Microsoft: Azure PowerPack Release Notes

Version 104

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Overview

Microsoft: Azure PowerPack version 104 introduces the ability to monitor multiple Azure subscriptions in the same device component map, adds the ability to discover and monitor Azure application gateways and VPN gateways, revises the types of storage devices that appear in the device component map, and updates several of the PowerPack's Dynamic Applications and device classes.

- **Minimum Required Platform Version**: 8.4.0
- **Support Status**: GA

This document describes:

- *Pre-install or pre-upgrade information*
- *The installation process for the PowerPack*
- *The upgrade process for the PowerPack*
- *The features included in version 104*
- *The enhancements and issues addressed in version 104*
- *The known issues that affect version 104*

Before You Install or Upgrade

Ensure that you are running version 8.4.0 or later of the ScienceLogic platform before installing the *Microsoft: Azure* PowerPack version 104.

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

TIP: Prior to using the multiple subscription functionality introduced in version 104, ScienceLogic recommends that you review your device capacity and load limits to determine the best method for implementation.

Installing Microsoft: Azure PowerPack version 104

To install the *Microsoft: Azure* PowerPack ***for the first time*** (that is, if you have never installed a *Microsoft: Azure* PowerPack before), 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 8.4.0 or later release.
3. Download version 104 of the *Microsoft: Azure* PowerPack from the Customer Portal 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 version 104 of the *Microsoft: Azure* PowerPack.
5. After importing the PowerPack, you will be prompted to install the PowerPack. Click the **[Install]** button to install the PowerPack.
6. See the manual ***Monitoring Microsoft Azure*** for instructions on using the new PowerPack.

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

NOTE: The following Dynamic Applications are force-removed when you upgrade to version 104:

- Microsoft: Azure Storage Blob Configuration
- Microsoft: Azure Storage Blob Discovery
- Microsoft: Azure Storage Container Discovery
- Microsoft: Azure Storage Table Discovery
- Microsoft: Azure Storage Queue Discovery

Before upgrading to version 104, ScienceLogic recommends that you remove the device components discovered by these Dynamic Applications. The process for doing so is included in the steps below.

To upgrade the *Microsoft: Azure* from a previous version:

1. Familiarize yourself with the *Known Issues* for this release.
2. See the *Before You Upgrade* section. If you have not done so already, upgrade your system to the 8.4.0 or later release.
3. Download version 104 of the *Microsoft: Azure* PowerPack from the Customer Portal to a local computer.
4. Before importing and installing version 104 of the PowerPack, you must disable the existing tree of Azure parent and component devices, recursively. To do so, go to the **Device Components** page (Registry > Devices > Device Components) and collapse the root Azure component device. Select the device's checkbox, and then click the ***Select Action*** drop-down menu. Under **Change Collection State**, select *Disabled (recursive)*, and then click **[Go]**.
5. Because several Dynamic Applications are force-removed when you upgrade to version 104, you must manually remove the device components discovered by these Dynamic Applications prior to upgrading the PowerPack.
6. Go to the **Device Manager** page (Registry > Devices > Device Manager).

7. Filter the list of devices by Device Class | Sub-Class by typing the following text in the ***Device Class | Sub-Class*** filter:

   Azure Storage Container, Azure Storage Blob, Azure Storage Queue, Azure Storage Table

8. The **Device Manager** page now displays only devices with the specified device classes. Click the **Select All** checkbox in the upper right to select all these devices.
9. Click on the **[Select Action]** field, and choose ***DELETE Selected Devices***. Click the **[Go]** button. Confirm that you want to delete the devices.
10. Next, you must delete the device classes associated with the Dynamic Applications that are force-removed when you upgrade to version 104. Go to the **Device Class Editor** page (System > Customize > Device Classes).
11. You must filter the list of device classes. To do so, enter the following:

    - ***Device Class***. In this filter, type *Microsoft*.
    - ***Description***. In this filter, type *Azure Storage Container, Azure Storage Blob, Azure Storage Queue, Azure Storage Table*.
    - ***Device Dashboard***. In this filter, type *Device Map + Log*.

12. The **Device Class Editor** page should now display only the four device classes with these descriptions:

    - Microsoft Azure Storage Container
    - Microsoft Azure Storage Blob
    - Microsoft Azure Storage Table
    - Microsoft Azure Storage Queue

13. Click the **[Select Action]** field, choose ***DELETE Device Classes***, and click the **[Go]** button. Confirm that you want to delete the device.
14. Go to the **PowerPack Manager** page (System > Manage > PowerPacks). Click the **[Actions]** menu and choose *Import PowerPack*. Import the *Microsoft: Azure* version 104 PowerPack. For details on importing PowerPacks, see the chapter on *Installing a PowerPack* in the ***PowerPacks*** manual.
15. Click the **[Install]** button. For details on installing PowerPacks, see the chapter on *Installing a PowerPack* in the ***PowerPacks*** manual.
16. If you are implementing the new multiple subscription feature, go to the **Credential Management** page (System > Manage > Credentials) and create a new credential or edit an existing one as needed for use with the multiple subscription configuration. (For more information, see the manual ***Monitoring Microsoft Azure***.)
17. You must now enable the existing tree of Azure parent and component devices, recursively. To do so, go to the **Device Components** page (Registry > Devices > Device Components) and collapse the root Azure component device. Select the device's checkbox, and then click the ***Select Action*** drop-down menu. Under **Change Collection State**, select *Active (recursive)*, and then click **[Go]**.

