Amazon Web Services PowerPack Release Notes

Version 118

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Overview

Amazon Web Services PowerPack version 118 adds support for new regions, new Dynamic Applications and device classes, and discovery for Gov accounts using Assume Role.

- **Minimum Required Platform Version**: 8.14.0
- **Support Status**: GA

This document describes:

- *Pre-install or pre-upgrade information*
- *The upgrade process for systems running version 100 or later of the PowerPack*
- *The upgrade process for systems running version 8.1.0 or earlier of the PowerPack*
- *The features included in version 118*
- *The enhancements and issues addressed in version 118*
- *The known issues in version 118*

Before You Install or Upgrade

Ensure that you are running version 8.14.0 or later of SL1 before installing the *Amazon Web Services* PowerPack version 118. Additionally, the Data Collectors used to monitor the AWS account must be running the Oracle Linux 7.2 operating system.

If your SL1 system is not currently running version 8.14.0 or later, you must upgrade to 8.14.0 or later as part of the upgrade process for version 118 of the PowerPack. If your SL1 system has been upgraded to a later release, you should go to the **PowerPack Manager** page (System > Manage > PowerPacks) and ensure that the *Amazon Web Services* PowerPack has been upgraded to the most recent version.

> **NOTE**: For details on upgrading SL1, see the appropriate Release Notes.

Upgrade Process from PowerPack version 100 or Later

This section describes the upgrade process when upgrading from version 100 or later of the *Amazon Web Services* PowerPack.

> **TIP:** By default, installing a new version of a PowerPack will overwrite all content in that PowerPack that has already been installed on the target system. You can use the *Enable Selective PowerPack Field Protection* setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent local changes for some commonly customized fields from being overwritten.

To upgrade from version 100 or later of the *Amazon Web Services* PowerPack:

1. Familiarize yourself with the *Known Issues* for this release.

2. Disable collection for AWS devices. To do so, go to the **Device Components** page (Registry > Devices > Device Components) and then select the checkbox for all Amazon Web Services root devices. In the *Select Actions* drop-down list, select *Change Collection State: Disabled (recursive)*, and then click the **[Go]** button.

3. If you are upgrading from a version of the *Amazon Web Services* PowerPack prior to version 118, you must ensure that the *Preserve Hostname* checkbox is *not* selected for any Storage Gateway Instances. To do so, go to the **Device Manager** page (Registry > Devices > Device Manager) and then type "AWS | Storage Gateway Instance" in the *Device Class | Sub-class* column filter field. For each Storage Gateway Instance component device in the list, click the wrench icon ( ), uncheck the *Preserve Hostname* checkbox, and then click **[Save]**.

> **NOTE:** If desired, you can select the *Preserve Hostname* checkbox again for these devices *after* you have completed the upgrade to version 118.

4. Delete the "AWS: Health" Dynamic Application. To do so, go to the **Dynamic Applications Manager** page (System > Manage > Applications) and then select the checkbox for the "AWS: Health" Dynamic Application. In the *Select Actions* drop-down list, select *DELETE Application*, and then click the **[Go]** button.

> **CAUTION:** You should *not* delete any of the AWS Service Health Dynamic Applications, nor any other Dynamic Applications that include "Health" in the name. Only the "AWS: Health" Dynamic Application should be deleted.

5. If you have not done so already, upgrade your system to the 8.14.0 or later release.

> **NOTE:** For versions 8.6.0 and later of SL1, the *Amazon Web Services* PowerPack content library will not update until you enable collection for your AWS devices.

6. If you are upgrading from a version of the *Amazon Web Services* PowerPack between versions 104 and 107, you must delete any LightSail Instances that were previously discovered by the "AWS: LightSail EC2 Instance Discovery" Dynamic Application. To do so, go to the **Device Manager** page (Registry > Devices > Device Manager), type "LightSail EC2 Instance" in the *Device Class | Sub-class* column search field, and then select the checkboxes for all of the devices listed. In the *Select Action* drop-down list, select *DELETE Selected Devices*, and then click the **[Go]** button.

> **NOTE:** Deleting these devices results in the loss of any historical data collected by the beta EC2 LightSail Dynamic Applications between versions 104 and 107.

