Warehouse Proxy Agent
6.3 Fix Pack 2

Installation and Configuration Guide

SC27-5655-00

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Note
Before using this information and the product it supports, read the information in "Notices" on page 19.

This edition applies to version 6, release 3, fix pack 2 of IBM Tivoli Monitoring (product number 5724-C04) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Overview of the agent

The Warehouse Proxy Agent is a unique agent that performs only one task: collecting and consolidating all historical data from the individual agents to store in the Tivoli® Data Warehouse. If you are using the Tivoli Data Warehouse, at least one Warehouse Proxy Agent is required for each Tivoli Monitoring installation.

IBM® Tivoli Monitoring overview

IBM Tivoli Monitoring provides a way to monitor the availability and performance of all the systems in your enterprise from one or several designated workstations. It also provides useful historical data that you can use to track trends and to troubleshoot system problems.

You can use IBM Tivoli Monitoring to achieve the following tasks:

- Monitor for alerts on the systems that you are managing by using predefined situations or custom situations.
- Establish your own performance thresholds.
- Trace the causes leading to an alert.
- Gather comprehensive data about system conditions.
- Use policies to take actions, schedule work, and automate manual tasks.

The Tivoli Enterprise Portal is the interface for IBM Tivoli Monitoring products. You can use the consolidated view of your environment as seen in the Tivoli Enterprise Portal to monitor and resolve performance issues throughout the enterprise.

See the IBM Tivoli Monitoring publications listed in "Documentation for the base agents" on page 12 for complete information about IBM Tivoli Monitoring and the Tivoli Enterprise Portal.

New in this release

For version 6.3 of this monitoring agent, the following enhancements have been made since version 6.2.3, including the fix packs:

- New attributes, Average Queue Time (Minutes), Queue Timeout Consumed (Percent), and Percent Work Queue Filled, have been added to the Work Queue attribute group.
- New product-provided situations, KHD_Queue_Time_Warning, KHD_Queue_Fill_Warning, and KHD_Queue_Fill_Critical, have been added.
- New attributes, Managed System Count Hour, Managed System Count 12 Hour, Managed System Count 24 Hour, and Managed System Count Older, have been added to the Load Statistics attribute group.
- New agent parameters, Database Table Partitioning, Number of future partitions to maintain, Default table container, Default index container, have been added as Configuration values.
- New attributes, Table Partitioning, Forward Partitions, Default Table Container, and Default Index Container, have been added to the Config attribute group.
- New view, Database Table Information, has been added to the Configuration workspace.

Components of the IBM Tivoli Monitoring environment

After you install and set up the Warehouse Proxy agent, you have an environment that contains the client, server, and monitoring agent implementation for IBM Tivoli Monitoring.

This IBM Tivoli Monitoring environment contains the following components:

Tivoli Enterprise Portal client
The portal has a user interface based on Java™ for viewing and monitoring your enterprise.

Tivoli Enterprise Portal Server
The portal server is placed between the client and the Tivoli Enterprise Monitoring Server and enables retrieval, manipulation, and analysis of data from the monitoring agents. The Tivoli Enterprise Portal Server is the central repository for all user data.

Tivoli Enterprise Monitoring Server
The monitoring server acts as a collection and control point for alerts received from the monitoring agents, and collects their performance and availability data. The Tivoli Enterprise Monitoring Server is also a repository for historical data.

IBM Tivoli Enterprise Console®
The Tivoli Enterprise Console is an optional component that acts as a central collection point for events from a variety of sources, including events from other Tivoli software applications, Tivoli partner applications, custom applications, network management platforms, and relational database systems. You can view these events through the Tivoli Enterprise Portal (by using the event viewer), and you can forward events from IBM Tivoli Monitoring situations to the Tivoli Enterprise Console component.

IBM Tivoli Netcool/OMNIbus
Tivoli Netcool/OMNIbus is an optional component and an alternative to the Tivoli Enterprise Console. The Netcool/OMNIbus software is a service level management (SLM) system that delivers real-time, centralized monitoring of complex networks and IT domains. The Tivoli Netcool/OMNIbus components work together to collect and manage network event information.

