Oracle® Communications Network Charging and Control

CDMA U-CA-IS41 Alarms Guide

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Alarm Topic Description

Alarm Generation

Alarms on each configured node are written to the syslog and are then captured by the smsAlarmDaemon for entry in the SMF database.

For management of these alarms, see *Service Management System Technical Guide*.

Severity Levels

This table describes the alarm severity levels.

Level	Abbreviation	Description
Critical	C	These alarms are raised when the application has encountered an error indicating that the system is unable to function.
Error	E	These alarms indicate the application has encountered a serious problem completing a necessary task and could not complete the task.
Warning	W	Warnings are raised to indicate the application encountered a problem completing a non-mission critical task.
Notice	N	Notices are raised to indicate that the application has completed a task successfully.

Alarm Format

Alarms usually follow this format:

```
Mon DD 24:MM:SS hostname process name: [ID alarmID user.severity] process(PID)
SEVERITY: Alarm text with possible variables
```

Where:

Variable	Description
Mon DD	Month and date the alarm was logged.
24:MM:SS	Time the alarm was logged in 24 hour format.
hostname	Name of the machine on which the alarm was generated.
process name	Name of the process which logged the alarm.
alarmID	ID number of the alarm.
severity	Alarm severity.
process	Name of the process which logged the alarm.
PID	Process ID of the process which logged the alarm.
SEVERITY	Alarm severity.
Alarm text	Alarm text. This may include variables such as node number. **Note:** In some cases, the entire alarm text is generated from variables.

Note: Some alarms from some subsystems may have a different format.

Example: This text shows an smsMaster alarm about pending update queues.

```
Mar 30 13:34:54 prodsmp1 smsMaster: [ID 953149 user.warning] smsMaster(17833)
WARNING: Pending queue now above 15 (Worst Node 317)
```

Alarm Text and Variables

The %d and %s symbols represent variables within the alarm text. These values are generated by the subsystem and added to the message when the alarm is raised.

Usually the %d is a number and the %s is text in the context of the message to complete the alarm message. Occasionally other % symbols are also used (for example, %u) for different variables.

Further Information

For more information about:

- The SMS Alarms subsystem, see *Service Management System Technical Guide*
- Creating and maintaining the SMS Alarm Relay rule set, see *Service Management System User's Guide*

U-CA-IS41 (CDMA)

Critical errors

This table defines the critical messages for U-CA-IS41 (CDMA).

Alarm Text	Reason	Remedy
`Unable to attach to the SLEE, CdmaGateway failed`	The CdmaGateway cannot be run directly, it must be declared in the **SLEE.conf** file. The CdmaGateway will exit abnormally. Error 1003	Declare the CdmaGateway in the **SLEE.conf** file.
`Unable to initialise Tcap Interface, CdmaGateway failed`	The CdmaGateway could not initialize the Hughes Tcap interface, this may be due to a configuration problem. The CdmaGateway will exit abnormally. Error 1019	Review configuration file and/ or contact Oracle support.
`Unable to create IN Call Model, CdmaGateway failed`	The CdmaGateway could not initialize the IN Call Model, this may be due to a configuration problem. The CdmaGateway will exit abnormally. Error 1022	Review configuration file and/ or contact Oracle support.

Errors

This table defines the error messages for cdmagw.

Alarm Text	Reason	Remedy
`Unable to set signal handler for SIGUSR1: cmnSigSet() failed with …:…`	You will be unable to enable and disable debug by using the SIGUSR1 signal. Error 1001	Contact Oracle support.
`Unable to set signal handler for SIGUSR2: cmnSigSet() failed with …:…`	You will be unable to toggle SCCP logging on/off by using the SIGUSR2 signal. Error 1002	Contact Oracle support.
`Loading SUA configuration: Unable to set SIGTRAN_CONFIG_SECTION =cdmagw`	Failed to set the section to reread the config from.	Contact Oracle support.
`Unable to read configuration file. Using defaults`	The CdmaGateway was unable to find the Oracle file. Error 1004	Make sure it is located at **/IN/service_packages/eserv.config** or update your ESERV_CONFIG_FILE environment variable.

