for LPARs. It uses, by default, the last 3 months worth of data to generate a Fourier forecast for average CPU usage. The Fourier forecast is based on frequency analysis, which recognizes cyclic patterns it produces a forecast on hourly level.

FC_CPU_LPAR_W_6M
This forecasts averages CPU consumption by LPAR using weekly data gathered over the last six months. The forecast goes about 3 months into the future.

FC_CPU_WKLD_W_6M
This forecasts takes data from the CP_CPU_WKLD_W table which contains aggregated weekly usage data for WORKLOADs.

It uses the last 6 months' worth of data to generate a linear forecast for average CPU usage out for another 3 months.

FC_DISK_M_1Y
This forecasts takes data from the DFSMS_VOLUME_M table which contains aggregated monthly disk usage data.

It uses the last year's worth of data to generate a linear forecast for channel usage out for another 6 months.

FC_IMS_REGN_W_6M
This forecast takes data from the CP_IMS_REGN_W table which contains aggregated weekly data for IMS regions. It uses, by default, the last 6 months worth of data to generate a linear forecast for peak and average CPU.

FC_MSU_CON_LPAR_W_6M
This forecast takes data from the CP_CPU_LPAR_W table which contains aggregated weekly usage data for LPARS. It uses, by default, the last 6 months worth of data to generate a linear forecast for average MSU consumption for another 6 months. For accurate tailored fit pricing forecast reporting the forecaster starting date must match the tailored fit agreement start date.

FC_MSU_CON_LPAR_M_1Y
This forecasts takes data from the CP_CPU_LPAR_M table which contains aggregated monthly usage data for LPARS.

It uses the last year's worth of data to generate a linear forecast for average MSU Consumption out for another 6 months.

FC_STORAGE_W_6M
This forecasts takes data from the CP_STORAGE_W table which contains aggregated weekly storage usage data.

It uses the last 6 months' worth of data to generate a linear forecast for storage usage out for another 12-13 weeks.

FC_TAPE_W_6M
This forecasts takes data from the CP_TAPE_W table which contains aggregated weekly disk usage data.

It uses the last 6 months' worth of data to generate a linear forecast for channel usage out for another 12 to 13 weeks.

FRACTAL_CALENDAR
This configuration creates a compiled Fractal Calendar file, to be used by the Fractal projection algorithm. It reads dates categorized by special events defined in the CP_EVENT_DATE table and saves a compiled Fractal Calendar to disk. When the CP_EVENT_DATE table is updated, this configuration must be executed, to refresh the Fractal Calendar file with updates from the table.

FC_CPU_LPAR_D_1Y_FRACTAL
This forecasts peak MIPS and used average MIPS consumption from the CP_CPU_LPAR_D table which contains aggregated daily consumption data for LPARs.

It uses one years' worth of available data to generate a Fractal Forecast projecting one year into the future, based on the similarity of days, as defined by a compiled Fractal Calendar file. See the FRACTAL_CALENDAR configuration to generate the Fractal Calendar file.

FC_CPU_CEC_D_1Y_FRACTAL
This forecasts peak MIPS and used average MIPS consumption from the CP_CPU_CEC_D table which contains aggregated daily consumption data for CEC.

It uses uses one years' worth of available data to generate a Fractal Forecast projection one year into the future, based on the similarity of days, as defined by a compiled Fractal Calendar file. See the FRACTAL_CALENDAR configuration to generate the Fractal Calendar file.

The naming scheme for these is as follows: FC_*forecast_unit_qualifier_timespan_forecast_type* where:

- *forecast* is what is being forecast, such as CPU_LPAR, CPU_WKLOD, STORAGE, CHANNEL
- *unit* is the unit and data used for forecasting such as **H**ourly, **D**aily, **W**eekly, **M**onthly, **Y**early
- *qualifier* is the (optional) special qualifier - S for Service Classes, R for Report Classes
- *timespan* is how long into the past the forecast will use data from
- *forecast-type* is the algorithm the forecaster will be using such as mean

If you want to stream forecast data off-platform to Splunk or ELK using the Publisher, you should use the config files which are provided specifically for this purpose. These configs have the same name as the ones described above, but with a 'P' prefix, for example 'PFC_CPU_LPAR_H_3M_FOURIER'.