Tivoli Common Reporting
Tivoli Common Reporting is a separately installable feature available to users of Tivoli software that provides a consistent approach to generating and customizing reports. Some individual products provide reports that are designed for use with Tivoli Common Reporting and have a consistent look and feel.

Agent Management Services

You can use IBM Tivoli Monitoring Agent Management Services to manage the Warehouse Proxy agent.

Agent Management Services is available for the following IBM Tivoli Monitoring OS agents: Windows, Linux, and UNIX. The services are designed to keep the Warehouse Proxy agent available, and to provide information about the status of the product to the Tivoli Enterprise Portal. For more information about Agent Management Services, see "Agent Management Services" in the *IBM Tivoli Monitoring Administrator's Guide*.

User interface options

Installation of the base IBM Tivoli Monitoring software and other integrated applications provides a variety of interfaces that you can use to work with your resources and data.

The following interfaces are available:

Tivoli Enterprise Portal user interface
You can run the Tivoli Enterprise Portal as a desktop application or a browser application. The client interface is a graphical user interface (GUI) based on Java on a Windows or Linux workstation. The browser application is automatically installed with the Tivoli Enterprise Portal Server. The desktop application is installed by using the Tivoli Monitoring installation media or with a Java Web Start application. To start the Tivoli Enterprise Portal browser client in your Internet browser, enter the URL for a specific Tivoli Enterprise Portal browser client installed on your Web server.

Command-line interface
You can use IBM Tivoli Monitoring commands to manage the Tivoli Monitoring components and their configuration. You can also run commands at the Tivoli Enterprise Console event server or the Tivoli Netcool/OMNIbus ObjectServer to configure event synchronization for enterprise situations.

Manage Tivoli Enterprise Monitoring Services window
You can use the window for the Manage Tivoli Enterprise Monitoring Services utility to configure the agent and start Tivoli services not designated to start automatically.

IBM Tivoli Enterprise Console
You can use the Tivoli Enterprise Console to help ensure the optimal availability of an IT service for an organization. The Tivoli Enterprise Console is an event management application that integrates system, network, database, and application management.

IBM Tivoli Netcool/OMNIbus event list
You can use the event list to monitor and manage alerts. An alert is created when the ObjectServer receives an event, alarm, message, or data item. Each alert is made up of columns (or fields) of information that are held in a row in the ObjectServer alerts.status table. The Tivoli Netcool/OMNIbus web GUI is also a web-based application that processes network events from one or more data sources and presents the event data in various graphical formats.

Tivoli Common Reporting
Use the Tivoli Common Reporting web user interface for specifying report parameters and other report properties, generating formatted reports, scheduling reports, and viewing reports. This user interface is based on the Tivoli Integrated Portal.

Data sources

Monitoring agents collect data from specific data sources.

The Warehouse Proxy agent collects data from the following sources:

Scripts

The agent uses application-specific commands and interfaces to gather metrics.

Chapter 2. Agent installation and configuration

Agent installation and configuration requires the use of the *IBM Tivoli Monitoring Installation and Setup Guide* and agent-specific installation and configuration information.

To install and configure the Warehouse Proxy agent, use the "Installing monitoring agents" procedures in the *IBM Tivoli Monitoring Installation and Setup Guide* along with the agent-specific installation and configuration information.

If you are installing silently by using a response file, see "Performing a silent installation of IBM Tivoli Monitoring" in the *IBM Tivoli Monitoring Installation and Setup Guide*.

With the self-describing agent capability, new or updated IBM Tivoli Monitoring agents using IBM Tivoli Monitoring V6.2.3 or later can become operational after installation without having to perform additional product support installation steps. To take advantage of this capability, see "Enabling self-describing agent capability at the hub monitoring server" in the *IBM Tivoli Monitoring Installation and Setup Guide*. Also, see "Self-describing monitoring agents" in the *IBM Tivoli Monitoring Administrator's Guide*.

In addition to the installation and configuration information in the *IBM Tivoli Monitoring Installation and Setup Guide*, use this agent-specific installation and configuration information to install the Warehouse Proxy agent.

Configuration values

For both local and remote configuration, you provide the configuration values for the agent to operate.