7. Download version 118 of the *Amazon Web Services* PowerPack from the Customer Portal to a local computer.

8. Go to the **PowerPack Manager** page (System > Manage > PowerPacks). Click the **[Actions]** menu and choose *Import PowerPack*. When prompted, import version 118 of the *Amazon Web Services* PowerPack.

9. After importing the PowerPack, you will be prompted to install the PowerPack. Click the **[Install]** button to install the PowerPack.

10. If you have updated to version 118 and already have an account discovered that is part of an organization, you can use your AssumeRole to have your devices associated with that organization. After you upgrade and the "AWS: Account Creation" run book action runs, you'll see the account name change to reflect the organization account in the **Device Manager** and **Device Components** pages.

> **NOTE:** ScienceLogic recommends turning off collection of the parent device if you are upgrading to use this new feature.

Upgrade Process from PowerPack version 8.1.0 or Earlier

This section describes the upgrade process when upgrading from version 8.1.0 or earlier of the *Amazon Web Services* PowerPack to version 118.

To upgrade from version 8.1.0 or earlier, you must perform the following general steps:

1. *Disable collection for AWS devices*.
2. *Uncheck "Preserve Hostname" for Storage Gateway Instances*
3. *Delete the "AWS: Health" Dynamic Application*.
4. *Upgrade to the 8.14.0 or later release*.
5. If you have made changes to the AWS PowerPack, optionally *enable selective PowerPack field protection*.
6. *Install the AWS 118 PowerPack*.
7. If you enabled selective PowerPack field protection, *edit collection objects*.
8. *Clear the cache on all Data Collectors*.
9. *Unalign the AWS: Custom Metrics Dynamic Application*.
10. *Enable collection for AWS devices*.
11. If you enabled selective PowerPack field protection, optionally *disable selective PowerPack field protection* after the installation.

Step 1: Disable Collection for AWS Devices

To disable collection for AWS devices:

1. Go to the **Device Components** page (Registry > Devices > Device Components).
2. Select the checkbox for all Amazon Web Services root devices.
3. In the **Select Actions** drop-down list, select *Change Collection State: Disabled (recursive)*.
4. Click the **[Go]** button.

Step 2: Uncheck the "Preserve Hostname" Option for Storage Gateway Instances

To ensure that the **Preserve Hostname** checkbox is *not* selected for any Storage Gateway Instance component devices:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. In the **Device Class | Sub-class** column filter field, type "AWS | Storage Gateway Instance".
3. For each Storage Gateway Instance component device in the list, click the wrench icon (🔧). The **Device Properties** page appears.
4. Uncheck the **Preserve Hostname** checkbox.
5. Click **[Save]**.

NOTE: If desired, you can select the **Preserve Hostname** checkbox again for these devices *after* you have completed the upgrade to version 118.

Step 3: Delete the "AWS: Health" Dynamic Application

To delete the "AWS Health" Dynamic Application:

1. Go to the **Dynamic Applications Manager** page (System > Manage > Applications).
2. Locate the "AWS: Health" Dynamic Application and then select its checkbox.
3. In the **Select Actions** drop-down list, select *DELETE Application*.
4. Click the **[Go]** button.

> **CAUTION:** You should *not* delete any of the AWS Service Health Dynamic Applications, nor any other Dynamic Applications that include "Health" in the name. Only the "AWS: Health" Dynamic Application should be deleted.

Step 4: Upgrade to the 8.14.0 or Later Release

If you have not previously done so, upgrade or migrate your system to an 8.14.0 or later release using the documentation applicable to your current version:

- For systems running an 8.x release, see the 8.14.0 Release Notes.
- For systems running a 7.x release, see the 8.14.0 Migration Steps document.

> **NOTE:** For versions 8.6.0 and later of the ScienceLogic platform, the *Amazon Web Services* PowerPack content library will not update until you enable collection for your AWS devices.

Step 5 (Optional): Enable Selective PowerPack Field Protection

If you have made changes to the *Amazon Web Service* PowerPack on your system, you can use the **Enable Selective PowerPack Field Protection** option to preserve changes to some fields. For a full list of fields that are preserved by this option, click the Guidebutton on the **Behavior Settings** page (System > Settings > Behavior). If you use the **Enable Selective PowerPack Field Protection** option, you must perform the steps listed in the *Step 7 (If Applicable): Edit Collection Objects* section after installing version 118 of the *Amazon Web Services* PowerPack.

