USER GUIDE

HYCU SCOM Management Pack for F5

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Chapter 1 Environment preparation

This chapter contains instructions for preparing your environment for installation of HYCU SCOM Management Pack for F5.

Installation prerequisites

Before installing HYCU SCOM Management Pack for F5 (SCOM MP for F5), make sure that the following prerequisites are fulfilled:

- Product requirements documented in the HYCU SCOM Management Pack for F5 Release Notes are met.
- F5 BIG-IQ infrastructure prerequisites:
 - Your F5 BIG-IQ devices are accessible.

For instructions on how to configure proper access to the BIG-IQ devices, see section "Configuring access to BIG-IQ devices" on the next page.

- A F5 BIG-IQ user account is selected. Its credentials will be used for the F5 BIG-IQ appliance action account in SCOM
- Microsoft System Center Operations Manager (SCOM) platform prerequisites:
 - SCOM is installed and configured on the SCOM management servers designated for BIG-IQ monitoring.

You may find the following webpages useful:

SCOM 1801:

How to install an Operations Manager management server

SCOM 2016:

How to install an Operations Manager management server

- Each of the SCOM management servers can access BIG-IQ devices through standard ports of the protocols used:
 - SNMP: port 161 (UDP)
 - HTTPS: port 443 (TCP)
- A SCOM resource pool dedicated to monitoring BIG-IQ devices exists.

For instructions on how to create an appropriate SCOM resource pool, see section "Creating SCOM resource pools" on page 10.

• BIG-IQ devices are visible to SCOM as network devices.

For instructions on how to discover BIG-IQ devices as network devices in SCOM, see section "Discovering F5 BIG-IQ devices as network devices in SCOM" on page 11.

 Listed or newer versions of the management packs specified in the table that follows are present in the SCOM resource pool designated for monitoring F5 BIG-IQ devices.

Note Default management packs should not be removed from the SCOM management group due to dependencies. If a removal occurs, you must import them from the SCOM installation directory. For more information, see the How to Import an Operations Manager

Management Pack webpage.

The management packs included in the product depend on the following default management packs:

Management pack	Version
Data Warehouse Library	7.0.8432.0
Health Library	7.0.8432.0
Microsoft.SystemCenter.Visualization.Library	7.0.9538.0
Network Management Library	7.0.9538.0
Performance Library	7.0.8432.0
System Center Core Library	7.0.8432.0
System Library	7.5.8501.0
Windows Core Library	7.5.8501.0
Windows Service Library	7.0.9538.0

Configuring access to BIG-IQ devices

Procedures documented in this section must be completed for all F5 BIG-IQ devices that you plan to monitor.

Configuring SNMP access

Procedure for configuring SNMP access to F5 BIG-IQ devices depends on the BIG-IQ version. Ensure the steps you perform cover all SCOM management servers in the SCOM resource pool that is designated to monitor BIG-IQ devices.

F5 BIG-IQ version 5.2 or later:

To add a SCOM management server as an SNMP agent, do the following:

- 1. Log in to the BIG-IQ graphical user interface.
- 2. Click System and then select SNMP Configuration > SNMP Agent.
- 3. Click Create.
- 4. In the **Addresses** text box, type an IP range (subnetwork) for all SCOM management servers in the SCOM resource pool that you designated to monitor BIG-IQ devices.
- 5. Click **Save** to save your changes.

To add the SNMP community string on the BIG-IQ device, do the following:

- In the BIG-IQ graphical user interface, go to the SNMP Configuration > SNMP Access (v1, v2C) context.
- 2. Supply the community string that will be used for discovery of BIG-IQ devices in SCOM, and then click **Save**.

F5 BIG-IQ version 5.1:

To add a SCOM management server as an SNMP agent, do the following:

- 1. Log in to the BIG-IQ graphical user interface.
- Click System Management and then select Local Host Settings > SNMP Configuration > SNMP Agent.
- 3. Click Add.
- 4. In the **Addresses** text box, type an IP range (subnetwork) for all SCOM management servers in the SCOM resource pool that you designated to monitor BIG-IQ devices.
- 5. Click **Save** to save your changes.