Features

Microsoft: Azure PowerPack version 104 includes the following features:

- Dynamic Applications that enable the ScienceLogic platform to discover, model, and monitor performance metrics and collect configuration data for Azure resources
- Event Policies that are triggered when Azure resources meet certain status criteria
- Device Classes for each Azure data center location and all of the Azure resources that the ScienceLogic platform monitors
- Example credentials for discovering Azure resources

Enhancements and Issues Addressed

The following changes are included in version 104 of the *Microsoft: Azure* PowerPack:

- The ability to monitor multiple Azure subscriptions in the same device component map was added to the PowerPack. The following updates were made to support this change:
    - The "Microsoft: Azure Account Discovery" Dynamic Application was updated to discover all of the available subscriptions based on your credentials and model them under a single "Azure Services" root device.
    - The "Azure Account" device class was renamed "Azure Subscription".
    - The SOAP/XML credentials used to monitor Azure no longer require you to enter a Subscription ID in the ***Embed Value [%3]*** field. Now, when the ***Embed Value [%3]*** field is blank, the ScienceLogic platform discovers all of the available Azure subscriptions based on their IAM access controls. If you type a Subscription ID in the ***Embed Value [%3]*** field, the platform discovers only that single Azure subscription.
    - The following Dynamic Applications were updated to support multiple subscriptions:
        - Microsoft: Azure Active Directory Tenant Discovery
        - Microsoft: Azure Location Discovery
        - Microsoft: Azure Network Security Group Discovery
        - Microsoft: Azure Network Security Group Service Discovery
        - Microsoft: Azure Recovery Service Vaults Discovery
        - Microsoft: Azure Recovery Service Vaults Service Discovery
        - Microsoft: Azure Resource Group Discovery
        - Microsoft: Azure Resource Groups Service Discovery
        - Microsoft: Azure SQL Server Discovery
        - Microsoft: Azure SQL Servers Service Discovery

- Microsoft: Azure Storage Account Discovery
- Microsoft: Azure Storage Service Discovery
- Microsoft: Azure Traffic Manager Profile Discovery
- Microsoft: Azure Traffic Manager Service Discovery
- Microsoft: Azure Virtual Machine Configuration
- Microsoft: Azure Virtual Machine Discovery
- Microsoft: Azure Virtual Machines Service Discovery
- Microsoft: Azure Virtual Network Discovery
- Microsoft: Azure Virtual Network Service Discovery

NOTE: All Azure subscriptions include an Active Directory Tenant component device.

NOTE: If you are monitoring a single Azure subscription, then the Subscription ID appears in the Configuration Report for the aligned discovery Dynamic Applications. If you are monitoring multiple Azure subscriptions, then the Subscription ID appears in the Configuration Report for the aligned discovery and service discovery Dynamic Applications.

NOTE: The Azure location device IDs are updated when you move from a single-subscription model to a multi-subscription model. However, the device IDs for the components inside the service containers under those locations do not change.

NOTE: A Subscription ID is added into the cache database for both single and multiple Azure subscriptions. If you are monitoring an existing single subscription, all of its component devices will temporarily appear unavailable for a period of time when you upgrade to version 104.

NOTE: When moving storage accounts from one Azure subscription to another, the ScienceLogic platform discovers a new storage account in the second subscription but retains the storage account in the first subscription, resulting in duplicate storage accounts for a short period of time while the platform moves the child component devices under the storage account from the first subscription to the second. When this process is complete, the storage account in the first subscription becomes unavailable and then vanishes. This process might take an hour or longer to fully resolve.

- The following Dynamic Applications have been added to discover and collect data for Azure VPN Gateways:
    - Microsoft: Azure VPN Gateway Discovery
    - Microsoft: Azure VPN Gateway Configuration

- The following Dynamic Applications have been added to discover and collect data for Azure Application Gateways:
    - Microsoft: Azure Application Gateway Service Discovery
    - Microsoft: Azure Application Gateway Discovery
    - Microsoft: Azure Application Gateway Configuration
    - Microsoft: Azure Application Gateway Performance
- The following device classes were removed from the PowerPack:
    - Microsoft Azure Storage Container
    - Microsoft Azure Storage Blob
    - Microsoft Azure Storage Table
    - Microsoft Azure Storage Queue

NOTE: Performance data for these components is still collected and appears on the **Device Performance** page (Registry > Devices > Device Manager > bar-graph icon > Performance) for Storage Accounts.