To enable selective PowerPack field protection:

1. Go to the **Behavior Settings** page (System > Settings > Behavior).
2. Enable the **Enable Selective PowerPack Field Protection** checkbox.
3. Click the **[Save]** button.

Step 6: Install Version 118 of the Amazon Web Services PowerPack

To install version 118 of the *Amazon Web Services* PowerPack:

1. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
2. Click the **[Actions]** button and select *Import PowerPack*. The **Import PowerPack** modal page appears.
3. Click the **[Browse]** button and select the PowerPack file in your file browser.
4. Click the **[Import]** button. A confirmation dialog appears.
5. Click the **[OK]** button. The **PowerPack Installer** modal page appears.
6. Click the **[Install]** button. A confirmation dialog appears.
7. Click the **[OK]** button.

Step 7 (If Applicable): Edit Collection Objects

If you performed the steps listed in the *Step 5(Optional): Enable Selective PowerPack Field Protection* section, you must perform the following steps:

1. Go to the **Dynamic Applications Manager** page (System > Manage > Application).
2. Click the wrench icon ( ) for the "AWS: CloudFront Origin Configuration" Dynamic Application. The **Dynamic Applications Properties Editor** page appears.
3. Click the **[Collections]** tab.
4. Click the wrench icon ( ) for the Distinguished Name collection object.
5. Select the *Hide Object* checkbox.
6. Click the **[Save]** button.

Step 8: Clear Data Collector Cache

Beginning with *Amazon Web Services* PowerPack version 112, ScienceLogic libraries are delivered with the PowerPack. However, you must ensure that *Amazon Web Services* PowerPack versions 108-111 that were installed on Data Collectors prior to updating to SL1 version 8.11.0 still work and that the silo_aws system library is set to 2.9.5.

NOTE: All versions of the ScienceLogic libraries appear on the **ScienceLogic Library Manager** page (System > Customize > ScienceLogic Libraries). The default silo_aws library is indicated by a *System* setting of *True*.

After validating the ScienceLogic library versions on the Data Collectors, you must also clear the Data Collectors' cache.

Perform the following steps for every Data Collector used to monitor an AWS account:

1. Log in to the command-line of the appliance as the em7admin user.

2. Validate the versions of the ScienceLogic libraries on the Data Collector at the paths below:

```
$ cd /opt/em7/envs/<PP GUID>/lib/python2.7/cl-packages/silo_aws
$ cd /opt/em7/envs/system/lib/python2.7/cl-packages/silo_aws
```

- The library versions might be the same if you have not yet upgraded the *Amazon Web Services* PowerPack to the latest version that was delivered in SL1.

- The library versions might be different if you have upgraded the *Amazon Web Services* PowerPack to the latest version that was delivered in SL1.

3. On the Data Collector, ensure that the current content library version matches the version installed in the PowerPack:

```
$ cat version.txt
```

NOTE: For versions 8.6.0 and above of the ScienceLogic platform, the content library version listed in the version.txt file will not update until you *enable collection for your AWS devices*.

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4. Execute the following command to open a MariaDB prompt:

```
$ sudo bash
[sudo] password for root:
# silo_mysql
```

5. Execute the following command:

```
DELETE FROM cache.dynamic_app WHERE `key` LIKE 'AWS_SELF_MONITOR_%';
```

Step 9: Unalign the AWS: Custom Metrics Dynamic Application

A previous release of the *Amazon Web Services* PowerPack erroneously aligned the "AWS: Custom Metrics" Dynamic Application to certain types of devices. To unalign the "AWS: Custom Metrics" Dynamic Application from these devices:

1. Copy the provided aws_unalign_custom_metrics_app.py file to the home directory of the em7admin user on an appliance in your system:

- If your system includes All-In-One Appliances, use the primary All-In-One Appliance.

- If your system includes Database Servers where the user interface/API has not been disabled on the Database Servers, use the primary Database Server.

- If your system includes Database Servers where the user interface/API has been disabled on the Database Servers, use an Administration Portal.