When you are configuring an agent, a panel is displayed so you can enter each value. When a default value exists, this value is pre-entered into the field. If a field represents a password, two entry fields are displayed. You must enter the same value in each field. The values you type are not displayed to help maintain the security of these values.

The configuration for this agent is organized into the following groups:

Database Type (KHD_DB_TYPE)
Choose the database type

The configuration elements defined in this group are always present in the agent's configuration.

This group defines information that applies to the entire agent.

Database (KHD_DBMS)
Database Type

The valid values include "DB2", "ORACLE", "MSSQL" when using addSystem and configureSystem CLIs.

This value is required.

Default value: DB2

Agent Parameters (KHD_PARMS)

Agent Parameters Details

The configuration elements defined in this group are always present in the agent's configuration.

This group defines information that applies to the entire agent.

Use Batch (KHD_BATCH_USE)

Batch Database Operations

The type is checkbox.

This value is optional.

Default value: true

JDBC Driver (KHD_DB2_JDBCDRIVER)

The Warehouse JDBC Driver when connecting to a DB2 Linux/UNIX/Windows, or DB2 z/OS database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows

Default value: For All UNIX and Linux Operating Systems: com.ibm.db2.jcc.DB2Driver.

JDBC URL (KHD_DB2_JDBCURL)

The Warehouse JDBC URL when connecting to a DB2 Linux/UNIX/Windows, or DB2 z/OS database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows

Default value: For All UNIX and Linux Operating Systems: jdbc:db2://localhost:50000/WAREHOUS.

Database Compression (KHD_DB_COMPRESSION)

Database Compression option

The type is checkbox.

This value is optional.

Default value: false

JDBC Driver (KHD_MSSQL_JDBCDRIVER)

The Warehouse JDBC Driver when connecting to a Microsoft SQL Server database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows

Default value: For All UNIX and Linux Operating Systems: com.microsoft.sqlserver.jdbc.SQLServerDriver.

JDBC URL (KHD_MSSQL_JDBCURL)
The Warehouse JDBC URL when connecting to a Microsoft SQL Server database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows

Default value: For All UNIX and Linux Operating Systems: jdbc:sqlserver://*server*:*port*;databasename=*database*;SelectMethod=cursor.

ODBC DSN (KHD_ODBC_DSN)
The data source name used by the Warehouse Proxy agent

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on Windows operating systems.

Default value: For All Windows Operating Systems: ITM Warehouse.

JDBC Driver (KHD_ORACLE_JDBCDRIVER)
The Warehouse JDBC Driver when connecting to an Oracle database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows.

Default value: For All UNIX and Linux Operating Systems: oracle.jdbc.driver.OracleDriver.

JDBC URL (KHD_ORACLE_JDBCURL)
The Warehouse JDBC URL when connecting to an Oracle database

The type is string.

This value is required. This setting is only valid for Warehouse Proxy agents that are installed on operating systems other than Windows.

Default value: For All UNIX and Linux Operating Systems: jdbc:oracle:thin:@*server*:*port*:*database*.

Warehouse Compression for Distributed Sources (KHD_SERVER_DIST_COMPRESSION_ENABLE)
Enable the compression of historical data from distributed sources before upload to the Warehouse Proxy Server

The type is checkbox.

This value is optional.

Default value: true

Warehouse Compression for Z/OS Sources (KHD_SERVER_Z_COMPRESSION_ENABLE)
Enable the compression of historical data from Z/OS sources before upload to the Warehouse Proxy Server

The type is checkbox.

This value is optional.

Default value: false

JDBC JARs List (KHD_WAREHOUSE_JARS)
Fully qualified paths to JDBC JAR files (comma separated)

The type is string.

This value is required.

Default value: None

Password (KHD_WAREHOUSE_PASSWORD)
The Warehouse database user password

The type is password.

This value is required.

Default value: None

Warehouse TEMS List (KHD_WAREHOUSE_TEMS_LIST)
Space or comma separated list of Tivoli Enterprise Monitoring Server instances served by this Warehouse Proxy agent. *ANY can be specified if this Warehouse Proxy agent will export data of any agents connected to any TEMS. If the list is left blank, this Warehouse Proxy agent will be the default Warehouse proxy agent.

The type is string.

