Prime Cable Provisioning Process Watchdog

The Prime Cable Provisioning process watchdog is an administrative agent that monitors the runtime health of all Prime Cable Provisioning processes. This process watchdog ensures that if a process stops unexpectedly, it is automatically restarted. One instance of the Prime Cable Provisioning process watchdog runs on every system that runs Prime Cable Provisioning components.

You can use the Prime Cable Provisioning process watchdog as a command-line tool to start, stop, restart, and determine the status of any monitored processes.

If a monitored application fails, it is restarted automatically. If, for any reason, the restart process also fails, the Prime Cable Provisioning process watchdog server waits a prescribed length of time before trying to restart.

Note You do not have to use the Prime Cable Provisioning process watchdog and the SNMP agent to monitor the extensions that are installed on Cisco Prime Network Registrar.

The period between restart attempts starts at 1 second and increases exponentially with every subsequent attempt until it reaches a length of 5 minutes. After that, the process restart is attempted at 5-minute intervals until successful. Five minutes after a successful restart, the period is automatically reset to 1 second again.

For example:

1. Process A fails.

2. The Prime Cable Provisioning process watchdog server attempts to restart it and the first restart fails.

3. The Prime Cable Provisioning process watchdog server waits 2 seconds and attempts to restart the process and the second restart fails.

4. The Prime Cable Provisioning process watchdog server waits 4 seconds and attempts to restart the process and the third restart fails.

5. The Prime Cable Provisioning process watchdog server waits 16 seconds and attempts to restart the process.

This chapter describes:

Using Prime Cable Provisioning Process Watchdog from CLI

The Prime Cable Provisioning process watchdog automatically starts whenever the system boots up. Consequently, this watchdog also starts those Prime Cable Provisioning system components installed on the same system. You can control the Prime Cable Provisioning watchdog using the *init* script **bprAgent** in CentOS 6.x and *systemd* unit file **bpragent** in CentOS 7.x.

The following table describes the command-line interface (CLI) commands available for use with the Prime Cable Provisioning process watchdog.

Table 1: Prime Cable Provisioning CLI Commands

Command	Description
For CentOS 6.x	
/etc/init.d/bprAgent start	Starts the Prime Cable Provisioning process watchdog, including all monitored processes.
/etc/init.d/bprAgent stop	Stops the Prime Cable Provisioning process watchdog, including all monitored processes.
/etc/init.d/bprAgent restart	Restarts the Prime Cable Provisioning process watchdog, including all monitored processes.
/etc/init.d/bprAgent status	Gets the status of the Prime Cable Provisioning process watchdog, including all monitored processes.
/etc/init.d/bprAgent start *process-name*	Starts one particular monitored process. The value *process-name* identifies that process.
/etc/init.d/bprAgent stop *process-name*	Stops one particular monitored process. The value *process-name* identifies that process.
/etc/init.d/bprAgent restart *process-name*	Restarts one particular monitored process. The value *process-name* identifies that process.
/etc/init.d/bprAgent status *process-name*	Gets the status of one particular monitored process. The value *process-name* identifies that process. The *process-name* mentioned in this table can be: rdu, pws, dpe, kdc, snmpAgent, adminui or cli(for DPE CII).
For CentOS 7.x	
systemctl start bpragent	Starts the Prime Cable Provisioning process watchdog, including all monitored processes.
systemctl stop bpragent	Stops the Prime Cable Provisioning process watchdog, including all monitored processes.
systemctl restart bpragent	Restarts the Prime Cable Provisioning process watchdog, including all monitored processes.

Command	Description
systemctl status bpragent	Gets the status of the Prime Cable Provisioning process watchdog, including all monitored processes.

When the operating system (Linux) is rebooted, the Prime Cable Provisioning process watchdog is first stopped, allowing Prime Cable Provisioning servers to shut down properly. To shut down or reboot the operating system gracefully, use the **init 6** command.

The **reboot** command does not execute application shutdown hooks and kills Prime Cable Provisioning processes rather than shutting them down. While this action is not harmful to Prime Cable Provisioning, it may delay server start-up and skew certain statistics and performance counters.

The events that trigger an action in the Prime Cable Provisioning watchdog daemon, including process crashes and restarts, are logged in a log file, *BPR_DATA/agent/logs/agent.log*. The watchdog daemon also logs important events to syslog under the standard local6 facility.