

SL1 Operational Insights – Self Monitoring v104

This PowerPack provides Operational Insights into Platform Operations for the SL1 platform.

The PowerPack contains

- **1 x Dynamic Application**
- **5 x Dashboards**
- **27 x Widgets**
- **2 x Actions**
- **2 x Automations**

PowerPack Installation

Following step by step instructions will ensure that you install the PowerPack successfully.

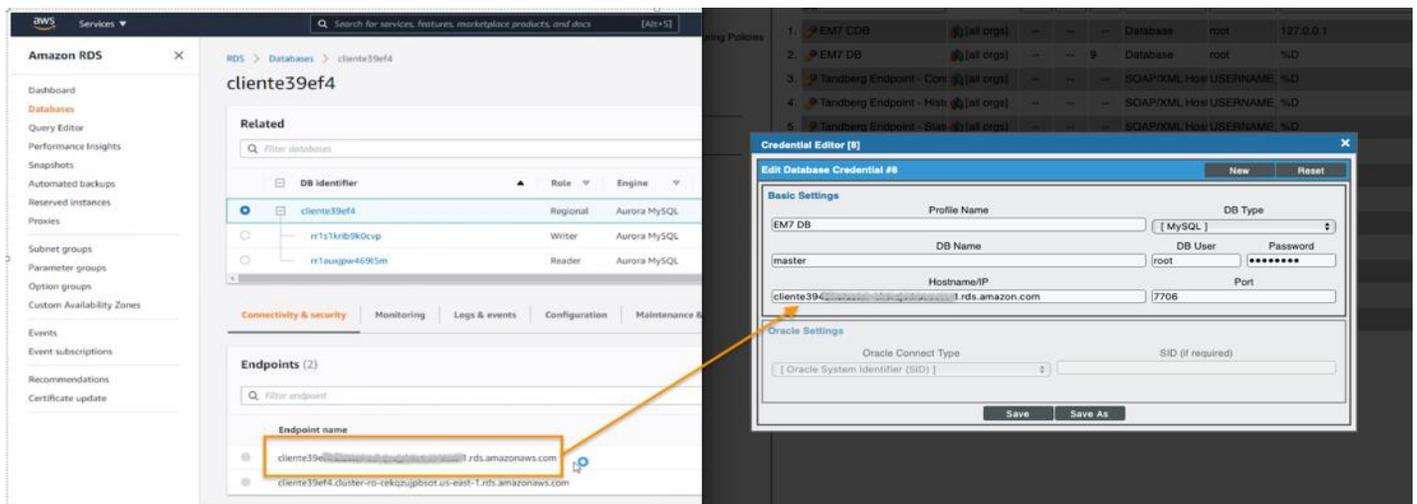
1. Navigate to System > Manage > PowerPacks
2. Select Actions > Import Powerpack
3. Select the PowerPack file and Import
4. Once imported click on the Install button

The PowerPack should now be installed on the system.

SL1 Implementation with RDS

There are some configurations needed to make this PowerPack work for SL1 systems with Data Engines and RDS architecture deployed in the AWS cloud.

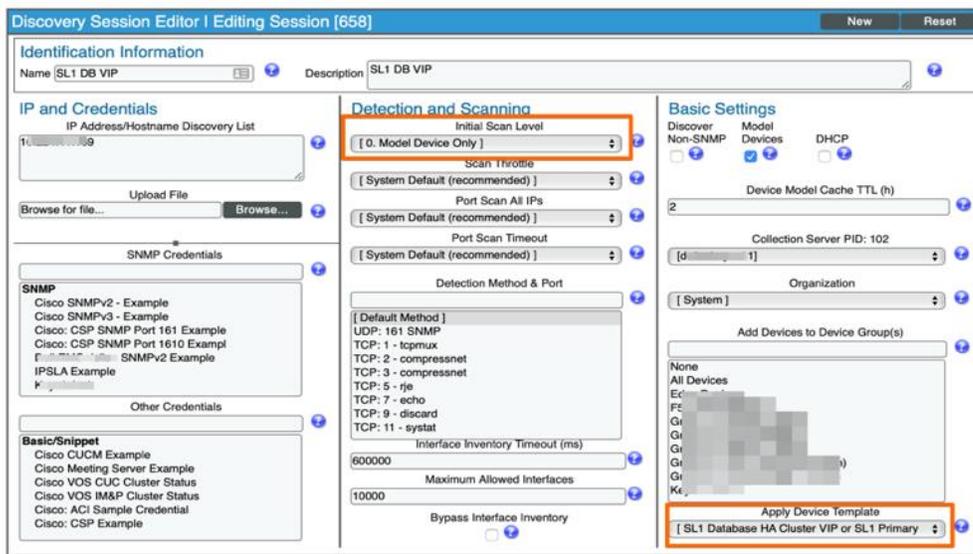
Since the Data Engines do not have MariaDB instance all DB related data collection has to be done by connecting to the RDS instance directly. In order to do that the SL1 DB or EM7 DB credential should be edited or a new credential should be created with the RDS information. Enter the RDS endpoint name in the Hostname/IP field of the credential as shown in the image below. Your AWS administrator will be able to provide you the RDS endpoint name. eg: `cliente39ef4.cluster.us-east-1.rds.amazonaws.com`



The remaining pre-requisites remain the same for this type of deployment, all apps that should be aligned to the EM7 DB, must be aligned to the Data Engine devices which, when discovered, are classified as SL1 DB.

Pre-requisites:

- This Powerpack requires that all ScienceLogic Appliances to be discovered as monitored devices. It is also required that the discovered hostname for all Data and Message Collector devices match with the Data and Message Collector Appliance names from the Appliances page (System > Settings > Appliances)
- For HA or HA+DR systems the HA VIP should be discovered as a separate device.
 - Discover the VIP with the **Initial Scan Level** set to "Model Device Only" and **Apply Device Template** set to "SL1 Database HA Cluster VIP or SL1 Primary"



Once the HA Cluster VIP has been discovered:

- Rename the device to "SL1 Database HA Cluster VIP"

The following table shows which apps should be aligned to which SL1 DB

							Classic Architecture Type			
	App Type	App Name	Power Pack	Min PowerPack Version	Credential Needed	Mini Version Needed	Stand-Alone DB	HA or HA+DR	DR	AWS RDS
1	Configuration	Dall Pull Configuration	Data Pull Support	8.5.0	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
2	Configuration	Host Resource: Configuration	Host Resource Core Pack	106	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
3	Configuration	Host Resource: Software	Host Resource Core Pack	106	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
4	Configuration	SL1: Asset Information	SL1 Default Dynamic Applications	7.7.0	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs

							Classic Architecture Type			
	App Type	App Name	Power Pack	Min PowerPack Version	Credential Needed	Mini Version Needed	Stand-Alone DB	HA or HA+DR	DR	AWS RDS
5	Configuration	SL1: DRBD Status Config	ScienceLogic DRBD Monitoring	102	SNMP	8.12	N/A	All DBs (Not VIP)	All DBs	N/A
6	Configuration	Support: Database Configuration	ScienceLogic Support Pack	101	SNMP* extended	8.14 w/ ScienceLogic Support Pack v101	DB	VIP	All DBs	All DEs
7	Configuration	SL1: Operational Insights - DNS/Timeservers Auditing	SL1: Operational Insights - Platform Operations	104	SSH	8.14	DB	All DBs (Not VIP)	All DBs	All DEs
8	Configuration	Support: DB Space Estimator	ScienceLogic Support Pack	101	Database	8.14 w/ ScienceLogic Support Pack v101	DB	VIP	All DBs	N/A
9	Configuration	Support: File System	ScienceLogic Support Pack	100	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
10	Configuration	Support: MariaDB Configuration	ScienceLogic Support Pack	101	Database	8.14 w/ ScienceLogic Support Pack v101	DB	All DBs (Not VIP)	All DBs	All DEs
11	Configuration	Support: SL1 Configuration	ScienceLogic Support Pack	101	SNMP* extended	8.14 w/ ScienceLogic Support Pack v101	DB	All DBs (Not VIP)	All DBs	All DEs
1	Performance	HF Data Pull: Storage Tasks	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
2	Performance	HF Data Pull: Statistics	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
3	Performance	LF Data Pull: Storage Tasks	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
4	Performance	LF Data Pull: Statistics	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
5	Performance	MF Data Pull: Storage Tasks	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
6	Performance	MF Data Pull: Statistics	Data Pull Support	8.5.0	SNMP	8.12	DB	VIP	All DBs	All DEs
7	Performance	Net-SNMP: CPU	Net-SNMP Base Pack	101	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
8	Performance	Net-SNMP: Physical Memory	Net-SNMP Base Pack	101	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs
9	Performance	Net-SNMP: Swap	Net-SNMP Base Pack	101	SNMP	8.12	DB	All DBs (Not VIP)	All DBs	All DEs