To add the SNMP community string on the BIG-IQ device, do the following:

- In the BIG-IQ graphical user interface, go to the Local Host Settings > SNMP Configuration > SNMP Access (v1, v2C) context.
- 2. Supply the community string that will be used for discovery of BIG-IQ devices in SCOM, and then click **Save**.

F5 BIG-IQ version 5.0:

To add a SCOM management server as an SNMP agent, do the following:

- 1. Log in to the BIG-IQ graphical user interface.
- Click System Management and then select Local Host Settings > SNMP Configuration > SNMP Agent.
- 3. In the **Addresses** text box, type an IP range (subnetwork) for all SCOM management servers in the SCOM resource pool that you designated to monitor BIG-IQ devices.
- 4. Click **Save** to save your changes.

To add the SNMP community string on the BIG-IQ device, do the following:

 In the BIG-IQ graphical user interface, go to the Local Host Settings > SNMP Configuration > SNMP Access (v1, v2C) context. 2. Supply the community string that will be used for discovery of BIG-IQ devices in SCOM, and then click **Save**.

F5 BIG-IQ version 4.6:

To add a SCOM management server as an SNMP agent, do the following:

- 1. Log in to the BIG-IQ graphical user interface.
- 2. Click System.
- 3. Double-click the group that you want to configure and then click SNMP Config.
- 4. In the **Addresses** text box, type an IP range (subnetwork) for all SCOM management servers in the SCOM resource pool that you designated to monitor BIG-IQ devices.
- 5. Click **Save** to save your changes.

To add the SNMP community string on the BIG-IQ device, do the following:

- In the BIG-IQ graphical user interface, go to the System > SNMP Config > Access context.
- 2. Supply the community string that will be used for discovery of BIG-IQ devices in SCOM, and then click **Save**.

Configuring basic authentication access

To be able to monitor F5 BIG-IQ with iControl REST service, a local BIG-IQ user account must be created on the BIG-IQ device that will be used for monitoring by SCOM MP for F5. The user account must be associated with the Administrator role.

F5 BIG-IQ version 5.1 or later:

In BIG-IQ versions 5.1 and later, basic authentication is disabled by default. To enable it, do the following:

- 1. Log on to the BIG-IQ Advanced Shell (bash) with administrator credentials through the command-line interface.
- 2. In bash, run the following command:

set-basic-auth on

To create a local F5 BIG-IQ user account, do the following:

- 1. Log in to the BIG-IQ graphical user interface with a user account that has administrative privileges.
- 2. At the top of the screen in the black banner, hover over System and click Users.
- 3. Hover in the **Users** banner and click the **+** icon.
- 4. Edit the fields as required.
- 5. Click **Add** to save your edits and create the user account.
- 6. Associate the user account with the Administrator role: click the gear icon in the upper

right corner of the screen and then click Properties.

7. In the User Roles text box, type Administrator and save your changes.

Verification

Do the following:

- 1. On a SCOM management server that can access the BIG-IQ device, open a web browser.
- 2. In the address bar, type the following URL:

https://<IPaddress>/mgmt/tm/cm/device?\$select=version,managementIp

In this instance, <IPaddress> is the management IP address of the BIG-IQ device.

- 3. When prompted for credentials, enter the user name and password of the monitoring account that you have configured previously.
- 4. Check if the response from the device is a valid JSON object that resembles the following:

```
{
   kind : "tm:cm:device:devicecollectionstate",
   selfLink :
   "https://localhost/mgmt/tm/cm/device?$select=version,managementIp&ver
=5.0.0",
   items : [{
      managementIp : "10.49.14.127",
      version : "5.1.0"
   }]
}
```

Creating SCOM resource pools

To achieve high availability monitoring of BIG-IQ devices, you should create a SCOM resource pool with at least two dedicated SCOM management servers. This step is optional, but highly recommended.

To create a SCOM resource pool for monitoring BIG-IQ devices, do the following:

- 1. In the SCOM Operations console, navigate to **Administration** > **Resource Pools**.
- 2. Right-click the pane that appears and click **Create Resource Pool**.
- 3. Enter a name for this SCOM resource pool (for example, BIG-IQ Resource Pool or F5 Resource Pool), and then click **Next**.
- 4. Click Add and then click Search.
- 5. Select SCOM management servers that you wish to add to this SCOM resource pool, and then click **Add**.
- 6. Once you have added all designated SCOM management server, click OK.

