



Linux Base Pack PowerPack Release Notes

Version 103

OverviewLinux Base Pack PowerPack Release Notes, version 103



Version 103 of the *Linux Base Pack PowerPack* includes scale improvements, new Dynamic Applications, and addresses a number of issues in the PowerPack.

- **Minimum Required Platform Version:** 8.12.2.4

This document includes the following topics:

<i>Before You Install or Upgrade</i>	2
<i>Installing or Upgrading the PowerPack</i>	2
<i>Features</i>	3
<i>Enhancements and Issues Addressed</i>	3
<i>Known Issues and Workarounds</i>	6

Before You Install or Upgrade

Ensure that you are running version 8.12.2.4 or later of SL1 before installing *Linux Base Pack* version 103.

NOTE: For details on upgrading SL1, see the appropriate [Release Notes](#).

Installing or Upgrading the PowerPack

To install or upgrade the *Linux Base Pack PowerPack*, perform the following steps:

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 8.12.2.4 or later release.
3. Download *Linux Base Pack* version 103 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 103.
5. Click the Install button. For details on installing PowerPacks, see the chapter on *Installing a PowerPack* in the **PowerPacks** manual.

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 Base Pack** manual.

Features

Version 103 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
- 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 103 of the *Linux Base Pack* PowerPack:

- For version 103 of the PowerPack, there are scale improvements in the PowerPack provided by the SSH collection service.
- Version 103 of the PowerPack has been tested in the following environments:
 - Ubuntu Server 18.04
 - Ubuntu Server 20.04
 - Ubuntu Server 16.04
 - CentOS Linux version 7
 - Red Hat Enterprise 8.2
 - Oracle Linux Server 7
 - Debian GNU/Linux 10
 - Fedora 18 Kernel

- Fedora 32 Kernel
- Azure Ubuntu 17.10
- Amazon Linux AMI 2018.03
- SUSE Linux Enterprise Server 15
- Version 103 of the *Linux Base Pack* PowerPack only supports Linux devices installed in the English language.
- The following Internal Collection Dynamic Applications have been added to the PowerPack:
 - Linux: IC Availability
 - Linux: IC Detail
 - Linux: IC Filesystem Inventory
 - Linux: IC Filesystem Performance
 - Linux: IC Interface Inventory

NOTE: The "Linux: IC Interface Inventory" Dynamic Application runs during nightly discovery. If you want to force discovery at a time outside of nightly discovery, run the following command on the collector: `sudo -u s-em7-core /opt/em7/bin/python /opt/em7/backend/discover_update.py`

- Linux: IC Interface Performance
- Linux: IC Port Performance
- Linux: IC Process Inventory
- Linux: IC Process Performance
- The following Device Templates have been added to the PowerPack:
 - Linux: Dynamic Applications Template
 - Linux: Not Used Dynamic Applications Template
- The following Dynamic Applications will no longer be auto-aligned by the "Linux Classification and Automation" Run Book Action and will eventually be removed from the PowerPack in a future release:
 - Linux: File System Performance
 - Linux: Interface Performance
 - Linux: Network Configuration
 - Linux: TCP Services Configuration
- The following Configuration and Performance Dynamic Applications have been updated to meet ScienceLogic engineering standards:
 - Linux: Configuration Discovery
 - Linux: CPU Configuration
 - Linux: CPU Cores Performance


- Linux: CPU Performance
 - Linux: Disk IOPS Performance
 - Linux: Hardware Configuration
 - Linux: ICDA Cache
 - Linux: ICMP Performance
 - Linux: Memory Performance
 - Linux: Route Table Configuration
 - Linux: System Configuration
 - Linux: System Load Performance
 - Linux: TCP Performance
 - Linux: UDP Services Configuration
 - Linux: UDP Performance
 - Linux: Zombie Process
- The "Linux: Performance Cache" Dynamic Application has been deprecated and disabled.
 - The "Linux: Configuration Cache" Dynamic Application was renamed to "Linux: Configuration Discovery".
 - An issue was addressed in which Linux Dynamic Applications were erroneously generating Minor events related to non-digit OIDs.
 - The "Linux: File System Performance" Dynamic Application was updated to fix an issue that was causing the application to be unable to parse long file names.
 - An issue was addressed in the "Linux: File System Performance" Dynamic Application in which the Dynamic Application was creating incorrect indexes and labels which resulted in slow performance and timeouts in API requests.
 - The "Linux: CPU Performance" Dynamic Application was updated to set the "Linux SSH: CPU utilization above threshold" Major event to auto clear, and to fix an issue with duplicate healthy events.
 - An issue was addressed in which the "Linux Classification and Automation" Run Book Action was not working when discovering multiple Linux devices.

Known Issues and Workarounds

The following known issues were found in version 103 of the *Linux Base Pack* PowerPack:

- SL1 version 10.2.0 includes a major Known Issue that can cause performance degradation and a potential outage for Data Collectors. The Concurrent SSH Collection feature in the PowerPack is enabled by default on 10.2.0 systems, both upgrades and new installations. The Concurrent SSH Collection feature generates temporary files for each connection attempt to the monitored devices. These temporary files can eventually use all the space in the /var directory of each Data Collector, which can cause performance degradation and a potential outage. To prevent performance degradation and a potential outage, customers on version 10.2.0 of SL1 should disable this feature. This feature will be disabled automatically SL1's upcoming version 10.2.1.

To disable concurrent SSH collection:

1. Log in to the Administration Portal.
2. Go to the Process Manager page (System > Settings > Processes).
3. Find the process "Data Collection: SSH Collector" and select its wrench icon ()
4. Set the **Operating State** to *Disabled*.
5. Save your change.
6. Wait 10 minutes for all collection processes to complete

CAUTION: : If you are monitoring a large number of Linux devices, for example, 100 devices or more, you must re-balance the Data Collectors after stopping Concurrent SSH Collector. For details, see the section on [Collector Groups and Load Balancing](#) see the chapter on *Collector Groups and Load Balancing* in the **Systems Administration** manual.

- There is a known issue in which the "Linux: System Configuration" Dynamic Application is unable to fetch data from the "Linux: ICDA Cache" Dynamic Application for CentOS 6.5 and Ubuntu 12 servers. Follow the steps at <https://support.sciencelogic.com/s/article/4902> to resolve this issue.
- There is a known issue in which the Process and Filesystem collection objects are failing in the "Linux: ICDA Cache" Dynamic Application after upgrading the PowerPack to version 103. Follow the steps at <https://support.sciencelogic.com/s/article/5099> to resolve this issue.
- If you have a concurrent SSH Data Collector enabled, this may cause the Dynamic Applications in the PowerPack to stop collecting data. To address this issue, follow the steps at <https://support.sciencelogic.com/s/article/5887>.
- In the "Linux: IC Interface Performance" Dynamic Application, there is a known issue where Interface Utilization can be reported at over 100%. To fix this, run the following SQL query on the CDB:

```
update master.system_custom_config set field_value = 0 where field = "high_precision_if_collect"
```

- 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 and 103 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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