Projection algorithms

IBM Z Performance and Capacity Analytics includes some supplied projection algorithms that you can use by configuring the associated properties files. These supplied forecasts are designed to be used with the supplied capacity planning reports.

Linear projection algorithm

The linear forecast takes in CP_CPU_LPAR_W (weekly data) and runs a linear projection analysis algorithm against CPU_USED_AVG to construct your forecast.

The result of a linear forecast can be viewed in Cognos or ELK or Splunk in the weekly forecast, by changing the selected algorithm to linear.

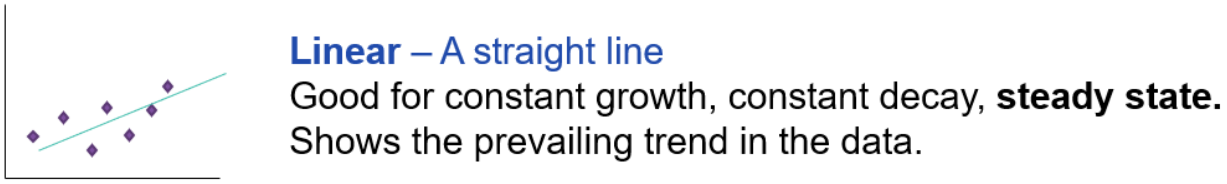


Figure 69. Linear projection algorithm

Poly3 projection algorithm

The poly3 forecast takes in CP_CPU_LPAR_W (weekly data) and runs a third degree polynomial analysis algorithm against CPU_USED_AVG to construct your forecast.

The result of a poly3 forecast can be viewed in Cognos or ELK or Splunk in the weekly forecast, by changing the selected algorithm to poly3.

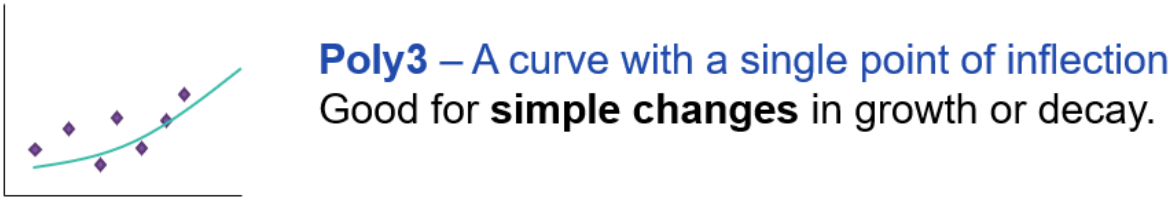


Figure 70. Poly3 projection algorithm

Poly4 projection algorithm

The poly4 forecast takes in CP_CPU_LPAR_W (weekly data) and runs a fourth degree polynomial analysis algorithm against CPU_USED_AVG to construct your forecast.

The result of a poly4 forecast can be viewed in Cognos or ELK or Splunk in the hourly forecast, by changing the selected algorithm to poly4.

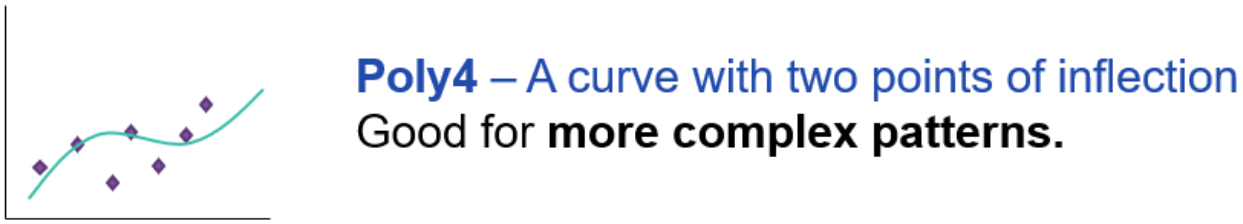


Figure 71. Poly4 projection algorithm

Mean projection algorithm

The Mean Projection Forecast takes in CP_CPU_LPAR_W (weekly data) and runs a Mean projection analysis algorithm against CPU_USED_AVG to construct your forecast.

The result of a mean forecast can be viewed in Cognos or ELK or Splunk in the Hourly forecast, by changing the selected algorithm to mean.

