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IBM® TS7700 Series Notification Messages

White Paper

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Release Notes

This is the third version of the document. The document version will match the TS7700 release for which this document is addressed and contains information for previous releases.

Some messages have been deprecated along previous releases or used by other similar products like Enterprise Tape controller which are no longer in the market, those messages have been removed from the list of messages.

Change bars '|' will show up at the right of the page for those lines that are new or changed from second version of document to this third version of document.

Configurations Supported

All currently supported FICON attached IBM tape libraries, including native partitions and those with Virtual Tape Servers or Virtualization Engines as well as their associated library manager, generate notifications to their attached hosts to inform the customer of conditions or events that have occurred within the product. Those libraries are the TS7700, the TS3500 and the TS4500. However, not all messages are generated by all level of code on all products.

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Introduction

During normal and exception processing within an IBM tape library, it may encounter conditions or events that require some level of action by an operator. Sometimes the operator is interested in monitoring certain events. When these conditions or events are encountered, a message text, called a notification message is logged. The text associated with the notification message may be sent to all hosts that are attached to the subsystem in the form of a message or can be monitored through the TS7700 web interface, SNMP and/or RSyslog which are called notification channels. The intervention or action may require immediate attention to continue library processing or may be something that can be handled at a later time. The TS7700 products may also generate informational messages. These messages provide information about an operation that is taking place within the product and may or may not require operator action. Informational messages are always sent to the available notification channels by default.

IBM TS7700 provides several facilities for those notifications to be available to the user. The embedded web console displays Management Interface (MI) Events. Additionally, notifications can be sent out as a z/OS console message CBR3750I or SIM message in an IEA480E, also as a SNMP trap or message to a remote syslog server. All of which can be customized according the user needs through the MI web interface using the Notification Settings panel (R4.1.2 and up).

The purpose of this white paper is to list all the notifications/messages that are generated and to indicate the importance of each message in regard to how they need to be handled, as well as explain the notification channels and setup in the Management Interface. The terms notification and message are considered to mean the same thing and are used interchangeable throughout the document, meanwhile the term event is generally only used to refer to the notifications that can be displayed in the MI events page at the TS7700 web interface.

The white paper is targeted for the following customer personnel:

- System Operators
- System Administrators

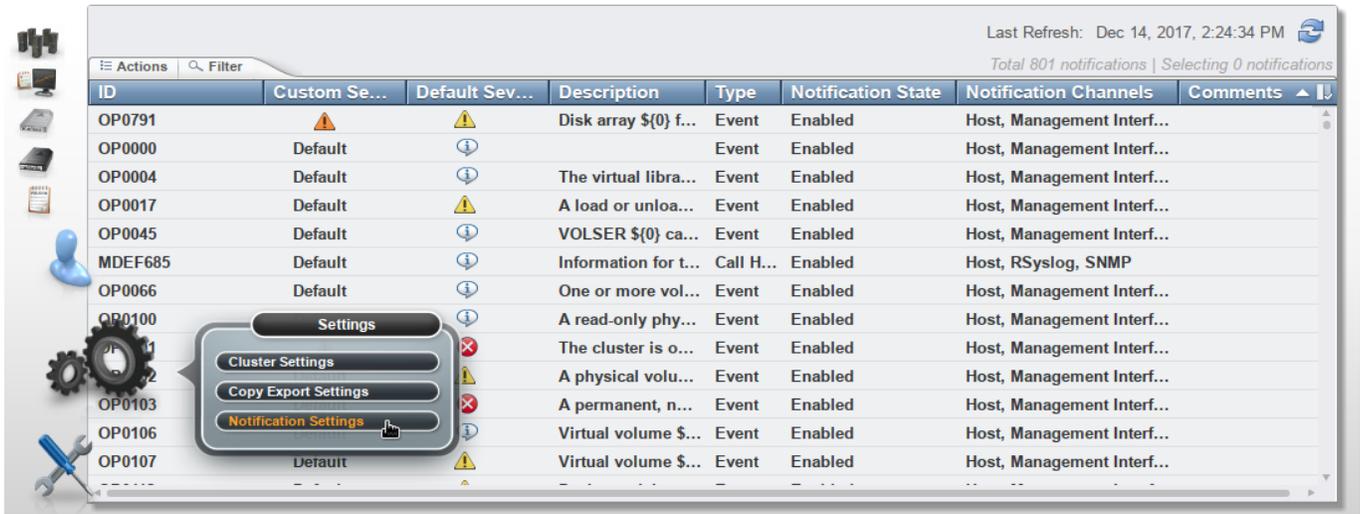
Messages, Notifications or Events

IBM TS7700 use the terms: message, notifications and events, to refer to the information that it sent when the system needs to inform about an action or condition detected by the system, but the system does have different mechanism to detect and report conditions and here is where the different terms and how they are used within the TS7700 comes into play:

- **MI (Management Interface) Events**
Refers to those messages that will show up under the Events notification panel in the TS7700 MI. These started being visible only through this panel, but they have evolved and now can be seen in any supported channel.
- **Host Notifications**
Refers to those messages that will show up in the console of the host within a CBR message. These started to be only visible in the host console, but also have evolved to be visible in other supported channels: SNMP and RSyslog
- **MDE Messages**
Microcode Detected Error, these are messages that will show up in the host console log. These are visible in the host console under an IEA480E, and Service personnel have other interface to look at them but has also evolved to be visible from other interfaces: SNMP, RSyslog and under MI event OP0499.
- **SNMP Traps**
Simple Network Management Protocol traps, this is a standard protocol the system can use to send out messages.
- **RSyslog**
Standard syslog mechanism, which use the rocket-fast syslog implementation.
- **Notifications**
Refers to all type of message the system may send to any supported interface.
- **Notification Channel**
This term refers to the supported mechanism to view notifications: MI events, Host notifications, SNMP, and RSyslog.

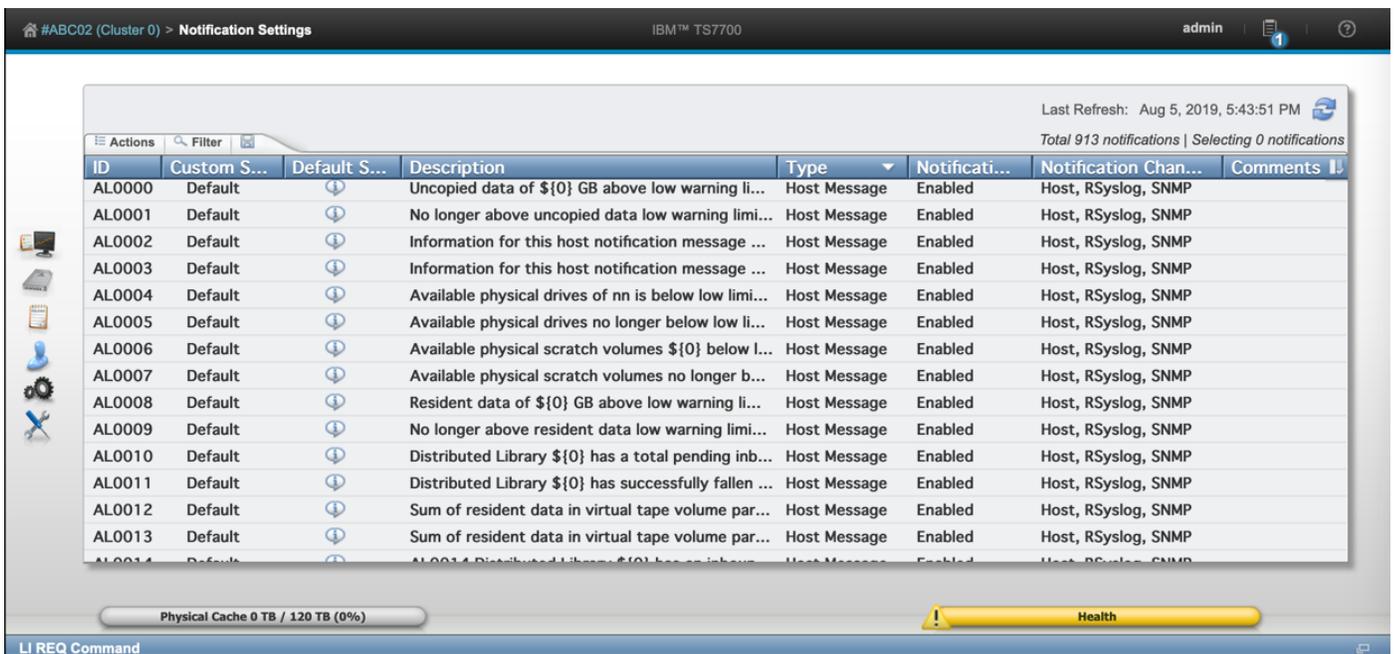
Management Interface Notifications Settings

A new feature since R4.1.2 is to be able to configure setting of the notification messages, there is no FC required to activate the new panel, to access it go to the following path in the TS7700 MI: **Settings** → **Notifications Settings**. By default, not all columns are displayed click in the right top corner of the table to configure the column visibility.



Management Interface Notification Settings panel details

This is the main panel for configuring the notifications. All the available messages generated by the system are listed in the data grid and are highly configurable. All messages have a default severity assigned by the system, but it can be changed to a custom one. Moreover, the notification channels can be specified, from what clusters they are sent out and even a custom message text to be included when the specific notification gets triggered.



Following is listed the message properties:

- **ID:** String that identify the notification.

- **Custom Severity:** The severity that has been set by the user for the corresponding notification, the text *Default* means the severity taken for this notification will be the one displayed in the column *Default Severity*.
- **Default Severity:** Severity which the notification has by default. For more information about severity and their meaning please refer to section “Severity”.
- **Description:** Text that describe the event that triggers the actual notification.
- **Type:** Type of the notification that is listed, Event, Host Message, or Call Home MDE.
- **Notification State:** The state in which the notification has been set, if disabled, the system will not send the message to any notification channel.
- **Notification Channels:** The channels in which the notification will be sent, possible values are: Host, Management Interface, SNMP, and RSyslog. Notification of type *Host Message cannot be seen from Management Interface*.
- **Comments:** Field available to add user comments. The comments are sent with the message, through the notification channels, when the message is triggered by the system. Comments in notifications set for Call Home MDE will not be sent through this channel, only the MDE code is sent.

The following actions can be performed from the Actions drop-down :

- **Modify Notification Settings:** In this dialog you can set, for each notification, its custom severity, state, notification channels and comments.
- **Modify Notification State by Severity:** In this dialog you can enable or disable the notifications that correspond to the selected severity. **Note:** this action will work based on the current value of the severity, whether it is the default severity or custom severity.
- **Modify Host Notification State by Cluster:** In this dialog you can set the state, enable or disable, for all the notifications from the selected clusters.

Management Interface Events

An MI event in the Management Interface serves for notification of active issues and for audit trail of every event that was issued by the system in the past 30 days. This page displays information for an entire grid if the accessing cluster is part of a grid, or only for the accessing cluster if that cluster is a stand-alone machine.

There isn't any configuration required in order to see the Management Interface events, by default all events are active and enabled to be seen at the MI. In order to see them navigate to the Events page using the following path: **Monitor** → **Events**. By default, not all columns are displayed, click on the right top corner of the table to configure the column visibility.

Moreover, in the lower right corner there is a component called cluster health pod which displays all the active events, for clusters in GRID there will be one pod in the right upper corner called Active Events pod in R5.0, in previous releases it will be at the lower right corner.

The screenshot shows the 'Events' page in the Management Interface. At the top, it says 'Demo (Cluster 1) > Events' and 'IBM™ TS7700'. The user is logged in as 'admin'. The page shows a table of events with the following columns: 'Date & Time', 'Event Code', and 'Description'. The table contains 18 rows of events, with a total of 189 events. The events include file system space usage warnings (OP0761, OP0169, OP0760), service call home notifications (OP0499), DVD drive problems (OP0762), and I/O adapter card communication errors (OP0757, OP0758). A 'Health' pod is visible in the bottom right corner, showing a red status indicator.

Date & Time	Event Code	Description
2019/10/24, 05:27:16	OP0761	File system: /dev/hydloglv0, is using 93% of its available space.
2019/10/24, 05:24:50	OP0169	The TS7700 resident-only partition is out of cache space. The t...
2019/10/24, 05:27:17	OP0760	File system: /dev/pfelv0, is using 91% of its available space.
2019/10/24, 14:13:46	OP0499	An error was detected and a Service Call Home has been genera...
2019/10/24, 05:47:46	OP0499	An error was detected and a Service Call Home has been genera...
2019/10/24, 05:27:10	OP0499	An error was detected and a Service Call Home has been genera...
2019/10/24, 05:26:57	OP0762	DVD is having problems; the reported operation is: write.
2019/10/24, 05:26:56	OP0762	DVD is having problems; the reported operation is: read.
2019/10/24, 10:42:39	OP0757	Unable to communicate with the Alt I/O adapter card.
2019/10/24, 10:42:38	OP0757	Unable to communicate with the Pri I/O adapter card.
2019/10/23, 14:55:36	OP0757	Unable to communicate with the Alt I/O adapter card.
2019/10/23, 14:55:34	OP0757	Unable to communicate with the Pri I/O adapter card.
2019/10/23, 13:58:36	OP0758	Unable to communicate with the Alt I/O drawer.
2019/10/23, 13:58:35	OP0758	Unable to communicate with the Pri I/O drawer.
2019/10/23, 04:39:24	OP0761	File system: /dev/hydloglv0, is using 93% of its available space.
2019/10/23, 04:34:40	OP0169	The TS7700 resident-only partition is out of cache space. The t...
2019/10/22, 12:53:34	OP0761	File system: /dev/hydloglv0, is using 93% of its available space.
2019/10/22, 12:48:59	OP0169	The TS7700 resident-only partition is out of cache space. The t...

Figure it's from R5.0 previous or newer releases may differ a bit

Management Interface Events Configuration

By default, all Events are enabled in the system, this means that whenever the system detects the condition the event will be visible in the Events panel in the MI. Since R4.1.2 that can be changed using the Notifications Settings MI panel. A new setting was introduced to enable or disable a message, and other setting its available to configure the message to not show in the Events page but still go to other channels.

To change those settings, go to “**Settings->Notification settings**” page, select the message you want to tune and use “Actions” then “Modify Notification Settings”, a pop-up window will show up like the following:

The screenshot shows a dialog box titled "Modify Notification Settings". It contains the following information:

- ID:** OP0171
- Type:** Event
- Description:** Unsupported scratch media of type \${0} were inserted into the library.
- Custom Severity:** Default (dropdown menu)
- Notification State:** Enabled (radio button selected), Disabled (radio button unselected)
- Notification Channels:**
 - Host
 - Management Interface
 - SNMP
 - Rsyslog
- Comments:** (empty text area)

At the bottom of the dialog are "OK" and "Cancel" buttons.

The option to enable or disable the message its “Notification State”, by default it will be Enabled, you can change it to “Disable” and once you hit OK that setting will apply next time that condition is present in the system, but since the message its disabled the system won’t generate any type of alert about it.

The other setting that affects events that shows up in the Event panel is “Management Interface” under “Notification Channels”, This setting will apply when the message is enabled, by default its selected, it means that the message will show up in the Event panel, if its unselected it means that the message won’t be listed in the Events panel when this condition occurs, but since its enabled it will still be seen in other notification channels that are selected.

Host Notifications

There are different types of notifications the TS7700 sends to the host, in this document we will focus in 2 of them: CBR3750I messages and IEA480E.

Only the z/OS platform currently supports receiving the CBR messages and generates the following host console messages:

CBR3750I Message from library *library-name*: *message-text*. Severity impact: *severity-impact-text. Customer impact: *customer-impact-text****.

*New with TS7700 R4.1.2 and z/OS v2r2 APAR OA52376

Where *library-name* identifies the source of the message. Messages can come from a native library partition, standalone VTS or the composite or distributed libraries in a TS7700 or a PTP VTS. This is the eight character library name that had been previously defined through the library definitions panels through z/OS. The *message-text* contains the information being provided. Included in the *message-text* is a five character message ID field that may be examined by message automation software to filter or route specific messages. The message text can be up to 240 characters in length. The severity-impact-text can be any of: CRITICAL, SERIOUS, IMPACT, WARNING or INFORMATIONAL. The customer-impact-text can be up to 48 characters and is optional information customer can set up through TS7700 MI Notification Settings interface.

IEA480E *yyyy*, {TLIB | TCU | TVIR | TAPE}, *mt*, {ACUTE | SERIOUS | MODERATE | SERVICE} ALERT, SER=*mmpp-sssss*, MC=*mc*, ES=*es*, ID=*id*, REF= *ref1-ref2-ref3*, UM=*um1-um2-um3*, {CLEAN | CLEAN/SERVICE | CLEANED} , REPEATED

IEA480E is a Service Information Message (SIM) console message. The specified tape library, tape controller, virtual tape server, or tape drive unit has detected an abnormal condition that requires operator or service attention.

There are different types of SIMs that TS7700 logs, in this document we are focusing on SIMs that carries an MDE (Microcode Detected Error), these type of messages starts with a reference code E000 and next 4 characters is the MDE code, example: E000-8116-0000, some of these MDEs are informational only and the others starts a call home process which ends opening up a PMH.

There are no new fields in this message at the host but the difference since TS7700 R4.1.2 is that you can configure some setting about how TS7700 handles MDE messages that calls home.

