Alert and Error Messages

Prime Cable Provisioning generates alerts through the Syslog service. Syslog is a client-server protocol that manages the logging of information. Prime Cable Provisioning syslog alerts are not a logging service; they provide a notification that a problem exists, but do not necessarily define the specific cause of the problem. You might find this information in the appropriate Prime Cable Provisioning log files.

This chapter identifies all alert and error messages that Prime Cable Provisioning generates, specifically:

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Message Format

When Prime Cable Provisioning generates an alert message, the format is:

XXX-#-####: Message

- XXX—Identifies the facility code, which can include:
  - RDU (Regional Distribution Unit)
  - DPE (Device Provisioning Engine)
  - AGENT (rduSnmpAgent or dpeSnmpAgent)
  - NR_EP (Cisco Prime Network Registrar extension points)
  - KDC (Key Distribution Center)
- #—Identifies the severity level in use. The following table describes the different levels.

Table 1: Severity Levels for Alert Messages

Severity Level	Description
1	Identifies an alert
2	Identifies a critical alert

Severity Level	Description
3	Identifies an error
6	Identifies an informational message

- ###—Identifies the numeric error code.
- *Message*—Provides the alert text or message.

Regional Distribution Unit Alerts

The following table identifies the RDU alerts.

Table 2: RDU Alerts

Alert	Description
RDU-1-101: RDU ran out of disk space	Indicates that the storage partition of the RDU server ran out of space. After encountering this error, the RDU attempts to restart automatically, but will typically encounter the same error again until more storage space is available. You can remove or compress some of the log files. See Prime Cable Provisioning Support Tools for additional information.
RDU-1-103: RDU ran out of memory	Indicates that the RDU ran out of memory. After encountering this error, the RDU server restarts automatically.
RDU-1-111: Evaluation key for technology *[technology_name]* expired	Indicates that an evaluation key for the technology specified expired. You must contact Cisco sales or TAC for a new license key.
RDU-1-115: You have used *[]* percent of available *[technology_name]* licenses.	Identifies, in percentage, the quantity of licenses used out of the total number of allowable licenses. Appears when you reach 80 percent of the license capacity.
RDU-1-122: DNS took *[]* seconds for lookup of address *[ip/hostname]*. Check DNS configuration and health of servers	Indicates that Prime Cable Provisioning performance may be slow due to delayed response from the DNS. The alert is generated whenever IP address lookup takes more than 60 seconds.

Alert	Description
RDU-2-119: Directory *[]* that contains the RDU database has a filesystem block size of *[]* bytes that does not match the required size of *[]* bytes. Corruption may occur.	Indicates that the Prime Cable Provisioning database may not be reliable because the file system that contains the database files is not configured to support an 8-KB or greater block size. For details on configuring the file-system block size, see the Cisco Prime Cable Provisioning 6.3 Quick Start Guide.
RDU-2-200: Directory *[]* that contains the RDU database transaction logs has a filesystem block size of *[]* bytes that does not match the required size of *[]* bytes. Corruption may occur.	Indicates that the Prime Cable Provisioning database may not be reliable because the file system that contains the database log files is not configured to support an 8-KB or greater block size. For details on configuring the file system block size, see the Cisco Prime Cable Provisioning 6.3 Quick Start Guide.
Note Whenever an RDU syslog alert is sent, additional details (if any) can be found in the log file *BPR_DATA/rdu/logs/rdu.log*.	

Device Provisioning Engines Alerts

Whenever a DPE syslog alert is sent, you can find additional details in the DPE logs.

You can use the **show log** command to access the DPE logs. For additional information, see the Cisco Prime Cable Provisioning 6.3 DPE CLI Reference Guide.

Some DPE errors are also propagated to the RDU server log files. You can find these in the *BPR_DATA/rdu/logs/rdu.log* file.

The following table identifies the DPE alerts.

Table 3: DPE Alerts

Alert	Description
DPE-1-102: DPE ran out of disk space	The storage partition that the DPE server uses ran out of space. You have three options: **1.** Clear out any excess support bundles that may reside on the disk. You can do this by moving those support bundles to another machine and then running the **clear bundles** command from the DPE command-line interface (CLI). **2.** Run the **clear logs** command from the DPE CLI to clear more disk space. **3.** As a last resort, run the **clear cache** command from the DPE CLI to remove any cache files and force the DPE to resynchronize with the RDU server.
DPE-1-104: DPE ran out of memory	The DPE process ran out of memory. After encountering this error condition, the DPE restarts automatically. Determine how many device configurations are on the DPE; the larger the number of device configurations, the more memory is used. To reduce the number of device configurations, limit the number of devices in the provisioning groups, either primary or secondary, that the DPE serves.
DPE-1-109: Failed to connect to RDU	The RDU cannot be contacted. You must: **1.** Verify that the DPE network is configured and connected correctly. **2.** Check that the DPE is configured to connect to the proper RDU, and that the connecting port is configured properly by using the **dpe rdu-server** command. **3.** Check that the RDU process is running on the correct server and listening on the correct port. The DPE attempts to reconnect to the RDU process every few seconds until a connection is established.
DPE-1-117: DPE license nodes have been exceeded or there is no valid DPE license	Indicates that the Prime Cable Provisioning process watchdog, which starts the DPE, did not detect a license for the DPE. Enter the license key for the DPE using the administrator user interface. If you do not have a license, contact your Cisco representative.