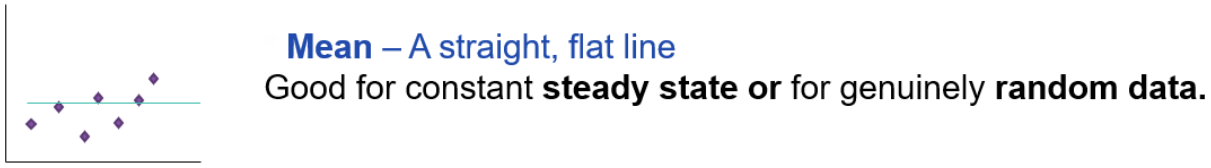


Figure 72. Mean projection algorithm

Weekly by hour projection algorithm

The weekly by hour forecast takes in CP_CPU_LPAR_H (hourly data) and runs a linear projection analysis algorithm against CPU_USED_AVG to construct your forecast.

The result of a weekly by hour forecast can be viewed in Cognos or ELK or Splunk in the hourly forecast, by changing the selected algorithm to weekly.

Figure 73. Weekly by hour projection algorithm

Fourier projection algorithm

The Fourier Forecast takes in CP_CPU_LPAR_H (hourly data) and runs a Fourier frequency analysis algorithm against CPU_USED_AVG to construct your forecast.

This includes:

- A new Process stage, of a similar type to linear and poly3.
- New Forecast config. FC_CPU_LPAR_H_3M_FOURIER.properties

The result of a Fourier forecast can be viewed in Cognos or ELK or Splunk in the hourly forecast, by changing the selected algorithm to Fourier.

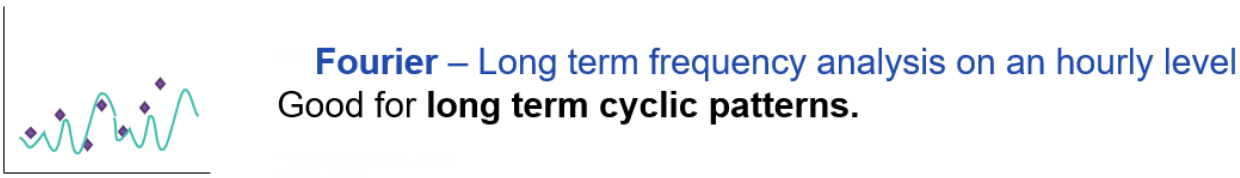


Figure 74. Fourier projection algorithm

Fractal projection algorithm

The Fractal projection forecast takes in Daily data as well as a compiled Fractal Calendar file, based on special events defined in CP_EVENT_DATE, to identify similarities between historical days and future days to project future usage at a daily aggregate level.

For example:

- A historical day categorized as ‘BF’ (Black Friday) will be like other historical day and future day categorized as ‘BF’.
- When a day being forecasted has not been categorized with a special event, then it will be like other days that share the same name and month. For example, a Monday in January will look like other Monday’s in January.

The mean is taken of the values for all days that are categorized with the same special event and is used as the predicted value for the day being forecasted.

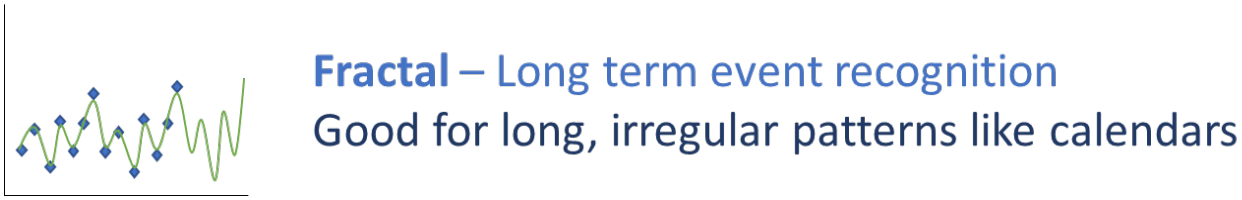


Figure 75. Fractal projection algorithm

Fractal Forecasting

The Fractal Forecasting takes in Daily data as well as a compiled Fractal Calendar file, based on special events defined in CP_EVENT_DATE, to identify similarities between historical days and future days to project future usage at a daily aggregate level.

Preparing for a Fractal Forecast

Fractal Forecasting provides a long-term forecast based on recurring special events which may or may not occur on different dates of the year. Therefore, the Fractal Forecast projection algorithm requires long-term historical data. Two to three years of historical data is recommended. The default purge condition for IZPCA tables is 366 days, and should be extended to accommodate for Fractal Forecast data requirements.

