Monitoring F5 BIG-IP DNS

F5: BIG-IP DNS PowerPack version 101

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Chapter 1

Introduction

Overview

This manual describes how to monitor an F5 BIG-IP DNS system in SL1 using the "F5: BIG-IP DNS" PowerPack.

This chapter covers the following topics:

What is F5 BIG-IP DNS? 3

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What is F5 BIG-IP DNS?

F5 Networks' BIG-IP DNS service provides global server load-balancing services for domain name system (DNS) queries. To ensure that the queries are answered quickly and efficiently, BIG-IP DNS routes DNS traffic for global applications to the closest or best-performing pool in a wide IP (WIP), which will map a fully-qualified domain name to one or more pools of virtual servers that hosts domain content, and then to the best available virtual server within that pool. BIG-IP DNS also provides distributed denial-of-service (DDoS) protection for DNS infrastructure.

What Does the F5: BIG-IP DNS PowerPack Monitor?

The "F5: BIG-IP DNS" PowerPack enables you to monitor configuration and performance metrics for wide IP, pools, data centers, and physical and virtual servers. The PowerPack includes the following features:

- Dynamic Applications that discover and monitor F5 BIG-IP DNS devices
- Device classes for each of the F5 BIG-IP DNS devices that the "F5: BIG-IP DNS" PowerPack can monitor
- Event policies and corresponding alerts that are triggered when F5 BIG-IP DNS devices meet certain status criteria

Installing the F5: BIG-IP DNS PowerPack

Before completing the steps in this manual, you must import and install the latest version of the "F5: BIG-IP DNS" PowerPack.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of 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 new PowerPacks from overwriting local changes for some commonly customized fields. For more information, see the section on *Global Settings*.

NOTE: For details on upgrading SL1, see the relevant *SL1 Platform Release Notes*.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

NOTE: If you exit the **PowerPack Installer** modal without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPacks** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Configuration and Discovery

Overview

The following sections describe how to configure and discover F5 BIG-IP DNS services for monitoring by SL1 using the "F5: BIG-IP DNS" PowerPack:

This chapter covers the following topics:

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Prerequisites for Monitoring F5 BIG-IP DNS

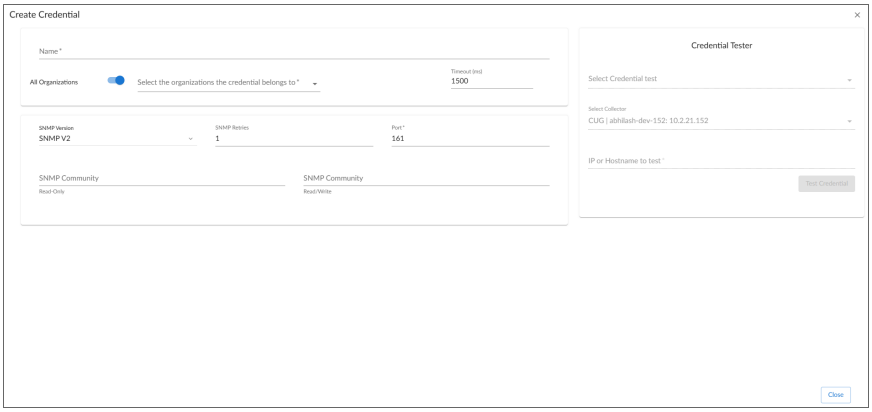
Before you can monitor F5 BIG-IP DNS services using the "F5: BIG-IP DNS" PowerPack, you must ensure that SL1 can communicate with BIG-IP DNS using SNMP and you must know the SNMP community string for the BIG-IP DNS system. SL1 can then use the data collected from BIG-IP DNS to create device records for all DNS components.

Creating an SNMP Credential for F5 BIG-IP DNS

SL1 uses SNMP to collect information about F5: BIG-IP DNS services. To monitor F5: BIG-IP DNS , you must first create an SNMP credential that enables SL1 to communicate with these services.

1. Go to the**Credentials** page (Manage > Credentials).
2. Click the **[Create New]** button and select *Create SNMP Credential* from the drop-down list that appears.