Host notifications configuration

Host messages are sent by default from the system, there is no need to activate them, these type of message are sent over the FICON channels to the host, and the host displays them in the console, but since R4.1.2 you can control whether a host message its sent to the host or not, there are different ways to affect host message going into the host, the different mechanism are explained in next topics.

Host notifications settings

In previous levels than R4.1.2, the “Host Notification” enablement setting was located at the Events page and it controlled only MI events at a time (all or none) to be sent out as a CBR message to the zOS. In R4.1.2, greater customization mechanisms were introduced, so now not only MI events can be configured, but any host notification capable message can be individually configured to be sent or not to the host. Moreover, they also can be enabled and disabled individually, or all by cluster, and/or all by severity basis. The “Messages Reference” section contains all messages that can be generated by the TS7700.

The Notification Settings page allows individual enablement of each message. The page can be found under the following path: **Settings** → **Notification Settings**. More information about the Notification Settings page is explained later in this document.

Then after selecting the desired message in the data grid, select the “Modify Notification Settings” option in the table drop-down, a pop up window will show up with details of the message and some settings you can tune about it for what we are interested in this topic is the Host checkbox which controls whether the message is sent out or not to the zOS, this settings has GRID scope, what else you modify from this panel will be replicated to all clusters in the GRID.

The screenshot shows a dialog box titled "Modify Notification Settings". It contains the following information:

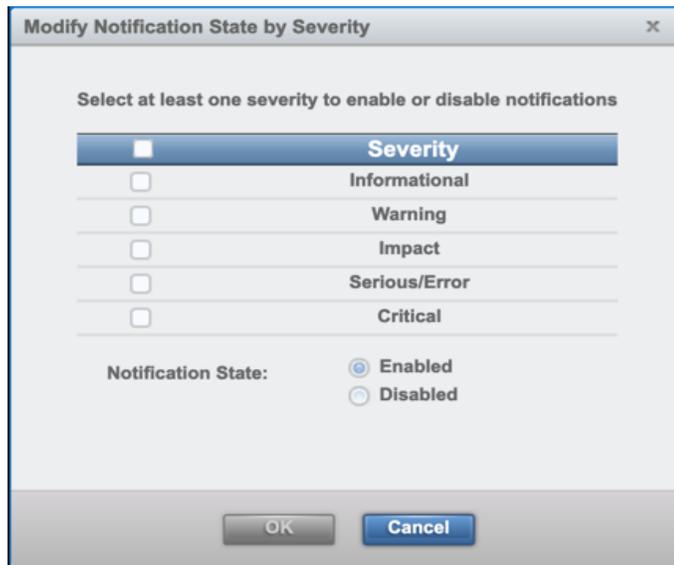
- ID: OP0681
- Type: Event
- Description: LDAP server connection is not correctly configured. IP: \${0} Port:\${1}
- Custom Severity: Serious/Error (with a red 'X' icon)
- Notification State: Enabled (radio button selected), Disabled (radio button unselected)
- Notification Channels: Host (checked), Management Interface (checked), SNMP (checked), RSyslog (checked)
- Comments: (empty text box)
- Buttons: OK, Cancel

To disable by cluster, in the Notification Settings page use Actions then Modify Host Notification State by Cluster, and a panel like next one will show up:



This panel will have a list of clusters in the GRID and from any cluster in the GRID you can select some or all cluster to enable or disable notifications to be send to the host from the selected clusters. This setting take precedent over another individual settings message may have.

The other available option that affects host notifications it's found at **Notification Settings** → **Actions** → **Modify Notification State by Severity**, a panel like the following will show up:



This setting allow you to disable or enable a group of messages which match its current severity, you can select some or all, this setting has GRID scope, so what else is selected will be replicated to all clusters in the GRID, if you select all severities, would be the same effect as if you use Modify Host Notification State by Severity and select all clusters that shows up.

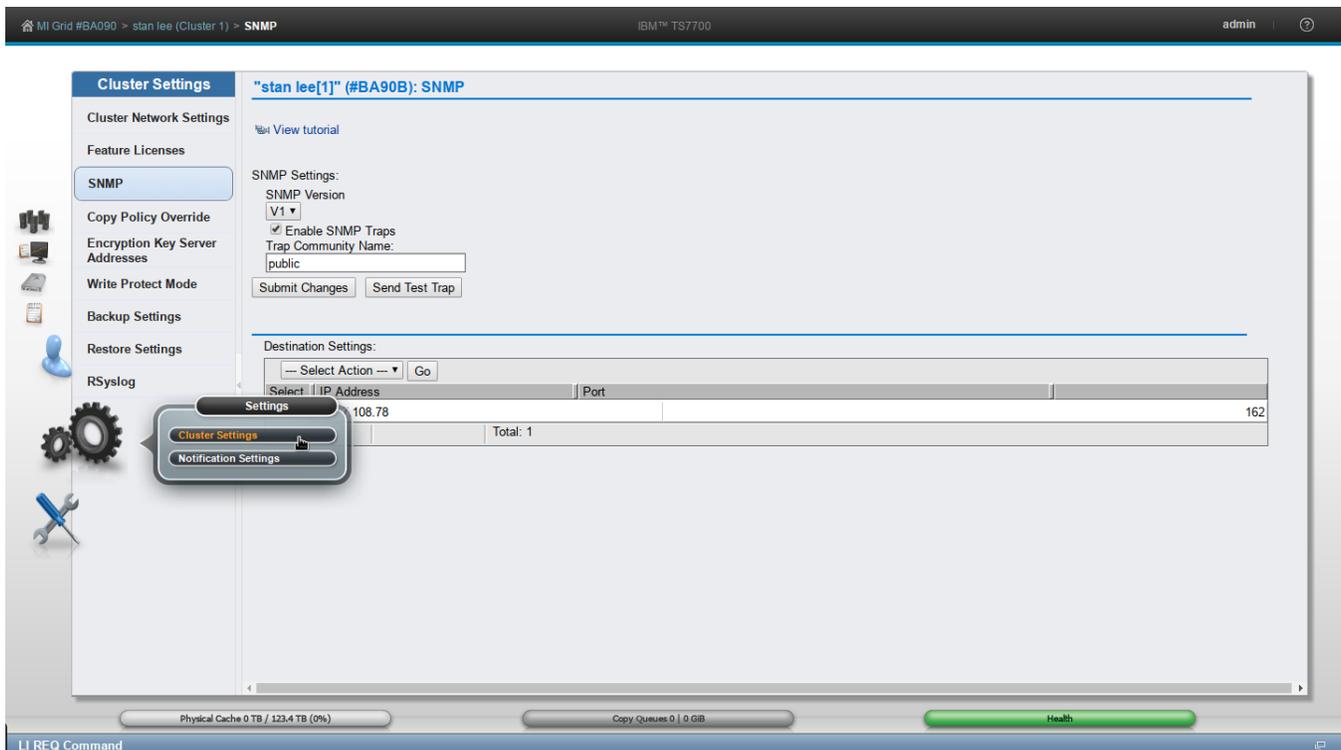
SNMP notifications

SNMP stands for Simple Network Management Protocol and is a networking protocol that enables a TS7700 to automatically gather and transmit information about alerts and status to other entities in the network. That information is sent out as asynchronous notifications known as SNMP traps which allow the TS7700 to be monitored over the network.

SNMP traps can log operation history events, such as log-in occurrences, configuration changes, status changes (vary on or off and service prep), shutdown, code updates and more.

SNMP traps configuration

The SNMP summary page lists all the SNMP information. Use it to view or modify the SNMP configured on a TS7700 Cluster. The page can be found under the following path: **Settings** → **Cluster Settings** → **SNMP**.



This page provides information about configuring global settings that apply to SNMP traps on an entire cluster. You can configure the following settings:

- **SNMP Version:** The SNMP version defines the protocol that is used in sending SNMP requests and is determined by the tool you are using to monitor SNMP traps. Different versions of SNMP traps work with different management applications. Current supported versions are V1, V2 and V3.
- **Enable SMP Traps:** This check box enables or disables SNMP traps on a cluster. If the check box is selected, SNMP traps on the cluster are enabled. If the check box is not selected (the default), SNMP traps on the cluster are disabled.

- **Trap Community Name:** This name identifies the trap community and is sent along with the trap to the management application. This value behaves as a password. The management application does not process an SNMP trap unless it is associated with the correct community. This value must be 1 - 15 characters in length and consists of Unicode characters.
- **Send Test Trap:** This button sends a test SNMP trap to all destinations listed in the Destination Settings table by using the current SNMP trap values. The Enable SNMP Traps check box does not need to be checked to send a test trap. If the SNMP test trap is received successfully and the information is correct, select Submit Changes.
- **Submit Changes:** Select this button to submit changes to any of the global settings, including the SNMP Version, Enable SNMP Traps, and Trap Community Name fields.

Use the Destination Settings table to add, modify, or delete a destination for SNMP trap logs. You can add, modify, or delete a maximum of 16 destination settings at one time. A destination consists of an IP address of the SNMP server and the port to which the SNMP trap logs are sent. The IP address can take any of the following formats: IPv4, IPv6, a host name resolved by the machine (such as localhost), or a fully-qualified domain name (FQDN) if a domain name server (DNS) is provided.

SNMP messages settings

Similar to the host notifications, you can control whether an SNMP trap its send out or not for a specific notification message, use the Notification Settings page (**Settings** → **Notification Settings**) to do so, from that panel select the desired message from the list of messages, then click on Actions and use Modify Notification Settings from the list, a window like the following will pop up:

The screenshot shows a 'Modify Notification Settings' dialog box with the following fields and values:

- ID:** AL0003
- Type:** Host Message
- Description:** Information for this host notification message cannot be displayed on this cluster.
- Custom Severity:** Default
- Notification State:** Enabled (radio button selected)
- Notification Channels:** Host, **SNMP** (checkbox checked and highlighted with a red box), RSyslog
- Comments:** (empty text area)

Buttons: OK, Cancel

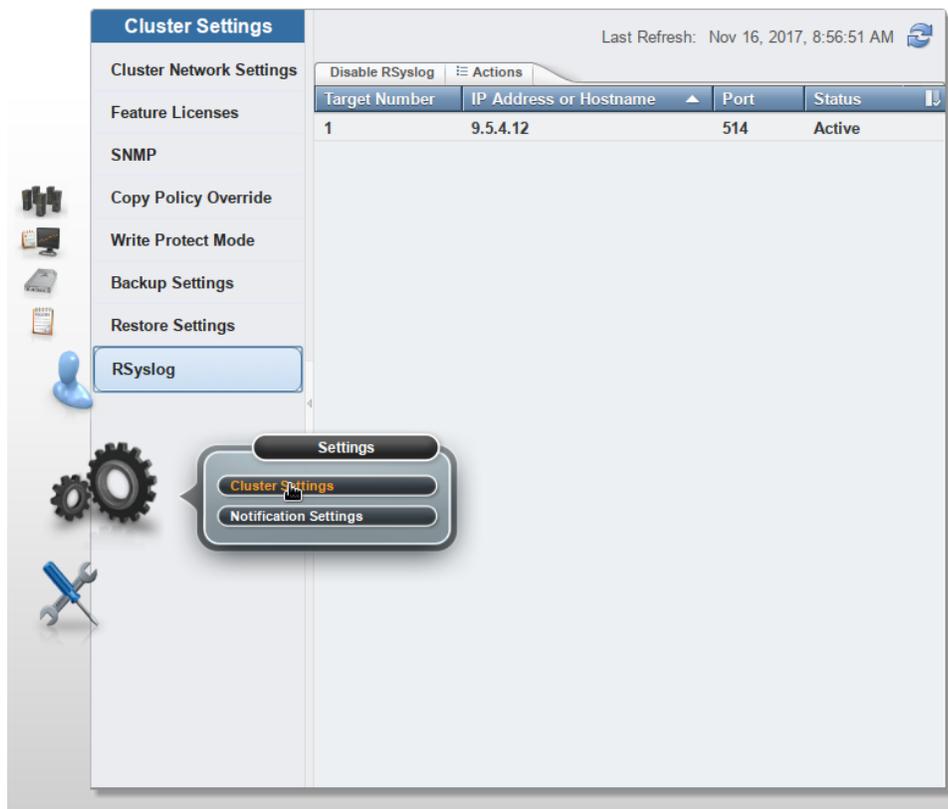
From the Notification channels list, you can select or unselect SNMP, if its selected when the message its triggered a trap will be created and it will be sent to the SNMP targets that are configured for the system, if its unselected then when that messages its triggered by the system SNMP trap won't be sent to any target.

RSyslog notifications

RSyslog is an extended implementation of the message logging standard called syslog which is generally used for system management, and security auditing, as well as general informational, analysis and debugging messages. In the TS7700, the support of proper audit logging is a critical aspect regarding security.

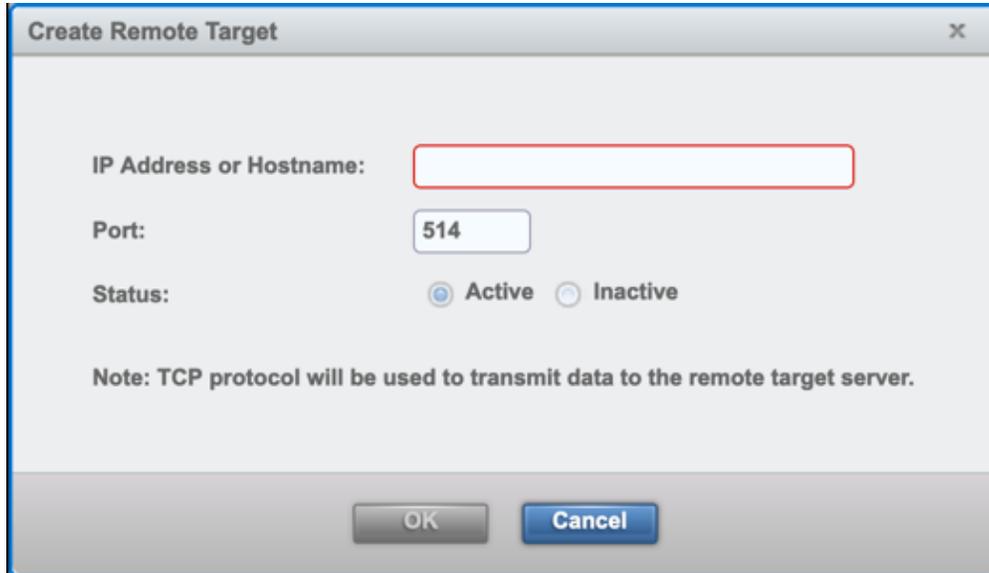
RSyslog configuration

The RSyslog page lists all the RSyslog targets that are currently configured, this panel can be used to add, change or remove RSyslogs targets. The page can be found under the following path: **Settings** → **Cluster Settings** → **RSyslog**.



A target consists of an IP address of the RSyslog server and the port to which the RSyslog messages are sent. The IP address can take any of the following formats: IPv4, IPv6, a host name resolved by the machine (such as localhost), or a fully-qualified domain name (FQDN) if a domain name server (DNS) is provided.

Additionally, the target servers can be individually enabled or disabled so that the messages are sent only to one or more particular servers.



The image shows a dialog box titled "Create Remote Target" with a close button (X) in the top right corner. The dialog contains the following fields and options:

- IP Address or Hostname:** A text input field with a red border, currently empty.
- Port:** A text input field containing the number "514".
- Status:** Two radio button options: "Active" (selected) and "Inactive".
- Note:** A text label stating "Note: TCP protocol will be used to transmit data to the remote target server."
- Buttons:** "OK" and "Cancel" buttons at the bottom.

Up to 2 targets can be configured and both can be enabled, for now only TCP its supported to send the messages thought the network.

RSyslog message settings

Similar to other notification channels, notifications messages can be configured to be sent to the RSyslog targets or not, de default it's that all messages goes to any RSyslog configured that its active, you can change that behavior by modifying the settings for each messages, to do that use the Notifications Settings panel (**Settings** → **Notification Settings**), select a message from the table and use Actions, from the list select Modify Notification Settings, and a pop up window like the following will show up:

The screenshot shows a dialog box titled "Modify Notification Settings" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- ID:** AL0003
- Type:** Host Message
- Description:** Information for this host notification message cannot be displayed on this cluster.
- Custom Severity:** Default (dropdown menu)
- Notification State:** Enabled Disabled
- Notification Channels:**
 - Host
 - SNMP
 - RSyslog (highlighted with a red box)
- Comments:** (empty text area)
- Buttons:** OK and Cancel

Under Notifications Channels, select or unselect RSyslog, if selected that message will be send to the configured and active RSyslog target, if unselected that message won't be sent to any RSyslog target.

Messages

As indicated earlier, messages refer to any type of notification the system sends out and next we will talk in more details on them.

Message Types

There are different notification types which can be configured to different notification channels. There are messages that only support certain channels. This relation is depicted in table below:

Note: First column has the characters the message starts with at the notification channels but MDEs.