This algorithm also uses a new concept, called the Fractal Calendar, which categorizes dates with special events that we wish to produce forecasts for. These special events may not occur on the same date every year, and this calendar allows the algorithm to find similarities between historical data of specific events, and produce a forecast for the same event that will occur in the future. In order to categorize dates with special events, the CP_EVENT_TYPE and CP_EVENT_DATE tables must be updated first, then the Fractal Calendar can be generated.

To prepare for a Fractal Forecast, perform the following steps:

1. Extend purge condition for tables:
   a. CP_CPU_CEC_D
   b. CP_CPU_LPAR_D
2. Categorize dates with special events:
   a. Define a special event in table CP_EVENT_TYPE
   b. Categorize dates by special events in table CP_EVENT_DATE
3. Generate a Fractal Calendar:
   a. Determine Fractal Calendar start and end dates
   b. Configure the Fractal Calendar generation process
   c. Run the Fractal Calendar generation process

Extend purge condition

IZPCA has a default table purge condition of 366 days for daily data. In order to extend data retention to provide an appropriate amount of historical data to run a Fractal Forecast projection, the purge condition should be extended for the CP_CPU_CEC_D and CP_CPU_LPAR_D tables. Two to three years of historical data is recommended.

Refer to the “Displaying and editing the purge condition of a table” section in chapter 5 of the *Administration Guide and Reference* for instructions.

Categorize dates with special events

The Fractal Forecast algorithm uses a new concept called the Fractal Calendar to categorize dates with special events. To define a special event, the table CP_EVENT_TYPE must be updated. To categorize dates with those special events, the table CP_EVENT_DATE must be updated.

Define a special event in table CP_EVENT_TYPE

Special events must be defined first, before they can be used to categorize dates. Refer to the sample job DRLJCP11 in HLQ.SDRLCNTL, which demonstrates how to update this table. Note that in order to delete a special event, all dates which are categorized by that event in CP_EVENT_DATE must be deleted first.

Categorize dates by special events in table CP_EVENT_DATE

Once a special event has been defined, it can then be used to categorize dates in CP_EVENT_DATE. Refer to the sample job DRLJCP11 in HLQ.SDRLCNTL, which demonstrates how to update this table. Both historical dates which will be provided to the forecast algorithm with historical data as well as future dates that are to be forecasted on must be defined in CP_EVENT_DATE. Any dates that do not coincide with a special event do not need to be defined in this table and will be assigned a default categorization by the Fractal Forecast projection algorithm.

Generate a Fractal Calendar

The Fractal Calendar is generated by executing a special forecast configuration, called FRACTAL_CALENDAR.properties. The role of this configuration is to generate a compiled Fractal Calendar file, to be used by the Fractal Forecast projection algorithm. This calendar is based on the dates categorized by special events in the CP_EVENT_DATE table. To generate a Fractal Calendar, determine the Fractal Calendar start and end dates, update the configuration, and then run the configuration.

Determine Fractal Calendar start and end dates

The Fractal Calendar start and end dates are required parameters when generating the Fractal Calendar, and must coincide with the special events defined in the CP_EVENT_DATE.

To determine the Fractal Calendar start date, find the earliest date in CP_EVENT_DATE, then note down the date of the first day of that Gregorian Calendar year. For example, if the earliest date in CP_EVENT_DATE is 2017-06-27, then the Fractal Calendar start date will be 2017-01-01.

To determine the Fractal Calendar end date, find the latest date in CP_EVENT_DATE, then note down the date of the last day of that Gregorian Calendar year. For example, if the latest date in CP_EVENT_DATE is 2023-06-27, then the Fractal Calendar end date will be 2023-12-31.

Configure the Fractal Calendar generation process

A sample configuration called FRACTAL_CALENDAR is provided, and the following parameters specific to Fractal Calendar generation must be customized before running it. Refer to the “Tailoring a supplied forecast” on page 221 section of this manual for documentation of these parameters.