This value is optional.

Default value: None

Username (KHD_WAREHOUSE_USER)
The Warehouse database username

The type is string.

This value is required.

Default value: ITMUSER

Database Table Partitioning (KHD_PARTITION)
Enable the usage of table partitioning, if supported.

The type is checkbox.

This value is required.

Default value: false

Number of future partitions to maintain (KHD_PARTITIONS_UPWARD)
Define the number of partitions in the future that should be created. Valid values are between 1 and 10.

The type is numeric.

This value is required.

Default value: 10

Default table container (KHD_DEFAULT_TABLE_CONTAINER)
Define the default table container which should be used when creating new tables. The value must follow the naming rules of the

database system being used. A blank value causes the database to select the container in which the table will be created.

The type is string.

This value is optional.

Default value: None

Default index container (KHD_DEFAULT_INDEX_CONTAINER)
Define the default index container which should be used when creating new tables. Use this to place indices in a separate container from tables. The value must follow the naming rules of the database system being used. For DB2, if indices are stored in a separate tablespace from the table data, both the table and index containers must be Database Managed Tablespaces.

The type is string.

This value is optional.

Default value: None

Disable data warehouse log tables

With IBM Tivoli Monitoring v6.2.3, there is now the ability to disable the creation of the data warehouse log tables so that fewer database resources are needed. This is the now the default configuration for both the Warehouse Proxy Agent and the Summarization and Pruning Agents. If upgrading from an existing installation, you can truncate the existing tables in the database to allow their storage space to be reclaimed.

About this task

If you want to revert to the previous behavior the configuration files need to be edited. For the Warehouse Proxy Agent, edit the Warehouse Proxy Agent configuration file (hd.ini on UNIX and Linux systems, KHDENV on Windows systems) and change the variable KHD_WHLOG_ENABLE to Y. The default value is N.

Remote installation and configuration

You can install the monitoring agent remotely from the Tivoli Enterprise Portal or from the command line.

When installing the agent remotely, you must provide the configuration values for the agent to operate. See “Configuration values” on page 5.

To install from the portal, see the *IBM Tivoli Monitoring Installation and Setup Guide*.

To remotely install or configure an agent through the Tivoli Enterprise Portal, you must have installed the application support for that agent (Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal). You must also have installed the agent bundle into the Remote Deploy Depot. Use the **addBundles** command to populate the depot.

For information about displaying the configuration options that are available to use with the **configureSystem** or **addSystem** commands, see "tacmd describeSystemType" in the *IBM Tivoli Monitoring Command Reference*.

If you are using the command line, the following command is an example of remote installation and configuration for Windows operating systems: After performing a remote configuration

```
tacmd addSystem -t HD -n Primary:sample.node.name:NT
-p KHD_DB_TYPE.KHD_DBMS=value
KHD_PARMS.KHD_BATCH_USE=value
KHD_PARMS.KHD_DB2_JDBCDRIVER=value
KHD_PARMS.KHD_DB2_JDBCURL=value
KHD_PARMS.KHD_DB_COMPRESSION=value
KHD_PARMS.KHD_MSSQL_JDBCDRIVER=value
KHD_PARMS.KHD_MSSQL_JDBCURL=value
KHD_PARMS.KHD_ODBC_DSN=value
KHD_PARMS.KHD_ORACLE_JDBCDRIVER=value
KHD_PARMS.KHD_ORACLE_JDBCURL=value
KHD_PARMS.KHD_SERVER_DIST_COMPRESSION_ENABLE=value
KHD_PARMS.KHD_SERVER_Z_COMPRESSION_ENABLE=value
KHD_PARMS.KHD_WAREHOUSE_JARS=value
KHD_PARMS.KHD_WAREHOUSE_PASSWORD=value
KHD_PARMS.KHD_WAREHOUSE_TEMS_LIST=value
KHD_PARMS.KHD_WAREHOUSE_USER=value
KHD_PARMS.KHD_PARTITION=value
KHD_PARMS.KHD_PARTITIONS_UPWARD=value
KHD_PARMS.KHD_DEFAULT_TABLE_CONTAINER=value
KHD_PARMS.KHD_DEFAULT_INDEX_CONTAINER=value
```

The following command is an example of using the **configureSystem** command to enable partitioning with 7 partitions forward:

```
tacmd configureSystem -m <WPA managed system name> -p
 KHD_PARMS.KHD_PARTITION=true KHD_PARMS.KHD_PARTITIONS_UPWARD=7
```

Documentation library

Various publications are relevant to the use of IBM Tivoli Monitoring and to the commonly shared components of Tivoli Management Services.