	Management Interface event	Host CBR3750I message	SNMP trap	RSyslog message
AA		Yes	Yes	Yes
AL		Yes	Yes	Yes
E		Yes	Yes	Yes
G		Yes	Yes	Yes
HA		Yes	Yes	Yes
R		Yes	Yes	Yes
MDE	Yes*	Yes**	Yes	Yes
OP	Yes	Yes	Yes	Yes

* MDEs are seen in the management interface in the body of OP0499, not as separate Event

** MDEs are seen at the host within an IEA4080E.

Message Severity

For each message, a severity code based on the action required and potential to impact operations is assigned as follows:

Severity	Code	Severity Description	Action
Critical	C	Operations in the reporting TS7700/VTS/Library are stopped, all jobs allocated may fail.	Immediate operator, system administrator or service representative action
Serious / Error	S	One or more jobs may fail, some logical volumes may be inaccessible, mounts are suspended, performance may be degraded	Important to examine message, take action as needed
Impact	I	No immediate impact to operations, but ejects cannot proceed, input station processing problem, early warning for serious type interventions including performance degradation, copies may not be performed or are degraded.	Examine message as time allows
Warning	W	No immediate impact to operations, redundant resource lost, installation/configuration problem or change, drive cleaning may be impacted	Examine message as time allows
Information	M	Informational message about operations in the TS7700/VTS/library	Log for historical review
Default	-	Message will have severity assigned by default by the system.	Check the appropriate Action for each severity.

Message Product Area

The product area associated with the message is also listed and could be used when deciding who to evaluate the message. The product areas are:

- Library - regarding the physical library
- Media - regarding a physical tape cartridge
- Tape Drive - regarding a physical tape device
- Library Manager - regarding the library manager code and hardware
- TS7700 - regarding the VTS or TS7700 code and hardware
- Control Unit - regarding the control unit code or hardware
- Cache – regarding the storage subsystems
- TA – Tape Attach
- CA – Cloud Attach

Refer to the *IBM 3953 Library Manager Model L05 Operator’s Guide* for the probable cause for the intervention condition and the actions required for resolution.

Message Trigger Type

This column (TT) provides guidelines for which interventions or events may want to be monitored by host automation. The column indicates if the event is a setting of a condition (“C” or “S”) or a clearing of a condition (“c” or “r”). The column also indicates whether the intervention or event is a customer (“C” and “c”) responsibility or an IBM (“S” and “r”) responsibility.

- C – Customer responsibility – Condition is set
- c – Customer responsibility – Condition is cleared
- S – IBM responsibility – Condition is set – Notify IBM
- r – IBM Responsibility – Condition is reset – Notify IBM
- Blank – requires no trigger.

Messages Reference

In the message text, 'n's, 'm's, 'x's, 'y's and 'z's are replaced with values specific for the message. The column "New/Chg." it's the release at which the message was created or changed, the tracking started since R4.1.2 so previous to that release the field will be empty, meaning it could had been created or changed at any previous release, you may be able to find some of that info in white papers "IBM® TS7700 Series Operator Informational. Messages White Paper", which were created for some of the releases 4.1.1 and previous.

Column "Sev Dft" it's the default severity the system will use to send the messages if not custom sev its defined by the user.

And column "Sev Sug", it's a suggested severity some customers had used in the past, but default severity was not changed in the microcode.

All the information in the table it's from latest release available when this document was published.

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
Management Interface Events						
OP0003	M	I	C	Library	The I/O station is full.	
OP0004	M	I	C	Library	The virtual library is full.	
OP0017	W	S	S	Tape Drive	A load or unload failure has occurred on device: 'xxxx' .	
OP0045	M	S	C	Media	VOLSER 'xxxxxx' cannot be removed from its home location.	
OP0048	W	I	C	Media	A VOLSER 'xxxxxx' has an incorrect media type on the external label.	
OP0066	M			Media	One or more volumes have been inserted into the library and marked unassigned.	
OP0100	M		C	Media	A read-only physical volume 'xxxxxx' has been ejected.	
OP0101	C		C	Media	The cluster is out of empty physical volumes.	
OP0102	W	S	C	Media	A physical volume has a label error. Internal: 'xxxxxx' , External: 'yyyyyy'	
OP0103	C		S	TS7700	A permanent, non-recoverable tape volume cache error has occurred.	
OP0106	M	S	C	TS7700	Virtual volume 'xxxxxx' was only partially read.	
OP0107	W	S	S	TS7700	Virtual volume 'xxxxxx' was not fully recovered from damaged physical volume 'yyyyyy' .	
OP0112	W		S	Tape Drive	Device serial number 'xxxx' has been made offline and/or unavailable by the TS7700 Engine with a reason code of 'yy' .	
OP0115	M	S	S	Media	The cluster attempted unsuccessfully to eject a damaged physical volume 'xxxxxx' .	
OP0120	M	S	C	Media	Mount of virtual volume 'xxxxxx' failed because physical volume 'yyyyyy' is misplaced. (reason code= 'zz')	
OP0121	W	S	S	Media	Mount of virtual volume 'xxxxxx' failed because physical volume 'yyyyyy' is inaccessible.	
OP0122	W	S	C	Media	Mount of virtual volume 'xxxxxx' located on physical volume 'yyyyyy' failed. (reason code= 'zz')	
OP0123	M	I	C	Media	Physical volume 'xxxxxx' is in read-only status due to successive media errors.	
OP0124	W	S	C	Media	Physical volume 'xxxxxx' is unavailable.	
OP0127	C		S	Tape	An invalid mixture of physical drive types was detected.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
				Drive		
OP0128	C		S	Tape Drive	The TS7700 Engine does not have enough physical drives to continue operation.	
OP0130	M	I	C	Media	Physical volume 'xxxxxx' failed scratch mount. Its label cannot be read and the tape must be re-initialized.	
OP0134	M		C	Media	Physical volume 'xxxxxx' is write-protected.	
OP0135	M	I		Media	The TS7700 unsuccessfully attempted to eject write-protected physical volume 'xxxxxx' .	
OP0136	M	I	S	Media	Physical volume 'xxxxxx' was moved to category FF08 due to unrecovered active data.	
OP0138	C		C	Media	The common scratch pool (Pool 00) is out of 'xxxx' media physical volumes.	
OP0139	C		C	Media	Storage Pool 'xx' is out of scratch physical volumes.	
OP0140	M			Media	VOLSER 'xxxxxx' could not be moved from Storage Pool 'yy' to Storage Pool 'zz' . Error code = 'nn' .	
OP0144	W		S	Media	Eject failed on physical volume 'xxxxxx' that contains active data. Error code = 'yy' .	
OP0149	C		C	Media	Storage Pool 'xx' is out of write compatible physical scratch volumes.	
OP0150	M	I	C	Media	The physical volume 'xxxxxx' is near or has reached the End of Life Threshold.	-/ R4.1.2 PGA1, R4.2, R4.2 PGA2
OP0152	M	S	C	Media	Active data on ejected physical volume 'xxxxxx' needs to be recovered.	
OP0153	M	S	C	Media	Physical volume 'xxxxxx' is misplaced.	
OP0164	M			TS7700	The TS7700 Engine has initiated auto removal of volumes on this disk-only cluster.	-/R4.1.2
OP0165	M		C	Media	One or more non-writable physical volumes were found.	
OP0166	M		C	Media	Copy Export did not export physical volume 'xxxxxx' because of an incorrect format.	
OP0167	M		C	Media	Unsupported media (for example: JA, JJ) is set for First Media, Second Media, or both for Physical Volume Pool(s): 'xx' .	
OP0168	M	I	C	Media	One or more unsupported empty media has been found and cannot be used by the installed tape drives.	
OP0169	C		C	TS7700	The 'xx' is out of cache space. The total used, 'yy' TiB, is less than 1 TiB from the total cache space or less than 5% below the total cache space, 'zz' TiB.	
OP0170	W		C	TS7700	The 'xx' has limited cache free space. The total used, 'yy' TiB, is less than 3 TiB from the total cache space or less than 15% of total cache space, 'zz' TiB.	
OP0171	M		C	Media	Unsupported scratch media of type 'xxxx' were inserted into the library.	
OP0172	M			TS7700	Automatic removal of logical volumes on this cluster has been disabled due to a small cache resident-only partition size.	
OP0173	M			TS7700	Automatic removal of logical volumes on this cluster has been enabled because the cache resident-only partition size is now sufficient.	
OP0200	W		C,S	TS7700	The local cluster is operating in immediate copy mode and at least one copy did not finish prior to the completion of the Rewind/Unload command.	
OP0201	M		c,r	TS7700	All immediate deferred copy operations are complete.	
OP0202	W		C,S	TS7700	One or more volumes opened as part of a synchronous mode	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					copy operation did not synchronize completely across both clusters.	
OP0203	M		c,r	TS7700	Synchronization across both clusters has completed for all volumes that were in the synchronous deferred state.	
OP0204	W		C,S	TS7700	Copy operations for the local cluster are disabled by the system.	
OP0205	M		c,r	TS7700	The system has enabled copy operations at the local cluster.	
OP0206	M		C	TS7700	Copy operations for the local cluster are disabled by the host.	
OP0207	M		c	TS7700	Copy operations for the local cluster are enabled by the host.	
OP0208	W		C,S	TS7700	The cluster 'xx' has applied 'yy' local cluster fence action. Reason: 'zz' .	R4.12/-
OP0209	W		C,S	TS7700	The cluster 'xx' has detected the remote cluster 'yy' has applied 'zz' local fence action. Reason: 'nn' .	R4.12/-
OP0210	W		C,S	TS7700	The cluster 'xx' has successfully completed the remote fence action 'yy' to the peer cluster 'zz' . Reason: 'nn' .	R4.12/-
OP0211	I		c,r	TS7700	The cluster 'xx' has been unfenced successfully.	R4.12/-
OP0212	C		C,S	TS7700	The cluster 'xx' has failed to apply the remote fence action 'yy' to the peer cluster 'zz' .	R4.12/-
OP0213	C		C,S	TS7700	Unfence cluster 'xx' has failed.	R4.12/-
OP0214	I		C, S	TS7700	The cluster 'xx' has crossed remote cluster fence threshold. 'yy' has been reported. The cluster 'zz' has applied 'nn' remote fence action.	R4.12/-
OP0215	W		C, S	TS7700	The cluster 'xx' has crossed remote cluster fence threshold. 'yy' has been reported. But the cluster 'zz' thinks the cluster 'nn' looks healthy. Remote cluster fence action is not applied.	R4.12/-
OP0216	I		C	TS7700	Inbound Copy operations for the COPYRFSH copy jobs on the local cluster 'xx' are disabled by the host.	R5.0/-
OP0217	I		c	TS7700	Inbound Copy operations for COPYRFSH copy jobs on the local cluster 'xx' are enabled by the host.	R5.0/-
OP0218	I		C	TS7700	Inbound Copy operations for the deferred copy jobs on the local cluster 'xx' are disabled by the host.	R5.0/-
OP0219	I		c	TS7700	Inbound Copy operations for deferred copy jobs on the local cluster 'xx' are enabled by the host.	R5.0/-
OP0310	M	I		TS7700	The data class 'xxxx' was automatically created with the default actions for volume 'yyyyyy' .	
OP0311	M			TS7700	The Storage Class 'xxxx' was automatically created with the default actions for volume 'yyyyyy' .	
OP0312	M			TS7700	The Management Class 'xxxx' was automatically created with the default actions for volume 'yyyyyy' .	
OP0313	M			TS7700	The Storage Group 'xxxx' was automatically created with the default actions for volume 'yyyyyy' .	
OP0314	M			TS7700	The inhibit create command was ignored and one or more constructs were automatically created with the default actions for volume 'xxxxxx' as a result of an imbalance of defined SMS constructs across the Domain.	
OP0315	M			TS7700	The maximum number of defined constructs has been reached. An imbalance of defined SMS constructs across the domain has occurred. Default constructs were assigned for volume 'xxxxxx' .	
OP0316	C		S	TS7700	The TS7700 Engine has detected corrupted tokens for one or more virtual volumes.	
OP0409	M			TS7700	The volume hold function was disabled for scratch category 'xxxx' .	
OP0410	M			TS7700	The hold/expire time has been changed to 'xx' hours for scratch category 'yyyy' .	-/R4.2