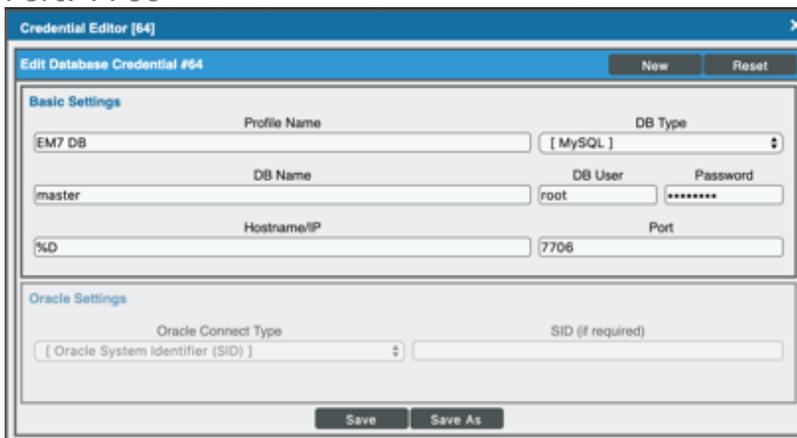
							Classic Architecture Type			
	App Type	App Name	Power Pack	Min PowerPack Version	Credential Needed	Mini Version Needed	Stand-Alone DB	HA or HA+DR	DR	AWS RDS
10	Performance	SL1: DRBD Status Performance	ScienceLogic DRBD Monitoring	102	SNMP	8.12	N/A	All DBs (Not VIP)	All DBs	N/A
11	Performance	SL1: Event Count	SL1 Default Dynamic Applications	7.7.0	Database	8.12	DB	VIP	All DBs	All DEs
12	Performance	SL1: Event Statistics	SL1 Default Dynamic Applications	7.7.0	SNMP	8.12	DB	VIP	All DBs	All DEs
14	Performance	SL1: Operational Insights - Event Counts By Severity	SL1 Operational Insights - Platform Operations	104	Database	8.12	DB	VIP	All DBs	All DEs
15	Performance	SL1: Operational Insights - System Log Counts	SL1 Operational Insights - Self Monitoring	104	Database	8.12	DB	VIP	All DBs	All DEs
16	Performance	Subscription License Usage Totals	ScienceLogic Subscription Audit Pack	101	Database	8.12	DB	VIP	All DBs	All DEs
17	Performance	Support: Async Message Backlog Performance	ScienceLogic Support Pack	101	Database	8.14 w/ ScienceLogic Support Pack v101	DB	VIP	All DBs	All DEs
18	Performance	Support: Config Push	ScienceLogic Support Pack	100	Database	8.12	DB	VIP	All DBs	All DEs
19	Performance	Support: DRBD Proxy Stats	ScienceLogic Support Pack	100	SNMP	8.12	N/A	All DBs (Not VIP)	All DBs	All DEs
20	Performance	Support: InnoDB Size	ScienceLogic Support Pack	100	SNMP	8.12	DB	VIP	All DBs	N/A
21	Performance	Support: Maintenance Tracking	ScienceLogic Support Pack	100	Database	8.12	DB	VIP	All DBs	All DEs
22	Performance	Support: MariaDB Performance	ScienceLogic Support Pack	101	Database	8.14 w/ ScienceLogic Support Pack v101	DB	VIP	All DBs	All DEs
23	Performance	Support: Platform Statistics	ScienceLogic Support Pack	100	Database	8.12	DB	VIP	All DBs	All DEs
24	Performance	Support: PT-DiskStats	ScienceLogic Support Pack	100	SNMP	8.12	DB	VIP	All DBs	All DEs

							Classic Architecture Type			
	App Type	App Name	Power Pack	Min PowerPack Version	Credential Needed	Mini Version Needed	Stand-Alone DB	HA or HA+DR	DR	AWS RDS
25	Performance	Support: Rows Behind	ScienceLogic Support Pack	100	SNMP	8.12	DB	VIP	All DBs	All DEs
26	Performance	Support: SL1 Performance	ScienceLogic Support Pack	101	SNMP	8.14 w/ ScienceLogic Support Pack v101	DB	All DBs (Not VIP)	All DBs	All DEs

Dynamic App Installation

The installation of the PowerPack also requires a manual alignment of the Dynamic Application to the Primary DB.

1. Navigate to the Device Manager under Registry > Devices > Device Manager
2. Search for the Primary SL1 DB or HA Cluster VIP
3. Click on the wrench for the Primary DB
4. Navigate to the Collections Tab on the Primary DB
5. Select Actions > Add Dynamic Application
6. Search for SL1 Operational Insights - System Log Counts under Dynamic Applications
7. Select a Database Credential (EM7 DB) – if no DB credential is available create a new DB credential with the following options:
 - a. DB Name: master
 - b. DB User: root
 - c. Password: MariaDB Password
 - d. Hostname/IP: %D
 - e. Port: 7706



The screenshot shows the 'Credential Editor [64]' window. It has a title bar with a close button. Below the title bar is a sub-header 'Edit Database Credential #64' with 'New' and 'Reset' buttons. The main area is divided into two sections: 'Basic Settings' and 'Oracle Settings'. In 'Basic Settings', there are fields for 'Profile Name' (EM7 DB), 'DB Type' (MySQL), 'DB Name' (master), 'DB User' (root), 'Password' (masked with asterisks), 'Hostname/IP' (%D), and 'Port' (7706). In 'Oracle Settings', there are fields for 'Oracle Connect Type' (Oracle System Identifier (SID)) and 'SID (if required)'. At the bottom are 'Save' and 'Save As' buttons.

8. Click Save

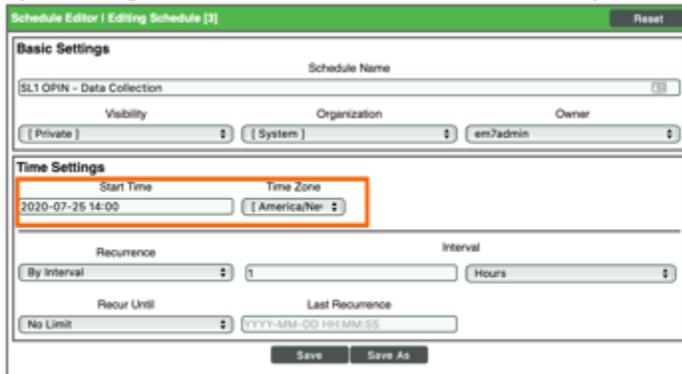
Data Collection Automations configuration

Two automations (provided with the PowerPack) are required to be configured in order to see data on the Collector Performance and System Logs Dashboards

1. Navigate to Registry > Run Book > Schedules

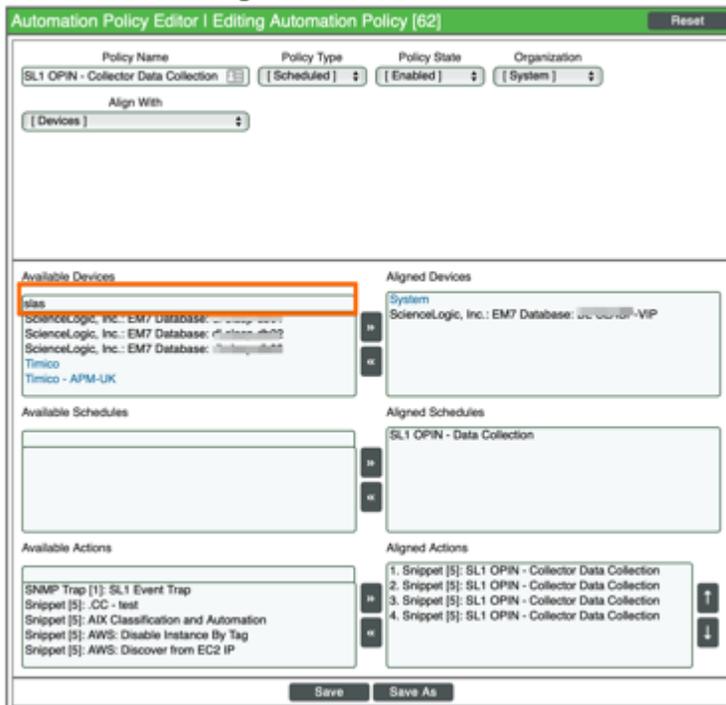
Task ID	Task Name	Task Description	Owner	DB	Owner	Organization	Priority	Enabled	
1.1	SL1 OPN- Data Collection		Internal/Run_Book	2020-07-05 10:00:00	Enabled	Every 1 Hour	en/Action	System	Priority
1.2	SL1 OPN- Collector Data Collection Trigger		Administrator	en/Action	System	Organization	1		
2.1	SL1 OPN- System Log Data Collection Trigger		Administrator	en/Action	System	Organization	1		

2. Edit Schedule "SL1 OPIN - Data Collection" and set the Start Time value to the next upcoming hour and Time Zone value to your local Time Zone.



The screenshot shows the 'Schedule Editor | Editing Schedule [3]' window. Under 'Basic Settings', the 'Schedule Name' is 'SL1 OPIN - Data Collection'. Under 'Time Settings', the 'Start Time' is '2020-07-26 14:00' and the 'Time Zone' is 'America/New_York'. The 'Recurrence' is set to 'By interval' with an interval of '1' hour. The 'Recur Until' is 'No Limit' and the 'Last Recurrence' is 'YYYY-MM-DD HH:MM:SS'. There are 'Save' and 'Save As' buttons at the bottom.

3. Navigate to Registry > Run Book > Automation and search for "OPIN" for the Automation Name, you should see two policies:
 - a. SL1 OPIN - Collector Data Collection
 - b. SL1 OPIN - System Log Data Collection
4. Edit each of the above two policies and perform the following tasks:
 - a. Search for the Active DB/HA VIP for the Available Devices and move the correct device to the Aligned Devices Section:



The screenshot shows the 'Automation Policy Editor | Editing Automation Policy [62]' window. The 'Policy Name' is 'SL1 OPIN - Collector Data Collection', 'Policy Type' is 'Scheduled', 'Policy State' is 'Enabled', and 'Organization' is 'System'. The 'Align With' field is set to 'Devices'. The 'Available Devices' section lists several devices, with 'slas' highlighted. The 'Aligned Devices' section shows 'System' and 'ScienceLogic, Inc.: EM7 Database: JRCOURVIP-VIP'. The 'Available Schedules' section is empty, and the 'Aligned Schedules' section shows 'SL1 OPIN - Data Collection'. The 'Available Actions' section lists several actions, and the 'Aligned Actions' section shows a list of four actions: '1. Snippet [5]: SL1 OPIN - Collector Data Collection', '2. Snippet [5]: SL1 OPIN - Collector Data Collection', '3. Snippet [5]: SL1 OPIN - Collector Data Collection', and '4. Snippet [5]: SL1 OPIN - Collector Data Collection'. There are 'Save' and 'Save As' buttons at the bottom.