These publications are listed in the following categories:

- IBM Tivoli Monitoring library
- Related publications

Documentation is delivered in the IBM Tivoli Monitoring and OMEGAMON® XE Information Center at http://pic.dhe.ibm.com/infocenter/tivihelp/v61r1/index.jsp and also in the **Files** section of the Application Performance Management community.

For information about accessing and using the publications, select IBM Tivoli Monitoring → **Using the publications** in the **Contents** pane of the IBM Tivoli Monitoring and OMEGAMON XE Information Center at http://pic.dhe.ibm.com/infocenter/tivihelp/v61r1/index.jsp.

To find a list of new and changed publications, click the **New in this release** topic on the IBM Tivoli Monitoring welcome page. To find publications from the previous version of a product, click **Previous versions** under the name of the product in the **Contents** pane.

IBM Tivoli Monitoring library

The IBM Tivoli Monitoring library provides information about the commonly shared components of Tivoli Management Services.

- *Quick Start Guide*

  Introduces the components of IBM Tivoli Monitoring.
- *Installation and Setup Guide*, SC22-5445

  Provides instructions for installing and configuring IBM Tivoli Monitoring components on Windows, Linux, and UNIX systems.
- *Installation Roadmap* available on Service Management Connect

  Provides a roadmap that covers the installation of IBM Tivoli Monitoring.
- *High Availability Guide for Distributed Systems*, SC22-5455

  Gives instructions for several methods of ensuring the availability of the IBM Tivoli Monitoring components.
- *Program Directory for IBM Tivoli Management Services on z/OS*, GI11-4105

  Gives instructions for the SMP/E installation of the Tivoli Management Services components on z/OS®.
- *Administrator's Guide*, SC22-5446

  Describes the support tasks and functions required for the Tivoli Enterprise Portal Server and clients, including Tivoli Enterprise Portal user administration.
- *Command Reference* available on Service Management Connect

  Provides detailed syntax and parameter information, as well as examples, for the commands you can use in IBM Tivoli Monitoring.
- *Messages* available on Service Management Connect

Lists and explains messages generated by all IBM Tivoli Monitoring components and by z/OS-based Tivoli Management Services components (such as Tivoli Enterprise Monitoring Server on z/OS and TMS:Engine).

- *Troubleshooting Guide* available on Service Management Connect

  Provides information to help you troubleshoot problems with the software.
- *Tivoli Enterprise Portal User's Guide* available on Service Management Connect

  Complements the Tivoli Enterprise Portal online help. The guide provides hands-on lessons and detailed instructions for all Tivoli Enterprise Portal features.
- Tivoli Enterprise Portal online help

  Provides context-sensitive reference information about all features and customization options of the Tivoli Enterprise Portal. Also gives instructions for using and administering the Tivoli Enterprise Portal.

Documentation for the base agents

If you purchased IBM Tivoli Monitoring as a product, you received a set of base monitoring agents as part of the product. If you purchased a monitoring agent product (for example, an OMEGAMON XE product) that includes the commonly shared components of Tivoli Management Services, you did not receive the base agents.

The following publications provide information about using the base agents.

- Agentless operating system monitors
  - *Agentless Monitoring for Windows Operating Systems User's Guide*, SC23-9765
  - *Agentless Monitoring for AIX Operating Systems User's Guide*, SC23-9761
  - *Agentless Monitoring for HP-UX Operating Systems User's Guide*, SC23-9763
  - *Agentless Monitoring for Solaris Operating Systems User's Guide*, SC23-9764
  - *Agentless Monitoring for Linux Operating Systems User's Guide*, SC23-9762
- OS agent documentation is delivered in the following locations:

  Agent Installation and Configuration Guide
  Available in the Information Center:
  - *IBM i OS Agent Installation and Configuration Guide*, SC27-5653
  - *Linux OS Agent Installation and Configuration Guide*, SC27-5652
  - *UNIX OS Agent Installation and Configuration Guide*, SC27-5651
  - *Windows OS Agent Installation and Configuration Guide*, SC27-5650

  Agent Reference
  Available on Service Management Connect

  Agent Troubleshooting Guide
  Available on Service Management Connect

  Infrastructure Management Dashboards for Servers Reference
  Available on Service Management Connect
- Warehouse agent documentation is delivered in the following locations:

  Agent Installation and Configuration Guide
  Available in the Information Center:
  - *Warehouse Proxy Agent Installation and Configuration Guide*, SC27-5655
  - *Warehouse Summarization and Pruning Agent Installation and Configuration Guide*, SC27-5654

Agent Reference
Available on Service Management Connect

Agent Troubleshooting Guide
Available on Service Management Connect

- System P agents
  - *AIX Premium Agent User's Guide*, SA23-2237
  - *CEC Base Agent User's Guide*, SC23-5239
  - *HMC Base Agent User's Guide*, SA23-2239
  - *VIOS Premium Agent User's Guide*, SA23-2238
- Other base agents
  - *Agent Builder User's Guide*, SC32-1921
  - *Performance Analyzer User's Guide*, SC27-4004
  - *Systems Director base Agent User's Guide*, SC27-2872
  - *Tivoli Log File Agent User's Guide*, SC14-7484
  - *Tivoli zEnterprise Monitoring Agent User's Guide*, SC14-7359 and the *Tivoli zEnterprise Monitoring Agent Installation and Configuration Guide*, SC14-7358

Related publications

For information about related products and publications select **OMEGAMON XE shared publications** or other entries in the **Contents** pane of the IBM Tivoli Monitoring and OMEGAMON XE Information Center.

You can access the IBM Tivoli Monitoring and OMEGAMON XE Information Center at http://pic.dhe.ibm.com/infocenter/tivihelp/v61r1/index.jsp .

You can also access other information centers at IBM Tivoli Documentation Central (https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli%20Documentation%20Central).

Tivoli Monitoring community on Service Management Connect

Connect, learn, and share with Service Management professionals: product support technical experts who provide their perspectives and expertise.

For information about Tivoli products, see the Application Performance Management community on SMC at IBM Service Management Connect > Application Performance Management (http://www.ibm.com/developerworks/servicemanagement/apm).

For introductory information, see IBM Service Management Connect (http://www.ibm.com/developerworks/servicemanagement).

Use Service Management Connect in the following ways:

- Become involved with transparent development, an ongoing, open engagement between other users and IBM developers of Tivoli products. You can access early designs, sprint demonstrations, product roadmaps, and prerelease code.
- Connect one-on-one with the experts to collaborate and network about Tivoli and the (enter your community name here) community.
- Read blogs to benefit from the expertise and experience of others.
- Use wikis and forums to collaborate with the broader user community.

Other sources of documentation

You can obtain additional technical documentation about monitoring products from other sources.

- Tivoli wikis

  IBM Service Management Connect > Application Performance Management (http://www.ibm.com/developerworks/servicemanagement/apm) includes a list of relevant Tivoli wikis that offer best practices and scenarios for using Tivoli products, white papers contributed by IBM employees, and content created by customers and business partners.

  Two of these wikis are of particular relevance to IBM Tivoli Monitoring:

  – The IBM Tivoli Monitoring Wiki (https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli%20Monitoring) provides information about IBM Tivoli Monitoring and related distributed products, including IBM Tivoli Composite Application Management products.

  – The Tivoli System z® Monitoring and Application Management Wiki provides information about the OMEGAMON XE products, NetView® for z/OS, Tivoli Monitoring Agent for z/TPF, and other System z monitoring and application management products.

- IBM Integrated Service Management Library

  http://www.ibm.com/software/brandcatalog/ismlibrary/

  IBM Integrated Service Management Library is an online catalog that contains integration documentation and other downloadable product extensions.

- Redbooks®

  http://www.redbooks.ibm.com/

  IBM Redbooks and Redpapers include information about products from platform and solution perspectives.