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0411	M			TS7700	A fast-ready attribute was deleted for category 'xxxx' .	
OP0428	W	S	S	Library	The 3584 library reported a hardware error ('xx'). Contact your IBM service representative.	
OP0430	C	S	S	Library	The TS7700 is having issues communicating with the tape library or the tape library is not responsive to requests. Contact your IBM service representative.	R5.1/-
OP0433	M			TS7700	The Send Interventions to Host Console setting on the Events panel has been turned on.	-/R4.1.2
OP0434	M			TS7700	The Send Interventions to Host Console setting on the Events panel has been turned off.	-/R4.1.2
OP0439	W	W,S ⁽¹⁾	C	TS7700	The TS7700 lost communication with the primary Encryption Key Server.	
OP0440	W	W,S ⁽¹⁾	C	TS7700	The TS7700 lost communications with the alternate Encryption Key Server.	
OP0442	M	S	C	Library	Physical volume 'xxxxxx' is inaccessible.	
OP0443	M	S	S	Library	The virtual tape library has detected an inconsistency with the physical tape library.	
OP0444	W			Library	LM PC has not been rebooted in 6 months.	
OP0445	W		C	TS7700	The primary Encryption Key Server was set to UNAVAILABLE.	
OP0446	W		C	TS7700	The alternate Encryption Key Server was set to UNAVAILABLE.	
OP0448	M		C	Media	More than 'xx' errors were encountered for physical volume 'yyyyyy' .	
OP0449	M		C	Media	Pool 'xx' has physical volumes of the wrong media class.	
OP0450	M		C	Media	The media type of VOLSER 'xxxxxx' does not match its VOLSER range. The VOLSER was not assigned to a cluster.	
OP0451	C	S	C	TS7700	Encryption is enabled. No Encryption Key Servers are configured.	
OP0452	W		C	TS7700	Encryption Key Server error 'xx' prevented device 'yyyyyy' from encrypting data in storage pool 'zz' .	
OP0453	W		C	TS7700	Device 'xxxxxx' could not append encrypted data to cartridge 'yyyyyy' (Encryption Key Server error 'zz').	
OP0454	W		C	TS7700	Device 'xxxxxx' could not decrypt data from cartridge 'yyyyyy' (Encryption Key Server error 'zz').	
OP0455	W		S	Tape Drive	Device 'xxxx' is not in 3592 E05 Native mode. The Device was made unavailable.	
OP0456	W		C	TS7700	Encryption is enabled on the virtual tape library. Device 'xxxx' is not enabled for system-managed encryption.	
OP0468	W			Library	The 3494 Library Manager has an event.	
OP0469	W			Library	The 3494 Library Manager is in a degraded state.	
OP0470	M			TS7700	Delete Expire capability has been disabled.	
OP0471	C	I	C	Media	The Field Microcode Replacement tape 'xxxxxx' cannot be used as a data cartridge.	
OP0472	M			Media	The database backup to physical volume 'xxxxxx' failed during the Copy Export operation as a result of a media error.	
OP0473	M			Media	A media error occurred during the Copy Export operation and the physical volume 'xxxxxx' has been ejected. The medium may be degraded, and should not be reused in an export pool.	
OP0474	M			Media	The Copy Export operation did not export physical volume 'xxxxxx' because the primary copy for virtual volume 'yyyyyy' is currently unavailable.	
OP0475	M			Media	Copy Export did not export virtual volume 'xxxxxx' because it	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					was not able to premigrate the volume to the export pool.	
OP0476	M			TS7700	The event was cleared automatically.	
OP0477	M			TS7700	The event was cleared by 'xxxx' .	
OP0480	M		S	TS7700	Service Call Home will be initiated.	
OP0481	M		S	TS7700	Service Call Home was initiated.	
OP0482	M		S	TS7700	Service Call Home was initiated with PMR number 'xxxxx,yyy,zzz' .	
OP0483	C		S	Cache	A permanent cache problem was encountered.	
OP0484	C		S	Cache	A permanent cache problem was encountered.	
OP0485	C		S	Cache	A 3956-CC6 permanent check was encountered.	
OP0486	C		S	TS7700	A CHECK1 condition was encountered.	
OP0487	C		S	TS7700	An adapter microcode CHECK1 condition occurred.	
OP0488	C		C	TS7700	A channel event occurred.	
OP0489	C		S	TS7700	An undetermined error occurred.	
OP0490	C		C	TS7700	An operator notification occurred.	
OP0491	C		S	TS7700	A microcode exception occurred in the ATL daemon.	
OP0492	C		S	TS7700	An undetermined error occurred.	
OP0493	C			Control Unit	An informational message was presented by CU.	
OP0494	C		C	TS7700	An environmental problem has occurred.	
OP0495	C		S	TS7700	A microcode exception occurred in the tape daemon.	
OP0496	C		S	TS7700	The tape daemon detected a CRC error.	
OP0497	C		S	TS7700	A microcode exception occurred in the tape daemon.	
OP0498	C		S	TS7700	A microcode exception occurred in the BATE daemon.	
OP0499	M		S	TS7700	An error was detected and a Service Call Home has been generated. The call home includes the following SIM(s): SIMID-RESOURCE-REF CODES 'xx'	
OP0500	M			TS7700	The times displayed by the local and remote clusters 'xx' differ by more than 5 seconds.	
OP0510	M			TS7700	'xxxx' logged into the Web interface.	
OP0511	M			TS7700	'xxxx' logged out of the Web interface.	
OP0512	M			TS7700	User 'xx' the setting to send future events to host.	
OP0514	M			TS7700	Custom Role 'xxxx' has been changed.	
OP0515	M			TS7700	SNMP settings have changed.\n Values are:\n SNMP Version: 'xx' \n Enable SNMP Traps: 'yy' \n Trap Community Name: 'zz' \n	
OP0516	M			TS7700	Stand-alone mount was initiated for volume 'xx' on device 'yy' .	
OP0517	M			TS7700	Stand-alone demount was initiated on device 'xx' .	
OP0518	M			TS7700	Node 'xx' has been shut down.	
OP0519	M			TS7700	Custom Role 'xxxx' has been created.	
OP0520	M			TS7700	Custom Role 'xxxx' has been deleted.	
OP0521	M			TS7700	The security settings for local authentication have changed. \n \nLocal Account Expiration: 'xx' . \nThe account will expire if the password is not changed in 'yy' days.	
OP0522	M			TS7700	The security settings for local authentication have changed. \n \nLocal Account Expiration: 'xx' .	
OP0523	M			TS7700	The security settings for local authentication have changed. \n \nLocal Account Lock: 'xx' . \nThe account will be locked after 'yy' unsuccessful attempts to enter the password.	
OP0524	M			TS7700	The security settings for local authentication have changed. \n \nLocal Account Lock: 'xx' .	
OP0525	C		S	Tape	A TAPE DRIVE FAILURE has occurred	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
				Drive		
OP0526	C		S	TS7700	A FibrePath, FibreSwitch, or FibreInterface error has occurred.	
OP0527	M			TS7700	Stand-alone mount for volume 'xx' on device 'yy' completed successfully.	
OP0528	M			TS7700	Stand-alone demount for volume 'xx' on device 'yy' completed successfully.	
OP0529	W			TS7700	Stand-alone mount for volume 'xx' on device 'yy' failed with error code 'zz' .	
OP0530	W			TS7700	Stand-alone demount for volume 'xx' on device 'yy' failed with error code 'zz' .	
OP0531	W		C,S	TS7700	The network connection on grid port 'xx' with IP address: 'yyyy' experienced a possible loss of connectivity.	
OP0532	C		C,S	TS7700	The network connection on grid port 'xx' with IP address: 'yyyy' is not responding.	
OP0533	M		C,S	TS7700	The connection between the local cluster and the remote cluster is interrupted or may be experiencing a small level of unbalanced usage. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0534	W		C,S	TS7700	The connection between the local cluster and the remote cluster is losing packets, or the connection is unavailable, or the connection is experiencing a level of unbalance usage. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0535	C		C,S	TS7700	The connection of local cluster to remote cluster, was not available. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0536	C		S	TS7700	The link from local cluster to remote cluster is in the offline state. Remote cluster: 'xx' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0537	M		C,S	TS7700	The connection of local cluster to remote cluster was unavailable for a brief time or the local cluster was unable to retrieve the status of the remote adapter. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0538	W		C,S	TS7700	The connection of local cluster to remote cluster is not available, because the local cluster reports the status of the remote adapter as not available. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0539	C		S	TS7700	The connection between the local cluster and the remote cluster is not available, because the state of the remote adapter is Failed. Remote cluster: 'xx' Remote port: 'yy' Remote IP address: 'z.z.z.z' Local cluster: 'nn'	-/R5.1
OP0540	C		C,S	TS7700	The link to remote cluster: 'xx' With IP address: 'yyyy' is in the offline state. NTC (Network Traffic Controller) reports link state: 'zz'	
OP0541	W		C,S	TS7700	The link to gateway IP 'xxxx' is degraded.	
OP0542	C		C,S	TS7700	The link to gateway IP 'xxxx' has failed.	
OP0543	W		C,S	TS7700	The primary and alternate grid adapters have different speeds:\n Primary 'xx' link speed is: 'yy' \n Alternate 'zz' link speed is: 'nn'	
OP0544	C		S	TS7700	The primary grid Ethernet port 'xx' is down.	-/R4.2
OP0545	C		S	TS7700	The alternate grid Ethernet port 'xx' is down.	-/R4.2
OP0546	M		S	TS7700	Could not retrieve the date on cluster 'xx' .	
OP0547	C		C,S	TS7700	A time synchronization failure was detected between cluster 'xx' and Cluster 'yy' .	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0548	W		S	TS7700	There is no communication with one or more clusters in the Grid.	
OP0549	W			TS7700	One or more clusters in the Grid are in Service status.	
OP0550	M		C	TSSC	Service Call Home, TSSC was unable to generate a PMR number	
OP0551	C		S	Cache	A permanent cache problem was encountered.	
OP0552	C		S	Cache	A temporary cache problem was encountered.	
OP0553	C		S	Cache	The cache has an unreadable sector.	
OP0554	C		S	Cache	A cache power supply has failed.	
OP0555	C		S	Cache	A cache power or fan assembly has failed.	
OP0556	C		S	Cache	The cache has lost redundancy.	
OP0557	C		S	Cache	A problem exists with the cabling or drive path inside the cache enclosure.	
OP0558	C		S	Cache	A cache component has failed or been removed.	
OP0559	C			Cache	A cache controller has failed or been removed.	
OP0560	C		S	Cache	An environmental service module (ESM) canister in the cache has failed or been removed.	
OP0561	C		S	Cache	A cache drive is missing.	
OP0562	C		S	Cache	A cache drive is in a degraded state.	
OP0563	C		S	Cache	A cache disk has reported errors.	
OP0564	C		S	Cache	A cache RAID array has failed drives.	
OP0565	C		S	Cache	An unsupported number of drive enclosures exists on a cache loop.	
OP0566	C		S	Cache	The reported data rate of a cache drive channel is outside the expected range.	
OP0567	C		S	Cache	The data rate could not be obtained on a drive channel for the cache.	
OP0568	C		S	Cache	An incorrect number of enclosures exists on a cache loop.	
OP0569	C		S	Cache	The number of enclosures on a cache loop cannot be determined.	
OP0570	C		S	Cache	Mismatched drives exist in a cache array.	
OP0571	C		S	Cache	Disk operation in the cache is degraded.	
OP0572	M		S	Cache	Network errors were detected while connecting to the cache.	
OP0573	C		S	Cache	An unreadable sector exists in the cache.	
OP0574	C		S	Cache	A parity error occurred in the cache.	
OP0575	C		S	Cache	A cache media error occurred.	
OP0576	M		r	Cache	A temporary cache problem was encountered.	
OP0577	C		S	Cache	The cache has an unreadable sector.	
OP0578	C		S	Cache	A cache power supply has failed.	
OP0579	C		S	Cache	A cache power or fan assembly has failed.	
OP0580	C		S	Cache	The cache has lost redundancy.	
OP0581	C		S	Cache	A problem exists with the cabling or drive path inside the cache enclosure.	
OP0582	C		S	Cache	A cache component has failed or been removed.	
OP0583	C		S	Cache	A cache controller has failed or been removed.	
OP0584	C		S	Cache	An environmental service module (ESM) canister in the cache has failed or been removed.	
OP0585	C		S	Cache	A cache drive is missing.	
OP0586	C		S	Cache	A cache drive is in a degraded state.	
OP0587	C		S	Cache	A cache disk has reported errors.	
OP0588	C		S	Cache	A cache RAID array has failed drives.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0589	C		S	Cache	An unsupported number of drive enclosures exists on a cache loop.	
OP0590	C		S	Cache	The reported data rate of a cache drive channel is outside the expected range.	
OP0591	C		S	Cache	The data rate could not be obtained on a drive channel for the cache.	
OP0592	C		S	Cache	An incorrect number of enclosures exists on a cache loop.	
OP0593	C		S	Cache	The number of enclosures on a cache loop cannot be determined.	
OP0594	C		S	Cache	Mismatched drives exist in a cache array.	
OP0595	C		S	Cache	Disk operation in the cache is degraded.	
OP0596	C		S	Cache	Network errors were detected while connecting to the cache.	
OP0597	C		S	Cache	An unreadable sector exists in the cache.	
OP0598	C		S	Cache	A parity error occurred in the cache.	
OP0599	C		S	Cache	A cache media error occurred.	
OP0600	C	W,S ⁽¹⁾	S	Cache	A temporary cache problem was encountered.	
OP0601	C		S	Cache	The cache has an unreadable sector.	
OP0602	C		S	Cache	A cache power supply has failed.	
OP0603	C		S	Cache	A cache power or fan assembly has failed.	
OP0604	C		S	Cache	The cache has lost redundancy.	
OP0605	C		S	Cache	A problem exists with the cabling or drive path inside the cache enclosure.	
OP0606	C		S	Cache	A cache component has failed or been removed.	
OP0607	C		S	Cache	A cache controller has failed or been removed.	
OP0608	C		S	Cache	An environmental service module (ESM) canister in the cache has failed or been removed.	
OP0609	C		S	Cache	A cache drive is missing.	
OP0610	C		S	Cache	A cache drive is in a degraded state.	
OP0611	C		S	Cache	A cache disk has reported errors.	
OP0612	C		S	Cache	A cache RAID array has failed drives.	
OP0613	C		S	Cache	An unsupported number of drive enclosures exists on a cache loop.	
OP0614	C		S	Cache	The reported data rate of a cache drive channel is outside the expected range.	
OP0615	C		S	Cache	The data rate could not be obtained on a drive channel for the cache.	
OP0616	C		S	Cache	An incorrect number of enclosures exists on a cache loop.	
OP0617	C		S	Cache	The number of enclosures on a cache loop cannot be determined.	
OP0618	C		S	Cache	Mismatched drives exist in a cache array.	
OP0619	C		S	Cache	Disk operation in the cache is degraded.	
OP0620	C		S	Cache	Network errors were detected while connecting to the cache.	
OP0621	C		S	Cache	An unreadable sector exists in the cache.	
OP0622	C		S	Cache	A parity error occurred in the cache.	
OP0623	C		S	Cache	A cache media error occurred.	
OP0624	C		S	Cache	An error was detected in the disk cache.	
OP0625	C		S	TS7700	A system reboot interrupted a call home.	
OP0626	M		S	TS7700	One or more issues on the system have persisted for longer than 48 hours.	
OP0627	C		S	TS7700	There is a problem with network communication required for autonomic ownership takeover.	
OP0628	C		S	TS7700	The cache controller is not configured.	
OP0629	C		S	TS7700	The cache file system is inefficiently allocating its available space.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0630	C		S	TS7700	There is a problem with the network fail over code.	
OP0631	C		S	TS7700	The error detection feature has restarted five times in 24 hours.	
OP0632	C		S	TS7700	The available memory is not configured correctly.	
OP0633	C		S	TS7700	A CPU has failed.	
OP0634	C		S	TS7700	Port 0 on the customer network has failed.	
OP0635	C		S	TS7700	Port 1 on the customer network has failed.	
OP0636	C		S	TS7700	Both Ethernet routers have failed.	
OP0637	C		S	TS7700	The primary Ethernet router has failed.	
OP0638	C		S	TS7700	The alternate Ethernet router has failed.	
OP0639	C			TS7700	The Network Time Protocol (NTP) server is not responding.	
OP0640	C		S	TS7700	A port in an Ethernet router has failed.	
OP0641	C		S	TS7700	A port in an Ethernet router shows increasing errors.	
OP0642	C		S	TS7700	Communication between the disk cache and the primary switch has failed.	
OP0643	C		S	TS7700	Communication between the disk cache and the alternate switch has failed.	
OP0644	C			Cache	One or more arrays are not encrypted.	
OP0645	M	W		Cache	This is a cache Call Home test.	
OP0646	W		C	Tape Drive	Encryption is enabled on the virtual tape library. Device 'xxxx' is not encryption-capable. The device was made unavailable.	
OP0647	C		C,S	TS7700	Host adapter 'xx' is offline.	
OP0648	M	W	C,S	TS7700	The host adapter 'xx' has link 'yy' unavailable.	-/R5.1
OP0649	C		S	TS7700	No IBM media changer devices were found on the system.	
OP0650	W		S	TS7700	The system identified 'xxxx' IBM media changer devices. This is an incorrect number of devices.	
OP0651	M	I	S	TS7700	The IBM media changer 'xxxx' is in an unknown state.	
OP0652	M	W	S	TS7700	The fibre channel adapter for tape interface 'xx' cannot be identified.	
OP0653	M	W	S	TS7700	The drive name 'xx' does not match port 'yy' .	
OP0654	C		S	TS7700	Drives could not be configured on a 3590 or 3592 tape drive.	
OP0655	W		S	TS7700	The physical tape SCSI device 'xxxx' is in the state: 'yyyy' .	
OP0656	C		S	TS7700	Primary and alternate paths for tape SCSI device 'xxxx' are unavailable.	
OP0657	W		S	TS7700	The tape drive device 'xxxx' is shown as 'yyyy' in the cluster.	
OP0658	M	W	S	TS7700	The tape drive device 'xxxx' is in the state 'yyyy' .	
OP0659	W		S	TS7700	The path 'xx' for tape drive 'yyyy' is unavailable.	
OP0660	C		S	TS7700	Both primary and alternate paths for tape drive device 'xxxx' are unavailable.	
OP0661	M	W	S	TS7700	Tape device 'xxxx' is in an unknown state.	
OP0662	M	W	S	TS7700	The path 'xx' to tape device 'yyyy' is disabled.	
OP0663	C		S	TS7700	No tape drives were found in the system.	
OP0664	W		S	TS7700	All paths on the 'xx' lower channel protocol interface failed.	
OP0665	C		S	TS7700	All paths on the primary and alternate lower fibre channel protocol interface failed.	
OP0666	C		S	TS7700	The primary and alternate paths for 'xxxx' on the lower fibre channel protocol interface failed.	
OP0667	W		S	TS7700	The tape SCSI device path 'xxxx' on lower fibre channel protocol interface failed.	
OP0668	W		S	TS7700	For library 'xx' the state of drive 'yyyy' could not be obtained.	-/R5.1
OP0669	M	W	C,S	TS7700	The tape drive 'xxxx' is not available to the physical library 'yy' .	
OP0670	M	W	S	TS7700	This system contains both E05 drives in native mode and J1A drives.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0671	M	S	S	TS7700	All drives are reported as in the busy state.	
OP0672	M	W	S	TS7700	The world wide node name (WWNN) could not be obtained for drive 'xxxx'.	
OP0673	M	I	C,S	TS7700	The physical volume status could not be obtained.	
OP0674	M	S	C,S	TS7700	No physical volumes are found on the system.	
OP0675	M	I	C,S	TS7700	The physical volume pool status could not be obtained.	
OP0676	W		C	TS7700	Physical volume pool 'xx' is out of scratch volumes.	
OP0677	M	I	C,S	TS7700	Volume 'xxxxxx' reports a state 'yyyyyy' with access in 'zz' status.	
OP0678	M	W	C,S	TS7700	One or more IP addresses ('xxxx') of the 'yy' LDAP server are losing packets or one or more ports are unavailable.	
OP0679	C		C,S	TS7700	One or more IP addresses ('xxxx') of the 'yy' LDAP server are unreachable or one or more ports or adapters might have failed.	
OP0680	C		C	TS7700	LDAP server service is down. IP: 'xxxx' Port: 'yy'	
OP0681	W		C,S	TS7700	LDAP server connection is not correctly configured. IP: 'xxxx' Port: 'yy'	
OP0682	M	W	C,S	TS7700	Authentication server 'xxxx' connection ('yyyy') experienced a loss of connectivity.	
OP0683	C		C,S	TS7700	Authentication server 'xxxx' service is down. IP: 'yyyy' Port: 'zz'	
OP0684	W		C,S	TS7700	The connection to authentication server 'xxxx' is not correctly configured. IP: 'yyyy' Port: 'zz'	
OP0687	C		S	Cache	A cache problem was found. Disk model: 'xxxx' .	-/5.1 PGA1
OP0688	C		S	Cache	The cache has an unreadable sector error. Disk model: 'xxxx' .	
OP0689	C		S	Cache	A cache power supply has failed. Disk model: 'xxxx' .	
OP0690	C		S	Cache	A loss of redundancy has occurred in cache. Disk model: 'xxxx'	
OP0691	C		S	Cache	A problem exists with the cabling or drive path inside the cache enclosure. Disk model: 'xxxx' .	
OP0692	C		S	Cache	A DDM is missing. Disk model: 'xxxx'	
OP0693	C		S	Cache	A cache controller has failed or been removed. Disk model: 'xxxx'	
OP0694	C		S	Cache	An environmental service module (ESM) canister in the cache has failed or been removed. Disk model: 'xxxx'	
OP0695	C		S	Cache	A cache component has failed or been removed. Disk model: 'xxxx'	
OP0696	C		S	Cache	Failed drives exist in a cache RAID array. Disk model: 'xxxx'	
OP0697	C		S	Cache	Mismatched drives exist in a cache array. Disk model: 'xxxx'	
OP0698	C		S	Cache	Disk operation in the cache is degraded. Disk model: 'xxxx'	
OP0699	W		S	Cache	Network errors were detected while connecting to the cache. Disk model: 'xxxx'	
OP0700	C		S	Cache	An unsupported number of drive enclosures exists on a cache loop. Disk model: 'xxxx'	
OP0701	C		S	Cache	The reported data rate of a cache drive channel is outside the expected range. Disk model: 'xxxx'	
OP0702	C		S	Cache	The data rate could not be obtained on a drive channel for the cache. Disk model: 'xxxx'	
OP0703	C		S	Cache	An incorrect number of enclosures exists on a cache loop. Disk model: 'xxxx'	
OP0704	C		S	Cache	The number of enclosures on a cache loop cannot be determined. Disk model: 'xxxx'	
OP0705	C		S	Cache	An unreadable sector exists in the cache. Disk model: 'xxxx'	
OP0706	C		S	Cache	A disk cache parity mismatch error occurred in the cache. Disk model: 'xxxx'	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0707	C		S	Cache	A cache media error occurred. Disk model: 'xxxx'	
OP0708	C		S	Cache	A cache power or fan assembly has failed. Disk model: 'xxxx'	
OP0709	C		S	Cache	A cache drive is in a degraded state. Disk model: 'xxxx'	
OP0710	C		S	Cache	A cache disk has reported errors. Disk model: 'xxxx'	
OP0711	C		S	Cache	The cache battery is in a degraded state. Disk model: 'xxxx'	
OP0712	C		S	Cache	The cache controller is in a degraded state. Disk model: 'xxxx'	
OP0713	C		S	Cache	Information for this event cannot be displayed on this cluster.	
OP0714	W		S	Cache	A cache DDM has failed. String: 'xx' , enclosure: 'yy' , slot: 'zz' . The disk model is: 'nnnn' .	
OP0715	M	W	S	TSSC	Connection to TSSC is broken.	
OP0716	M	W	S	TSSC	High packet loss occurred on the connection from TS7700 to TSSC.	
OP0717	M	W	S	TSSC	A call home issue in TSSC is detected. Call homes are deferred and get retried in 1 hour.	-/R5.1 PGA1
OP0718	M	W	S,C	TSSC	TSSC not communicating with external network.	
OP0719	W		S	TSSC	TSSC 'xx' port is Down or in unknown state.	
OP0720	C		S	TSSC	Both TSSC ports are down or in unknown state.	
OP0721	W		S	TSSC	TSSC virtual interface 'xx' is not configured properly.	
OP0722	W		S	TSSC	TSSC IP address: 'xxxx' is responding intermittently.	
OP0723	C		S	TSSC	TSSC IP address: 'xxxx' is not responding.	
OP0724	C		C,S	TS7700	The connection to 'xx' adapter link is not UP. Has not been UP for up to 'yy' minutes.	
OP0725	W		C,S	TS7700	Adapter 'xx' link is experiencing a high level of CRC errors.	
OP0726	W		C,S	TS7700	Adapter 'xx' link is experiencing a high level of collisions.	
OP0727	W		C,S	TS7700	Ping test to address 'xx' failed. The system has been in this condition for up to 'yy' minutes.	
OP0728	W		C,S	TS7700	Ping test to address 'xx' has an excessive packet loss. Has been in this condition for up to 'yy' minutes.	
OP0729	W		C,S	TS7700	The connection to 'xx' adapter link is not UP. Has not been UP for up to 'yy' minutes.	
OP0730	W		S	TS7700	Call Home is currently disabled,	
OP0731	W		S	TS7700	The number of CRC errors is close to the threshold.	
OP0732	C		S	TS7700	The number of CRC errors has exceeded the threshold.	
OP0733	W		C	TS7700	Encryption Key Server 'xx' : 'yy' is not connected.	
OP0734	W		S	TS7700	Stand-alone system has GRID IP address configured.	
OP0735	W		S	TS7700	Virtual interface for MI is not correctly configured.	
OP0736	W		S	TS7700	Traffic on the external virtual interface is being redirected through an alternate path.	
OP0737	C		S	TS7700	Internal configuration for ordering name resolution has the incorrect look-up order for hosts.	
OP0738	W		C,S	TS7700	NTP Server has been unavailable for more than 30 minutes.	
OP0739	C		C,S	TS7700	NTP Server has been unavailable for more than 'xx' minutes.	
OP0740	C		S	TS7700	Invalid configuration found in Domain Name Protocol file.	
OP0741	C		S	TS7700	Invalid configuration found in routing table.	
OP0742	W		S	TS7700	'xx' path in the customer network is down.	
OP0743	C		S	TS7700	Both ethernet paths to the external network are down.	
OP0744	W		S	TS7700	Performance settings for storage related devices are not set correctly.	
OP0745	C		S	TS7700	Problems found with mirrored disks ('xx' and 'yy').	
OP0746	C		S	TS7700	Disk: 'xx' was found on state: 'yy' .	
OP0747	W		S	TS7700	Configured memory size is: 'xx' MB, and the expected memory size is: 'yy' MB.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0748	M	W	S	TS7700	A problem was detected with the media in the system.	-/R5.0
OP0749	C		S	TS7700	Both switches must be configured with the same type (internal or external).	
OP0750	C		C,S	TS7700	Fibre Channel communication error.	
OP0751	C		C,S	TS7700	Fibre Channel hardware error.	
OP0752	W		S	TS7700	Fan or Power Supply failure detected in the server.	
OP0753	W		S	TS7700	PCI slot failure detected in the server.	
OP0754	W		S	TS7700	SPCN failure detected in the system.	
OP0755	W		S	TS7700	A sysplanar failure was detected. The reported system reference code (SRC) is: 'xx' .	
OP0756	C		S	TS7700	Adapter: 'xx' is in status: 'yy' .	
OP0757	C		S	TS7700	Unable to communicate with the 'xx' I/O adapter card.	
OP0758	C		S	TS7700	Unable to communicate with the 'xx' I/O drawer.	
OP0759	W		S	TS7700	A problem was found on the volume group or file system: 'xx' , problem reported is: 'yy' .	
OP0760	W		S	TS7700	File system: 'xx' , is using 'yy' % of its available space.	
OP0761	C		S	TS7700	File system: 'xx' , is using 'yy' % of its available space.	
OP0762	M	W	S	TS7700	Media is having problems; the reported operation is: 'xx' .	-/R5.1
OP0763	M		S	TS7700	System health checks were placed in skip mode. Call Home has been temporarily disabled.	
OP0764	W		S	Tape Drive	The tape drive device 'xxxx' with serial number: 'yyyy' is shown as 'zzzz' in the cluster.	
OP0765	C	S	S	Cache	For disk model: 'xxxx', the power supply/fan assembly 'yy' in enclosure 'zz' has failed or has been removed.	-/R5.1
OP0766	C		S	Cache	For disk model: 'xxxx', the environmental service module (ESM) canister 'yy' in the expansion 'zz' has failed or been removed, FRU: 'nnnn'.	-/R5.1
OP0767	W		C,S	TS7700	The host adapter 'xx' has link 'yy' unavailable.	-/R5.1
OP0768	M	S	C	Media	Physical volume 'xxxxxx' already exists. Duplicate physical volumes cannot be inserted.	
OP0769	W		S	TS7700	Unable to retrieve primary and secondary cache IP values from VPD for cache string: 'xx' .	
OP0770	W		S	Cache	Cache controller for string: 'xx' , in slot: 'yy' is in the 'zz' state.	
OP0771	W		S	Cache	The status of the cache controller: 'xx' for string: 'yy' is unknown.	
OP0772	W		S	Cache	The status of the battery for controller: 'xx' , in string: 'yy' , is degraded.	
OP0773	W		S	Cache	Adapter 'xx' path to cache, for string: 'yy' is inactive.	
OP0774	W		S	Cache	Unable to detect a controller connected to adapter 'xx' , for string: 'yy' .	
OP0775	W		S	Cache	Unable to find the link to the cache controller for string: 'xx' .	
OP0776	W		S	Cache	Only one link to cache controller found for string: 'xx' .	
OP0777	W		S	Cache	All of the spare disks in the string are missing.	
OP0778	W		S	Cache	Unable to retrieve information about spare disks.	
OP0779	W		S	Cache	Number of spare disks found is 'xx' when the expected number is 'yy' .	
OP0780	C		S	TS7700	One or more processes for the Hnode are not running.	
OP0781	W		S	TS7700	An error occurred when retrieving Grid information from VPD.	
OP0782	W		C,S	Library	Physical Library reported: 'xx' status.	
OP0783	C		C,S	Library	Unable to retrieve physical library state.	
OP0784	W		S	Media	A tape drive mismatch has been detected. The tape drives on the Virtual Library are not the same as in Physical Library.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0785	W		S	TS7700	Expected 'xx' grid links for this configuration, but found only 'yy' links.	
OP0786	C		S	Tape Drive	The TS7700 does not have enough sunset physical drives to read active data from sunset media.	
OP0787	W		C	TS7700	AOTM is unable to communicate with the local TSSC.	
OP0788	W		C	TS7700	AOTM is unable to communicate with the remote TSSC of node 'xx' .	
OP0789	W		C	TS7700	AOTM is unable to communicate with the remote node 'xx' .	
OP0790	C		S	TS7700	A memory leak has been detected.	
OP0791	W		S	Cache	Disk array 'xx' for string: 'yy' does not support encryption.	
OP0792	W		S	Cache	Disk array 'xx' for string: 'yy' is not encrypted.	
OP0793	W		S	Cache	Disk at enclosure 'xx' , slot 'yy' does not support encryption.	
OP0794	W		S	TS7700	Imbalance in SMFS detected.	
OP0795	W		C,S	TS7700	The grid link adapter is running at 'xx' Mbps, but the expected speed is 'yy' Mbps.	
OP0796	W		S	TS7700	Unable to query the Grid network adapters.	
OP0797	W		C,S	TS7700	HDM inter-cluster heartbeats are taking longer than expected.	
OP0798	W		S	TS7700	The system is running on 'xx' CPUs, when the expected number of CPUs are 'yy' .	
OP0799	W		S	TS7700	The system is running on 'xx' CPU cores, when the expected number of CPU cores are 'yy' .	
OP0800	W		S	TS7700	The router firmware level is 'xx' , but the expected level is 'yy' .	
OP0801	W		S	TS7700	The router ROM level is 'xx' , but the expected level is 'yy' .	
OP0802	W		C,S	TS7700	Both the Active and Standby Library Managers are offline.	
OP0803	W		C,S	TS7700	The Active Library Manager is offline.	
OP0804	W		S	TS7700	Invalid configuration found in ordering name resolution file.	
OP0805	W		S	TS7700	Could not find 'xx' in the list of 'yy' Disks on this system.	
OP0806	C		S	TS7700	At least one vital process for Vnode is not running.	
OP0807	W		S	TS7700	Unable to retrieve the information about Logical Devices.	
OP0808	W		S	TS7700	The number of logical devices is 'xx' , number of tape daemons is 'yy' .	
OP0809	W		C	TS7700	AOTM is enabled, but the cluster detected errors.	
OP0810	M		C	Media	A scratch sunset physical volume 'xxxxxx' was inserted into the library that the TS7700 cannot use.	
OP0811	W		S	TS7700	The communication to the External Key Server for Cache is down.	
OP0812	C		S	TS7700	At least one vital process for Vnode is not running.	
OP0813	W		S	TS7700	The state for proxy ip 'xx' is in state ('yy') The state: 0 is Offline 1 is Unknown	
OP0814	W		S	TS7700	Fibre Channel switch 'xx' FW level is downlevel: 'yy' .	
OP0815	W		S	TS7700	All paths in the PRI switch are down.	
OP0816	W		S	TS7700	All paths in the ALT switch are down.	
OP0817	C		S	TS7700	Problems found with mirrored disk 'xx' .	
OP0818	C		S	TS7700	Problems found with disks in rootvg volume group.	
OP0819	W		S	Cache	Disk pool 'xx' for string: 'yy' does not support encryption.	
OP0820	W		S	Cache	Disk pool 'xx' for string: 'yy' is not encrypted.	
OP0821	W		S	Cache	Mismatched drives exist in a cache disk pool. Disk model: 'xxxx'	
OP0822	C		S	Cache	Failed Disk pool 'xx' in string: 'yy'	
OP0823	W		S	Cache	String: 'xx' , disk array ID 'yy' with preservation capacity of 'zz' rebuild areas, is now using 'nn'.	-/R5.0
OP0824	C		S	Cache	String: 'xx' , Failed drives exist in a cache disk pool. Disk model: 'yyyy'	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0825	C		S	Library	Fibre Channel communication error to both switches.	
OP0826	C		S	TS7700	I/O Drawer 'xx' is reporting error(s): 'yy'	
OP0827	C		C,S	TS7700	Fiber switch hardware issues found in 'xx' path(S).	
OP0828	C		C,S	TS7700	Communication error in the 'xx' path in between the TS7700 and the fiber switch.	
OP0829	C		S	Cache	Failed Disk array 'xx' in string: 'yy'	
OP0830	W		S	TS7700 CA	The Transparent Cloud Tiering daemon has died.	R4.2/-
OP0831	C		C	TS7700 CA	The Transparent Cloud Tiering service is unreachable: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0832	C		C	TS7700 CA	The URL associated with container is invalid: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0833	C		C	TS7700 CA	The URL associated with container is malformed: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0834	C		C	TS7700 CA	Route to Cloud Storage Provider is unreachable: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0835	C		C	TS7700 CA	Connect exception to Cloud Service Provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0836	C		C	TS7700 CA	Socket timeout for a cloud connection: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0837	C		C	TS7700 CA	Invalid cloud configuration: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0838	C		C	TS7700 CA	Invalid credentials for cloud provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0839	C		C	TS7700 CA	Transparent Cloud Tiering node network down	R4.2/-
OP0840	C		C	TS7700 CA	SSL handshake exception for a cloud provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0841	C		C	TS7700 CA	SSL handshake bad certificate exception for a cloud provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0842	C		C	TS7700 CA	SSL handshake socket closed exception for a cloud provider	R4.2/-
OP0843	W		C	TS7700 CA	The TS7700 cannot communicate with the Cloud provider	R4.2/-
OP0844	I		C	TS7700 CA	Virtual volumes with Storage Class 'xx' is set to offload to cloud storage, but the storage group 'yy' does not have the cloud premigration rank set properly	R4.2/-
OP0845	I		C	TS7700 CA	Unable to write to Cloud Container 'xx'	R4.2/-
OP0846	C		C	TS7700 CA	Mount of virtual volume 'xxxxxx' from the cloud pool 'yy' failed	R4.2/-
OP0847	W		C	TS7700 CA	Cloud pre-migration for virtual volume 'xxxxxx' to cloud pool 'yy' timed out with 'zz' seconds, where CPMTOU is 'nn' and size of the virtual volume is 'mm' GiB	R4.2/-
OP0848	W		C	TS7700 CA	Cloud recall for virtual volume 'xxxxxx' from cloud pool 'yy' timed out with 'zz' seconds, where CRCTOUT is 'nn' and size of the virtual volume is 'mm' GiB	R4.2/-
OP0849	W		C	TS7700 CA	Deleting object 'xxxxxx' from container 'yy' of cloud pool 'zz' timed out with CDELTOU ('nn' seconds)	R4.2/-
OP0850	C		C	TS7700 CA	SSL handshake invalid path certificate exception for a cloud provider	R4.2/-
OP0851	C		C	TS7700 CA	SSL handshake failure exception for a cloud provider	R4.2/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0852	C		C	TS7700 CA	SSL handshake unknown exception for a cloud provider	R4.2/-
OP0853	C		C	TS7700 CA	SSL peer unverified exception for a cloud provider	R4.2/-
OP0854	C		C	TS7700 CA	SSL protocol exception for a cloud provider	R4.2/-
OP0855	C		C	TS7700 CA	SSL exception for a cloud provider	R4.2/-
OP0856	C		C	TS7700 CA	SSL no cert exception for a cloud provider	R4.2/-
OP0857	C		C	TS7700 CA	SSL not trusted cert exception for a cloud provider	R4.2/-
OP0858	C		C	TS7700 CA	SSL invalid algorithm exception for a cloud provider	R4.2/-
OP0859	C		C	TS7700 CA	SSL invalid padding exception for a cloud provider	R4.2/-
OP0860	C		C	TS7700 CA	SSL unrecognized message for a cloud provider	R4.2/-
OP0861	C		C	TS7700 CA	Bad request for a cloud provider	R4.2/-
OP0862	C		C	TS7700 CA	Precondition failed for a cloud provider	R4.2/-
OP0863	C		C	TS7700 CA	Container creation failed: container ('xx')	R4.2/-
OP0864	C		C	TS7700 CA	Cloud Bucket limit exceeded: container ('xx')	R4.2/-
OP0865	C		C	TS7700 CA	Container does not exist: container ('xx')	R4.2/-
OP0866	C		C	TS7700 CA	Time skew with a cloud provider	R4.2/-
OP0867	C		C	TS7700 TA	Cloud provider server error.	R4.2/-
OP0868	C		S	TS7700 TA	Internal directory not found for Transparent Cloud Tiering.	R4.2/-
OP0869	C		S	TS7700 TA	Resource address file not found for Transparent Cloud Tiering.	R4.2/-
OP0870	C		S	TS7700 TA	Data Base corrupted for Transparent Cloud Tiering.	R4.2/-
OP0871	C		C	TS7700 TA	LKM down for Transparent Cloud Tiering.	R4.2/-
OP0872	C		C	TS7700 TA	Access forbidden for a cloud account: cloud account ('xx')	R4.2/-
OP0873	C		C	TS7700 TA	Access denied for a cloud account: ('xx')	R4.2/-
OP0874	C		C	TS7700 TA	Filesystem corrupted for Transparent Cloud Tiering.	R4.2/-
OP0875	C		C	TS7700 TA	Directory error for Transparent Cloud Tiering.	R4.2/-
OP0876	C		C	TS7700 TA	Key manager error for Transparent Cloud Tiering.	R4.2/-
OP0877	C		C	TS7700 TA	Container pair root directory not found for Transparent Cloud Tiering.	R4.2/-
OP0878	C		C	TS7700	Container already exists: 'xx' . cloud account ('yy'), container (R4.2/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
				TA	'zz'), url ('nn')	
OP0879	C		C	TS7700 TA	RKM down for Transparent cloud tiering: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0880	C		C	TS7700 TA	SSL handshake certificate exception for a cloud provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0881	C		C	TS7700 TA	SSL key exception for a cloud provider: 'xx' . cloud account ('yy'), container ('zz'), url ('nn')	R4.2/-
OP0882	C		C	TS7700 TA	Transparent Cloud Tiering container 'xx' inaccessible by url 'yy' for unexpected reason: 'zz' , failure detail: 'nn'	R4.2/-
OP0883	W		S	Cache	Logical drive(s) with no optimal status: 'xx'	R4.2/-
OP0884	W		S	Cache	Cache volume with nonoptimal status. Volume ID: 'xxxxxx' was found in string 'yy' for cache type: 'zz'	R5.0/R5.1
OP0885	W		S	Cache	Cache Mdisk with nonoptimal status. Mdisk ID: 'xx' was found in string 'yy' for cache type: 'zz'	R5.0/R5.1
OP0886	W		S	Cache	Cache pool with nonoptimal status. Pool ID: 'xx' was found in string 'yy' for cache type: 'zz'	R5.0/R5.1
OP0887	W		S	Cache	Cache node canister with nonoptimal status. Node Canister ID: 'xx' was found in string 'yy' for cache type: 'zz'	R5.0/5.1
OP0888	W		S	Cache	Cache battery with nonoptimal status. Battery ID: 'xx' was found in string 'yy' for cache type: 'zz'	R5.0/R5.1
OP0889	W		S	Cache	Cache enclosure with nonoptimal status. Enclosure ID: 'xx' was found in string 'yy' for cache type: 'zz'	R5.0/R5.1
OP0890	W		C,S	Cache	USB with nonoptimal status was found at cache controller node: 'xx' in string 'yy' for cache type: 'zz'	R5.0/-
OP0891	I		c	TS7700	The lwiks certificate for Cluster 'xx' will expire within 'yy' days.	R5.0/-
OP0892	C		c	TS7700	The lwiks certificate for Cluster 'xx' has expired.	R5.0/-
OP0893	C		C	TS7700	Secure Data Transfer failed. The lwiks certificate for Cluster 'xx' has expired. Fingerprint: 'yy'	R5.0/-
OP0894	C		C	TS7700	Secure Data Transfer failed. An internal error has occurred (Server Cluster Id: 'xx').	R5.0/-
OP0895	C		C	TS7700	Secure external encryption failed. The encryption key server offered a certificate that cannot be verified. Subject: 'xx' .	R5.0/-
OP0896	C		C,S	TS7700	Secure external encryption failed. An internal error has occurred. Key Server IP: 'xxxx' . Port: 'yy' .	R5.0/-
OP0897	C		S	Cache	For disk model: 'xxxx' , the power supply/fan assembly 'yy' in enclosure 'zz' and string 'nn' has failed or has been removed.	-/R5.1
OP0898	W		c	TS7700	The lwiks certificate for Cluster 'xx' will expire within 'yy' days please replace the certificate.	R5.0/-
OP0899	C		S	Cache	Another disk failure can cause data loss. String: 'xx' , disk array ID 'yy' with preservation capacity of 'zz' rebuild areas, is now using 'nn' rebuild areas and has a total of 'mm' failed disks.	R5.0/-
OP0900	W		C,S	Library	Physical library is in degraded state.	R5.0/-
OP0901	W		C,S	Cache	The TS7700 cache string 'xx' type 'yy' lost communication with the primary Encryption Key Server.	R5.0/-
OP0902	W		C,S	Cache	The TS7700 cache string 'xx' type 'yy' lost communication with the alternate Encryption Key Server.	R5.0/-
OP0903	I		C	Library	Stacked volume 'xx' ejected from the library 'yy'	R5.0/-
OP0904	W		S	Cache	Cache expansion canister with nonoptimal status: 'xx' was found in enclosure 'yy' at string 'zz' for cache type: 'nn'	R5.0/-
OP0905	W		C	Cache	Partition ('xx') entered overcommit state because the partition usage exceeded allocated partition size.	5.1/-
OP0906	M			Cache	Partition ('xx') exited overcommit state because the partition usage became under the allocated partition size.	5.1/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0907	M			Cache	Cache file list initialization process completed.	5.1/-
OP0908	W		C,S	Cache	Problems detected retrieving External Encryption Key Servers health information from string 'x', please verify network connection from server to switches and the string.	5.1/-
OP0909	W		C	CA	The amount of data stored in the cloud pool 'xx' crossed the high warning level ('yy') TB).	5.1/-
OP0910	W		C	CA	The amount of data stored in the cloud pool 'xx' crossed the low warning level ('yy') TB).	5.1/-
OP0911	M			CA	The amount of data stored in the cloud pool 'xx' is below high warning level ('yy') TB).	5.1/-
OP0912	M			CA	The amount of data stored in the cloud pool 'xx' is below low warning level ('yy') TB).	5.1/-
OP0914	W		C,S	TS7700	The TS7700 lost communication with the Encryption Key Server (IP 'x.x.x.x', Port 'yy')	5.1/-
OP0915	W		S	TS7700	File system: 'xx', is using 'yy' % of its available inode capacity, its mounting point is at 'zz'.	5.1/-
OP0916	C	S	S	TS7700	File system: 'xx', is using 'yy'% of its available inode capacity, its mounting point is at 'zz'.	5.1/-
OP0917	M		C	TS7700	Dual control request has been discarded from the system. Request description: 'xx'	5.1/-
OP0918	W		C	CA	Cloud pool ('xx') needs a cloud account, URL and cluster association to pre-migrate the volume ('yyyy') to the cloud.	5.1/-
OP0919	M		C	CA	Cloud export completed OK. However, the cloud export status report had been truncated using logical volume 'xxxx' due to the volume size being too small.	5.1/-
OP0920	M		C	Cache	Host Write Throttling on resident-only cache partition started. Reasons (Premigration steady state:'x', Low on cache free space:'y', Immediate Copy Throttling:'z', Excessive cached content for copy:'a', Grid premigration steady state:'b', Low on partition free space:'c'.	5.1 PGA1/-
OP0921	M		C	Cache	Host Write Throttling on resident-only cache partition ended.	5.1 PGA1/-
OP0922	M		C	Cache	Host Write Throttling on tape attach cache partition started. Reasons (Premigration steady state:'x', Low on cache free space:'y', Immediate Copy Throttling:'z', Excessive cached content for copy:'a', Grid premigration steady state:'b', Low on partition free space:'c'.	5.1 PGA1/-
OP0923	M		C	Cache	Host Write Throttling on tape attach cache partition ended.	5.1 PGA1/-
OP0924	M		C	Cache	Copy Throttling on resident-only cache partition started. Reasons (Premigration steady state:'x', Low on cache free space:'y', Low on partition free space:'z'.	5.1 PGA1/-
OP0925	M		C	Cache	Copy Throttling on resident-only cache partition ended.	5.1 PGA1/-
OP0926	M		C	Cache	Copy Throttling on tape attach cache partition started. Reasons (Premigration steady state:'x', Low on cache free space:'y', Low on partition free space:'z'.	5.1 PGA1/-
OP0927	M		C	Cache	Copy Throttling on tape attach cache partition ended.	5.1 PGA1/-
OP0928	M		C	Cache	Deferred Copy Throttling on resident-only cache partition started. Reasons (Heavy host I/O:'x', High cluster resource usage:'y', Immediate Copy Throttling:'z'.	5.1 PGA1/-
OP0929	M		C	Cache	Deferred Copy Throttling on resident-only cache partition ended.	5.1 PGA1/-
OP0930	M		C	Cache	Deferred Copy Throttling on tape attach cache partition started. Reasons (Heavy host I/O:'x', High cluster resource usage:'y', Immediate Copy Throttling:'z'.	5.1 PGA1/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
OP0931	M		C	Cache	Deferred Copy Throttling on tape attach cache partition ended.	5.1 PGA1/-
OP0932	W		C	Cache	No lvol was early expired for 'xx' seconds even though Early Expiration was requested. Partitions exceeding the Delayed Premigration Limit has 1 'yyyy'.	5.1 PGA1/-
OP0933	W		C	Cache	SSL certificate validation for Cluster 'xx' detected an error: 'yy'	5.1 PGA1/-
Host Notifications						
AA9999	M				Information for this host notification message cannot be displayed on this cluster.	
AL0000	M		C	TS7700	Uncopied data of 'xx' GB above low warning limit of 'yy' GB	
AL0001	M		c	TS7700	No longer above uncopied data low warning limit of 'xx' GB.	
AL0004	M		S	TS7700	Available physical drives of nn is below low limit of 'xx' .	
AL0005	M		r	TS7700	Available physical drives no longer below low limit of 'xx' .	
AL0006	M		C	TS7700	Available physical scratch volumes 'xx' below low limit of 'yy' for pool 'zz' .	
AL0007	M		c	TS7700	Available physical scratch volumes no longer below low limit of 'xx' for pool 'yy' .	
AL0008	M		C	TS7700	Resident data of 'xx' GB above low warning limit of 'yy' GB.	
AL0009	M		c	TS7700	No longer above resident data low warning limit of 'xx' GB.	
AL0010	M		C	TS7700	Distributed Library 'xx' has a total pending inbound copy backlog of 'yy' GB which is above the low warning limit of 'zz' GB.	
AL0011	M		c	TS7700	Distributed Library 'xx' has successfully fallen below the inbound copy backlog low warning limit of 'yy' GB.	
AL0012	M		C	TS7700 TA, CA	Sum of resident data in virtual tape volume tiered partitions of 'xx' GB above low warning limit of 'yy' GB.	-/R4.2 PGA2, R5.0
AL0013	M		c	TS7700 TA, CA	Sum of resident data in virtual tape volume tiered partitions no longer above low warning limit of 'xx' GB.	-/R4.2 PGA2, R5.0
AL0014	M		C,S	TS7700	Distributed Library 'xx' has an inbound all copy type backlog that exceeds the high warning limit of 'yy' hours. Volser 'zzzzzz' is the oldest copy job in this group at 'nn' hours.	R5.0/-
AL0015	M		C,S	TS7700	Distributed Library 'xx' has falling below the inbound all copy type backlog high limit of 'yy' hours.	R50/-
AL0016	M		C,S	TS7700	Distributed Library 'xx' has an inbound all copy type backlog that exceeds the low warning limit of 'yy' hours. Volser 'zzzzzz' is the oldest copy job in this group at 'nn' hours.	R5.0/-
AL0017	M		C,S	TS7700	Distributed Library 'xx' has falling below the inbound all copy type backlog low limit of 'yy' hours.	R5.0/-
AL0018	M		C,S	TS7700	Distributed Library 'xx' has an inbound non time-delayed copy type backlog that exceeds the high warning limit of 'yy' hours. Volser 'zzzzzz' is the oldest copy job at 'nn' hours.	R5.0/-
AL0019	M		C,S	TS7700	Distributed Library 'xx' has falling below the inbound non time-delayed copy type backlog high limit of 'yy' hours.	R5.0/-
AL0020	M		C,S	TS7700	Distributed Library 'xx' has an inbound non time-delayed copy type backlog that exceeds the low warning limit of 'yy' hours. Volser 'zzzzzz' is the oldest copy job at 'nn' hours.	R5.0/-
AL0021	M		C,S	TS7700	Distributed Library 'xx' has falling below the inbound non time-delayed copy type backlog low limit of 'yy' hours.	R5.0/-
AL2000	M			TS7700	Database Backup written to Encrypted Physical Tape 'xx'	
AL2001	M		C	TS7700	TS7740 is unable to communicate with at least one Encryption	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					Key Manager.	
AL3000	I		c	TS7700	The TS7700 Virtualization Engine has restored communication with the primary Encryption Key Manager.	R4.2/-
AL3001	I		c	TS7700	The TS7700 Virtualization Engine has restored communication with the alternate Encryption Key Manager.	R4.2/-
AL5000	M		C	TS7700	Uncopied data of 'xx' GB above high limit of 'yy' GB.	
AL5001	M		c	TS7700	No longer above uncopied data high warning limit of 'xx' GB.	
AL5004	M		S	TS7700	Available physical drives of 'xx' is below critical limit of 'yy' .	
AL5005	M		r	TS7700	Available physical drives no longer below critical limit of 'xx' .	
AL5006	M		C	TS7700	Available physical scratch volumes 'xx' below critical limit of 'yy' for pool 'zz' .	
AL5007	M		c	TS7700	Available physical scratch no longer below critical limit of 'xx' for pool 'yy' .	
AL5008	M		C	TS7700	Resident data of 'xx' GB above high warning limit of 'yy' GB.	
AL5009	M		c	TS7700	No longer above resident data high warning limit of 'xx' GB.	
AL5010	M		C	TS7700	Distributed Library 'xx' has a total pending inbound copy backlog of 'yy' GB which is above the critical warning limit of 'zz' GB.	
AL5011	M		c	TS7700	Distributed Library 'xx' has successfully fallen below the inbound copy backlog critical warning limit of 'yy' GB.	
AL5012	M			TS7700	Auto removal of volumes has completed on this disk only cluster	
AL5013	M			TS7700	Physical volume 'xxxxxx' from 'yy' has been erased.	
AL5014	M			TS7700	BVIR volume map exceeds 'xx' records.	
AL5015	M		C	TS7700 TA, CA	Sum of resident data in virtual tape volume tiered partitions of 'xx' GB above high warning limit of 'yy' GB.	-/R4.2 PGA2, R5.0
AL5016	M		c	TS7700 TA, CA	Sum of resident data in virtual tape volume tiered partitions no longer above resident data high warning limit of 'xx' GB.	-/R4.2 PGA2, R5.0
AL5021	M		C	TS7700	Sum of resident data in objects partitions of 'xx' GB above high warning limit of 'yy' GB.	R5.0/-
AL5022	M		c	TS7700	Sum of resident data in objects partitions no longer above resident data high warning limit of 'xx' GB.	R5.0/-
AL5023	M		C	TS7700	Sum of resident data in objects partitions of 'xx' GB above low warning limit of 'yy' GB	R5.0/-
AL5024	M		c	TS7700	Sum of resident data in objects partitions no longer above low warning limit of 'xx' GB.	R5.0/-
E0000	M			TS7700	Export operation started for export list volume 'xx'	R4.1.2/-
E0002	M		S,C	TS7700	Opening export list volume 'xx' failed	R4.1.2/-
E0005	M			TS7700	All export processing completed for export list volume 'xx'	R4.1.2/-
E0006	M			TS7700	Stacked volume 'xx' from 'yy' in 'zz'	R4.1.2/-
E0013	M			TS7700	Export processing suspended, waiting for scratch volume	R4.1.2/-
E0014	M			TS7700	Export processing resumed, scratch G0077 made available	R4.1.2/ R4.2
E0015	M		C	TS7700	Export processing terminated, waiting for scratch volume	R4.1.2/-
E0016	M			TS7700	Copying logical export volumes from cache to stacked volumes	R4.1.2/-
E0017	M			TS7700	Completed copy of logical export volumes to stacked volumes	R4.1.2/-
E0018	M		C	TS7700	Export terminated, excessive time for copy to stacked volumes	R4.1.2/-
E0019	M			TS7700	Export processing started for pool 'xx'	R4.1.2/-
E0020	M			TS7700	Export processing completed for pool 'xx'	R4.1.2/-
E0021	M			TS7700	DB backup written to stacked volumes 'xx'	R4.1.2/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
E0022	M			TS7700	Export recovery started	R4.1.2/-
E0023	M			TS7700	Export recovery completed	R4.1.2/-
E0024	M			TS7700	'xx' logical volume with invalid copy on 'yy'	R4.1.2/-
E0025	M			TS7700	Physical volume 'xx' not exported, primary copy for 'yy' unavailable	R4.1.2/-
E0026	M			TS7700	DB backup written to all of stacked volumes	R4.1.2/-
E0030	M			TS7700	Stacked volume 'ZZZ' returned to the library 'LLLL'	R5.0/-
G0001	M			TS7700	Service preparation has started for distributed library 'xx' .	
G0002	M			TS7700	Service preparation has completed for distributed library 'xx' .	
G0003	W			TS7700	Service preparation has failed for distributed library 'xx'	
G0004	M			TS7700	Service preparation has exited for distributed library 'xx'	
G0005	W	I		TS7700	Distributed library 'xx' has entered the immediate deferred state.	-/R5.0
G0006	M			TS7700	Distributed library 'xx' has exited the immediate deferred state.	
G0007	W			TS7700	A user at library 'xx' has enabled Read/Write takeover against library 'yy' .	
G0008	W			TS7700	A user at library 'xx' has enabled Read-Only takeover against library 'yy' .	
G0009	S		S	TS7700	Autonomic ownership takeover manager within library 'xx' has determined than library 'yy' is unavailable. The Read/Write ownership takeover mode has been enabled.	
G0010	S		S	TS7700	Autonomic ownership takeover manager within library 'xx' has determined than library 'yy' is unavailable. The Read-Only ownership takeover mode has been enabled.	
G0011	M		r	TS7700	Ownership takeover mode within library 'xx' has been automatically disabled now that library 'yy' has become available.	
G0012	W			TS7700	A user at library 'xx' has disabled the ownership takeover mode within the grid against library 'yy' .	
G0013	S		S	TS7700	Library 'xx' has experienced an unexpected outage with its peer library 'yy' . Library 'zz' may be unavailable or a communication issue may be present.	
G0014	M		r	TS7700	Library 'xx' is now available to the peer library 'yy' -.	
G0015	M		r	TS7700	Library 'xx' has restored communication and is now available to the peer library 'yy' .	
G0020	M			TS7700	Library 'xx' has taken over ownership of volume 'yyyyyy' from library 'zz' using a read/write takeover mode. 'nn' total volumes have been taken over from peer cluster.	
G0021	M			TS7700	Library 'xx' has taken over ownership of volume 'yyyyyy' from library 'zz' using a read-only takeover mode. 'nn' total volumes have been taken over from peer cluster.	
G0022	M			TS7700	Library 'xx' has reconciled volume 'yyyyyy' against library 'zz' with respect to ownership takeover. 'nn' total volumes remain in the takeover state against one or more peer libraries.	
G0023	S		S	TS7700	Library has moved volume 'xx' into the damaged state due to ownership takeover conflict. 'yy' total volumes now exist in the damaged state.	
G0024	S		S	TS7700	Library 'xx' has moved volume 'yy' into the damaged state due to token corruption. 'zz' total volumes now exist in the damaged state.	
G0025	S		S	TS7700	Library 'xx' has moved volume 'yy' into the damaged state due to disaster recovery. 'zz' total volumes now exist in the damaged state.	
G0026	S		S	TS7700	Library 'xx' has moved volume 'yy' into the damaged state. 'zz'	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					total volumes now exist in the damaged state.	
G0027	M		r	TS7700	Library 'xx' has moved volume 'yy' out of the damaged state and into the insert category. 'zz' total volumes now exist in the damaged state.	
G0030	W	I	S	TS7700	Library 'xx' Pri,Alt,Pri2,Alt2 Grid link are degraded.	-/R5.0
G0031	M		r	TS7700	All Grid links for this cluster have left the degraded state.	
G0032	M		C	TS7700	'xx' copies have been queued for over 24 hours. Check Incoming Copy Queue on the MI for details.	
G0033	M		c	TS7700	Distributed Library 'xx' has entered the synchronous deferred state due to volser 'yy'.	
G0034	M			TS7700	Distributed Library 'xx' has exited the synchronous deferred state.	
G0035	S		C	TS7700	Distributed Library 'xx' mount failed due to excessive large volume.	
G0036	M			TS7700	Distributed Library 'xx' completed GGM copy of volume 'yy' from the composite library 'zz' with CC cc.	
G0037	M			TS7700	Distributed Library 'xx' failed GGM copy of volume 'yy' from the composite library 'zz' with CC cc.	
G0038	M			TS7700	Distributed Library 'xx' failed GGM copy of volume 'yy' from the composite library 'zz' due to communication failure.	
G0039	M	I	S	TS7700	Hot token merge with peer library 'xx' has failed. Retries will be attempted.	
G0040	M			TS7700	Hot token merge with peer library 'xx' has recovered.	
G0041	W		S	TS7700	Grid has detected the temporary cache access failure.	
G0042	M			TS7700	Temporary cache access failure has been recovered.	
G0043	C		S	TS7700	Cluster will reboot in 'xx' seconds because the cache access has been totally lost.	
G0044	M		C	TS7700	Distributed Library 'xx' is an island and can not communicate with 'yy'	
G0045	M		c	TS7700	Distributed Library 'xx' is no longer an island.	
G0046	M			TS7700	Library 'xx' has crossed remote cluster fence threshold. 'yy' has been reported. Library 'zz' has applied 'nn' remote fence action	R4.1.2/-
G0047	M			TS7700	Library 'xx' has successfully applied remote fence action 'yy' to peer library 'zz'	R4.1.2/-
G0048	M			TS7700	Library 'xx' has failed to apply remote fence action 'yy' to peer library 'zz'	R4.1.2/-
G0049	M			TS7700	Library 'xx' has successfully applied secondary fence action to peer library 'yy'	R4.1.2/-
G0050	M			TS7700	Library 'xx' has failed to apply secondary fence action to peer library 'yy'	R4.1.2/-
G0051	M			TS7700	Library 'xx' has been unfenced successfully	R4.1.2/-
G0052	M			TS7700	Unfence library 'xx' has failed	R4.1.2/-
G0053	M			TS7700	Library 'xx' has applied 'yy' local fence action. Reason: 'zz'	R4.1.2/-
G0054	M			TS7700	Library 'xx' has detected the remote library 'yy' has applied 'zz' local fence action. Reason: 'nn'	R4.1.2/-
G0055	M			TS7700	Library 'xx' has crossed the remote cluster fence threshold. 'yy' has been reported. But library 'zz' thinks library 'nn' looks healthy. Remote cluster fence is not applied	R4.1.2/-
G0056	M			TS7700	Library 'xx' has crossed remote cluster fence threshold. 'yy' has been reported. Library 'zz' will apply 'nn' remote fence action in 'mm' minutes	R4.1.2/-
G0057	M			TS7700	Library 'xx' has successfully surfaced required CUIR vary online	R4.1.2/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					attentions	
G0058	M			TS7700	Library 'xx' has failed to surface required CUIR vary online attentions	R4.1.2/-
G0059	M			TS7700	Library 'xx' has successfully surfaced required CUIR vary offline attentions	R4.1.2/-
G0060	M			TS7700	Library 'xx' has failed to surface required CUIR vary offline attentions	R4.1.2/-
G0061	M			TS7700	Library 'xx' has given up surfacing CUIR vary online attentions to zLPARs 'yy'	R4.1.2/-
G0062	M			TS7700	DRSETUP 'xx' HAS SUCCESSFULLY COMPLETED	R4.2/-
G0063	M			TS7700	DRSETUP FAILED. DR FAMILY 'xx' IS EMPTY, CAN NOT PROCEED	R4.2/-
G0064	M			TS7700	DRSETUP FAILED. CANNOT PERFORM THE REQUEST. A CLUSTER IN THE DR FAMILY IS NOT ONLINE	R4.2/-
G0065	M			TS7700	DRSETUP FAILED. WRITE PROTECT IS ALREADY ENABLED FROM THE MANAGEMENT INTERFACE.	R4.2/-
G0066	M			TS7700	DRSETUP FAILED. WRITE PROTECT IS ALREADY ENABLED	R4.2/-
G0067	M			TS7700	DRSETUP FAILED. WRITE PROTECT IS NOT ENABLED	R4.2/-
G0068	M			TS7700	DRSETUP FAILED. WRITE PROTECT EXCLUDED CATEGORIES NOT IN SYNC WITHIN THE DR FAMILY	R4.2/-
G0069	M			TS7700	DRSETUP FAILED. CANNOT DISABLE WRITE PROTECT MODE. FLASH COPY EXISTS	R4.2/-
G0070	M			TS7700	DRSETUP FAILED. AN ERROR OCCURED PROCESSING THE HOST REQUEST. RETURN CODE = 'xx'	R4.2/-
G0071	M			TS7700	DRSETUP FAILED. VPD UPDATE FAILED	R4.2/-
G0072	M			TS7700	DRSETUP FAILED. VPD SYNCHRONIZATION FAILED	R4.2/-
G0073	M			TS7700	DRSETUP FAILED. NO FLASH COPY EXISTS IN DR FAMILY 'xx'	R4.2/-
G0074	M			TS7700	DRSETUP FAILED. CANNOT DISABLE FLASH COPY. FLASH COPY VOLUME IS STILL MOUNTED	R4.2/-
G0075	M			TS7700	DRSETUP FAILED. FLASH COPY OPERATION FAILED	R4.2/-
G0076	M			TS7700	DRSETUP RESETTING ASYNCHRONOUS OPERATION FLAG HAS FAILED	R4.2/-
G0077	M			TS7700	DRSETUP FAILED. CANNOT ENABLE DOALL/FLASH. FLASH COPY ALREADY EXISTS.	R4.2/-
G0078	M			TS7700	Storage Group 'xx' needs a cloud pool assignment on logical volume 'yyyyyy'	R4.2/-
G0079	M			TS7700	Accessible cloud pool needs to be created and assigned to the storage group 'xx' on logical volume 'yyyyyy'	R4.2/-
HA001	C		S	TS7700	This cluster has entered an error state and will be rebooted.	R4.1.2/-
R0000	M		c	TS7700	Reclaim successful for exported stacked volume 'xx' - You can return it to the specified library 'yy'	R4.12/ R5.0
MDEs Calling Home						
MDE1101	C		S	TS7700	Failure to backup to DVD-RAM.	
MDE1601	M		S	TS7700	CMQ.C/CMQALLOCMQ.C CMQ malloc failed. Probable cause is the application or system is out of memory.	
MDE1603	M		S	TS7700	Invalid pointer passed by application. Probable cause is application usage error.	
MDE1606	M		S	TS7700	The application has passed an index that is less than zero or	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
					greater than the size of the MaxTasks value. Probable cause is application usage error.	
MDE1C00	W		S	TS7700	No TCP/IP EKM connection.	
MDE1C03	W		S	TS7700	Listener thread exited prematurely.	R5.0/-
MDE3046	C		S	TS7700	Internal Error Attention msg size is zero	
MDE3089	W		S	TS7700	Failure attempting to open the CADD device driver.	
MDE3103	S		S	TS7700	This code is for the handling of attentions. We received a PLF and we should never receive a PLF. The errno field will contain the PLF order.	
MDE3125	C		S	TS7700	An unexpected asynchronous signal was received, and the process will consequently core dump.	
MDE3126	C		S	TS7700	An earlier error has forced the Library Interface to die immediately.	
MDE3405	C		S	TS7700	Microcode Exception in ATL Daemon.	
MDE3406	C		S	TS7700	Microcode Exception in ATL Daemon.	
MDE3F0D	W		S	TS7700	The IRMM component failed to come online due to an internal failure. See other AIX error report entries for additional information.	
MDE3F0E	W		S	TS7700	The IRMM component failed to come online. See other AIX error report entries for additional information.	
MDE3F10	W		S	TS7700	controlled abort see prior error report and logs.	
MDE3F12	W		S	TS7700	ERMM DM process initialization failure see ermm logs.	
MDE3F14	W		S	TS7700	ERMM LM process initialization failed see ermm logs.	
MDE3F16	W		S	TS7700	ERMM persistent audit detected see ermm logs.	
MDE3F17	W		C, S	TS7700	Duplicate volsers found in library, potential data access loss. Use Display 3584 Library Status option under the smit Tape Drive Utility Menus to determine the duplicates.	
MDE3F18	W		S	TS7700	ERMM LIB COMMERROR cannot communicate with library.	
MDE3F19	W		S	TS7700	The IRMM component is unable to get the library inventory. Physical library services are not possible.	
MDE3F1A	W		C	Library	The attached Logical Library has been assigned more cartridges than the number of storage slots specified by the TS3500/3584 Max Slots value. Either increase the Max Slots value at the TS3500/3584 or remove cartridges from the Logical Library.	
MDE3F1D	W		S	TS7700	Online failed - Volser check failed, see logs. Retry online.	
MDE3F1E	W		S	TS7700	Online failed - Duplicate volsers found in library potential data access loss. Use Display 3584 Library Status option under the smit Tape Drive Utility Menus to determine the duplicates.	
MDE3FE0	W		S	TS7700	Severe MLE relating to library inventory see error report.	
MDE3FE1	W		S	TS7700	Severe MLE relating to library inventory see error report.	
MDE3FE2	W		S	TS7700	Severe MLE relating to library inventory see error report.	
MDE4005	M		S	TS7700	Error opening instance of CADD.	
MDE4006	M		S	TS7700	Error return from ioctl ESCA_CU_ONLINE, check 1.	
MDE5021	M		S	TS7700	Timeout accessing priority message.	
MDE5026	M		S	TS7700	Device locked in ESCA_OFFLINE.	
MDE507C	W		S	TS7700	EEH recovery failed. Adapter dead.	
MDE50D2	W		S	TS7700	ERROR, too many job requests.	
MDE5106	M		S	TS7700	Invalid device in message from 'LP'.	
MDE510D	W		S	TS7700	Index mismatch between CADD and 'LP'.	
MDE511E	W		S	TS7700	I/O attempt made on path that does not own device.	
MDE5122	M		S	TS7700	Invalid command received, Not a R/W command.	
MDE5206	M		S	TS7700	Buffer mismatch in stage_write function.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDE520F	W		S	TS7700	Buffer state transition error.	
MDE5400	W		S	Control Unit	Control Unit Daemon Termination.	
MDE5500	W		S	TS7700	Interrupt queue full, unable to continue.	
MDE5508	M		S	TS7700	Command recieved not defined as a priority command.	
MDE550C	W		S	TS7700	Unable to dequeue interrupt request.	
MDE55B4	W		S	TS7700	Hankie POST Failed.	
MDE55B6	W		S	TS7700	Hankie POST timed out	
MDE55BA	W		S	TS7700	Timeout waiting for Flash Check/Burn.	
MDE55BB	W		S	TS7700	Timeout waiting for LP-IML-Initialization.	
MDE55C3	W		S	TS7700	xmdetach failed for a dma read operation.	
MDE55D0	W		S	TS7700	All devices already mapped.	
MDE5602	M		S	TS7700	Invalid state transition for connection state machine.	
MDE570F	W		S	TS7700	Adapter reset failed during configuration.	
MDE571D	W		S	TS7700	Failed to initialize DMA handle, D MAP init failed	
MDE5F0C	W		S	TS7700	Ficon Adapter Statesave (Yukon/Bering).	
MDE5FC8	W		S	TS7700	RETCRASH Fatal Error encountered by LP.	
MDE5FCA	W		S	TS7700	SLC (IEEE) CRC error detected by LP.	
MDE5FCB	W		S	TS7700	3590 CRC error detected by LP.	
MDE7003	C		S	TS7700	Internal Error - Invalid Arguments. Wrong format or invalid device number.	
MDE7006	C		S	TS7700	Invalid Drive Number.	
MDE700E	W		S	TS7700	Duplicate request entry found in DM Queue.	
MDE7012	C		S	TS7700	Invalid write buffer state.	
MDE7073	C		S	TS7700	Next Step not found in select next step.	
MDE7082	C		S	TS7700	Block ID mismatch in go write one record.	
MDE7084	C		S	TS7700	Invalid status for buffered Write Mode in go write one record.	
MDE7085	C		S	TS7700	Invalid status for Write Immediate Mode in go write one record.	
MDE7089	C		S	TS7700	ESCA_STAGE_WRITE failure in send stage write to cadd.	
MDE7094	C		S	TS7700	Unable to LOCK dmerror.	
MDE70B6	W		S	TS7700	ESCA_OP/OP_MODE_SET failed.	
MDE716A	W		S	TS7700	Unable to start logging.	
MDE716D	W		S	TS7700	Adapter error.	
MDE7820	C		S	TS7700	Rewind Unload not CCR'd when RUN OK false.	
MDE7860	C		S	TS7700	Invalid return code from fsm mount	
MDE7900	C		S	TS7700	fsm_write called with no prior fsm_mount_volume	
MDE7903	C		S	TS7700	fsm_read called with no prior fsm_mount_volume	
MDE7907	C		S	TS7700	fsm_rewind called with no prior fsm_mount_volume	
MDE7909	C		S	TS7700	fsm_write - specified record ID is not current	
MDE790D	W		S	TS7700	fsm_read - specified record ID is not current	
MDE7910	C		S	TS7700	fsm_rewind - specified record ID is not current	
MDE7914	W		S	TS7700	Internal Error at [func name] [rc] [gfa error]	
MDE7927	C		S	TS7700	fsm_grid_init msgq - Internal Error calling CMQ Initialize [rc]	
MDE7936	W		S	TS7700	fsm_grid_send message - Internal Error Corrupted handle.	
MDE7937	W		S	TS7700	fsm_check_cmq_pointers - Internal Error Detected CMQ corrupt handle.	
MDE7966	C		S	TS7700	fsm_write - Invalid HDR1 following HDR2	
MDE8066	C		S	TS7700	Memory leak detected, check system now.	
MDE8082	W		S	TS7700	Informational SIM - Daemon core dump occurred	
MDE8083	M		S	TS7700	INFO SIM - Drive Dump Retrieved by Atape	-/R4.2 PGA2