7. Click Next.

8. Click Create.

Verification

Do the following:

- 1. In the SCOM Operations console, in the **Administration** view, click **Resource Pools**.
- 2. Check if the name of the created SCOM resource pool is present in the Resource Pools list.

Discovering F5 BIG-IQ devices as network devices in SCOM

As a prerequisite for SCOM MP for F5, all F5 BIG-IQ devices must be discovered and monitored as network devices by SCOM.

The following is an example scenario for discovering BIG-IQ devices in the Microsoft System Center Operations Manager version 2012.

To discover BIG-IQ devices as network devices in SCOM, do the following:

- 1. Launch the SCOM Operations console and connect to the management server.
- Navigate to Administration > Network Management > Discovery Rules and invoke the Discover Network Devices task. The Network Devices Discovery wizard for creation of a discovery rule starts.
- In the General Properties page, specify a discovery name, and choose a SCOM management server (Available servers) and a SCOM resource pool (Available pools, user-created) to be used for the discovery. Click Next.
- 4. In the Discovery Method page, select the discovery type, for example, **Explicit discovery**. Click **Next**.
- 5. In the Default Accounts page, click **Create Account** to create an SNMP Run As account. In the Create Run As Account Wizard window, enter the community string that is set in the BIG-IQ. Click **Create**. In the Network Devices Discovery Wizard window, click **Next**.
- 6. In the Device page, add each BIG-IQ device that should be monitored and associate it with the SNMP Run As account created in the previous step. For the SNMP version option select, for example, **v1 or v2**.
- 7. In the Schedule Discovery page, set the time to run the discovery rule or choose that the rule should be invoked manually. Click **Next**.
- 8. In the Summary page, verify your settings, and then click Create.
- 9. In the Warning dialog box, confirm account distribution by clicking Yes.

Tip In case of issues with configuring network device discovery, follow general guidelines for network devices discovery in Microsoft System Center Operations

Manager. For more information, see the How to Discover Network Devices in Operations Manager webpage.

Verification

Do the following:

- 1. Keep the SCOM Operations console open and wait for the discovery process to complete.
- 2. In the **Monitoring** view, expand **Network Monitoring** > **Network Devices**.
- 3. Check if the fully qualified domain names of all BIG-IQ devices are present in the Network Devices list.

Chapter 2 Installation and configuration

This chapter contains instructions for installing, verifying the installation of, and configuring HYCU SCOM Management Pack for F5 (SCOM MP for F5).

Installing the product

HYCU SCOM Management Pack for F5 (SCOM MP for F5) consists of the following features:

- Data Collector
- Management pack
- Support tool
- Documentation

The Data Collector feature must be installed on all SCOM management servers that were added to the SCOM resource pool dedicated for monitoring BIG-IQ devices.

The Data Collector feature is a Windows service that provides data caching and serves as a proxy between BIG-IQ devices and SCOM MP for F5. It listens for HTTP requests from SCOM MP for F5 and communicates with BIG-IQ devices to collect their configuration and health statuses. The service uses port 19704 as the default local communication port on the SCOM management server. You can change the port number in the Setup Wizard before product installation starts.

The Management pack feature can be installed only on one SCOM management server from where the included management pack will be imported either automatically or manually. For instructions on how to manually import it, see section "Manually importing included management pack" on page 32.

The Support tool feature should be installed on all SCOM management servers where this tool might be required.

The Documentation feature contains documents of the product documentation set. For more information, see the *HYCU SCOM Management Pack for F5 Release Notes*, section *Documentation*. In addition, this feature contains the document with software license and support terms.

Tip SCOM MP for F5 can also be installed in quiet mode or passive mode. For details, see section "Installing the product in quiet mode or passive mode" on page 31.
 To install SCOM MP for F5, do the following:

- 1. Log on to the SCOM management server with a user account that is assigned the Operations Manager Administrators user role.
- 2. In Windows Explorer, locate the HYCU.SCOM.MP.F5.
- 3. Locate the extracted HYCU.SCOM.MP.F5.msi file and double-click it. The Setup Wizard starts.