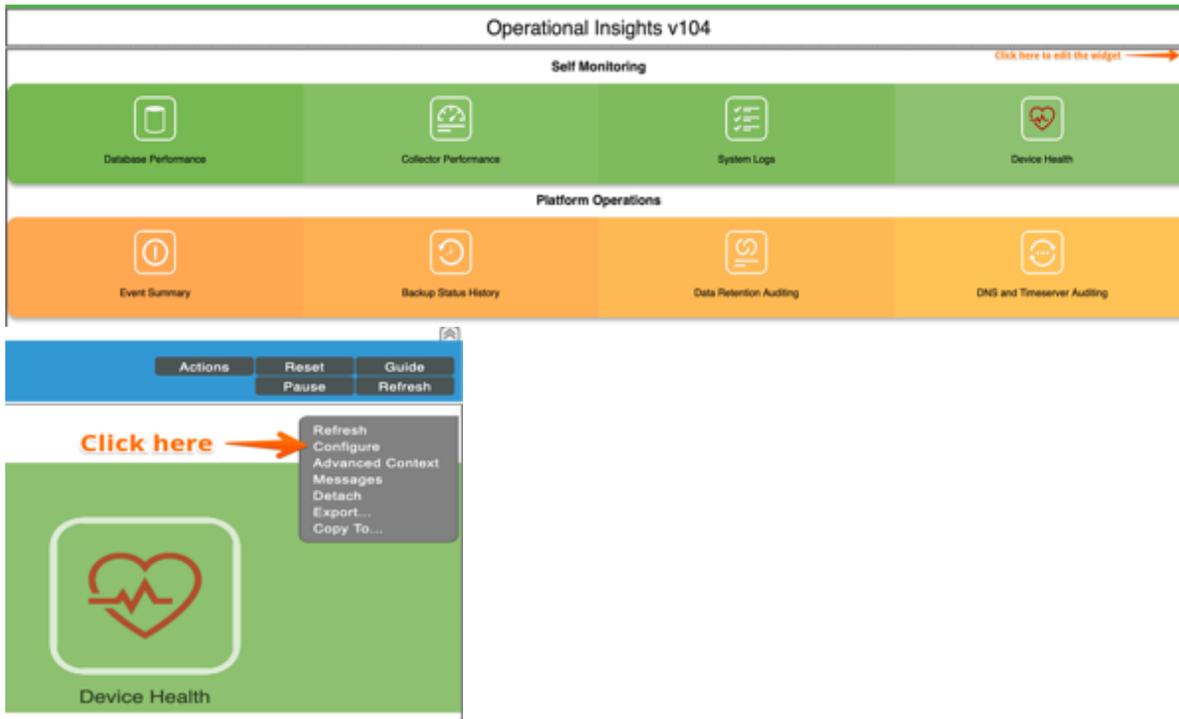
- b. Click Save and close the policy editor.

Dashboard Configuration

There are Dashboards that need minor configurations. The following steps will provide the details to configure the dashboards.

Landing Page Configuration

1. Navigate to Dashboards and to the Operational Insights Landing Page
2. Once at the landing page edit the landing page widget and click on configure



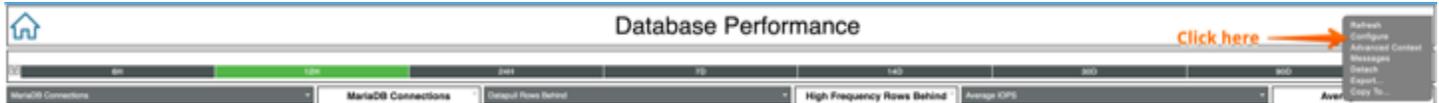
3. From the widget configuration window unselect any dashboard that you do not want to see on the landing page, by default all dashboards are selected and will show on the landing page.



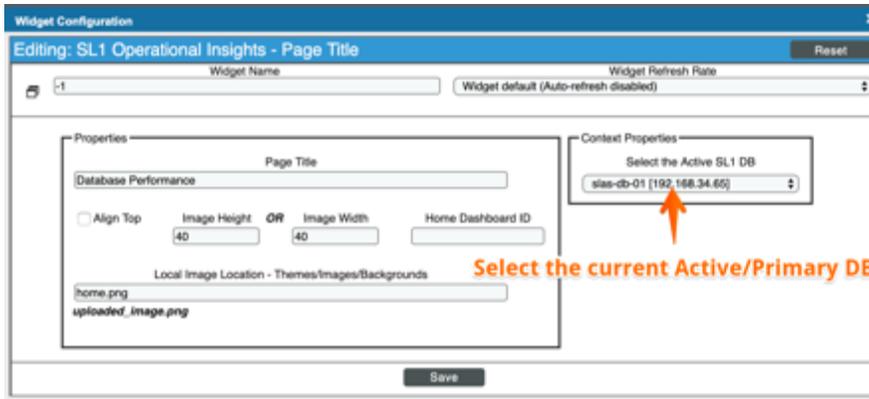
4. Un Check the following two options from the "Admin Tools" if your system is less than v8.14:
 - a. SL1 DB Configuration Check
 - b. SL1 System Status Result
5. NOTE: If your environment has over 500 Organizations then unselect the Device Health Dashboard. Keeping it enabled on systems with large number of organizations can have a negative impact.
6. Click save to save you changes.

Active DB Context configuration

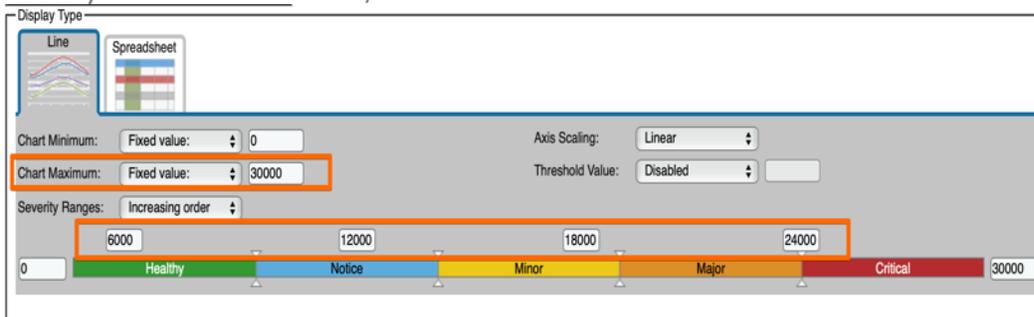
1. Navigate to the Operational Insights Landing page and open Database Performance
2. Edit the Top widget with the Dashboard Name and click configure:



3. Select the current Active/Primary DB/HA VIP Device from the dropdown



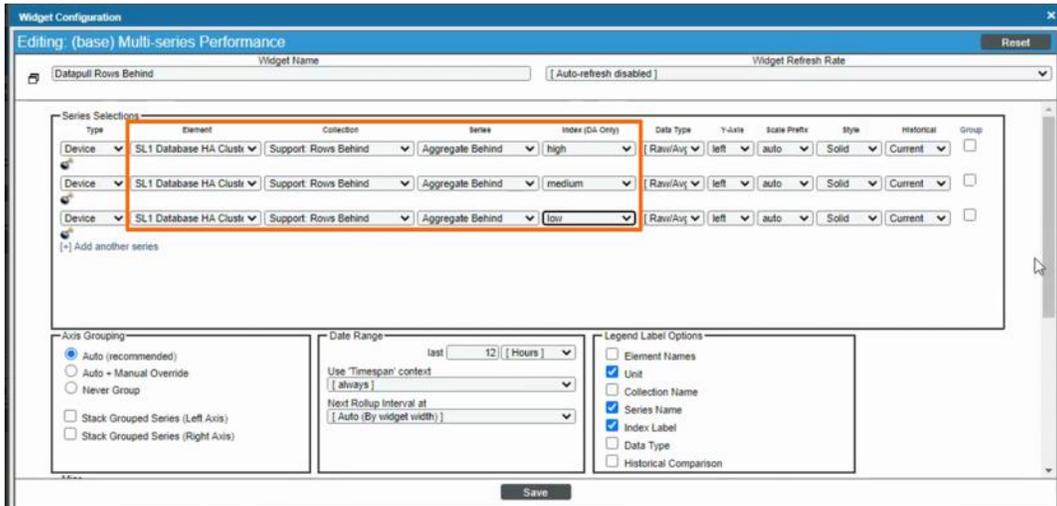
4. Click save to save your changes and exit.
5. Repeat Steps 1-4 for the following Dashboards:
 - a. System Logs Summary
 - b. Collector Performance
 - c. Device Health
6. On the Database Performance Dashboard edit the **Total Active Devices** Graph and Gauge Widget
7. Set the **Chart Maximum** value to the License Capacity of the system and set the different severity thresholds with 1/5th increments.



8. Save and exit.
9. On the Database Performance Dashboard edit the **Total Interfaces** graph and Gauge Widget
10. Set the **Chart Maximum** value to Number of Data Collectors * 15000 and set the different severity thresholds with 1/5th increments.
11. Save and exit.

12. Edit **Datapull Rows Behind** Graph widget and select the following:

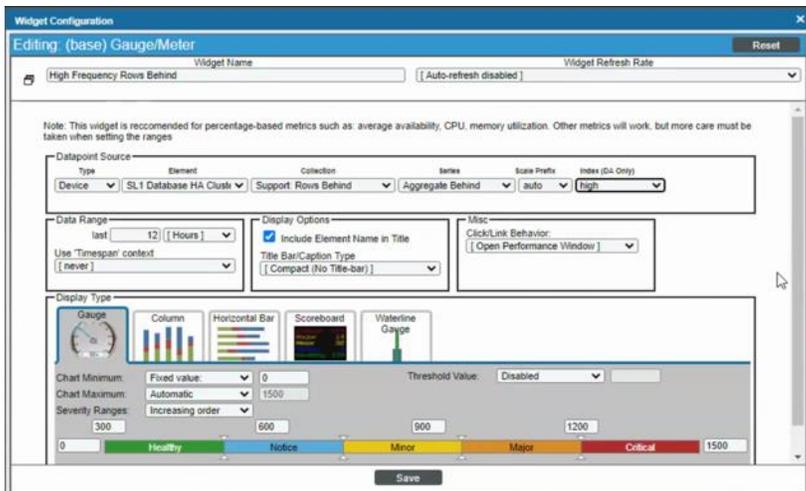
- For **Element** select HA Cluster VIP (Active DB for Single DB and pure DR systems)
- For **Collection** select "Support: Rows Behind"
- For **Index** select high/medium/low for the three rows as shown below



