Enable Watchdog Timer on NGR-30-5

EPISENSOR

Introduction

This document describes how to enable a watchdog timer on the NGR-30-5 Gateway.

Related Documents

Related installation and configuration documents are listed in the following table:

Document	Reference No.
Gateway User Guide	EPI-075-03
Dell Command | Configure Version 4.4 User's Guide	LINK

Support for Watchdog Timer on NGR-30-5

Support for the Watchdog Timer on the NGR-30-5 is provided by the dcc snap (dcc stands for Dell Command and Configure) which should be already installed and running on your gateway (ssh to the gateway as usual first):

```
admin@2ZD5P42:~$ snap info dcc
name:    dcc
summary: This app provides configuration capability to business client
  platforms.
publisher: Dell Brand (dell-inc)
store-url: https://snapcraft.io/dcc
contact:   dellbrand_snapstore@dell.com
license:   unset
description: |
  Dell Command | Configure is a packaged software application that provides
  configuration capability to business client platforms with Snappy Ubuntu
  Core operating system.
commands:
  - dcc.cctk
snap-id:      lginwv5fnn09TfXXpMz8cA90XosJBVBk
```

From the command line here is the information provided about the Watchdog Timer:

```
admin@2ZD5P42:~$ sudo dcc.cctk -H --WatchdogTimer

WatchdogTimer:  Enabled - The system will reboot or reset if the watchdog timer expires.
Disabled - The system will not reboot/reset even if the watchdog timer expires.

Arguments: Enabled+ | Disabled+

Note : + Indicates the arguments supported in the current machine.
```

To check the current status run the following command:

```
admin@2ZD5P42:~$ sudo dcc.cctk --WatchdogTimer
WatchdogTimer is Disabled
```

To enable it run the following command:

```
admin@2ZD5P42:~$ sudo dcc.cctk --WatchdogTimer=Enabled
WatchdogTimer=Enabled
```

To check the configuration of the Watchdog Timer:

```
admin@2ZD5P42:~$ systemctl show | grep -i watchdog
RuntimeWatchdogUSec=1min
ShutdownWatchdogUSec=10min
```

To configure the Watchdog Timer, edit the following file:

```
sudo vi /etc/systemd/system.conf.d/watchdog.conf
[Manager]
RuntimeWatchdogSec=60s
ShutdownWatchdogSec=600s
```

Any changes that are made to this file will only take effect after a reboot. In some cases it may be necessary to add the ShutdownWatchdogSec=600s line (i.e. only the RuntimeWatchdogSec=60s line will be present).

As an aside, you can configure the timer use snap set core as follows:

```
snap set core watchdog.runtime-timeout=1m
snap set core watchdog.shutdown-timeout=10m
```

However, the settings in the watchdog.conf file will override settings made using snap set core. So for now the most reliable way is to edit the watchdog.conf file. The settings made via 'snap set' commands are saved in the file 10-snapd-watchdog.conf (same directory).

Additional Notes

Dell reported known issues in the caracalla-kernel snap which affected the operation of the Watchdog Timer during a system restart. This relates to versions 4.4.0-170 120 of the snap in November 2019. This has been resolved in caracalla-kernel snap version 4.4.0-177.207 128 (BIOS Version 1.3).