

Oracle® Communications
Convergent Charging Controller

NP Service Pack 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, refer to *SMS Technical Guide*.

Severity levels

This table describes the alarms severity levels.

| Level | Abbr | Description |
|----------|------|--|
| Critical | C | These alarms are raised when the application has encountered an error which indicates 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 prodsmpl 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 *SMS Technical Guide*
- Creating and maintaining the SMS Alarm Relay rule set, see *SMS User's Guide*

NP Alarms

Warnings

This table defines the warning messages for NP Service Pack.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|--|--|---|
| 1 | called party Invalid | Length of the called party number violates dnMinimal and dnMaximal configuration. Possible causes are: <ul style="list-style-type: none"> • dnMinimal/Maximal settings not flexible enough for the numbering plans • acs.conf normalization rules incorrect therefore more or less digits reaching the service | |
| 201 | More than 10 active LCR instances | Indicates there are more than 10 LCR node instances in a call plan that has been used in a cascade fashion without all carriers within the instances being exhausted. | |
| 202 | Product type action failed | Indicates that the product type action handler was not loaded by CCS | |
| 204 | CDR generation failed | Indicates that the CDR interface is not executing. | |
| 205 | Problem retrieving rule set from call plan | Indicates that there is a conflict between software versions. | Contact support with details. |
| 208 | RD_ID not found %s | An intermittent alarm generated in a window where data on the SMS has changed, but the Mfile has yet to be generated on the SLC. %s = RD_ID name | Repeat the scenario to establish if this is the case. If this is not the case, then check whether a macro node placed in between DS/HR and LCR node has corrupted data in the carrier field. Examine call plan to determine if any nodes have been placed in between these nodes. Contact support with details. |
| 209 | RD_ID not found (default) %s | The default id name (stated for DefaultDestination in configuration file) may not be present in the | Check the: <ul style="list-style-type: none"> • NP_ROUTING_DESTINATION table on the SMS/SLC for the |

| Error Number | Alarm Text | Reason | Remedy |
|--------------|---|---|--|
| | | NP_ROUTING_DESTINATION table, or the NP_ROUTING_DESTINATION mfile was not generated. %s = default RD_ID name | <p>default id name.</p> <ul style="list-style-type: none"> • /IN/service_packages/NP_SERVICE_PACK/DS to establish if NP_ROUTING_DESTINATION_NAME mfile is present. <p>Log on as acs_oper and check if “npMfileRoutingDestinationDaemon –gpna destination” is running. Contact support with details.</p> |
| 211 | Rule not found in NP_RULE | <p>Either the:</p> <ul style="list-style-type: none"> • NP_RULE mfile not generated • The call plan is out of date i.e. LCR node contains a rule set name that is no longer in NP_RULE_SET • It is a replication problem | <p>Check the /IN/service_packages/NP_SERVICE_PACK/LCR to establish if NP_RULE.mfile is present. If not present then log on as acs_oper and check if npMfileRuleDaemon is running. Contact support with details.</p> |
| 212 | Error retrieving routing destination name | Indicates the NP_ROUTING_DESTINATION_INDEX mfile was not generated. | <p>Check the /IN/service_packages/NP_SERVICE_PACK/DS to establish if NP_ROUTING_DESTINATION_INDEX.mfile is present. If not present then log on as acs_oper and check if “npMfileRoutingDestinationDaemon –gpna index” is running. Contact support with details.</p> |
| 213 | Routing destination name not found | Intermittent alarm generated in a window where data on the SMS has changed, but the Mfile has yet to be generated on the SLC, or the NP_ROUTING_DESTINATION table no longer contains the rd_id that is being looked up | <p>Repeat scenario to establish if this is the case. Contact support with details.</p> |
| 214 | Error retrieving carrier %s | NP_CARRIER mfile was not generated. %s = the carrier id | <p>Check whether the NP_CARRIER.mfile is present in /IN/service_packages/NP_SERVICE_PACK/LCR. If not present then log on as acs_oper and check if “npMfileCarrier” is running. Contact support with details.</p> |

| Error Number | Alarm Text | Reason | Remedy |
|--------------|--|---|---|
| 215 | carrier not found %s | Intermittent alarm generated in a window where data on the SMS has changed but Mfile has yet to be generated on the SLC, or the NP_CARRIER table no longer contains the carrier_id that is being looked up due to DB provisioning. %s = the carrier id | Repeat scenario to establish if this is the case. Contact support with details. |
| 217 | Preferred format table NoA problem | Processing error for the called or calling number. | Contact support with details. |
| | Pending Number length | The number of characters in the destination address has exceeded 32 characters. | |
| 300 | Statistic generation failure | Statistics not generated. | |
| 302 | DN minimal length not found | Indicates that the DNMinimal parameter is incorrectly configured. | Check in the np_components.cfg file to establish if DNMinimal is specified. |
| 303 | DN minimal length out of range (minimum 1, less than 32) | Incorrect value set for DN Minimal. | Check the np_components.cfg file to establish whether the DNMinimal value is within the allowable range. |
| 305 | DN maximal length out of range | Incorrect value set for DN Maximal | Check the np_components.cfg file to establish whether the DNMaximal is within the allowable range (minimum 1, less than 32, greater or equal than DN minimal length) |
| 306 | Internal destination not found | Internal destination not found | Check the np_components.cfg file to establish whether the InternalDestination falls within the allowable range. |
| 307 | Internal destination out of range | Incorrect value set for the Internal Destination. | Check the np_components.cfg file to establish whether the InternalDestination set, falls within the allowable range (64 chars maximum). |
| 308 | Default routing destination not found | Default routing destination not found. | Check the np_components.cfg file to establish whether the DefaultDestination is within the allowable range. |
| 309 | Default routing destination out of range | Incorrect value set for default routing destination. | Check the np_components.cfg file to establish whether the DefaultDestination falls within the allowable range (64 chars |