13. Save and exit.

14. Edit **High Frequency Rows Behind** Gauge widget and select the following:

- For **Element** select HA Cluster VIP (Active DB for Single DB and pure DR systems)
- For **Collection** select "Support: Rows Behind"
- For **Index** select "high" as shown below:

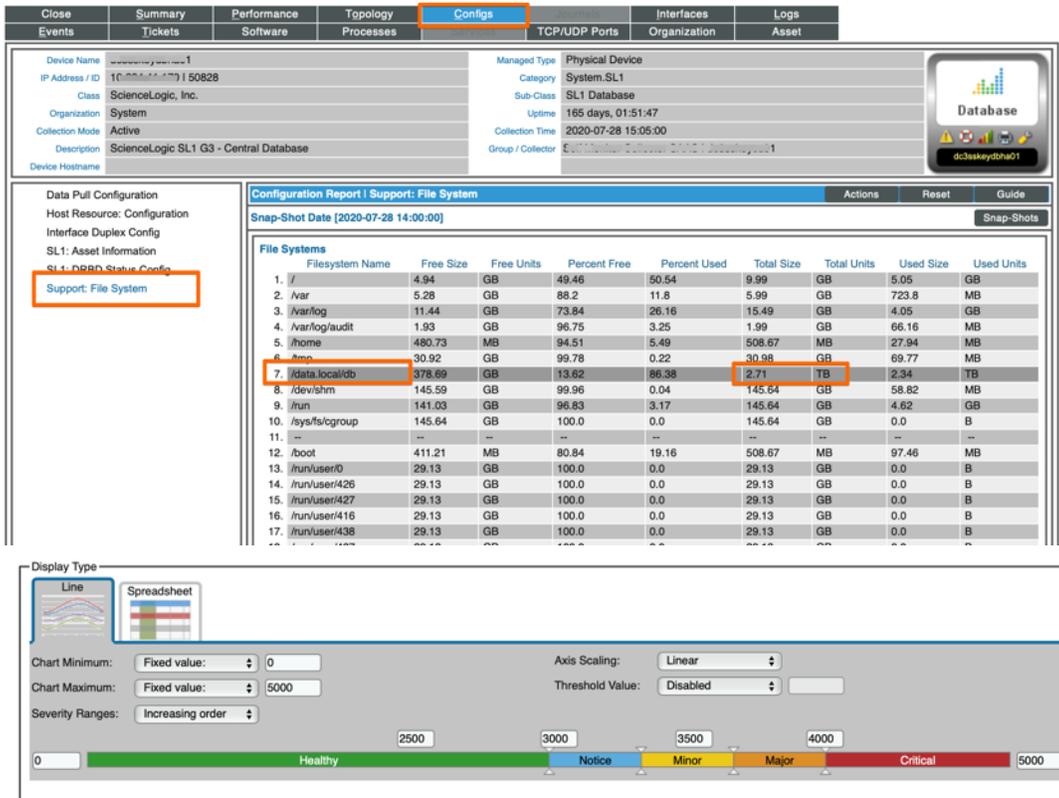


15. Save and exit.

16. Edit **InnoDB Size - Used Space** Graph widget and update the **Chart Maximum** value to the /data.local/db rounded up value. You can find this value from the primary DB device:

- Find the primary DB in the Registry > Devices > Device Manager

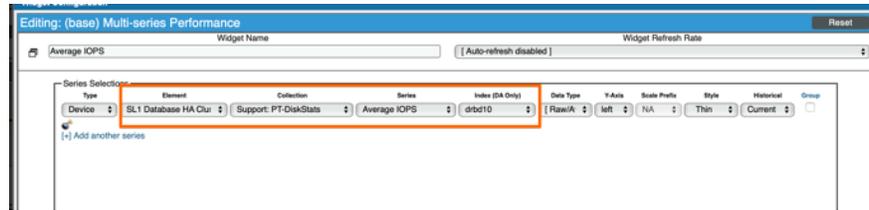
- b. Click the graph icon for the primary DB
- c. Navigate to the Configs tab
- d. Click on the **Support File System** app link on the left column
- e. Locate Total Size value for /data.local/db: e.g. for 3TB use 4000 or 5000 as Chart Maximum



The screenshot shows the ScienceLogic interface with the 'Configs' tab selected. The main content area displays a 'Configuration Report | Support: File System' for a device named 'ScienceLogic SL1 G3 - Central Database'. A table of file systems is shown, with the entry for '/data.local/db' highlighted. The 'Total Size' for this file system is 2.71 TB. Below the table, a 'Display Type' panel is visible, showing a 'Line' chart and a 'Spreadsheet' view. The 'Chart Maximum' is set to 5000, and the 'Severity Ranges' are configured as follows:

Severity	Start Value	End Value
Healthy	0	2500
Notice	2500	3000
Minor	3000	3500
Major	3500	4000
Critical	4000	5000

17. Edit **Database Partition Util** Gauge widget and use the same value from previous step 16.e to populate the Severity ranges.
18. Save and exit.
19. Edit **Average IOPS** Graph and Gauge widget and select the following:
 - a. For **Element** select HA Cluster VIP (Active DB for Single DB and pure DR systems)
 - b. For **Collection** select "Support: PT-DiskStats"
 - c. For **Series** select "Average IOPS"
 - d. For Index
 - i. Select "drbd1" if your system is HA or DR ONLY
 - ii. Select "drbd10" if your system is HA+DR
 - iii. Select "sda" or "sda1" if your system has only ONE DB



20. Save and exit.

21. Edit **Vitals (CPU, Memory, Swap)** Graph widget and select the following:

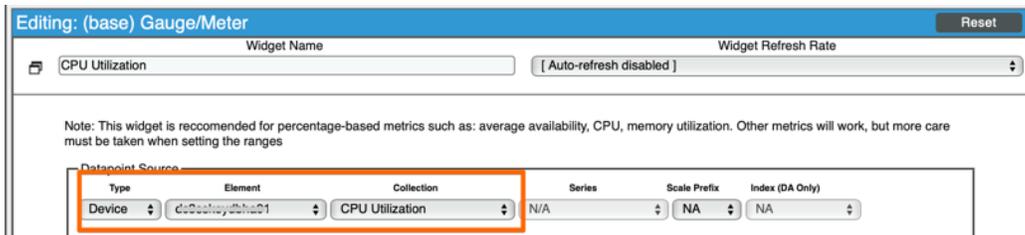
- For **Element** select Active DB
- Collection** select "CPU Utilization/Memory Utilization/Swap Utilization" for each one of the three series.



22. Save and exit.

23. Edit **CPU Utilization** Gauge widget and select the following:

- For **Element** select Active DB
- Collection** select "CPU Utilization" for each one of the three series.



24. Save and exit.

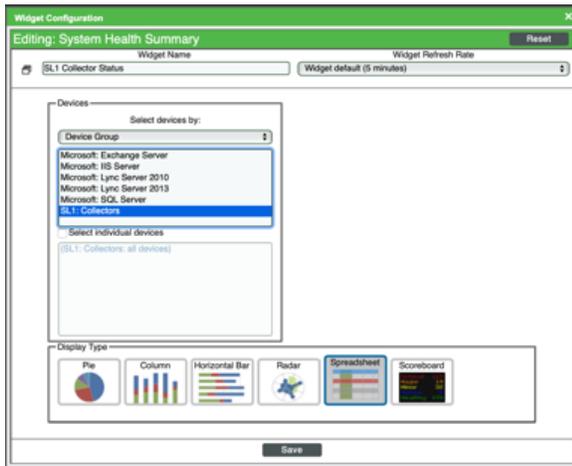
SL1 Collector Status Widget configuration

The SL1 Collector Status Widget in the Collector Performance Dashboard requires selection of the "SL1: Collectors" Device Group that is a part of the PowerPack.

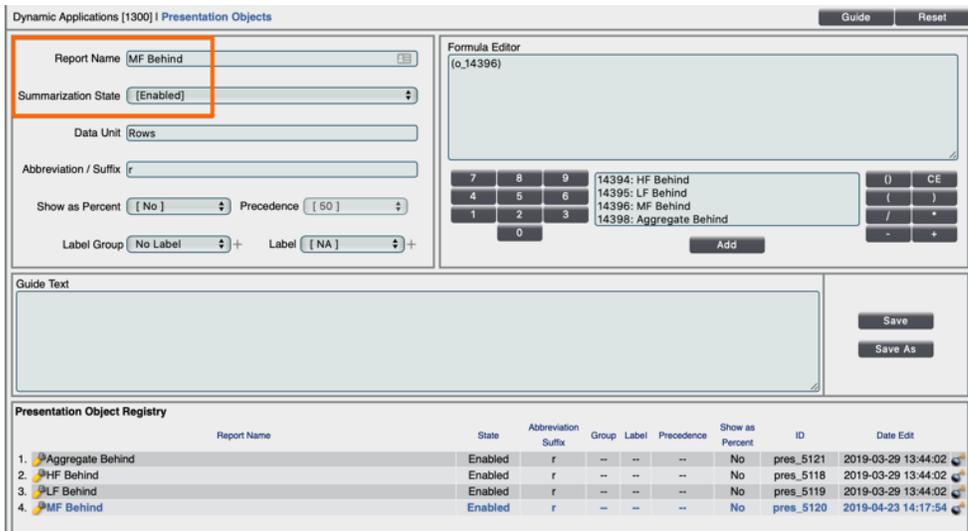
- Navigate to the Collector Performance Dashboard from the Landing Page.
- Scroll Down until you see the SL1 Collector Status Widget on the left side of the screen:



- In the widget configuration window select the "SL1: Collectors" from the Device Groups list.



- Click Save and exit.
- If the **Top 5: MF Behind** widget doesn't show data check if the presentation object is enabled:
 - Navigate to System > Manage > Applications
 - Search for "Support: Rows Behind" for Dynamic Application Name
 - Edit the application and navigate to the Presentations tab
 - Edit **MF Behind** Presentation Object
 - Ensure that the **Summarization State** is "Enabled"
 - Save and exit.