- The following Dynamic Applications were removed from the PowerPack:
    - Microsoft: Azure Detailed Self Monitoring
    - Microsoft: Azure Self Monitoring
    - Microsoft: Azure Storage Blob Configuration
    - Microsoft: Azure Storage Blob Discovery
    - Microsoft: Azure Storage Container Discovery
    - Microsoft: Azure Storage Table Discovery
    - Microsoft: Azure Storage Queue Discovery
- The "Microsoft: Azure Storage Account" device class billing tier was updated from 1 to 2.
- The Dynamic Applications in the PowerPack have been updated to create relationships between the following components:
    - Azure Application Gateways and Subnets
    - Azure Application Gateways and Resource Groups
    - Azure VPN Gateways and Subnets
    - Azure VPN Gateways and Resource Groups
    - Azure Virtual Machines and Cisco CloudCenter applications

NOTE: For the ScienceLogic platform to build relationships between Azure Virtual Machines and Cisco CloudCenter applications, you must have version 103 or later of the *Cisco: Cloud Center* PowerPack installed.

- The Dynamic Applications in the PowerPack were updated to remove the device relationship between Azure Virtual Machines and Storage Blobs, due to the removal of Blob component devices, and to create relationships between unmanaged Azure Virtual Machine OS Disks and Storage Accounts instead.

NOTE: With this release, the Dynamic Applications in the PowerPack display relationship data and disk URI values only for ***unmanaged*** Virtual Machine OS disks. Relationship data and disk URI values do not display for ***managed*** Virtual Machine OS disks at this time; those enhancements are planned for a later release.

- The configuration Dynamic Applications were updated to consistently display the resource name and relationship ID for all device relationships.
- Several bulk configuration Dynamic Applications were updated to improve log and alert messaging.
- Several bulk performance and configuration Dynamic Applications were updated to improve data collection.
- All of the discovery Dynamic Applications were updated to consistently display the device ID in the Configuration Report.
- The "Microsoft: Azure Virtual Machine Configuration" Dynamic Application was updated to collect additional data, including:
    - Virtual Machine ID
    - Availability Set
    - OS Disk Status
    - Virtual Machine Status
    - WinRM Listeners
    - WinRM Protocol
    - Certificate URL
- The "Microsoft: Azure SQL Database Performance" Dynamic Application was updated to collect data from the Azure Monitoring API.
- The "Microsoft: Azure Virtual Machine Performance" Dynamic Application was updated to rename several disk read/write collection objects to improve clarity.
- A new "Azure Credential - Proxy" sample SOAP/XML credential was added to the PowerPack to provide a credential template for users who monitor Azure subscriptions through a proxy server.
- New device classes were added to represent "L" and "A v2" series virtual machines.
- The PowerPack was updated to improve the handling of special characters in API responses from the Azure portal. With this update, the ScienceLogic platform converts special characters to their hexadecimal values to prevent exceptions from displaying in the log.

- The PowerPack was updated to support device discovery for credentials using a registered application that is assigned read-only Reader access in the Azure portal.

NOTE: The following storage account performance Dynamic Applications still require a credential using a registered application that is assigned Contributor access:

- Microsoft: Azure Storage Account Queue Performance
- Microsoft: Azure Storage Account Table Performance
- Microsoft: Azure Storage Account Blob Performance

If you need to collect this data, you must use a credential with Contributor access.

Known Issues

- If an existing Azure component device is discovered and then later deleted in the Azure Resource Manager (ARM) Portal, the ScienceLogic platform might generate an error in the device if the component has not yet vanished in the the ScienceLogic platform. The error would likely be, "Response code was not ok. The resource '[*name*]' under resource group '[*group*]' was not found." Also, because the *Microsoft: Azure* PowerPack uses cache-producing and cache-consuming applications, there could be a time delay before deleted components are shown as unavailable.
- After upgrading to version 104, if you update a single subscription to a multi-subscription by removing the Subscription ID in the credential's ***Embed Value [%3]*** field, a "`Storage Object Failure due to DEADLOCK`" error appears in the system log. This error might repeat a few times before no long recurring.
- When discovering a large number of component devices, the discovery process can cause the appearance of numerous critical events with the message, "`Large backlog of asynchronous jobs detected`".

Workarounds

Version 103 fixed an issue where the Dynamic Application "Microsoft: Azure Virtual Machine Discovery" was not automatically assigning a device class to each discovered device.

As a result, if you are upgrading from a version of the *Microsoft: Azure* PowerPack prior to version 103, after the upgrade you must either re-discover the Azure Virtual Machine devices that previously had no device class, or you must manually assign the device class "Microsoft | Azure Virtual Machine Service" to each of those devices.

To manually re-discover the Azure Virtual Machine devices that previously had no device class:

1. Go to the Dynamic Applications Manager page (System > Manage > Applications).
2. Find the Dynamic Application "Microsoft: Azure Virtual Machine Discovery" and select its checkbox.
3. Click the **[Select Action]** field and choose ***DISCOVER Applications***. Click the **[Go]** button.

To manually assign a device class to the Azure Virtual Machine devices, perform these steps on each device:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Find the device you want to edit and select its wrench icon ().
3. In the **Device Properties** page, find the ***Device Class*** field and select the toolbox icon().
4. In the **Select New Device Class** modal page, select the device class that matches the Azure Virtual Machine in both size and type.
5. The newly selected device class is now associated with the device.

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