Linux Base Pack PowerPack Release Notes

Version 109

Overview

Version 109 of the *Linux Base Pack* PowerPack adds compatibility with Python 3 and various bug fixes.

- **Minimum Required SL1 Version**: 11.1.0

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Before You Install or Upgrade

Ensure that you are running version 11.1.0 or later of SL1 before installing *Linux Base Pack* version 109.

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

NOTE: You should check the thresholds for zombie processes and load average. The load average is compared to the threshold based on the normalized data per CPU.

Installing or Upgrading the PowerPack

To install this PowerPack:

1. Familiarize yourself with the ***Known Issues*** for this release.
2. See the ***Before You Install or Upgrade*** section. If you have not done so already, upgrade your system to the 11.1.0 or later release.
3. Download the "Linux Base Pack" version 109 PowerPack from the Support Site to a local computer.
4. Go to the **PowerPack Manager** page (System > Manage > PowerPacks). Click the **[Actions]** menu and choose *Import PowerPack*. When prompted, import "Linux Base Pack" version 109.
5. Click the **[Install]** button. For details on installing PowerPacks, see the chapter on *Installing a PowerPack* in the ***PowerPacks*** manual.

CAUTION: If you are upgrading from version 102, 103, or 104 of the *Linux Base Pack* PowerPack, you must verify that some Dynamic Applications are disabled and removed if they are still present in your SL1 environment. For more information on how to remove the Dynamic Applications, see the "Upgrading the PowerPack and Removing Dynamic Applications" section in the ***Monitoring Linux Systems*** manual.

Remove the following Dynamic Applications before upgrading from version 102 directly to version 105 or above of the *Linux Base Pack* PowerPack:

- Linux: File System Stats
- Linux: Interface Stats
- Linux: Network Config
- Linux: Performance Cache
- Linux: TCP Services

Remove the following Dynamic Applications if you are upgrading along one of the following paths: version 103 > 105 or above; version 102 > 103 > 105 or above; or version 102 > 103 > 104 > 105 or above:

- Linux: File System Performance
- Linux: IC Availability
- Linux: Interface Performance
- Linux: Network Configuration
- Linux: Performance Cache (Deprecated)
- Linux: TCP Services Configuration

Remove the following Dynamic Applications if you are upgrading from version 102 to 104 to 105 and above:

- Linux: File System Stats
- Linux: Interface Stats
- Linux: Network Config
- Linux: Performance Cache
- Linux: TCP Services

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 the new version of the PowerPack from overwriting local changes for some commonly customized fields.

> **NOTE:** If you are currently using the Dynamic Applications in this PowerPack to monitor devices, collection errors might occur for one or two polling cycles during the installation of a new version. To prevent collection errors during an upgrade, you can optionally disable collection for monitored devices before performing the following steps and re-enable collection after the upgrade.

For more information about using the PowerPack, see the ***Monitoring Linux*** manual.

Features

Version 109 of the *Linux Base Pack* PowerPack includes the following features:

- Dynamic Applications that discover and collect configuration and performance data for Linux systems
- Internal Collection Dynamic Applications that collect inventory and performance data for Linux systems
- Event Policies and corresponding alerts that are triggered when Linux systems meet certain status criteria

> **NOTE:** Many of the Event Policies included in this 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 type of Linux system monitored
- A Run Book Action and an Automation policy to assign the proper device classes to Linux systems

Enhancements and Issues Addressed

The following enhancements and addressed issues are included in version 109 of the *Linux Base Pack* PowerPack:

- Updated the PowerPack to be Python 3-compatible.
- Updated the PowerPack to allow private key authentication to work on a wider range of modern Linux systems.
- Updated Linux credentials to use passwords as they are entered, and will no longer strip preceding and trailing blank spaces.
- Updated the "SUSE Enterprise Linux 12" device class to properly align to devices.
- The "Linux: Interface Inventory" data collector now works in SL1 version 12.2.0.

> **NOTE:** If you are using SL1 version 12.2.0 or later, you will need to update this PowerPack to version 109.