Report Name	State	Abbreviation Suffix	Group	Label	Precedence	Show as Percent	ID	Date Edit
1. Aggregate Behind	Enabled	r	--	--	--	No	pres_5121	2019-03-29 13:44:02
2. HF Behind	Enabled	r	--	--	--	No	pres_5118	2019-03-29 13:44:02
3. LF Behind	Enabled	r	--	--	--	No	pres_5119	2019-03-29 13:44:02
4. MF Behind	Enabled	r	--	--	--	No	pres_5120	2019-04-23 14:17:54

Device Health Dashboard Configuration (Only applicable if Dashboard is enabled from Landing Page configuration)

1. Navigate to the Operational Insights Landing page
2. Once the Landing Page dashboard has been configured, click on Device Health Summary and open the Device Health Summary Dashboard.
3. Edit the widget:



4. Select the appropriate events for all 6 checks from the event list per check as shown below:

Widget Configuration
Editing: SL1 Operational Insights - Dev Health Summary

Widget Name: Widget default (5 minutes)

Ping Event Selection

Select All Events

Events Name Filter:

Select Specific Events

- Microsoft: Lync 2010 DBStore Sproc Latency Deviated
- Microsoft: Lync 2010 DBStore Sproc Latency exceeded threshold
- Microsoft: Lync 2013 DBStore Queue Latency exceeded threshold
- Microsoft: Lync 2013 DBStore Sproc Latency Deviated
- Microsoft: Lync 2013 DBStore Sproc Latency exceeded threshold
- Microsoft: Exchange 2010 NSPI RPC Requests Average Latency exceeded threshold
- Microsoft: Exchange NSPI RPC Requests Average Latency exceeded threshold
- Poller: Availability and Latency checks failed
- Poller: Network Latency Exceeded Threshold
- Polycom GS: Latency Excessive
- Polycom GS: Rx Audio Latency Major
- Polycom GS: Rx Audio Latency Minor
- Polycom GS: Rx Content Latency Major
- Polycom GS: Rx Content Latency Minor
- Polycom GS: Rx Video Latency Major
- Polycom GS: Rx Video Latency Minor
- Polycom GS: Tx Audio Latency Major

Availability Event Selection

Select All Events

Events Name Filter:

Select Specific Events

- BIG-IP: LTM: Pool Member State: Availability is Unknown
- BIG-IP: LTM: Pool State: Availability is Unknown
- BIG-IP: LTM: Virtual Server State: Availability is Unknown
- Business Service: Business Service Availability is Unavailable
- Business Service: Device Service Availability is Unavailable
- Business Service: IT Service Availability is Unavailable
- FS: BIG-IP: High Availability Failed
- FS: BIG-IP: High Availability is Responding
- Microsoft: Azure Blob Availability has fallen below threshold
- Microsoft: Azure Classic Blob Availability has fallen below threshold
- Microsoft: Azure Classic Queue Availability has fallen below threshold
- Microsoft: Azure Classic Table Availability has fallen below threshold
- Microsoft: Azure Queue Availability has fallen below threshold
- Microsoft: Azure Table Availability has fallen below threshold
- Microsoft: Azure Table Availability has fallen below threshold
- Poller: Availability and Latency checks failed
- Poller: Availability Check Failed
- Poller: Availability Flapping

Network interface Event Selection

Select All Events

Events Filter:

Select Specific Events

- NetApp: SVM Logical Interface is Down
- NetApp: SVM Logical Interface Moved
- Poller: Interface Admin down
- Poller: Interface Admin up
- Poller: Interface Discovered
- Poller: Interface Flapping
- Poller: Interface operationally down
- Poller: Interface Rediscovered
- Poller: Interface Removed
- Poller: Interface reporting discards
- Poller: Interface reporting packet errors
- Poller: Interface Rollover Detected
- Polycom GS: Network Interface Disabled
- Polycom GS: Network Interface in Half Duplex
- Polycom GS: Network Interface Status Failed
- Polycom: RMX: No Management Ip Interface Alarm Fault
- Windows: Interface Utilization has exceeded threshold.

CPU Event Selection

Select All Events

Events Name Filter:

Select Specific Events

- OpenStack: Hypervisor vCPU utilization exceeded threshold
- OpenStack: VCPU allocation exceeded threshold
- Poller: Process group CPU usage exceeded threshold
- Polycom DMA: Resource CPU Over 50%
- Polycom DMA: Resource CPU Over 75%
- Polycom DMA: Resource CPU Over 50%
- Polycom DMA: Resource CPU Over 75%
- Polycom: RMX: Cpu Ipcm Software Is Not Updated Alarm Fault
- Polycom: RMX: High Cpu Usage Process Alert Alarm Fault
- Polycom: RMX: System Cpu Usage Alert Alarm Fault
- Polycom: RMX: Unknown Cpu Slot Id Alarm Fault
- Polycom: RPRM: CPU Usage Exceeded
- TAA-TCS: CPU Load has exceeded threshold
- VMware: Host CPU Aggregate Usage Has Exceeded Threshold
- VMware: Host CPU Instance Usage Has Exceeded Threshold
- VMware: VM CPU Usage Has Exceeded Threshold
- Windows: CPU has exceeded threshold.

Memory Events Selection

Select All Events

Events Name Filter:

Select Specific Events

- Microsoft: Hyper-V: Physical Memory exceeded threshold
- Microsoft: Windows Available Memory below threshold
- Net-SNMP: Physical Memory has exceeded threshold
- NetScreen: Physical Memory has exceeded threshold
- Nutanix: CVM Exceeded High Memory Threshold
- Poller: Process group memory usage exceeded threshold
- Poller: Process using too much memory
- Polycom: RMX: Low Process Memory Alert Alarm Fault
- Polycom: RMX: Low System Memory Alert Alarm Fault
- Polycom: RPRM: Memory Usage Exceeded
- TAA-TCS: Overall memory utilization has exceeded threshold
- VMware: esx.problem.apel.bert.memory.error.corrected
- VMware: esx.problem.apel.bert.memory.error.fatal
- VMware: esx.problem.apel.bert.memory.error.recoverable
- VMware: Host Free Memory Has Dropped Below High Threshold
- VMware: Host Memory Usage Has Exceeded Threshold
- VMware: VM Memory Usage Has Exceeded Threshold

Select Disk Events

Select All Events

Events Name Filter:

New Multiple Select

- EMC: VNX file system utilization critical threshold exceeded
- EMC: VNX file system utilization major threshold exceeded
- Linux SSH: File System over usage threshold
- Poller: Device reporting incomplete file system information
- Poller: File system usage exceeded (critical) threshold
- Poller: File system usage exceeded (major) threshold
- Polycom: RMX: Bad File System Alarm Fault
- Polycom: RMX: Failed To Init File System Alarm Fault
- Polycom: RMX: File System Failed To Scan Alarm Fault
- Polycom: RMX: File System Overflow Alarm Fault

Save

5. The custom Check section can be ignored, as it is for future use.
6. Click Save.

Dashboard Details

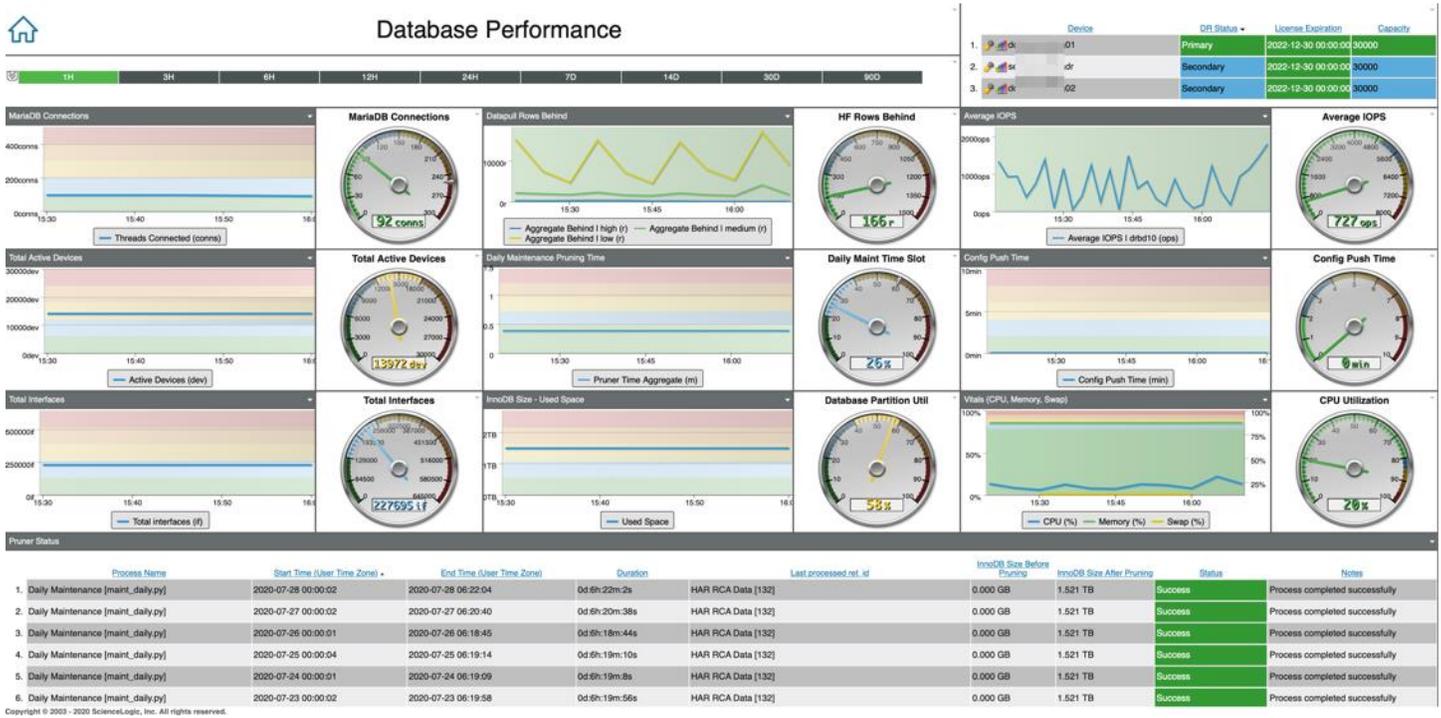
There are 5 Dashboards that are a part of the Self Monitoring PowerPack.

