# DXC Platform-X™ Dynatrace® Linux - SGLX Configuration

Important Information

## ServiceGuard Deployment

- Serviceguard is a clustering solution from Hewlett Packard Enterprise ( HP ) that helps protect applications from software and hardware failures. It is used on the HP-UX and Linux operating systems.
- SGMON module is only available on HPUX and in LINUX, and it's used to monitor the package switch in a HP Service Guard Cluster system.

## Steps

| Seq. No. | Step / Description | Action / Detail | Example / Sc |
|---|---|---|---|
| 1 | Pre-requisites | | |

- Install Dynatrace OneAgent on the ServiceGuard Server. SGMON solution requires Log monitoring in Dynatrace. To enable log monitoring we need to install Dynatrace OneAgent on the ServiceGuard server. Please refer Automated Oneagent Install guide Automated Install. Please refer manaul install guide Manual Install
- Ensure monaco_code 5.1 or above (https://github.dxc.com/Innovation-Automation/monaco_code/releases/tag/v0.5.1) is loaded in the DT environment. 5.1 release (April 2024) contains all configuration required to support the Serviceguard monitoring on the host. This update causes all the following objects to become available in DT, however we stilll need to ensure they are enabeld:

  - Settings > Log Monitoring > Custom log sources > "DXC - ServiceGuard - Log Monitoring"

  - Settings > Log Monitoring > Log ingest rules > "DXC - ServiceGuard Cron - Log Monitoring"

  - Settings > Log Monitoring > Log ingest rules > "DXC - ServiceGuard - Log Monitoring"

  - Settings > Log Monitoring > Events extraction > "DXC - ServiceGuard - Error Logs"

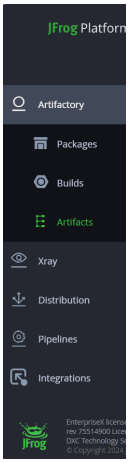
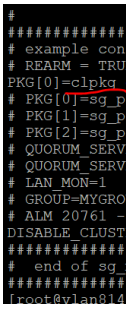
  - Settings > Log Monitoring > Events extraction > "DXC - ServiceGuard Cron - Error Logs"

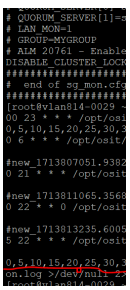
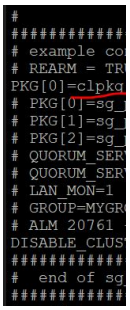
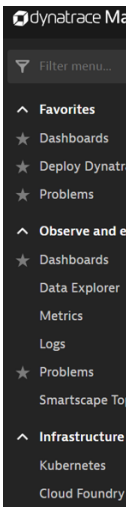
  - Settings > Log Monitoring > Processing > "DXC ServiceGuard Processing Rule-1"

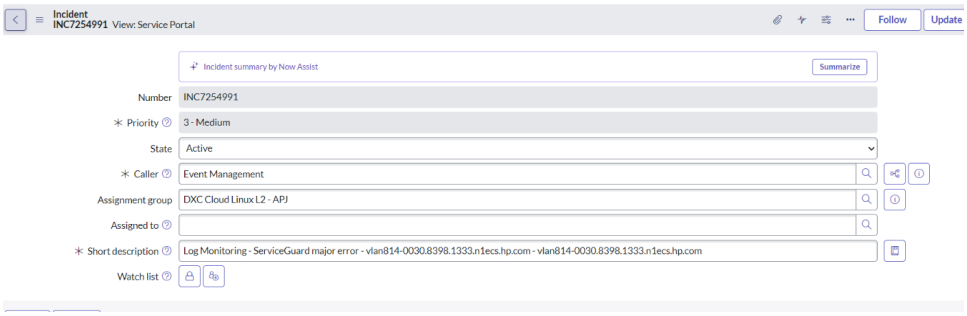
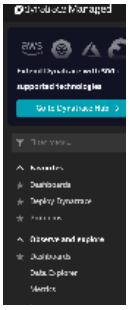
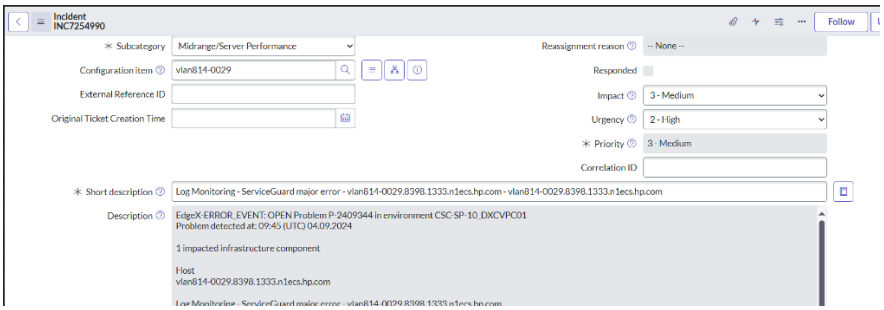
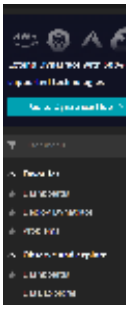
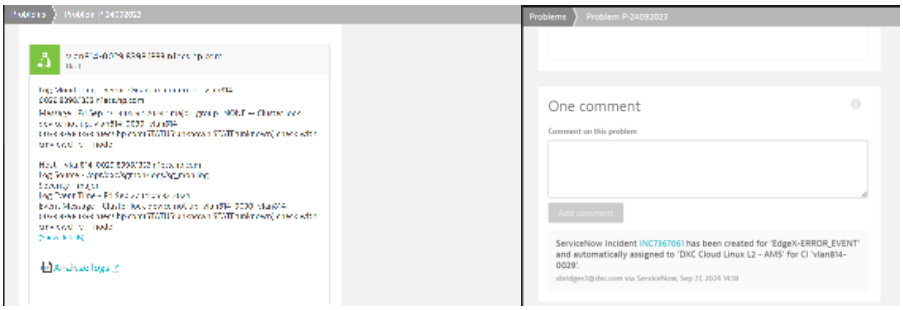
  - Settings > Log Monitoring > Processing > "DXC ServiceGuard Processing Rule-2"