| Error Number | Alarm Text | Reason | Remedy |
|--------------|--|---|--|
| | | | maximum). |
| 312 | DN Maximal before DN Minimal not allowed in configuration file | DN Maximal and DN Minimal incorrectly placed in the configuration file. | Check the <code>np_components.cfg</code> file to establish whether or not the DNMaximal tag is before DNMinimal |
| 313 | appID out of range | Incorrect value set for appID. | Check the <code>np_components.cfg</code> file to establish whether the appID is within the allowable range (20 chars maximum). |

Notices

This table defines the Notice messages for NP.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|-----------------------------|--|--|
| 304 | DN maximal length not found | DNMaximal parameter is incorrectly configured. | Check the <code>np_components.cfg</code> file to establish whether DNMaximal is specified. |

MTA Alarms

Critical errors

This table defines the Critical error messages for MTA.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|-------------|--------------------------------------|-------------------------------|
| 5 | Uncaught %s | An unhandled exception has occurred. | Contact support with details. |

Errors

This table defines the Error messages for MTA.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|---|---|--|
| 16 | Unable to create dialog to service key %d | The service key is not configured or it is unavailable. | Check the MTA trigger rules to ensure that the correct service key is being triggered. Check the application listening on that service key to make sure it is running. |
| 19 | A SLEE exception occurred: %s | An error occurred when polling the SLEE for events. | Check the SLEE to ensure it is running correctly. Check for other activities such as package installs which may interrupt the slee. Contact support with details. |
| 20 | Invalid SCI Received %s | The MAP Trigger node sent an invalid command to the MTA. | Contact support with details. |
| 21 | Unknown operation received | The MAP Trigger node sent an invalid operation code to the MTA. | Contact support with details. |
| 22 | SCCP Relay Failure %s | The MTA could not relay the message as the message would be looped back to the MTA. For example the routing indicator is unchanged and set to route on global title and the global title is also unchanged. | Check the global title translation rules and call plan to ensure that messages are being correctly altered. |
| 23 | In Timer Expired | A timeout occurred waiting for a response from the call plan. | Check that the IN timer is not set too low in the MTAconfiguration file. Check for high traffic on the box or any other errors that could cause a timeout. |
| 24 | Invalid configuration %s | An error occurred when trying to parse the configuration file while the mta is running. | Check for invalid syntax in the configuration file. |
| 25 | Invalid configuration %s | An error occurred when trying to parse the configuration file | Check for invalid syntax in the configuration file. |

| Error Number | Alarm Text | Reason | Remedy |
|--------------|--|--|--|
| | | while the mta is starting up. | |
| 26 | Unable to find service key for this call | No matching trigger rule could be found for this message. | Check the triggerRules configuration to ensure all messages are being handled. |
| 27 | No matching Global Title Translation rule found for %s | No matching global title translation rule could be found for this message. | Check the gttRules configuration to ensure all messages are being handled. |

Warnings

This table defines the Warning messages for MTA.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|---|---|---|
| 12 | Unhandled TCAP Primitive | An unhandled TCAP event was received. | Check that only a TCAP BEGIN, CONTINUE, END or ABORT message is being sent to the MTA. |
| 13 | Received a looped TCAP BEGIN | The MTA detected that a message is being looped back to it | Check STP/ITP routing rules and MTA global title translation to ensure that a message loop cannot occur. |
| 14 | Received a TCAP BEGIN with no Application Context | A TCAP BEGIN message was received with no Application Context field. | Ensure that the message being sent to MTA contains an application context. |
| 15 | Unsupported application context of %s | A TCAP BEGIN message was received with an unsupported Application Context type. | Ensure that only MAP v2/3 SRI/SRI_SM application contexts are sent to the MTA. |
| 16 | Received unexpected %s | An unexpected sequence of messages occurred. | Check the message flows and ensure that messages are not being sent to MTA in the wrong order. |
| 17 | Invalid message | A corrupt message was received. | Ensure that all messages sent to the MTA are syntactically correct and include all mandatory information. |

Notices

This table defines the Notice messages for MTA.

| Error Number | Alarm Text | Reason | Remedy |
|--------------|----------------------------------|---|--------|
| 1 | Starting MAP Trigger Application | The MTA process has started | |
| 2 | MTA Exiting | The MTA process is stopping. | |
| 3 | Caught SIGHUP, re-reading config | A SIGHUP signal has been received and the MTA is re-reading its configuration file. | |
| 4 | Caught SIGINT, closing | A SIGINT signal has been received and the MTA is | |

| Error Number | Alarm Text | Reason | Remedy |
|--------------|-----------------------------|--|--------|
| | | closing. | |
| 6 | Received DIALOG CLOSED | A Dialog Closed message was received from the SLEE. | |
| 7 | Received APPLICATION END | An Application End message was received from the SLEE. The MTA is closing. | |
| 8 | Received APPLICATION END | An Application Kill message was received from the SLEE. The MTA is closing. | |
| 9 | Received REREAD CONFIG | A Reread Config message was received from the SLEE. The MTA is re-reading its configuration file. | |