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDE8084	W		S	TS7700	INFO SIM - Due to Error Match Code (EMC) hit	
MDE80B4	W		S	TS7700	Manually generated ERROR	
MDE8101	M		S	Cache	Cache subsystem detected an error.	
MDE8102	C		S	TS7700	Unable to query cache on the network.	
MDE8104	M		S	TS7700	Looks data loss was occurred.	
MDE8105	M		S	Cache	Cache power cable/supply problem	
MDE8106	M		S	Cache	Cache path redundancy problem, the cache could be running on a no preferred path	
MDE8107	M		S	TS7700	Problem with cabling, from the IO drawer to the internal cache cabling	
MDE8108	M		S	Cache	A DDM failed in the disk cache	
MDE8109	W		S	Cache	A cache controller has failed.	R5.0/-
MDE810A	W		S	Cache	A cache ESM component has failed	
MDE810B	W		S	Cache	A cache component has failed	
MDE810C	W		S	TS7700	Several failed drives are in the same array	
MDE810D	W		S	TS7700	Some of CPUs (or cores) are failed	
MDE810F	W		S	Cache	Error performing firmware upgrade on cache.	
MDE8110	M		S	Cache	Found mismatched drive(s) in an Array	
MDE8111	C		S	TS7700	Default routes are not properly configured.	
MDE8112	C		S	TS7700	Duplicate IP address detected on network	
MDE8113	C		S	TS7700	Router environmental/hw problem detected	
MDE8114	C		S	TS7700	Problem with AOTM communication detected.	
MDE8115	C		S	TS7700	Problem determining cache type in VPD.	
MDE8116	C		S	TS7700	Error detected in local filesystems.	
MDE8117	C		S	TS7700	FC error detected on path to disk cache.	
MDE8118	C		S	TS7700	Improper number of FC paths to disk cache.	
MDE8119	C		S	TS7700	Error detected by system checkout.	
MDE811A	W		S	TS7700	Primary Ethernet router is down	
MDE811B	W		S	TS7700	Alternate Ethernet router is down	
MDE811C	W		S	TS7700	Both Ethernet routers are down	
MDE811D	W		S	TS7700	Found the degrade flag	
MDE811E	W		S	TS7700	Call Home alert	
MDE811F	W		S	TS7700	Call Home Reboot	
MDE8120	M		S	TS7700	Unable to communicate with NTP server.	
MDE8121	C		S	TS7700	A port on the internal router is down.	
MDE8122	C		S	TS7700	A port on the router is experiencing errors.	
MDE8123	C		S	TS7700	NTC reports a grid link is degraded.	
MDE8124	C		S	TS7700	errdemon restarted 5 times within 24 hours.	
MDE8125	C		S	TS7700	Primary local Ethernet adapter is down.	
MDE8126	M		S	TS7700	Alternate local Ethernet adapter is down.	
MDE8127	M		S	TS7700	SIM'S in OPEN state for more than 48 hours	
MDE8128	M		S	TS7700	Network errors were detected while connecting to storage subsystem	
MDE8129	C		S	TSSC	TSSC Primary Ethernet Path is down	
MDE812A	W		S	TSSC	TSSC Alternate Ethernet Path is down	
MDE812B	W		S	Cache	Unsupported number of drive enclosures.	R5.0/-
MDE812C	W		S	Cache	Wrong data rate of the cache channel, not set as expected.	R5.0/-
MDE812D	W		S	Cache	Failed to get the datarate of the channel	
MDE812E	W		S	TS7700	Incorrect number of enclosures detected	
MDE812F	W		S	TS7700	Unable to determine number of attached enclosures	
MDE8130	C		S	TS7700	Adapter link is down	
MDE8131	C		S	TS7700	Adapter has excessive CRC errors	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDE8132	C		S	TS7700	Adapter link is experiencing collisions	
MDE8133	C		S	TS7700	Unable to ping to a specific IP	
MDE8134	C		S	TS7700	High packet loss on link a link	
MDE8135	M		S	Cache	Bad disk cache sector detected	
MDE8136	M		S	Cache	Disk cache parity mismatch detected	
MDE8137	M		S	TS7700	Disk cache media error detected	
MDE8138	M		S	Cache	A power supply/fan assembly has failed, or has been removed	
MDE8139	M		S	TS7700	Drive status is not Optimal or Replaced	
MDE813A	W		S	Cache	Disk error detected in the cache	
MDE813B	W		S	TS7700	Memory leak detected	
MDE813C	W		S	TS7700	Primary Ethernet switch is down	
MDE813D	W		S	TS7700	Alternate Ethernet switch is down	
MDE813E	W		S	TS7700	Space imbalance detected in cache filesystems.	
MDE813F	W		S	TS7700	Unable to communicate to Cache from PRI MC/TSSC SMC switch path	
MDE8140	C		S	Cache	Unable to communicate to Cache from ALT MC/TSSC SMC switch path	
MDE8141	C		S	TS7700	A fan error was detected in the AIX error log. valid SRC 1...76(10,20,30,40)	
MDE8142	C		S	TS7700	Disk array is not encrypted.	
MDE8144	M		S	Cache	cache battery problem found	
MDE8145	M		S	Cache	Cache controller problem found	
MDE8146	M		S	TS7700	CRC ficon errors detected	
MDE8148	W		S	TS7700	TTYHOG error detected	
MDE8149	C		S	TS7700	MQ node manager has failed	
MDE814A	W		S	TS7700	GPFS waiters detected	
MDE814B	W		S	TS7700	MQ node listener has failed	
MDE814D	W		S	TS7700	vtd ficon related component failed	
MDE8153	W		S	TS7700	CORE_DUMP from program of RAS component	
MDE8183	W		S	TS7700	CORE_DUMP from program of AIX component	
MDE8185	C		S	TSSC	TSSC both Ethernet Paths are down	R4.12/-
MDE8186	W		S	TS7700 CA	The Transparent Cloud Tiering daemon has died.	R4.2/-
MDE8187	W		S	TS7700	Low TX power on FCP adapter.	R5.1 PGA1/-
MDE8190	W		S	TS7700	AIX Duplicate IP address detected on the network	
MDE8191	W		S	TS7700	AIX detected error	
MDE8192	M		S	TS7700	Hdisks buffer settings are not well configured (devbufchk)	
MDE8193	M		S	Cache	This is a disk cache Call Home test	
MDE8194	M		S	TS7700	The status of Disk Pool is Failed.	
MDE8195	W		S	Cache	Found mismatched drive(s) in Disk Pool.	R5.0/-
MDE8196	C		S	Cache	The status of Array is Failed.	R5.0/-
MDE8197	W		S	Cache	Disk Pool is not encrypted.	R5.0/-
MDE8198	M		S	TS7700	Primary FC switch issues found	
MDE8199	M		S	TS7700	Alternate FC switch issues found	
MDE819A	W		S	TS7700	Issues found in Both FC switches	
MDE819B	W		S	TS7700	Issues found communicating to FC switches	
MDE819C	W		S	TS7700	I/O drawer controller adapter card	
MDE819D	W		S	TS7700	I/O drawer interface adapter card	
MDE81A0	W		S	TS7700	Information for this MDE cannot be displayed on this cluster.	
MDE81A2	C		S	Cache	Logical drive has not optimal status.	R5.0/-
MDE81A3	C		S	Cache	Volume in cache is in a state other than optimal.	R5.0/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDE81A4	C		S	Cache	Mdisk in cache is in a state other than optimal.	R5.0/-
MDE81A5	C		S	Cache	Pool in cache is in a state other than optimal.	R5.0/-
MDE81A6	W		S	Cache	Volumes in cache are not on preferred paths.	R5.0/-
MDE81A7	C		S	Cache	Node Canister in cache is in a state other than optimal.	R5.0/-
MDE81A8	W		S	Cache	Battery in cache is in a state other than optimal.	R5.0/-
MDE81A9	C		S	Cache	Enclosure in cache is in a state other than optimal.	R5.0/-
MDE81AA	W		S	Cache	Errors for monitoring USBs when cache local encryption is enabled.	R5.0/-
MDE81AC	W		S	Cache	An expansion canister in the cache has failed or been removed.	R5.0/-
MDE81FD	W		S	TS7700	The GPFS filesystems contain a stale or broken VG or LV.	
MDE81FE	W		S	TS7700	Unable to ping the grid gateway IP.	
MDE81FF	W		S	TS7700	An error occurred on the proxy server for cache EKM support	
MDE8201	C		S	TS7700	An invalid condition was found. Script aborted.	
MDE8202	C		S	TS7700	An invalid condition was found. Script aborted.	
MDE8203	C		S	TS7700	An invalid condition was found. Script aborted.	
MDE8205	C		S	TS7700	Problem with firmware upgrade.	
MDE8206	C		S	TS7700	Problem found when mirroring.	
MDE820C	W		S	TS7700	A filesystem is mounted over a wrong logical volume.	
MDE8888	C		S	TS7700	vpdoscopy: vpdd process hung, this requires a reboot.	
MDEA001	W		S	TS7700	Process ended unexpectedly.	
MDEA009	W		S	TS7700	Process ended in error.	
MDEA00A	W		S	TS7700	Process ended unexpectedly so was failed.	
MDEA00E	W		S	TS7700	Timeout waiting for processes to end.	
MDEA00F	W		S	TS7700	Rebooting machine.	
MDEA014	W		S	TS7700	Node offline-pending after DB checks.	
MDEA016	W		S	TS7700	Process is offline but still active.	
MDEA017	W		S	TS7700	Reboot requested, forcing offline. See HA event log.	
MDEA01B	W		S	TS7700	Component not responding with heartbeats	
MDEB02F	W		S	TS7700	Unsupported drive marked unavailable to the TS7700	
MDEB042	W		S	TS7700	component SCSI Drive Type Tried to be Added to Other ADMSM Models	
MDEB043	W		S	TS7700	Mixed at VTS IML -ILLEGAL- Not Coming Up	
MDEB067	W		S	TS7700	No lvool is early expired for a while even though Early Expiration for Time Delayed Premig lvols was requested. It is suspected not working correctly.	R5.1 PGA1/-
MDEB070	W		S	TS7700	CORE_DUMP from program of HSM component	
MDEB080	W		S	TS7700 CA	The Transparent Cloud Tiering configuration during online processing has failed. A call home will be initiated if this setting is enabled.	R4.2/-
MDEB081	C		S	TS7700 CA	The Transparent Cloud Tiering configuration continues to fail persistently. A call home will be initiated if this setting is enabled.	R4.2/-
MDEBA00	C		S	TS7700 CA	Time skew with a cloud provider.	R4.2/-
MDEBA01	C		S	TS7700 CA	Transparent Cloud Tiering node network down.	R4.2/-
MDEBA02	C		S	TS7700 CA	Bad request for a cloud provider.	R4.2/-
MDEBA03	C		S	TS7700 CA	Precondition failed for a cloud provider.	R4.2/-
MDEBA04	C		S	TS7700 CA	Container creation failed.	R4.2/-