Alarm Text	Reason	Remedy
`Failed to delete call`	The CdmaGateway was unable delete a call. This indicates an internal error but is recoverable. Error 1012	No action required.
`Unexpected event type: …`	The CdmaGateway failed to process an unknown event type. This will occur if the message to process has become corrupted. The event will not be processed correctly and the call will not proceed as expected. Error 1014	Contact Oracle support.
`Unexpected Event [ … ] in State [ … ]`	The CdmaGateway state machine received an unexpected action event in the given state. This internal error occurs if messages are not handled in a defined order. The event will not be processed and the call will be exited. Error 1015	Contact Oracle support.
`CdmaGateway: addPendingEvent NOT SUPPORTED`	The CdmaGateway attempted to invoke an unsupported method. This should never occur, but if it does it indicates that the CdmaGateway has become corrupted in some way. Error 1016	Contact Oracle support.
`Encode – invalid action: … for event type: …`	The CdmaGateway attempted to encode an invalid action for the given event type. This error will only occur when the SCF attempts to send a progress or release to the CdmaGateway. The event will not be sent and the call will not proceed as expected. Error 1017	Contact Oracle support.
`No valid invoke call was found, message not processed: CCDirResult:StatusCheck:Failure`	The CdmaGateway could not find a valid call to send the given message to. This could indicate an internal error, or may indicate that the MSC has allowed a call to proceed when we told it not to. It is recoverable but the call has not processed the given action so will not be in the correct state. Error 1018	Contact Oracle support.
`Attempt to send an event [ … ] on an invalid dialog`	The CdmaGateway attempted to send an event on an invalid dialog. The message was not sent but the CdmaGateway will continue. Error 1026	Contact Oracle support.

Warnings

This table defines the warning messages for U-CA-IS41 (CDMA).

Alarm Text	Reason	Remedy
`Unrecognized Operation Id: …`	The CdmaGateway received an invoke TCAP component that it was unable to decode, it did not recognize the operation ID. Error 1005	No action required.
`Unrecognized Operation Invoke Id: …`	The CdmaGateway received a result tcap component that it was unable to decode. It did not recognize the operation invoke ID. Error 1006	No action required.
`Received a Tcap Cancel primitive with invokeId: …`	The CdmaGateway received a cancel tcap primitive. It has not performed any additional processing on it. Error 1007	No action required.
`Received a Tcap Abort primitive with abortType: …`	The CdmaGateway received an abort tcap primitive. It has not performed any additional processing on it. Error 1008	No action required.
`Received a Tcap Notice primitive with reportCause: …`	The CdmaGateway received a notice tcap primitive. It has not performed any additional processing on it. Error 1009	No action required.
`Received an Unknown tcap primitive type: …`	The CdmaGateway received a TCAP primitive but did not recognize the primitive type. Error 1010	No action required.
`Attempt to create a duplicate call`	The CdmaGateway attempted to create two calls with the same key. This indicates an internal error but is recoverable. Error 1011	No action required.
`Attempt to insert a duplicate invoke call with dialogId: …`	The CdmaGateway attempted to save two invoke calls with the same dialog ID, this indicates that a previous invoke operation (such as CCDIR) did not receive a reply. This does not indicate an error, the call will proceed as expected. Error 1013	No action required.
`CdmaGateway exiting with … active calls`	The CdmaGateway is about to shutdown with a number of calls still active. This is only a warning and the CdmaGateway will continue to shutdown.	No action required.

Alarm Text	Reason	Remedy
	Error 1023	
`Invalid configuration - … has an invalid value …`	The specified configuration item has an invalid value, it must be corrected. Error 1028	Correct the invalid configuration item.
`DMH_ServiceID has invalid FCI value, … truncated to …`	The FCI number given has an invalid value and will be truncated before it is sent in the DMH_ServiceID. FCI values must not exceed 0xFFFF. Error 1029	No action required.

Notices

This table defines the notice messages for U-CA-IS41 (CDMA).

Alarm Text	Reason	Remedy
`CdmaGateway start`	The CdmaGateway has started. Error 1020	No action required.
`CdmaGateway Interface stopped`	The CDMA IS41 gateway service process is shutting down. This indicates that the SLC SLEE is shutting down. Error 1021	No action required.
`Soak Test is complete`	Soak Test interface only: The current soak test has completed its run. The statistics from the run will follow this message. Error 1024	No action required.
`Throttling is enabled, Call Rate limited to … CAPS`	The CdmaGateway is running with throttling enabled. The maximum call rate is as indicated in the warning message. Error 1025	No action required.
`Test Interface: Listening on TCP Port: …`	The CdmaGateway test interface has been enabled and is listening on the specified port. Error 1027	No action required.