NOTE: The aws_unalign_custom_metrics_app.py file can be found by clicking the "Contrib Files" link for the most recent version of the Amazon Web Services PowerPack on the ScienceLogic customer portal.

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2. Log in to the command-line of the appliance as the em7admin user.

3. Execute the following command:

```
sudo python aws_unalign_custom_metrics_app.py --base-url http://[IP address of
appliance] --username [username of administrator user] --password [password of
administrator user]
```

The output will show information about each device from which the "AWS Custom Metrics" Dynamic Application was unaligned.

Step 10: Enable Collection for AWS Devices

To enable collection for AWS devices:

1. Go to the **Device Components** page (Registry > Devices > Device Components).

2. Select the checkbox for all AWS Web Services root devices.

3. In the **Select Actions** drop-down list, select *Change Collection State: Enabled (recursive)*.

4. Click the **[Go]** button.

Step 11 (Optional): Disable Selective PowerPack Field Protection

If you performed the steps listed in the *Step 5 (Optional): Enable Selective PowerPack Field Protection* section and want to disable the option for future PowerPack updates, perform the following steps:

1. Go to the **Behavior Settings** page (System > Settings > Behavior).

2. Disable the ***Enable Selective PowerPack Field Protection*** checkbox.

3. Click the **[Save]** button.

Features

Amazon Web Services version 118 includes the following features:

- Dynamic Applications that discover, model, and collect data from AWS component devices
- Event Policies and corresponding alerts that are triggered when AWS component devices meet certain status criteria

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NOTE: Many of the Event Policies included in the *Amazon Web Services* PowerPack are disabled by default. You must manually enable the Event Policies that you want to use. To do so, go to the **Event Policy Editor** page (Registry > Events > Event Manager > create or edit) and change the **Operational State** to *Enabled*.

- Device Classes for each of the AWS component devices monitored
- Sample credentials for discovering AWS component devices
- Reports and dashboards that display information about AWS instances and component devices
- Run Book Action and Automation policies that can automate certain AWS monitoring processes
- The ScienceLogic Libraries that are utilized by this PowerPack:

  - aws_explorer
  - boto3
  - content
  - silo_apps
  - silo_aws
  - silo_aws_args
  - silo_credentials
  - silo_snippet
  - silo_vmware

Enhancements and Issues Addressed

Version 118 of the *Amazon Web Services* PowerPack includes the following enhancements and addressed issues:

- Support for the following regions was added to the PowerPack:
  - Cape Town
  - Hong Kong
  - Osaka
- The following Dynamic Applications have been added to the PowerPack:

- AWS: AMI Region Configuration
- AWS: EKS Cluster Virtual Device Discovery
- AWS: EKS Token Manager

> **NOTE:** The "AWS: EKS Cluster Virtual Device Discovery" and "AWS: EKS Token Manager" Dynamic Applications can be used only with the upcoming *Kubernetes* PowerPack version 103.

- AWS: Permissions Configuration
- AWS: RDS Aurora Cluster Instance Configuration
- AWS: RDS Aurora Cluster Instance Discovery
- AWS: RDS Aurora Cluster Instance Performance
- AWS: RDS Aurora Service Discovery
- AWS: RDS Instance Device Class Discovery
- AWS: Transit Gateway Instance Configuration
- AWS: Transit Gateway Instance Discovery
- AWS: Transit Gateway Instance Performance
- AWS: Transit Gateway Service Discovery
- The following Device Classes have been added to the PowerPack:
  - Availability Zone - Cape Town
  - Availability Zone - Hong Kong
  - Availability Zone - Osaka
  - RDS Aurora MySQL Cluster Instance
  - RDS Aurora PostgreSQL Cluster Instance
  - RDS Aurora Service
  - RDS DB Instance - Aurora MySQL
  - RDS DB Instance - Aurora PostgreSQL
  - Region Africa (Cape Town)
  - Region Asia Pacific (Hong Kong)
  - Region Asia Pacific (Osaka)
  - Transit Gateway Instance
  - Transit Gateway Service
- The "AWS: RDS DB Instance Device Class Alignment" Run Book Automation Policy and Run Book Action were added to the PowerPack.
- The "AWS: EKS Cluster Creation" Run Book Automation Policy and Run Book Action were added to the PowerPack.
- The "AWS Credential - Tag Filter" sample credential was added to the PowerPack for filtering EC2 instances by tag.