- process.1.1.startdate
- process.1.1.enddate
- process.1.1.calendarfile

Run the Fractal Calendar generation process

Refer to the sample job DRLJFC1 in HLQ.SDRLCNTL which will generate the Fractal Calendar and run the Fractal Forecast at the LPAR and CEC levels. This will ensure that the generated Fractal Calendar will be refreshed with the latest updates from CP_EVENT_DATE, before running the forecasts.

Running Fractal Forecast

To run a Fractal Forecast, perform the following steps:

1. Generate a Fractal Calendar
2. Tailor the supplied Fractal Forecast sample configurations
3. Run the Fractal Forecast

Generate a Fractal Calendar

“Preparing for a Fractal Forecast” on page 218

Tailor the supplied Fractal Forecast sample configurations

There are two sample configurations supplied for Fractal Forecasting. All the samples use one year of historical data and forecast a projection one year into the future using the Fractal Forecast algorithm:

- FC_CPU_CEC_D_1Y_FRACTAL
  - Forecast at the CEC level
- FC_CPU_LPAR_D_1Y_FRACTAL
  - Forecast at the LPAR level

Off-platform variants of the sample configurations are also supplied, prefixed with ‘P’ in the file name, for example ‘PFC_CPU_CEC_D_1Y_FRACTAL’.

The following parameters specific to Fractal Forecasting must be customized before running them. Refer to “Tailoring a supplied forecast” on page 221 section of this manual for documentation of these parameters.

- input.1.query
- process.1.1.calendarfile
- process.1.1.future

Run the Fractal Forecast

Refer to the sample job DRLJFC1 in HLQ.SDRLCNTL which will run the configurations in the following order:

- FRACTAL_CALENDAR
  - Generate the Fractal Calendar
- FC_CPU_CEC_D_1Y_FRACTAL
  - Perform a Fractal Forecast, one year into the future, using one year of historical data at the CEC level
- FC_CPU_LPAR_D_1Y_FRACTAL
  - Perform a Fractal Forecast, one year into the future, using one year of historical data at the LPAR level

Ensure that both FC_CPU_CEC_D_1Y_FRACTAL and FC_CPU_LPAR_D_1Y_FRACTAL have been tailored to suit your preferences and system before running the DRLJFC1 job.

Tailoring a supplied forecast

To use the supplied forecasts that come with IBM Z Performance and Capacity Analytics you must configure the associated .properties file for each forecast that you want to use. Forecasts are run as a batch job on your IBM Z Performance and Capacity Analytics Hub system.

Procedure

1. From the `IDSz/forecaster/config` directory, open the .properties file for the forecast that you want to configure.
2. Edit the .properties file to match your environment.

input.1.connection
The localhost and the port number that the Db2 holding the IBM Z Performance and Capacity Analytics scheme you want to forecast against has open for JDBC connections.

input.1.location
The location value that you specified for the Db2 Subsystem when it was configured.

input.1.schema
The schema that is holding the IBM Z Performance and Capacity Analytics tables you want to use for forecasting.

input.1.query
This is used to add additional restrictive clauses to the SQL query that the JDBC stage executes. It should contain a filter to match the start date specified in the FRACTAL_CALENDAR configuration so that the historical data starts at the same date as the compiled Fractal Calendar.

It can also be used to restrict to specific systems by an MVS_SYSTEM_ID or SYSPLEX name.

For example:

input.1.1.query = DATE >= CURRENT_DATE - 1 YEARS AND MVS_SYSTEM_ID = ‘EXAMPLE_ID’

process.1.1.algorithm
The type of forecasting algorithm you wish to use, current algorithm options are mean and linear, poly3 and poly4.

process.1.1.cutoff
Used only by FC_CPU_LPAR_H_3M_FOURIER & PFC_CPU_LPAR_H_3M_FOURIER. This value controls the cut off level for removing noise from the frequency spectrum.

process.1.1.inherits
The number of columns you wish to inherit from your base table.

process.1.1.inherit.1
The first column to inherit.

process.1.1.field
The field to forecast on.

process.1.1.span
The span (into the future) the forecaster should go to in weeks.

process.1.1.cf
Confidence factor of the forecast. Default is 2 (95%).

process.1.1.startdate
This parameter is required when using the FRACTAL_CALENDAR process stage to generate a Fractal Calendar. The start date in format YYYY-MM-DD. Refer to the “Determine Fractal Calendar start and end dates” section of the manual to determine the appropriate value. The start date must be before the end date.