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDEBA05	C		C,S	TS7700 CA	Container already exists.	R4.2/-
MDEBA06	C		S	TS7700 CA	Cloud provider server error.	R4.2/-
MDEBA07	C		S	TS7700 CA	Data Base corrupted for Transparent Cloud Tiering.	R4.2/-
MDEBA08	C		S	TS7700 CA	Internal directory not found for Transparent Cloud Tiering.	R4.2/-
MDEBA09	C		S	TS7700 CA	Resource address file not found for Transparent Cloud Tiering.	R4.2/-
MDEBA0A	C		S	TS7700 CA	LKM down for Transparent Cloud Tiering.	R4.2/-
MDEBA0B	C		S	TS7700 CA	Filesystem corrupted for Transparent Cloud Tiering.	R4.2/-
MDEBA0C	C		S	TS7700 CA	Directory error for Transparent Cloud Tiering.	R4.2/-
MDEBA0D	C		S	TS7700 CA	Key manager error for Transparent Cloud Tiering.	R4.2/-
MDEBA0E	C		S	TS7700	Container pair root directory not found for Transparent Cloud Tiering.	R4.2/-
MDEBA0F	C		S	TS7700 CA	SSL handshake exception for a cloud provider.	R4.2/-
MDEBA10	C		S	TS7700 CA	SSL handshake bad certificate exception for a cloud provider.	R4.2/-
MDEBA11	C		S	TS7700 CA	SSL handshake invalid path certificate exception for a cloud provider.	R4.2/-
MDEBA12	C		S	TS7700 CA	SSL handshake unknown exception for a cloud provider.	R4.2/-
MDEBA13	C		S	TS7700 CA	SSL peer unverified exception for a cloud provider.	R4.2/-
MDEBA14	C		S	TS7700 CA	SSL protocol exception for a cloud provider.	R4.2/-
MDEBA15	C		S	TS7700 CA	SSL exception for a cloud provider.	R4.2/-
MDEBA16	C		S	TS7700 CA	SSL no cert exception for a cloud provider.	R4.2/-
MDEBA17	C		S	TS7700 CA	SSL not trusted cert exception for a cloud provider.	R4.2/-
MDEBA18	C		S	TS7700 CA	SSL invalid algorithm exception for a cloud provider.	R4.2/-
MDEBA19	C		S	TS7700 CA	SSL invalid padding exception for a cloud provider.	R4.2/-
MDEBA1A	C		S	TS7700 CA	SSL unrecognized message for a cloud provider.	R4.2/-
MDEBA1B	C		S	TS7700 CA	Unexpected Error for Transparent Cloud Tiering.	R4.2/-
MDEBC05	W		S	TS7700	HRMM reports abnormal drive behavior.	
MDEBC0C	W		S	TS7700	HRMM reports physical drive performance degradation.	
MDEC095	W		S	TS7700	Received fatal signal, generating core file	
MDEC104	W		S	TS7700	Detected a file system access problem	
MDED053	W		S	TS7700	Error exceeded 100% for pct utilized.	
MDED0D7	W		S	TS7700	The process has 10 percent or more db2agents than the current context count.	

