### Description

This document provides instructions to deploy salt states on the 128T Conductor, which will enable the Conductor to download and start the salt minion watchdog on all managed assets. The salt minion watchdog will detect if the salt minion has stopped communicating with the Conductor or is using too much memory and restart the minion. The default configuration of the watchdog will restart the salt minion if the minion has not attempted to connect to the Conductor in 4 hours or if the salt minion consumes more than 1 GB of memory for 4 hours straight. However, the memory maximum threshold and time to wait before restarting the salt minion are both configurable. This procedure will only need to be performed once and is designed for 128T Conductors running any software version less than 4.3.0. When the 128T Conductors are upgraded to version 4.3.0 or later this change will be included automatically and there will be no need to revert any changes from this procedure.

### Files Included

watchdog.sls

### Instructions

1. On all Conductor nodes, login to the Linux shell and navigate to the salt base file roots:

cd /srv/salt

2. Copy the included state file to this directory. Shown below is watchdog.sls alongside the top.sls file:

[root@t101-dut1 salt]# ls -l

total 12

-r-xr-xr-x 1 root root 46 Nov 5 10:43 dummy.sls

drwxr-xr-x 2 root root 34 Apr 10 2019 \_modules

drwxr-xr-x 2 root root 43 Apr 10 2019 \_states

-r-xr-xr-x 1 root root 24 Nov 5 10:43 top.sls

-rw-r--r-- 1 root root 0 Nov 7 23:27 watchdog.sls

3. Open the file top.sls and add watchdog as one of the states run for all minions by inserting watchdog under the ‘\*’ section. There may be other states listed under the same section.

base:

 '\*':

 - misc\_state

 - watchdog

4. Apply the watchdog state to all connected assets

t128-salt '\*' state.apply watchdog

This command may take a while to return. Any minions that do not respond will need to be manually restarted as well in the following step.

5. Force any assets that are not connected or who did not respond to the previous step to reconnect by restarting the salt-minion while logged into the asset.

systemctl restart salt-minion

When the salt-minion reconnects it will automatically download and start the minion watchdog during highstate, so there is no need to manually run the state command for reconnecting assets.

### Verifying

To verify that the minion watchdog is running enter systemctl status minion-watchdog on the asset and verify it is running:

[root@t101-dut1 salt]# systemctl status minion-watchdog

● minion-watchdog.service - 128T Salt Minion Watchdog Service

 Loaded: loaded (/etc/systemd/system/minion-watchdog.service; enabled; vendor preset: disabled)

 Active: active (running) since Thu 2019-09-19 02:26:58 UTC; 1 months 19 days ago

 Main PID: 4737 (minion-watchdog)

 Tasks: 1

 Memory: 322.2K

 CGroup: /system.slice/minion-watchdog.service

However, if the minion state succeeds, or in the case of a reconnecting asset, if the highstate

succeeds, you can be confident that the watchdog is present and running if no errors were returned.