- Addressed an issue where `df` commands were causing high CPU load due to stale file systems causing gaps in filesystem performance data and delays in filesystem discovery.
- Addressed an issue where the "Performance Metrics" tab of the "Device Investigator" page was not displaying system data for the chosen device.
- Addressed an issue where Linux ICDA Dynamic Applications were not collecting data from the Data Collector.
- Addressed an issue where the "Linux: Configuration Discovery" Dynamic Application returned an authentication error event for any device that was discovered by a discovery session using credential types SSH or Powershell. Updated the "silo_ssh" content library to avoid generating an event when the "Linux: Configuration Discovery" Dynamic Application runs over a discovery session.
- Addressed an issue where the "Linux Base Pack" PowerPack returns "Filesystem Unavailable" alerts when monitoring Azure Linux devices.
- There is now a limit of 128 characters on the database field for the filesystem name. The name will be truncated to 128 characters if you exceed the limit.
- Addressed an issue with Internal Collection Process Monitoring from improperly skipping parsing of processes that contained "PID".
- Addressed an issue where the "Linux SSH: IC Process Performance" Dynamic Application failed data collection because the cache was empty by enabling the ICDA Interface Cache to allow process performance collections.
- Addressed an issue where the "Automation Policy Linux Classification" and "Automation action Linux Classification and Automation" event policies were returning an error when trying to classify devices in SL1 version 12.1.0.
- Addressed an issue where this PowerPack was adding the incorrect domain service to the configuration file when the Domain Name shares the same name as the Active Directory host.
- Addressed an issue where an authentication error occurs when discovering Kerberos Linux devices in a Python 3 environment.
- Addressed an issue where the "Linux: Disk IOPS Performance" and "Linux: CPU Cores Performance" Dynamic Applications were failing to collect data and run debug mode in a Python 3 environment.
- Addressed an issue where the Dynamic Applications in this PowerPack were trying to save logs on a missed log file.

Known Issues and Workarounds

The following known issues affect version 109 of the *Linux Base Pack* PowerPack:

- Version 22.04 of Ubuntu and earlier may have problems discovering devices with a PEM key. It is recommended that you use a password in this case.
- Parsing may fail with some commands if there are custom images on the device.
- In patch SL1 systems there is a platform issue in versions 8.14.0 and earlier in which the SSH credential can store corrupted information in the Password field which will affect data collection when the SSH Data Collector is enabled. To avoid this issue, resave the SSH credential with the PEM key.

- If you use the default timeout in the "Linux Example Credential" credential and continue to experience timeout and login errors on a limited number of servers, create a copy of the credential, and edit the timeout value to 10 seconds then align your new credential to the servers with login errors.
- After upgrading from version 103 to version 105 of this PowerPack, you may not continue to receive data from your interfaces due to the deprecation of ifconfig commands. The deprecation of ifconfig commands will also cause interfaces to be reordered, resulting in IC Interface Performance and IC Interface Inventory data not matching between versions. This issue will resolve during nightly discovery.
- In SL1 version 10.2.1.2, if you mistakenly align a Windows Server during discovery you will see many process exceptions. **NOTE**: This issue has been fixed in SL1 version 10.2.2.
- Monitoring interface packets is not supported yet. To avoid errors or unhandled exceptions while monitoring interface performance data with the "Linux: IC Interface Performance" Dynamic Application, do not enable the packets setting in the **Interface Properties** page (Registry > Networks > Interfaces > interface wrench icon).
- Modifying any of the IC Dynamic Applications will change the value of the ***Collector Affinity*** setting from *Assigned collector* to *Default*. If you make any changes to the configuration of these Dynamic Applications, run the following query on the **Database Tool** (System > Tools > DB Tool):

```
SELECT ppguid FROM master.powerpack WHERE name = "Linux Base Pack"

Save the result of ppguid as <LBP PPguid>

UPDATE master.dynamic_app SET cu_affinity="2" WHERE ppguid = <LBP
PPguid>
```

- CSR 1000v Series Cisco routers discovered after version 102 of the PowerPack should not be aligned with Linux Base Pack Dynamic Applications. After upgrading to version 103, Linux Base Pack Dynamic Applications aligned to the Cisco routers should be removed and the device class should be updated to the expected device class of the router.
- If you have a device with more than one SSH credential aligned, only one credential will be used. The connection to that credential will be maintained until it is terminated by the target host or the network, which means that it will continue to use the old credential through that connection even when the credential has changed.
- An issue with the "Cisco: CSP 2100 CLI Alignment" Dynamic Application is causing Dynamic Application alignment to fail for versions 101 and109 of the PowerPack when installed on SL1 versions 8.9.0 and greater. To work around this issue, disable the "Cisco: CSP 2100 CLI Alignment" Dynamic Application.
- To discover Linux devices, the PowerPack uses an API call to align Dynamic Applications from the PowerPack to the devices. The API call length can cause API queries to back up and time out when attempting to discover multiple devices. As a workaround, ScienceLogic recommends leveraging SQL queries to align these Dynamic Applications.
- A collection exception appears in the device log if a device's hostname is not properly set.

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