process.1.1.enddate
This parameter is required when using the FRACTAL_CALENDAR process stage to generate a Fractal Calendar. The end date in format YYYY-MM-DD. Refer to the “Determine Fractal Calendar

start and end dates" section of the manual to determine the appropriate value. The end date must be after the start date.

process.1.1.calendarfile
This parameter is required for both the FRACTAL_CALENDAR process stage, and when using the FRACTAL algorithm for the FORECAST process stage. The file path in the USS file system where the compiled Fractal Calendar will be saved when generating the Fractal Calendar, or where to read the Fractal Calendar when performing a Fractal Forecast. The user executing the configuration must have write permission to this path.

process.1.2.schema
The name of the schema that is holding the IBM Z Performance and Capacity Analytics tables you want to use for forecasting.

process.1.2.update
A value of 'yes' will generate a Db2 MERGE statement. A value of 'no' (the default) will generate an INSERT instead. This is used in the PROFILE forecast.

output.1.1.connection
The localhost and the port number that the Db2 holding the IBM Z Performance and Capacity Analytics scheme you wish to forecast against has open for JDBC connections.

output.1.1.location
The location value that you specified for the Db2 Subsystem when it was configured.

Appendix A. Support information

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides a number of ways for you to obtain the support you need.

- Searching knowledge bases: You can search across a large collection of known problems and workarounds, Technotes, and other information.
- Obtaining fixes: You can locate the latest fixes that are already available for your product.
- Contacting IBM Software Support: If you still cannot solve your problem, and you need to work with someone from IBM, you can use a variety of ways to contact IBM Support. See "Contacting IBM Support" on page 223 for more information.

Contacting IBM Support

This topic describes how to contact IBM Support if you have been unable to resolve a problem with IBM Z Performance and Capacity Analytics.

Before contacting IBM Support, your company must have an active IBM software maintenance contract, and you must be authorized to submit problems to IBM. The type of software maintenance contract that you need depends on the type of product you have. For more information, refer to the IBM Support website at the following links:

IBM Support
https://www.ibm.com/mysupport/s/

IBM Z Support
https://www.ibm.com/support/pages/ibm-enterprise-support-and-preferred-care-options-ibm-z

To contact IBM Support to report a problem (*open a case*), follow these steps:

1. Determine the business impact.
2. Describe the problem and gather information.
3. Submit the problem report.

Determining the business impact

When you report a problem to IBM, you are asked to supply a severity level. Therefore, you need to understand and assess the business impact of the problem that you are reporting. Use the following criteria:

Severity 1
The problem has a *critical* business impact. You are unable to use the program, resulting in a critical impact on operations. This condition requires an immediate solution.

Severity 2
The problem has a *significant* business impact. The program is usable, but it is severely limited.

Severity 3
The problem has *some* business impact. The program is usable, but less significant features (not critical to operations) are unavailable.

Severity 4
The problem has *minimal* business impact. The problem causes little impact on operations, or a reasonable circumvention to the problem was implemented.

© Copyright IBM Corp. 2018, 2021

Describing the problem and gathering information

When describing a problem to IBM, be as specific as possible. Include all relevant background information so that IBM Support specialists can help you solve the problem efficiently. To save time, know the answers to the following questions:

- What software versions were you running when the problem occurred?
- Do you have logs, traces, and messages that are related to the problem symptoms? IBM Support is likely to ask for this information.
- Can you re-create the problem? If so, what steps were performed to re-create the problem?
- Did you make any changes to the system? For example, did you make changes to the hardware, operating system, networking software, product-specific customization, and so on.
- Are you currently using a workaround for the problem? If so, be prepared to explain the workaround when you report the problem.

Submitting the problem

You can submit your problem to IBM Support in either of the following ways:

Online
Go to https://www.ibm.com/mysupport/s/, click on **Open a case**, and enter the relevant details into the online form.

By email or phone
For the contact details in your country, go to the IBM Support website at https://www.ibm.com/support/. Look for the tab on the right and click **Contact and feedback** > **Directory of worldwide contacts** for a list of countries by geographic region. Select your country to find the contact details for general inquiries, technical support, and customer support.