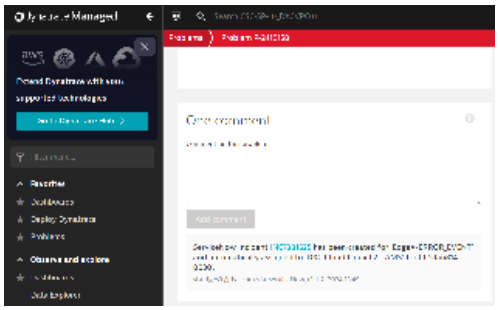
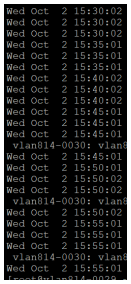
  For more information you can check the PX documentation on Serviceguard monitoring:

  https://github.dxc.com/pages/Innovation-Automation/dynatrace_documentation/user_guides/monitoring/cluster_monitoring/serviceguard/serviceguard_monitoring/
- A user with permission to connect on Port 22 and run the required commands and install SGMON.
- Ensure the server has been onboarded in Raffia inventory.
- Ensure you have Davis data units (DDU), since extension will require DDUs to collect metrics.
- Ensure the server has gunzip tool to unzip and install the serviceguard package.
- SGMON solution requires PERL on the ServiceGuard RHEL / HP-UX server.
- SGMON will use the default PERL running on the ServiceGuard RHEL / HP-UX server. Default perl will run on `/bin/perl`.
- Check the perl version using command `/bin/perl -V`. Perl version should be 5.26.3 or greater.
- SGMON solution requires the below list of perl modules, which are available in standard perl distribution itself.
  - File::Basename
  - File::Spec::Functions
  - Fcntl qw(:flock)
  - POSIX qw(strftime)
  - Getopt::Long

| | | | |
|---|---|---|---|
| 2 | Deploy SGMON Solution | • SGMON solution has to be deployed in the ServiceGuard sever.<br>• Download the SERVICEGUARD package (serviceguard.tar.gz) from SERVICEGUARD<br>• Login to your servicegaurd HPUX / Linux server.<br>• Verify whether the server has perl running on it using `/bin/perl -v` command.<br>• Verify whether you have a directory /opt/dxc in serviceguard server.<br>• If not available create the director.`mkdir /opt/dxc`<br>• Copy the serviceguard.tar.gz package into servicegaurd HPUX / Linux server into /opt/dxc directory.<br>• Run the below commands to install the package,<br>  ○ cd /opt/dxc<br>  ○ gunzip serviceguard.tar.gz<br>  ○ tar –xvf serviceguard.tar<br>  ○ ls –l /opt/dxc/sgmon #to check all scripts available with conf/ and logs folder<br>  ○ /opt/dxc/sgmon folder will contain the below list of files / folder<br>  ■ UXMONlock.pm<br>  ■ UXMONloglib.pm<br>  ■ UXMONreadparam.pm<br>  ■ UXMONsgmon<br>  ■ changelog.md<br>  ■ conf/sg_mon.conf<br>  ■ logs/<br>  ○ vi /opt/dxc/sgmon/conf/sg_mon.conf #To update your sgmon configuration file. |  |
| 3 | Update SGMON Configuration File | • Example sg_mon.cfg file `# PKG[0]=XYZ Package name 1 # PKG_NODE[0]=ABC Primary node on which the package must run # PKG_SWTCH[0]=1 Set to 1 if Package_switching should be ENABLED # Set to 0 if Package_switching must not be ENABLED PKG[0]=pkginfra; PKG_NODE[0]=pov-eprh802; PKG_SWTCH[0]=1 PKG[1]=pkgapache; PKG_NODE[1]=pov-eprh802; PKG_SWTCH[1]=1` |  |