3. Complete the following fields:



- ***Name***. Enter a new name for the credential. This field is required.
- ***All Organizations***. Toggle on (blue) to align the credential to all organizations, or toggle off (gray) and then select one or more specific organizations from the ***Select the organizations the credential belongs to*** drop-down field to align the credential with those specific organizations.
- ***Timeout (ms)***. Enter the time, in milliseconds, after which SL1 will stop trying to communicate with the F5: BIG-IP DNS device. The default value is *1500*. This field is required.
- ***SNMP Version***. Select *SNMP V2* from the drop-down list.
- ***SNMP Retries***. Keep the default. The default value is "1".
- ***Port***. Keep the default. The default port is "161".
- ***SNMP Community (Read Only)***. Enter the community string for the F5: BIG-IP DNS voice mailbox you want to monitor.
- ***SNMP Community (Read/Write)***. Optional. Enter the community string for the F5: BIG-IP DNS to grant Read/Write permissions.

4. Click **[Close]**.

Creating an SNMP Credential for F5: BIG-IP DNS in the SL1 Classic User Interface

To use the Dynamic Applications in the "F5: BIG-IP DNS" PowerPack, you must first define an SNMP credential in SL1. This credential allows SL1 to communicate with the BIG-IP DNS system.

To configure an SNMP credential for F5 BIG-IP DNS:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Click the **[Actions]** button.
3. In the drop-down list that appears, select *Create SNMP Credential*. The **Credential Editor** page appears.
4. In the ***Profile Name*** field, type a name for the credential.
5. In the ***SNMP Version*** field, select *SNMP V2*.
6. In the ***SNMP Community (Read Only)*** field, type the community string for the BIG-IP DNS system.

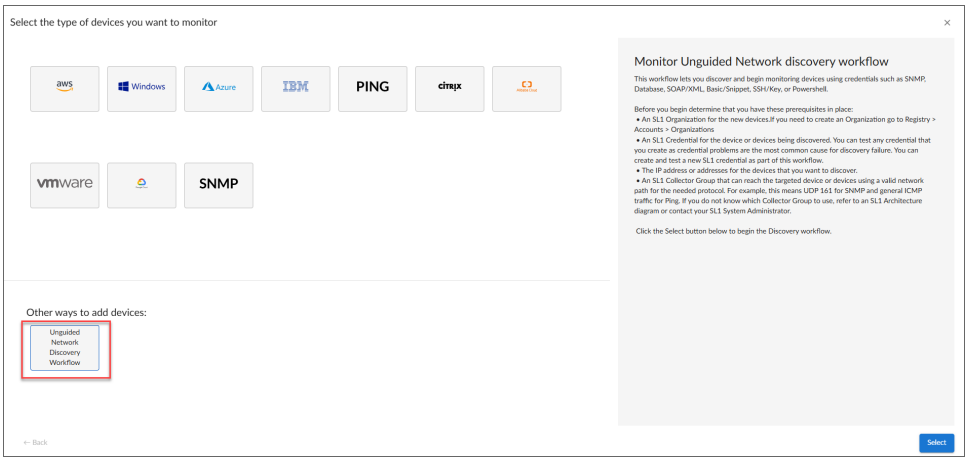
7. Optionally, supply values in the other fields in this page. In most cases, you can use the default values for the other fields.
8. Click the **[Save]** button.

Discovering an F5 BIG-IP DNS System

To monitor your F5: Big-IP DNS system, you must run a discovery session to discover the server on which F5: Big-IP DNS is installed.

To create and run a discovery session that will discover an F5: Big-IP DNS appliance:

1. Go to the **Devices** page ( ) or the **Discovery Sessions** page (Devices > Discovery Sessions) and click the **[Add Devices]** button.
2. Click the **[Unguided Network Discovery Workflow]** button. Additional information about that requirements for discovery appears in the **General Information** pane to the right.