SL1 Operational Insights – Landing Page

This dashboard provides a convenient links to all other dashboards including the ones part of Platform Operations and Capacity Management PowerPacks. If any of the linked dashboards are deleted or the PowerPacks are not installed correctly then the links will direct you to the same Landing Page.

Operational Insights v104					
Self Monitoring					
 Database Performance	 Collector Performance	 System Logs	 Device Health		
Platform Operations					
 Event Summary	 Backup Status History	 Data Retention Auditing	 DNS and Timeserver Auditing		
Capacity Management					
 License Usage Summary	 License Usage by Organization	 License Usage by Device Class	 SL1 Baseline Monitoring		
Admin Tools					
 Device Group Usage Details	 Device to Device Group Mapper	 Automation Usage Details	 Action Usage Details	 SL1 DB Configuration Check	 System Status Script Output

SL1 Operational Insights – Database Performance

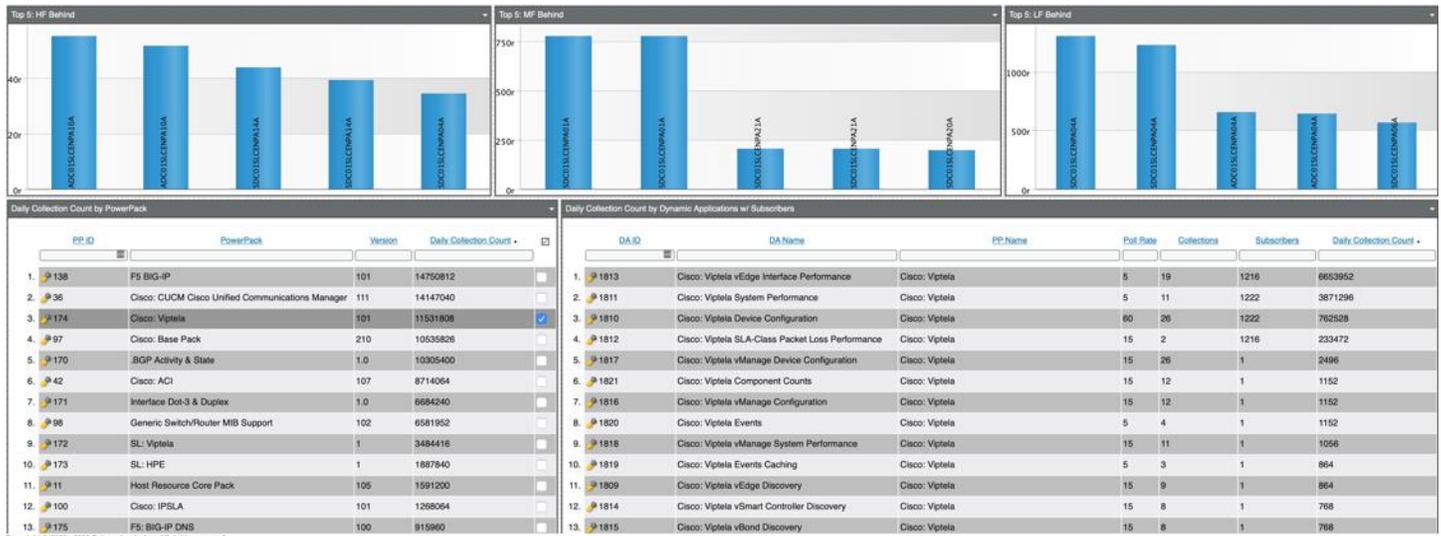


This dashboard provides details about the system health wrt to the DB. The dashboard gives an overview of the following metrics:

- MariaDB Connection Counts
- Datapull Rows Behind Aggregates
- Average IOPS for the active DB
- Number of Active Devices being monitored
- Daily Maintenance Pruning Time
- Config Push Time
- Number of Active Interfaces being monitored
- InnoDB Size – Used Space
- Active DB Vitals (CPU, Memory, SWAP)

This dashboard also provides a widget that gives details about the last 7 days of Daily Maintenance stats. This includes the start and end times, process run duration, DB size before and after data pruning, Overall status of the process along with any failure message.

For a multi database environments, the dashboard shows which DB is Primary and which is Secondary along with the License Capacity and DB License Key Expiration Dates for all DBs.



The following table shows how Device Rating is calculated for the Collectors:

RAM (GB)	Cores	Disk (GB)	Device Rating (# of devices)
4	2	60	100
12	3	90	500
24	4	120	1000

Along with collector health metrics, you can now see the number of collections that the system is doing per day. These numbers are broken up by PowerPacks and Dynamic Applications in the PowerPacks.

In this release you can now select a collector and see all the devices aligned to the selected collector. The dashboard further breaks down the device details into DCM devices under the collector.

The **SL1 Collector Status** Widget shows the counts of SL1 Collectors by the current Severity. The severity is for the SL1 Collector device which can be found in the Device Registry.

Collector Group Details widget provides an overview of all Collector Groups in the system. If the Collector Group has more than TWO Data Collectors in it and the Failover is turned off, then the Failover column is highlighted in Orange, if the Failover is turned ON then the column is highlighted Green.

The **Collector Last Collect Time** widget shows the timestamp of the last collected SNMP data for the collectors. If the last collected data is over 16 mins old, then the value is highlighted in RED. This typically indicates that the DB has not been able to collect and store the data from the collector. A value of Unknown indicates either there are no devices on the collector, or the timestamp value is not available.

longer than its allocated time which results in the process being killed to prevent the process from running forever.

- Unhandled Exception Logs – These logs go hand in hand with the SIGTERM Logs, when a process fails it typically generates an Unhandled Exception.
- Connection Error Logs – These are logs that are generated when the primary DB is unable to communicate with a collector.

This dashboard allows users to see how the system is behaving by providing a concise count of these logs. This dashboard is very useful for the administrator of the system who can look at this dashboard and identify what types of errors might be spamming the system, potentially causing performance issues. If there are unhandled exceptions or SIGTERMs around processes responsible for data collection, they can result in missed polls and data gaps. In that case ScienceLogic Support can help identify the Root cause of the issue.

The dashboard, by default shows data for 1 day, you can change the duration to 7 days by selecting 7 days in the widget configuration.

SL1 Operational Insights – Device Health



This Dashboard can be used as a customer facing Dashboard. The dashboard provides a summary of all device health for the users Organization.

The users can see a breakdown of the number of devices by their severity. There are also gauges showing the counts for number of active devices, disabled devices, inactive and unavailable devices.

The dashboard also gives a tabular view of the status of the six main checks that are configured for the devices. These checks include

- Availability
- Latency
- CPU
- Memory
- Disk
- Interface

The table also shows overall state of the device which is determined by the highest severity active event on the device.

Admin Tools

This version of the PowerPack comes with six new Dashboards categorized under **Admin Tools**.

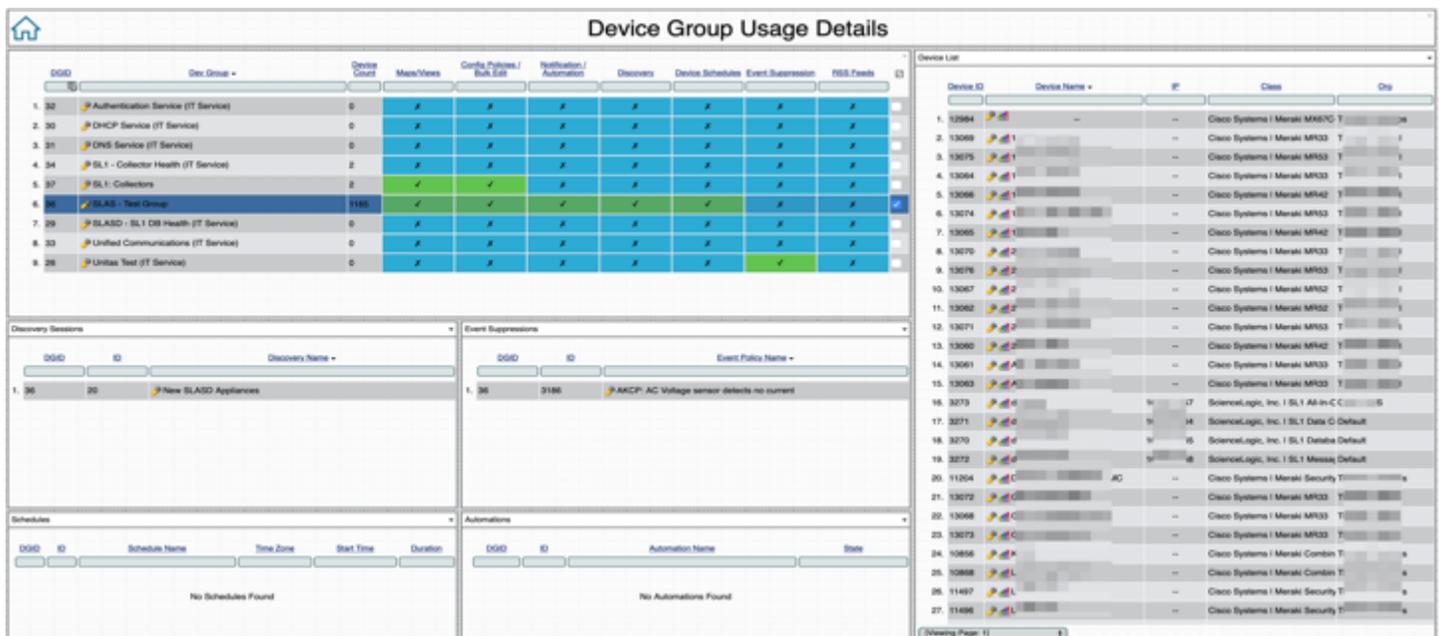
Device Group Usage Details

This Dashboard gives a summary of how and where a Device Group is being used. This is useful in identifying if a Device Groups can be removed from the system. The dashboard shows the Device Group Visibility which indicates where the device groups can be used based on their configuration.