- Technotes

  Technotes provide the latest information about known product limitations and workarounds. You can find Technotes through the IBM Software Support Web site at http://www.ibm.com/software/support/.

Support information

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

Online

The following sites contain troubleshooting information:

- Go to the IBM Support Portal (http://www.ibm.com/support/entry/portal/software) and follow the instructions.
- Go to IBM Service Management Connect > Application Performance Management (http://www.ibm.com/developerworks/servicemanagement/apm) and select the appropriate wiki.

IBM Support Assistant

The IBM Support Assistant (ISA) is a free local software serviceability workbench that helps you resolve questions and problems with IBM software products. The ISA provides quick access to support-related information and serviceability tools for problem determination. To install the ISA software, go to IBM Support Assistant (http://www-01.ibm.com/software/support/isa).

Troubleshooting Guide

For more information about resolving problems, see the product's Troubleshooting Guide.

Using IBM Support Assistant

The IBM Support Assistant is a free, stand-alone application that you can install on any workstation. You can then enhance the application by installing product-specific plug-in modules for the IBM products you use.

The IBM Support Assistant saves you the time it takes to search the product, support, and educational resources. The IBM Support Assistant helps you gather support information when you need to open a problem management record (PMR), which you can then use to track the problem.

The product-specific plug-in modules provide you with the following resources:

- Support links
- Education links
- Ability to submit problem management reports

For more information, and to download the IBM Support Assistant, see http://www.ibm.com/software/support/isa. After you download and install the IBM Support Assistant, follow these steps to install the plug-in for your Tivoli product:

1. Start the IBM Support Assistant application.
2. Select **Updater** on the Welcome page.
3. Select **New Properties and Tools** or select the **New Plug-ins** tab (depending on the version of IBM Support Assistant installed).
4. Under **Tivoli**, select your product, and then click **Install**. Be sure to read the license and description.

If your product is not included on the list under **Tivoli**, no plug-in is available yet for the product.

5. Read the license and description, and click **I agree**.
6. Restart the IBM Support Assistant.

Obtaining fixes

A product fix might be available to resolve your problem. To determine which fixes are available for your Tivoli software product, follow these steps:

1. Go to the IBM Software Support website at http://www.ibm.com/software/support.
2. Under **Select a brand and/or product**, select **Tivoli**.

   If you click **Go**, the **Search within all of Tivoli support** section is displayed. If you don't click **Go**, you see the **Select a product** section.
3. Select your product and click **Go**.
4. Under **Download**, click the name of a fix to read its description and, optionally, to download it.

   If there is no **Download** heading for your product, supply a search term, error code, or APAR number in the field provided under **Search Support (this product)**, and click **Search**.

For more information about the types of fixes that are available, see the *IBM Software Support Handbook* at http://www14.software.ibm.com/webapp/set2/sas/f/handbook/home.html.

Receiving weekly support updates

To receive weekly e-mail notifications about fixes and other software support news, follow these steps:

1. Go to the IBM Software Support website at http://www.ibm.com/software/support.
2. Click **My support** in the far upper-right corner of the page under **Personalized support**.
3. If you have already registered for **My support**, sign in and skip to the next step. If you have not registered, click **register now**. Complete the registration form using your e-mail address as your IBM ID and click **Submit**.
4. The **Edit profile** tab is displayed.
5. In the first list under **Products**, select **Software**. In the second list, select a product category (for example, **Systems and Asset Management**). In the third list, select a product sub-category (for example, **Application Performance & Availability** or **Systems Performance**). A list of applicable products is displayed.
6. Select the products for which you want to receive updates.
7. Click **Add products**.
8. After selecting all products that are of interest to you, click **Subscribe to email** on the **Edit profile** tab.
9. In the **Documents** list, select **Software**.
10. Select **Please send these documents by weekly email**.
11. Update your e-mail address as needed.
12. Select the types of documents you want to receive.
13. Click **Update**.

If you experience problems with the **My support** feature, you can obtain help in one of the following ways:

Online

Send an e-mail message to erchelp@ca.ibm.com, describing your problem.

By phone

Call 1-800-IBM-4You (1-800-426-4968).

Contacting IBM Software Support

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