4. In the End-User License Agreement page, read through the Freemium Software License and Support Terms text. If you agree with the terms, click **I accept the terms in the License Agreement**, and then click **Next**.

HYCU SCOM Management Pack for F5 Setup	
End-User License Agreement Please read the following license agreement carefully	cυ
	_
HYCU, Inc.	
Freemium Software License and Support Terms	
Version 1.0	
	T
T accept the terms in the License Agreement	_
Print Back Mext	Cancel

5. Choose the preferred setup type:

🖶 HYCU SCOM Management Pack for F5 Setup				
Choose Setup Type Choose the setup type that best suits your needs				
<u>Tγpical</u> Installs the most common program features. Recommended for most users.				
Custom Allows users to choose which program features will be installed and where they will be installed. Recommended for advanced users.				
Complete All program features will be installed. Requires the most disk space.				
Back Mext Cancel				

- **Typical** setup type installs most common program features:
 - Data Collector
 - Management pack
 - Support tool
- **Custom** setup type lets you choose features for installation and specify a different installation location for each of them. For details, see the verification procedure at

the end of this section.

HYCU SCOM Mana Custom Setup Select the feature	gement Pack for F5 Setu s you want to install. anagement pack upport tool ocumentation	IP	Installs a monitorin devices. installed functiona This feat hard driv	service that co g data from F5 Data Collector r for the product al. ure requires 97 e.	Ilects BIG-IQ nust be to be 4KB on your
Location:	C: \Program Files (x86) \Com SCOM Management Pack for Disk <u>U</u> sage	rade F5\D	Software\ ata collect <u>B</u> ack	HYCU tor\	B <u>r</u> owse

- **Complete** setup type installs the following features:
 - Data Collector
 - Management pack
 - Support tool
 - Documentation
- 6. If the Data Collector feature is chosen for installation, the following screen appears:

HYCU SCOM Ma	nagement Pack for F5	
Port number:	19704	Check port
		Back Next Cancel

This port number is used by HYCU SCOM Data Collector for F5 BIG-IQ for listening to management pack requests and it must not be used by any other application. If port is already taken, an error message is reported. In that case, specify a different port that is still free.

7. If the Management pack feature is chosen for installation, the following screen appears:

🖶 HYCU SCOM Management Pack for F5 Setup 📃 🛛 🗙
Automatic MP import Automatic import F5 MP to SCOM
Would you like to import HYCU SCOM Management Pack for F5 to Operations Manager?
Yes
O No
Back Cancel

Decide whether to import the management pack of HYCU SCOM Management Pack for F5 into SCOM automatically or manually. To perform this step manually, see section "Manually importing included management pack" on page 32.

8. Click **Install** to begin installation.

🖶 HYCU SCOM Management Pack for F5 Setup	_ 🗆 🗙
Install Product	U
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.	
Back Distal	ancel

9. If the installation succeeds, the following page appears:



Click **Finish** to close the Setup Wizard.

Verification

Do the following:

- 1. Go to Control Panel and open the Programs and Features utility.
- 2. Check if HYCU SCOM Management Pack for F5 is present in the list.
- 3. Check if the folders specified in the list that follows exist on the disk (depending on the installed product features).

Note *<InstallDir>* and *<DataDir>* represent the common installation paths. With the Custom setup type, *<InstallDir>* may vary from one installed product feature to another.