If the problem you submit is for a software defect or for missing or inaccurate documentation, IBM Support creates an Authorized Program Analysis Report (APAR). The APAR describes the problem in detail. Whenever possible, IBM Support provides a workaround that you can implement until the APAR is resolved and a fix is delivered. IBM publishes resolved APARs on the IBM Support website, so that other users who experience the same problem can benefit from the same resolution.

Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785 U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement might not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
2Z4A/101
11400 Burnet Road
Austin, TX 78758 U.S.A.

© Copyright IBM Corp. 2018, 2021

Such information may be available, subject to appropriate terms and conditions, including in some cases payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM’s future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. You may copy, modify, and distribute these sample programs in any form without payment to IBM for the purposes of developing, using, marketing, or distributing application programs conforming to IBM's application programming interfaces.

If you are viewing this information in softcopy form, the photographs and color illustrations might not display.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. For a current list of IBM trademarks, refer to the *Copyright and trademark information* at https://www.ibm.com/legal/copytrade.

Bibliography

IBM Z Performance and Capacity Analytics publications

The IBM Z Performance and Capacity Analytics library contains the following publications and related documents.

The publications are available online in the IBM Knowledge Center at the following link, from where you can also download the associated PDF:

https://www.ibm.com/support/knowledgecenter/SSPNK7_3.1.0

- *Administration Guide and Reference*, SC28-3211

  Provides information about initializing the IBM Z Performance and Capacity Analytics database and customizing and administering IBM Z Performance and Capacity Analytics.

- *Capacity Planning Guide and Reference*, SC28-3213

  Provides information about the capacity planning, forecasting, and modeling feature of IBM Z Performance and Capacity Analytics, intended for those who are responsible for monitoring system capacity and key performance metrics to help ensure that sufficient resources are available to run the business and meet expected service levels.

- *CICS Performance Feature Guide and Reference*, SC28-3214

  Provides information for administrators and users about collecting and reporting performance data generated by Customer Information Control System (CICS®).

- *Distributed Systems Performance Feature Guide and Reference*, SC28-3215

  Provides information for administrators and users about collecting and reporting performance data generated by operating systems and applications running on a workstation.

- *Guide to Reporting*, SC28-3216

  Provides information for users who display existing reports, for users who create and modify reports, and for administrators who control reporting dialog default functions and capabilities.

- *IBM i System Performance Feature Guide and Reference*, SC28-3212

  Provides information for administrators and users about collecting and reporting performance data generated by IBM i systems.

- *IMS Performance Feature Guide and Reference*, SC28-3217

  Provides information for administrators and users about collecting and reporting performance data generated by Information Management System (IMS).

- *Language Guide and Reference*, SC28-3218

  Provides information for administrators, performance analysts, and programmers who are responsible for maintaining system log data and reports.

- *Messages and Problem Determination*, GC28-3219

  Provides information to help operators and system programmers understand, interpret, and respond to IBM Z Performance and Capacity Analytics messages and codes.

- *Network Performance Feature Installation and Administration*, SC28-3221

  Provides information for network analysts or programmers who are responsible for setting up the network reporting environment.

- *Network Performance Feature Reference*, SC28-3222

  Provides reference information for network analysts or programmers who use the Network Performance Feature.

© Copyright IBM Corp. 2018, 2021

- *Network Performance Feature Reports*, SC28-3223

  Provides information for network analysts or programmers who use the Network Performance Feature reports.

- *Resource Accounting for z/OS*, SC28-3224

  Provides information for users who want to use IBM Z Performance and Capacity Analytics to collect and report performance data generated by Resource Accounting.

- *System Performance Feature Guide*, SC28-3225

  Provides information for performance analysts and system programmers who are responsible for meeting the service-level objectives established in your organization.

- *System Performance Feature Reference Volume I*, SC28-3226

  Provides information for administrators and users with a variety of backgrounds who want to use IBM Z Performance and Capacity Analytics to analyze z/OS, z/VM®, zLinux, and their subsystems, performance data.

- *System Performance Feature Reference Volume II*, SC28-3227

  Provides information for administrators and users with a variety of backgrounds who want to use IBM Z Performance and Capacity Analytics to analyze z/OS, z/VM, zLinux, and their subsystems, performance data.

- *Usage and Accounting Collector User Guide*, SC28-3228

  Provides information about the functions and features of the Usage and Accounting Collector.

Index

D

F

I

J

K

L

M

N

P

R

S

T

U

W

Z

SC28-3213-01