You can select one or more Device Groups to see where in the product are they being used. The possible areas that can use the Device Groups are:

- Discovery Sessions
- Event Suppressions
- Schedules
- Automations

Along with the above data the dashboard also shows a list of the devices that are a part of the selected device group.



DGD	Dev. Group	Device Count	Mask/Vars	Config Policies/ Bulk Edit	Notification/ Automation	Discovery	Device Schedules	Event Suppression	RSS Feeds
1. 32	Authentication Service (IT Service)	0	X	X	X	X	X	X	X
2. 30	DHCP Service (IT Service)	0	X	X	X	X	X	X	X
3. 31	DNS Service (IT Service)	0	X	X	X	X	X	X	X
4. 34	SLI - Collector Health (IT Service)	2	X	X	X	X	X	X	X
5. 37	SLI - Collectors	2	✓	✓	✓	✓	✓	✓	✓
6. 38	SLAS - Test Group	1186	✓	✓	✓	✓	✓	✓	✓
7. 29	SLASD - SLI DB Health (IT Service)	0	X	X	X	X	X	X	X
8. 33	Unified Communications (IT Service)	0	X	X	X	X	X	X	X
9. 28	Unlitas Test (IT Service)	0	X	X	X	X	X	✓	X

DGD	ID	Discovery Name
1. 36	20	New SLASD Appliances

DGD	ID	Event Policy Name
1. 36	3186	PAACP: AC Voltage sensor detects no current

DGD	ID	Schedule Name	Time Zone	Start Time	Duration
No Schedules Found					

DGD	ID	Automation Name	State
No Automations Found			

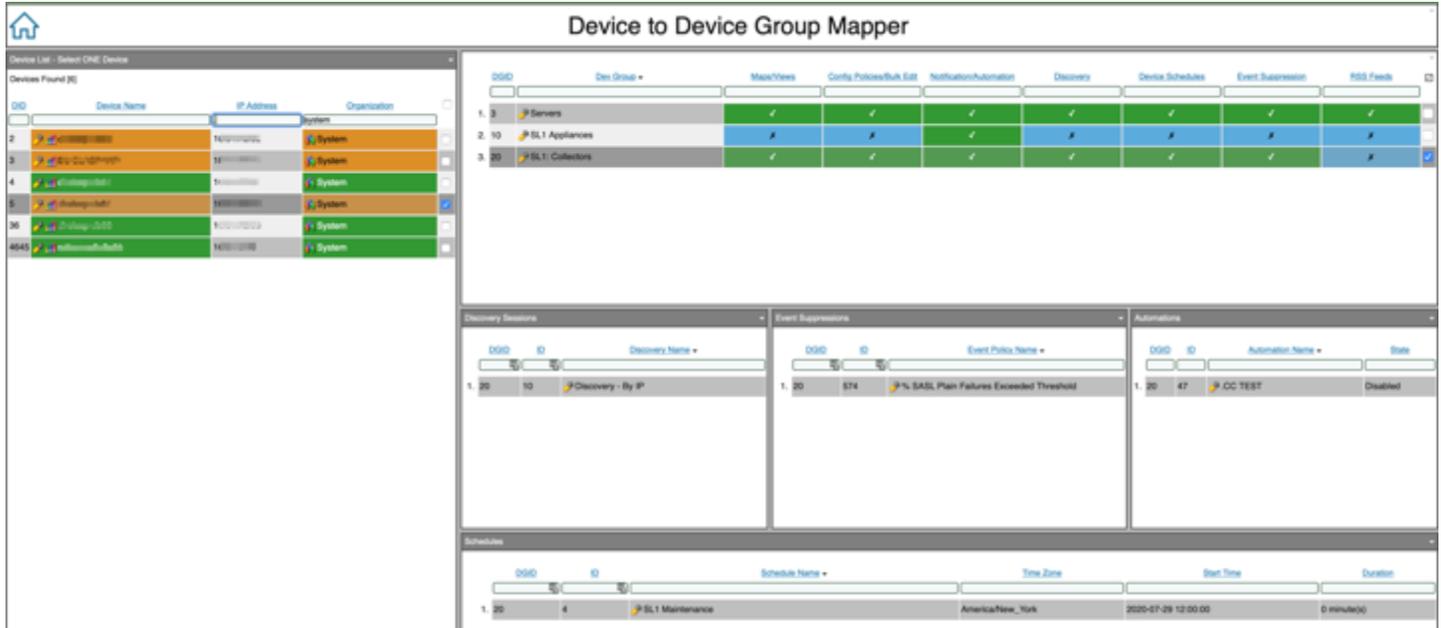
Device ID	Device Name	IP	Class	Org
1. 12984			Cisco Systems Meraki MR16C	T
2. 13069			Cisco Systems Meraki MR33	T
3. 13075			Cisco Systems Meraki MR33	T
4. 13084			Cisco Systems Meraki MR33	T
5. 13066			Cisco Systems Meraki MR142	T
6. 13074			Cisco Systems Meraki MR33	T
7. 13065			Cisco Systems Meraki MR142	T
8. 13070			Cisco Systems Meraki MR33	T
9. 13076			Cisco Systems Meraki MR33	T
10. 13067			Cisco Systems Meraki MR162	T
11. 13062			Cisco Systems Meraki MR162	T
12. 13071			Cisco Systems Meraki MR33	T
13. 13060			Cisco Systems Meraki MR142	T
14. 13061			Cisco Systems Meraki MR33	T
15. 13063			Cisco Systems Meraki MR33	T
16. 3073			ScienceLogic, Inc. SL1 AS-In-C	S
17. 3271			ScienceLogic, Inc. SL1 Data C Default	S
18. 3070			ScienceLogic, Inc. SL1 Database Default	S
19. 3272			ScienceLogic, Inc. SL1 Message Default	S
20. 11204			Cisco Systems Meraki Security T	S
21. 13072			Cisco Systems Meraki MR33	T
22. 13068			Cisco Systems Meraki MR33	T
23. 13073			Cisco Systems Meraki MR33	T
24. 10856			Cisco Systems Meraki Conductor T	S
25. 10858			Cisco Systems Meraki Conductor T	S
26. 11497			Cisco Systems Meraki Security T	S
27. 11498			Cisco Systems Meraki Security T	S

Device to Device Group Mapper

This Dashboard lets you see all the Device Groups for a selected Device. It is helpful to know what all device groups does a device belong without going into every device group to see if the device

is a static member or dynamic, this dashboard provides you a list of all the device groups which the device belongs to regardless of static or dynamic alignment.

The dashboard also provides information about Device Group like the **Device Group Usage Details** Dashboard.



DGD	Device Name	IP Address	Organization
2	10.10.10.10	10.10.10.10	System
3	10.10.10.11	10.10.10.11	System
4	10.10.10.12	10.10.10.12	System
5	10.10.10.13	10.10.10.13	System
36	10.10.10.14	10.10.10.14	System
4543	10.10.10.15	10.10.10.15	System

DGD	ID	Discovery Name
1	20	Discovery - By IP

DGD	ID	Event Policy Name
1	20	574 % SACL Plan Failures Exceeded Threshold

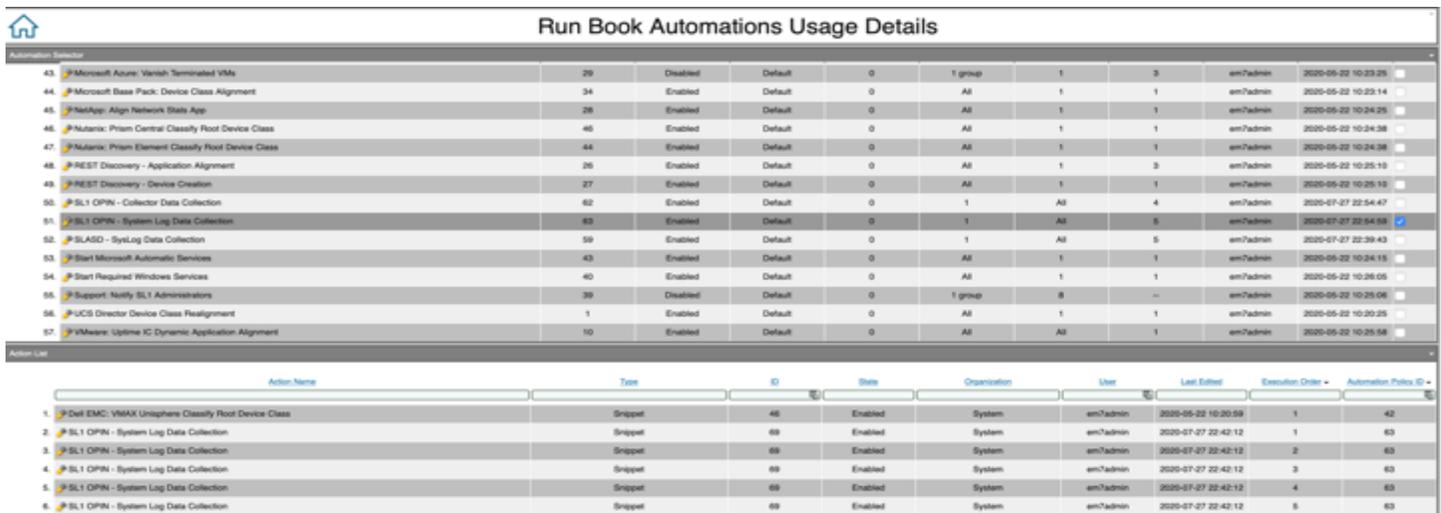
DGD	ID	Automation Name	State
1	20	47 CC TEST	Disabled

DGD	ID	Schedule Name	Time Zone	Start Time	Duration
1	20	4 SL1 Maintenance	America/New_York	2020-07-29 12:00:00	0 minute(s)

Automation Usage Details

This dashboard allows you to see all the RunBook Actions that are aligned to the selected RunBook Automations. It is very useful to know if any automations are executing any Actions when they shouldn't and also the number of times the actions are being executed, this can be used for cleaning up old unused Automations.

Along with listing out the Actions, the dashboard provides details like the Execution Order, Current State and the ability to edit the Actions and Automations.