Common

Default <InstallDir> path:

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack
for F5

The HYCU SCOM Management Pack for F5 directory contains the following subdirectories:

- Configuration tools
- Data collector
- Documentation
- Management pack
- Support tool

Default <DataDir> path:

%ProgramData%\Comtrade\Comtrade F5 BIG-IQ Data collector

The Comtrade F5 BIG-IQ Data collector directory contains the following subdirectories:

- conf
- data
- log
- Data Collector

Path to the default location:

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack
for F5\Data collector

The Data Collector directory contains the following files:

- Comtrade.F5.Agent.dll
- Comtrade.F5.Caching.dll
- Comtrade.F5.DataObjects.dll
- Comtrade.F5.DeviceConnection.dll
- Comtrade.F5.Json.dll
- Comtrade.F5.Logging.dll

- Comtrade.F5.Properties.dll
- Comtrade.F5.Service.exe
- Comtrade.F5.Service.exe.config
- Comtrade.F5.Snmp.dll
- log4net.dll
- Newtonsoft.Json.dll
- SnmpSharpNet.dll

Documentation

Path to the default location:

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack for F5\Documentation

The Documentation directory contains the following files:

- HYCU-Freemium-Software-License-and-Support-Terms.rtf
- HYCU-SCOM-Management-Pack-for-F5-Open-Source-Third-Party-Software-Components.pdf
- HYCU-SCOM-Management-Pack-for-F5-Reference-Guide.html
- HYCU-SCOM-Management-Pack-for-F5-Release-Notes.pdf
- HYCU-SCOM-Management-Pack-for-F5-User-Guide.pdf

Management packs

Paths to the default locations:

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack
for F5\Configuration tools

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack
for F5\Management pack

The Configuration tools directory contains the following file:

-importmp.ps1

The Management pack directory contains the following file: - HYCU.SCOM.MP.F5.mpb

• Support tool

Path to the default location:

%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack
for F5\Support tool

The Support tool directory contains the following file:

- support.ps1
- 4. In the SCOM Operations console, in the **Monitoring** view, check if the **F5 (by HYCU)** folder contains elements as shown in the following figure:



Figure 2–1: Elements of SCOM MP for F5, as seen in the SCOM Operations console

If the depicted elements are present in your SCOM Operations console, the included management pack has been successfully imported into SCOM.

Configuring HYCU F5 BIG-IQ Appliance Action Account

HYCU F5 BIG-IQ Appliance Action Account is used by HYCU SCOM Data Collector for F5 BIG-IQ to access BIG-IQ devices through the BIG-IQ iControl REST API.

To create an account for monitoring F5 BIG-IQ devices, do the following:

- 1. On the SCOM management server where HYCU SCOM Management Pack for F5 is installed, start the SCOM Operations console.
- 2. Select the Administration view.
- 3. Select Run As Configuration > Accounts, and then Actions > Create Run As Account.
- 4. Click Next and choose Basic Authentication for Run As account type.
- 5. Enter Display name and click **Next**. Then provide credentials for the account (user is created by following steps in section "Configuring access to BIG-IQ devices" on page 7).
- 6. Select **More secure** for the distribution security option and click **Create** to create the account.

To assign the account to BIG-IQ devices, do the following:

- 1. Log on the SCOM management server as a user with administrative privileges and start the SCOM Operations console.
- 2. Select the Administration view.
- Select Run As Configuration > Profiles, double-click HYCU F5 BIG-IQ Appliance Action Account. Choose Run As Accounts and then click Add.
- From the drop-down list, choose previously added account, check A selected class, group, or object. Then click the Select button and choose Object.

- 5. In the Look for drop-down list, choose **Node** and click **Search** to start the search for network devices.
- 6. Add BIG-IQ devices discovered as network devices (select them in the Available items list, then click **Add**), and click **OK** to save configuration.

The Run As Profile Wizard window should look like shown on the figure that follows.

8 .	Run As Profile Wizard				
Run As Accounts					
Introduction					
General Properties	Add Run As accounts				
Run As Accounts	Add a Run As account to	this Run As pro	file. Additional Run As a	accounts can be	added to manage specific classes
Completion	groups, or objects.				
	Run As accounts:				🛟 Add 🧪 Edit 🗙 Rem
	Account Name	Association	Used For	Class	Path
	F5 Authentication	Object	bigiq45qa.company.	Node	

Figure 2–2: Assigning HYCU F5 BIG-IQ Appliance Action Account for F5 BIG-IQ devices discovered as network devices

- 7. Specify account distribution to one or more SCOM resource pools where the network devices are discovered.
- 8. Complete account association.
 - Verification

Do the following:

- In the SCOM Operations console, in the Monitoring view, expand F5 (by HYCU) > MP Administration.
- 2. Select BIG-IQ Network Devices.
- 3. Check if the network devices (discovered through iControl REST API) are present in the BIG-IQ Network Devices list.