3. Click **[Select]**. The three-step wizard appears starting with the **[Step 1 Basic Information]** tab.
4. Complete the following fields:
    - ***Discovery Session Name***. Type a unique name for this discovery session. This name is displayed in the list of discovery sessions on the **[Discovery Sessions]** tab.
    - ***Description***.Optional. Type a short description of the discovery session. You can use the text in this description to search for the discovery session on the **[Discovery Sessions]** tab.
    - ***Select the organization to add discovered devices to***. Select the name of the organization to which you want to add the discovered devices.
5. Click **[Next]**. The **[Step 2 Credential Selection]** tab of the wizard appears.
6. On the **[Credential Selection]** tab, locate and select the SNMP credential you created for F5: Big-IP DNS appliances.
7. Click **[Next]**. The **[Step 3 Discovery Session Details]** tab of the wizard appears.
8. Complete the following fields:

- ***List of IP/Hostnames***. Type the IP address for the F5: Big-IP DNS appliance.
- ***Which collector will discover these devices?***. Required. Select an existing collector to monitor the discovered devices.
- ***Run after save***. Toggle on (blue) to run this discovery session as soon as you save the session.
- ***Advanced options***. Click the down arrow (⌄) to complete the following fields:
    - ***Discover Non-SNMP***. Toggle on (blue) to enable this setting.
    - ***Model Devices***. Toggle on (blue) to enable this setting.
    - ***Select Device Template***. If you configured an F5: Big-IP DNS device template, select it here. Otherwise, leave the default selection.

9. If you enabled the ***Run after save*** option, click the**[Save and Run]** button. The discovery session will run and the **Discovery Logs** page will display any relevant log messages. If the discovery session locates and adds any devices, the **Discovery Logs** page will include a link to the **Device Investigator** page for the discovered device.
10. If you did not enable the ***Run after save*** option, click the **[Save and Close]** button. The **Discovery Sessions** page (Devices > Discovery Sessions) will display the new discovery session.

Discovering an F5: BIG-IP DNS System in the SL1 Classic User Interface

After you have created an SNMP credential for the F5 BIG-IP DNS system that you want to monitor, you can create and run a discovery session that will discover your BIG-IP DNS system.

> CAUTION: The "F5: BIG-IP DNS" PowerPack enables you to discover and monitor a maximum of 1,500 component devices.

To discover your BIG-IP DNS system:

1. Go to the **Discovery Control Panel** page (System > Manage > Classic Discovery or System > Manage > Discovery in the classic user interface).
2. Click the **[Create]** button to create a new discovery session. The **Discovery Session Editor** window appears.
3. Complete the following fields:
    - ***Name***. Type a name for the discovery session.
    - ***IP Address/Hostname Discovery List***. Type the IP address for the BIG-IP DNS system.
    - ***SNMP Credentials***. Select the SNMP Credential for the BIG-IP DNS system.
4. Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the ***Discovery & Credentials*** manual.
5. Click the **[Save]** button and then close the **Discovery Session Editor** window.
6. The discovery session you created will appear at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon (⚡) to run the discovery session.

7. The **Discovery Session** window appears. When the BIG-IP DNS root device is discovered, you can click its device icon ( ) to view the system device's properties.

NOTE: SL1 might take several minutes to discover the component devices for your BIG-IP DNS service.

Viewing Component Devices

When SL1 performs collection for the F5 BIG-IP DNS system, SL1 will create component devices that represent each device and align other Dynamic Applications to those component devices. Some of the Dynamic Applications aligned to the component devices will also be used to create additional component devices. All component devices appear in the **Device Manager** page just like devices discovered using the ScienceLogic discovery process.

In addition to the **Device Manager** page, you can view the F5 BIG-IP DNS system and all associated component devices in the following places in the user interface:

- The **Device View** modal page (click the bar-graph icon [ ] for a device, then click the **Topology** tab) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device.
- The **Device Components** page (Devices > Device Components) displays a list of all root devices and component devices discovered by SL1 in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with an F5 BIG-IP DNS system, find the BIG-IP device and click its plus icon (+).
- The **Device Component Map** page (Classic Maps > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Device Component Map** as new component devices are discovered. SL1 also updates each map with the latest status and event information. To view the map for an F5 BIG-IP DNS system, go to the **Device Component Map** page and select the map from the list in the left NavBar. To learn more about the **Device Component Map** page, see the ***Views*** manual.

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