Alert	Description
DPE-1-116: DPE evaluation license has expired. Dropping DPE connections and deleting DPEs from database	Indicates that an evaluation license key for the DPE expired. You must contact Cisco sales or TAC for a new license key.
DPE-2-118: Directory *[]* that contains the DPE's cache has a filesystem block size of *[]* bytes that does not match the required size of *[]* bytes. Corruption may occur.	Indicates that the DPE cache may not be reliable because the file system is not configured to support an 8-KB or greater block size. For details on configuring the file system block size, see the Cisco Prime Cable Provisioning 6.3 Quick Start Guide.
DPE-1-121: Cannot start the server due to an invalid encryption key.	Indicates that the DPE could not be started because of an invalid encryption key.

Watchdog Alerts

Whenever the process watchdog sends a syslog alert, you can find error details (if any) in the *BPR_DATA/agent/logs/agent_console.log* file and the log files corresponding to the specific component mentioned in the alert (if any). For example, if you receive an alert similar to *The rdu unexpectedly terminated*, you would check the RDU server log file (*BPR_DATA/rdu/logs/rdu.log*) for additional information. The following table identifies the process watchdog alerts.

Table 4: Process Watchdog Alerts

Alert	Description
AGENT-3-9001: Failed to start the *[component]*	Indicates that the watchdog has failed to start the specified component.
AGENT-3-9002: The *[component]* unexpectedly terminated	Indicates that the specified component, monitored by the process watchdog, has unexpectedly failed.
AGENT-6-9004: The *[component]* has started	Generated any time a component is successfully started by the process watchdog. This message is for informational purposes only.
AGENT-6-9005: The *[component]* has stopped	Generated any time a component is successfully stopped through the process watchdog. This message is for informational purposes only.
AGENT-3-9003: Failed to stop the *[component]*	Indicates that a component did not stop when the process watchdog attempted to stop it.
AGENT-3-9003: Failed to create listener thread; *[error no]*Failed to close listen socket; *[error no]* Failed to cancel listen thread, and so on	Indicates errors that are not defined in other alert messages.

The *[component]* variable presented in the process watchdog alerts list shown in Table 4: Process Watchdog Alerts represents any of these component values:

- rdu
- pws
- dpe
- adminui
- cli
- snmpAgent
- kdc

Network Prime Registrar Extension Point Alerts

Whenever a Prime Cable Provisioning Network Registrar extension point syslog alert is sent, you can find additional details in the Network Registrar log file.

The following table identifies the process watchdog alerts.

Table 5: Network Registrar Extension Alerts

Alert	Description
NR_EP-1-106: Failed to connect to RDU	The Network Registrar server cannot connect to the RDU. You should verify that the RDU process is running and, if it is not already running, start the RDU. If the RDU is running, use the Network Registrar computer to ping the RDU. If you are unable to ping the RDU, fix the routing tables or other communication parameters, between the two devices. If this alert is frequently repeated, you may have an unstable connection between the two hosts. Use generally accepted network troubleshooting techniques to improve the connectivity between the two hosts.

Alert	Description
NR_EP-1-107: Failed to connect to any DPEs	The Network Registrar extension cannot connect to the DPEs. Check that there are DPEs in the provisioning group for each Network Registrar extension. If not, change the Network Registrar provisioning group to one that has DPEs available. If DPEs are in the provisioning group, ensure that the Network Registrar extension has registered with the RDU; if it has not, it will not recognize any of the DPEs. If, after completing the check, the alert continues, check that there is network connectivity between the Network Registrar extension and the DPEs in the provisioning group. If this alert is frequently repeated, you may have an unstable connection between the two hosts. Use generally accepted network troubleshooting techniques to improve the connectivity between the two hosts.
NR_EP-6-108: The Prime Cable Provisioning NR extensions have started	The Network Registrar extensions have been started.
NR_EP-6-109: The Prime Cable Provisioning NR extensions have stopped	The Network Registrar extensions have been stopped.
NR_EP-6-110: Registered with RDU *[address and port]*	The Network Registrar extensions have been registered with the RDU. The *address and port* identifies the address of the RDU that has registered the Network Registrar extensions.
NR_EP-1-111: Failed to find usable (best) DPEs	The Network Registrar extensions are unable to find a usable DPE.