| | | | |
|---|---|---|---|
| 4 | Setup<br><br>SGMON<br><br>Scheduler | • Create a cron job with the following command to setup sgmon solution.<br>○ crontab –e #add the below command at the bottom and save<br>○ `0,5,10,15,20,25,30,35,40,45,50,55 * * * * /bin/perl -I /opt/dxc/sgmon /opt/dxc /sgmon/UXMONsgmon -c /opt/dxc/sgmon/conf/sg_mon.cfg -l /opt/dxc/sgmon/logs /sg_mon.log >/dev/null 2>/opt/dxc/sgmon/logs/sg_mon_cron.log`<br>○ SGMon solution will run every 5 mins to check the status of the packages that are configured. |  |
| 5 | SGMON<br><br>Log<br><br>Update | • SGMon solution will run every 5 mins and check the status of the serviceguard setup and update the log file with details. Sample log file contains below information,<br>• #Sample sg_mon log file content #tail –f /opt/dxc/sgmon/logs/sg_mon.log Wed Mar 13 13:04:25 2024 : INFO : UXMONsgmon is running now, pid=2938672 Wed Mar 13 13:04:25 2024 : INFO : UXMONsgmon end, pid=2938672 Wed Mar 13 13:10:33 2024 : INFO : UXMONsgmon is running now, pid=2940999 Cluster lock device not up: pov-eprh802: /dev/sdc(STATUS:unknown) check with cmviewcl -v -l node Wed Mar 13 13:10:33 2024 : major: group=NONE – Packages pkgapache, pkginfra: PKG_SWITCH is DISABLED, enable with "cmmodpkg -e -v pkgapache pkginfra" Wed Mar 13 13:10:33 2024 : INFO : UXMONsgmon end, pid=2940999 Mon Mar 18 09:50:03 2024 : INFO : UXMONsgmon is running now, pid=2005796 Mon Mar 18 09:51:43 2024 : major: group=NONE – Packages are running on ADOPTIVE nodes: pkginfra (pov-eprh803), pkgapache (pov-eprh803) Mon Mar 18 09:51:43 2024 : major: group=NONE – No alternate node available for package(s) pkginfra, pkgapache: check with cmviewcl -v Mon Mar 18 09:51:43 2024 : major: group=NONE – Mon Mar 18 09:51:43 2024 : INFO : UXMONsgmon end, pid=2005796 |  |
| 6 | Used<br><br>Cases - 1 | Message : Wed Sep 4 15:30:02 2024 : major: group=NONE -- Packages clpkg_data1: PKG_SWITCH is DISABLED, enable with "cmmodpkg -e -v clpkg_data1" |  |

| | | | |
|---|---|---|---|
| | Used<br><br>Cases - 2 | ServiceNow Incident INC7254991 has been created for 'EdgeX-ERROR_EVENT' and automatically assigned to 'DXC Cloud Linux L2 - APJ' for CI 'vlan814-0030'.<br>sbridges3@dxc.com via ServiceNow, Sep 4, 2024 15:20<br>  |  |
| | Used<br><br>Cases - 3 | ServiceNow Incident INC7254990 has been created for 'EdgeX-ERROR_EVENT' and automatically assigned to 'DXC Cloud Linux L2 - APJ' for CI 'vlan814-0029'.<br>sbridges3@dxc.com via ServiceNow, Sep 4, 2024 15:20<br>  |  |
| | used<br><br>cases 4 | Simulated the heartbeat ip disablement error in the Testing servers and found the alerts are updated in sgmon.<br><br>log<br>  |  |

| | | | |
|---|---|---|---|
| | used<br><br>cases 5 | Cluster down critical alert and snow ticket<br>  <br>  |  |

Internal Use Only

- Internal Use Only -