Automation ID	Action Name	Type	ID	State	Organization	User	Last Edited	Execution Order	Automation Policy ID	
43	Microsoft Azure - Vmware Terminated VMs	Script	29	Disabled	Default	0	1 group	1	3	em7admin 2020-05-22 10:23:25
44	Microsoft Base Pack: Device Class Alignment	Script	34	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:23:14
45	NetApp: Align Network State App	Script	28	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:24:25
46	Nutanix: Prism Central Classify Root Device Class	Script	46	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:24:38
47	Nutanix: Prism Element Classify Root Device Class	Script	44	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:24:38
48	PREST Discovery - Application Alignment	Script	26	Enabled	Default	0	All	1	3	em7admin 2020-05-22 10:25:19
49	PREST Discovery - Device Creation	Script	27	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:25:19
50	SL1 OPIN - Collector Data Collection	Script	62	Enabled	Default	0	1	All	4	em7admin 2020-07-27 22:54:47
51	SL1 OPIN - System Log Data Collection	Script	63	Enabled	Default	0	1	All	5	em7admin 2020-07-27 22:54:58
52	SLASD - SysLog Data Collection	Script	59	Enabled	Default	0	1	All	5	em7admin 2020-07-27 22:39:43
53	Start Microsoft Automatic Services	Script	43	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:24:15
54	Start Required Windows Services	Script	40	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:26:05
55	Support: Notify SL1 Administrators	Script	39	Disabled	Default	0	1 group	8	...	em7admin 2020-05-22 10:25:06
56	UCS Director Device Class Reassignment	Script	1	Enabled	Default	0	All	1	1	em7admin 2020-05-22 10:20:25
57	VMware: Uplink IC Dynamic Application Alignment	Script	10	Enabled	Default	0	All	All	1	em7admin 2020-05-22 10:25:58

Action Name	Type	ID	State	Organization	User	Last Edited	Execution Order	Automation Policy ID
Del EMC: VMAX Unisphere Classify Root Device Class	Snippet	46	Enabled	System	em7admin	2020-05-22 10:20:59	1	42
SL1 OPIN - System Log Data Collection	Snippet	69	Enabled	System	em7admin	2020-07-27 22:42:12	1	63
SL1 OPIN - System Log Data Collection	Snippet	68	Enabled	System	em7admin	2020-07-27 22:42:12	2	63
SL1 OPIN - System Log Data Collection	Snippet	69	Enabled	System	em7admin	2020-07-27 22:42:12	3	63
SL1 OPIN - System Log Data Collection	Snippet	69	Enabled	System	em7admin	2020-07-27 22:42:12	4	63
SL1 OPIN - System Log Data Collection	Snippet	69	Enabled	System	em7admin	2020-07-27 22:42:12	5	63

Action Usage Details

Just like the **Automation Usage Details** dashboard, this dashboard shows detailed list of all the Automations that are using the selected Action. This is useful when you need to see if any actions are being used by any automations and the number of times they are being executed.

Run Book Actions Usage Details

Action Name	Type	Count	Status	System	User	Last Executed
48. Microsoft Azure: Vmash Terminated VMs	Snippet	32	Enabled	System	em7admin	2020-05-22 10:23:25
49. Microsoft Base Pack: Device Class Alignment	Snippet	40	Enabled	System	em7admin	2020-05-22 10:23:14
50. NetApp: Align Network Stats App	Snippet	31	Enabled	System	em7admin	2020-05-22 10:24:25
51. Nutanix: Prism Central Classify Host Device Class	Snippet	30	Enabled	System	em7admin	2020-05-22 10:24:38
52. Nutanix: Prism Element Classify Host Device Class	Snippet	48	Enabled	System	em7admin	2020-05-22 10:24:38
53. REST Discovery: Phase 0 - Device Creation	Snippet	29	Enabled	System	em7admin	2020-05-22 10:25:10
54. REST Discovery: Phase 1 - Collection Test Lookup	Snippet	28	Enabled	System	em7admin	2020-05-22 10:25:10
55. REST Discovery: Phase 2 - Credential Check	Snippet	26	Enabled	System	em7admin	2020-05-22 10:25:10
56. REST Discovery: Phase 3 - Apply template	Snippet	27	Enabled	System	em7admin	2020-05-22 10:25:10
57. SL1 OPIN - Collector Data Collection	Snippet	68	Enabled	System	em7admin	2020-07-28 00:06:14
58. SL1 OPIN - System Log Data Collection	Snippet	69	Enabled	System	em7admin	2020-07-27 22:42:12
59. SLASD - SysLog Data Collection	Snippet	65	Enabled	System	em7admin	2020-07-27 22:39:57
60. UCS Director Device Class Reassignment	Snippet	1	Enabled	System	em7admin	2020-05-22 10:20:25
61. VMware: IC Uptime Alignment	Snippet	11	Enabled	System	em7admin	2020-05-22 10:25:58
62. Windows Restart Service	Snippet	44	Enabled	System	em7admin	2020-05-22 10:26:05

Automation Name	ID	Status	Priority	Operations	Devices	Events	Actions	User	Last Edited
1. SL1 OPIN - Collector Data Collection	62	Enabled	Default	0	1	All	4	em7admin	2020-07-27 22:54:47
2. SL1 OPIN - System Log Data Collection	63	Enabled	Default	0	1	All	5	em7admin	2020-07-27 22:54:59

The following two Dashboards are available on SL1 version 8.14 and above.

SL1 DB Configuration Check

This is a very helpful dashboard that lets you check various configuration files without having to login to the DB console. You can see the output of the following configuration files:

- SILO config
- MySQL config
- DRBD config
- HA config

You can select all SL1 DBs from your system to see the configuration side-by-side, this allows you to check if there are any differences in the files that need to be rectified.

SL1 DB Configuration Check

Select Config File: **SL1 Config** | Select Database: **em7admin**

em7admin	em7admin	em7admin
<pre>[LOCAL] hostname = /opt/act writable = /var/lib/act logdir = /var/log/act rundir = /var/act ipaddress = 10.10.10.10 dbdir = /data/db dbserver = 127.0.0.1 dbport = 3306 dbuser = root dbpassword = em7admin model_type = 2 eventmanager = Internal,api,email,syslog,dynamic,agent kbase_enabled = 1 [SLADMIN] sladmin_user = em7admin sladmin_pwd = 1234567890 [ANNOUC_REPORT_ON_BATCH] report_execution_delay = 10 *job_start_delay = 20 *job_stop_time = 1800 *job_frequency = 10 *job_frequency_decreased_after = 300 *job_decreased_frequency = 60 report_fail_check_time = 1800 auto_job_refresh = 10 about_to_start_time_check = 30 time_unit = second</pre>	<pre>[LOCAL] hostname = /opt/act writable = /var/lib/act logdir = /var/log/act rundir = /var/act ipaddress = 10.10.10.10 dbdir = /data/db dbserver = 127.0.0.1 dbport = 3306 dbuser = root dbpassword = em7admin model_type = 2 eventmanager = Internal,api,email,syslog,dynamic,agent kbase_enabled = 1 [SLADMIN] sladmin_user = em7admin sladmin_pwd = 1234567890 [ANNOUC_REPORT_ON_BATCH] report_execution_delay = 10 *job_start_delay = 20 *job_stop_time = 1800 *job_frequency = 10 *job_frequency_decreased_after = 300 *job_decreased_frequency = 60 report_fail_check_time = 1800 auto_job_refresh = 10 about_to_start_time_check = 30 time_unit = second</pre>	<pre>[LOCAL] hostname = /opt/act writable = /var/lib/act logdir = /var/log/act rundir = /var/act ipaddress = 10.10.10.10 dbdir = /data/db dbserver = 127.0.0.1 dbport = 3306 dbuser = root dbpassword = em7admin model_type = 2 eventmanager = Internal,api,email,syslog,dynamic,agent kbase_enabled = 1 [SLADMIN] sladmin_user = em7admin sladmin_pwd = 1234567890 [ANNOUC_REPORT_ON_BATCH] report_execution_delay = 10 *job_start_delay = 20 *job_stop_time = 1800 *job_frequency = 10 *job_frequency_decreased_after = 300 *job_decreased_frequency = 60 report_fail_check_time = 1800 auto_job_refresh = 10 about_to_start_time_check = 30 time_unit = second</pre>

SL1 System Status Script Output

This dashboard allows you to see the output of the System Status Script for all SL1 Appliances. You can select one appliance at a time to see the last collected System Status Script output.

The output from this dashboard can be used to check the current status of the SL1 appliance and a good way to troubleshoot any performance issues with the SL1 appliances.



SL1 System Status Script Output

di-slasg-db01

Select an Appliance

ID	Name	IP	Module Type	CUG	Build	License	Order Count	EO
1	di-slasg-db01	10.10.10.1	Database	--	8.14.0-r1587	10000	--	1
2	di-slasg-db02	10.10.10.2	Database	--	8.14.0-r1587	10000	--	2
3	di-slasg-db03	10.10.10.3	Database	--	8.14.0-r1587	10000	--	3
4	di-slasg-dc01	10.10.10.4	Data Collection Unit	--	8.14.0-r1587	--	0	4
5	di-slasg-dc02	10.10.10.5	Data Collection Unit	CLUG	8.14.0-r1587	--	4723	7

```

System Status v3.34
Tue Jul 28 09:30:04 UTC 2020
Using latest revision

[148:]Results marked with [KB ####] refer to a KB article number you can reference at https://support.sciencelogic.com/a/article/####[m

Database Specs:
SL1 Architecture: Extensible

SL1 Specs:
SL1 Release: 8.14.0 (build 1587)
DB Release: 8.14.0

OS Specs:
OS Release: Oracle Linux Server release 7.7
MCD Deployment: No
Hostname: di-slasg-db01
Active IPs:
- 10.10.10.1/23
- 10.0.0.1/24
Licensed IP: 10.10.10.1
Appliance Model: DB
Appliance Type: Virtual - VMware Virtual Platform
Number of Cores: 4
Total RAM: 12GB
Disk Size: 120GB
5 Minute Load Avg: 0.43
Memory Utilization: 11%
DBMS Version: 8.4.11-1
DBMS Proxy: YES
        
```