Message ID	Sev Dflt	Sev Sug	TT	Product Area	Message Text	New/Chg.
MDED0E4	W		S	TS7700	Failed to get shared memory.	
MDED0EE	W		S	TS7700	Error executing COMMIT.	
MDED0F0	W		S	TS7700	Error in EXECUTE of statement.	
MDED102	W		S	TS7700	Failed to get a context from DB2.	
MDED110	W		S	TS7700	Backup files in /db2/backups/hnode 0 are huge	
MDED113	W		S	TS7700	Not enough backup files in /db2/backups/hnode 0	
MDED115	W		S	TS7700	Warning - active logs are increasing above normal threshold	
MDED116	W		S	TS7700	Database reorganization has not completed for two weeks.	
MDED1FF	W		S	TS7700	DB2 container size	
MDED400	W		S	TS7700	Info only call home - Backups are getting large	
MDEDB16	W		S	TS7700	Syntax error encountered while preparing SQL statement.	
MDEDB1B	W		S	TS7700	Error fetching record from the database into SQLDA	
MDEDB31	W		S	TS7700	Index for (pid,tid) not found	
MDEDB47	W		S	TS7700	data consistency merge	
MDEE030	W		S	TS7700	I/O drawer related component failed.	
MDEE090	W		S	TS7700	Fenced because repeated error 10time/1hour.	
MDEE091	W		S	TS7700	EEH callback	
MDEE093	W		S	TS7700	Can not access the slot because fenced.	
MDEE094	W		S	TS7700	kseh_eeh_master_cfg is not complete, callback deferred	
MDEE099	W		S	TS7700	The drawer is fenced	
MDEE09A	W		S	TS7700	Slot fenced	
MDEE09B	W		S	TS7700	Slot fenced	
MDEE09F	W		S	TS7700	PCIe error detected, EEH code attempting to recover drawer	