- The "AWS: EC2 Instance Discovery" Dynamic Application was updated to add support to filter EC2 instances by tag.

- The "AWS: EC2 Instance Configuration" Dynamic Application was updated to add collection objects for AMI data.

- The "AWS: EBS Instance Configuration" Dynamic Application was updated to display old data when no data is available with an indicator.

- The "AWS: EBS Instance Performance" Dynamic Application was updated to have collection object maintenance enabled on all collection objects.

- New collection objects were added to the "AWS: EBS Instance Discovery" and "AWS: EBS Instance Configuration" Dynamic Applications.

- The following event policies were added to the "AWS: EBS Instance Configuration" Dynamic Application:

  - AWS: EBS EC2 Volume Error State

  - AWS: EBS EC2 Volume Not In Error State

  - AWS: EBS Volume Status Stuck

  - AWS: EBS Volume Status Is Not Stuck

- A new device relationship was added to the "AWS: RDS Instance Configuration" Dynamic Application between RDS Aurora Clusters and RDS DB Instances.

- Users can now discover Gov accounts using AssumeRole.

- A new execution environment was added to the PowerPack.

- The "AWS Credential - EC2 Instance" and "AWS Credential - Master Account" sample credentials were updated to add an HTTP header that allows the user to auto-create an SL1 organization for accounts using Assume Role.

- The "AWS: VPN Virtual Private Network Configuration" Dynamic Application was updated to support single-tunnel VPNs.

- An issue was addressed in which AWS Dynamic Applications that produced API results containing special characters were causing an unhandled exception.

- An issue was addressed in which the "EC2 Instance Details" and "EC2 Instance Counts" sections of the AWS Inventory report were not reporting any data.

Known Issues and Workarounds

The following known issues affect version 118 of the *Amazon Web Services* PowerPack:

- In AWS Dynamic Applications that produce API results containing special characters, if a character cannot be normalized, SL1 will display its unicode values inside brackets as a normalized string.

- Some disk-related alerts and events were removed from the "AWS: LightSail Instance Performance" Dynamic Application as of *Amazon Web Services* PowerPack version 108. If you are upgrading from a version prior to version 108, then you must manually delete the thresholds relating to these removed alerts and events. To do so, go to the **Dynamic Applications Threshold Objects** page (System > Manage > Applications > wrench icon > Thresholds) for the "AWS: LightSail Instance Performance" Dynamic Application, and then click the bomb icon ( ) for the following thresholds:

- AWS: LightSail Disk IOPS High

- AWS: LightSail Disk GB Usage High

- AWS does not currently support IPv6 addresses for LightSail services. However, the "AWS: LightSail Instance Configuration" Dynamic Application includes support for IPv6 addresses in the event that AWS adds support in the future.

- Because AWS Government accounts do not support all of the services supported by AWS Commercial accounts, some expected errors will appear when discovering AWS Government Accounts. For example:

```
Unable to process AWS request: AID: 402, SID: 415, DID: 3, Class:
AwsOpsWorksServiceDisc UnrecognizedClientException The security token included in
the request is invalid.
```

```
Unable to process AWS request: AID: 279, SID: 275, DID: 84, Class:
AwsOpsWorksServiceDisc UnrecognizedClientException The security token included in
the request is invalid. Invalid credentials for billing metric retrieval.
```

If you are discovering **only** an AWS Government account, then a simple workaround to these errors is to disable and delete the Dynamic Applications relating to services that are not supported by the AWS Government account.

NOTE: For more information about which services are supported by AWS Government accounts, see https://aws.amazon.com/about-aws/global-infrastructure/regional-product-services.

WARNING: If you are discovering both AWS Government and Commercial accounts, you should not disable or delete any AWS Dynamic Applications.

- SSL EOF error messages might appear in the system log when connecting to AWS through a proxy server. The error does not seem to prevent or cause issues with data collection.

- "Read operation timed out" and "Connection reset by peer" error messages might appear in the system log and device logs when upgrading the *Amazon Web Services* PowerPack from versions prior to 108.