Notes: (1). Two impact codes are listed. The first has to do with the physical library the condition occurred in, the second the impact if there is a VTS or TS7700 that the host is connected to.

Other Host messages

In addition to CBR3750I there are other host messages that can be of interest when monitoring the TS7700 storage system.

S	CBR3002E	library not operational
	CBR3730E	synchronous mode copies deferred state (CBR3731I when state is left)
	CBR3736E	cloud object store degraded (CBR3737I when state is left)
	CBR3750I	general message documenting errors reported from library to host (refer to TS7700 whitepaper)
S	CBR3751I	device unavailable
r	CBR3752I	device now available (can be varied online)
S	CBR3758E	degraded message
S	CBR3760E	vision system not operational (TS7700 Tape Attach)
S	CBR3761E	library manager offline
S	CBR3762E	intervention required
S	CBR3763E	library check 1
C	CBR3764E	all storage cells full (TS7700 Tape Attach)
C	CBR3765E	no cleaner volumes (TS7700 Tape Attach)
S	CBR3766E	dual write disabled (TS7700 Tape Attach)
C	CBR3770I	volume misplaced
C	CBR3776I	volume inaccessible
C	CBR3781I	no MEDIAx scratch volumes available
*	CBR3783E	library manager switchover in progress
r	CBR3784I	library manager switchover is complete (jobs may need to be restarted or CBR4196D retries)
	CBR3785E	copy operations disabled or degraded
	CBR3786E	VTS operations degraded (CBR3768I when state is left)
	CBR3787E	immediate mode copies deferred (CBR3791I when state is left)
	CBR3788E	service preparation occurring
C	CBR3789E	out of VTS stacked volumes (TS7700 Tape Attach)
C	CBR3790E	VTS library has insufficient resources to continue mount processing (TS7700 Tape Attach)
C	CBR3792E	limited cache free space warning state (TS7700 Tapeless Cache Partition) - CBR3793I when state is left
S	CBR3794A	out of cache resource critical state (TS7700 Tapeless Cache Partition) - CBR3795I when state is left
C	CBR3796E	grid links degraded (CBR3797I when state is left)
S	CBR3798E	forced pause has occurred in library
	CBR3799E	copy operations disabled by LIBRARY REQUEST command
C	CBR3660A	scratch threshold message - below threshold notification

CBR3615E	problem with the cartridge entry exit CBRUXENT (entry processing disabled)
CBR3655E	problem with the cartridge eject exit CBRUXEJC (eject processing disabled)
CBR4225E	problem with change use attribute exit CBRUXCUA (private -> scratch processing disabled)
CBR4196D	mount retry message (many different error codes associated with this message)
CBR4197D	automated mount retry (see CBROAMxx SETTLIB keywords)
CBR3006I	library unknown in I/O configuration (message can also be valid depending on state of the library)
CBR3710I	failure communicating with the library (LIBSERV failure)
CBR3715I	no paths available for I/O
IOS000I	messages are always good to look at as well as any other IOSxxxx messages
IEA439I	four minute timeout message issued by device services when library doesn't respond

(*) S if initiated based on error, no action when initiated manually

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