Chapter 3 Upgrade

This chapter provides information on how to perform an in-place upgrade of SCOM MP for F5 from an earlier product version. During the in-place upgrade, entire configuration of SCOM MP for F5 in SCOM is preserved, and the included management pack is upgraded.

The in-place upgrade and new installation procedures are the same. To upgrade the product, follow instructions in section "Installing the product" on page 13.

Chapter 4 BIG-IQ objects, properties, and relationships

SCOM MP for F5 discovers BIG-IQ objects, their statuses, and relationships between them and renders them visible in the SCOM Operations console.

Depending on the actual configuration of your BIG-IQ infrastructure, objects listed in the following tables are discovered and displayed at the specified locations within the **F5 (by HYCU)** context of the **Monitoring** view.

BIG-IQ devices

Diagram View

MP Administration > BIG-IQ Network Devices

BIG-IQ CPU cores, disk partitions, memory units, and network interfaces

Diagram View

BIG-IP devices

Diagram View

HYCU SCOM Data Collector for F5 BIG-IQ services (and the related alerts)

MP Administration > Data Collector Administration

BIG-IQ CPU cores, disk partitions, memory units, and network interface performances

BIG-IQ Environment > Performance Views

Alerts related to BIG-IQ devices and their components are displayed in the **F5 (by HYCU)** > Alerts context of the **Monitoring** view.

Chapter 5 Uninstallation

This chapter contains instructions on how to completely uninstall HYCU SCOM Management Pack for F5 (SCOM MP for F5) from your environment.

Uninstallation overview

To uninstall SCOM MP for F5, complete the following tasks on each SCOM management server where the product is installed:

- 1. Remove management packs included in SCOM MP for F5.
- 2. Uninstall SCOM MP for F5.

Removing included management pack

To remove management packs included in SCOM MP for F5 and other product references from the SCOM management server, do the following:

- 1. Launch the SCOM Operations console and connect to the management server.
- 2. In the Administration view, click Management Packs.
- Remove reference to Comtrade.MP from the Microsoft.SystemCenter.SecureReferenceOverride management pack:
 - a. Export the management pack.
 - b. Make a copy of the file you exported the management pack to.
 - c. Edit the file copy and remove all dependencies on the SCOM MP for F5 configuration from it. Search for Comtrade.F5 and delete the containing references, then save your changes.
 - d. Delete the management pack from SCOM.
 - e. Import back the management pack from the edited file copy.
- 4. In the Management Packs pane, right-click the HYCU Management Pack for F5 management pack, and then click **Delete**.

Uninstalling SCOM MP for F5 from management server

To uninstall SCOM MP for F5, do the following:

- 1. In Windows Control Panel, select **Programs > Programs and Features**.
- 2. Locate and right-click the **HYCU SCOM Management Pack for F5** entry, then select **Uninstall**.

Note A warning dialog box may appear informing you that other users are logged in to this computer. You cannot completely remove this program if another user is currently running it.

3. In the Setup Wizard, follow instructions until the uninstallation process completes.

Setup Wizard cannot remove the files that were placed to the installation directories after the installation, for example, license files or configuration files. You can delete such files after Setup Wizard completes the uninstallation process.

Note To manually delete any files from the installation directories after the SCOM MP for F5 uninstallation, first make sure that these files are not used by other programs and their deletion does not cause issues.

Chapter 6 Troubleshooting

If you encounter problems with using SCOM MP for F5, you can often solve them yourself. This chapter contains information that may help you in such cases.

General troubleshooting guidelines

When investigating an issue, first verify that:

- All installation prerequisites are fulfilled and the product is configured according to the provided instructions.
- You are not running into a known product limitation. For a list of the limitations, see the *HYCU SCOM Management Pack for F5 Release Notes*.
- Your issue is not related to third-party software or hardware (F5 or Microsoft). Otherwise, contact the respective vendor for assistance.
- You have the latest operating system and software application patches installed on the affected systems. Else, install the patches and check if the issue persists.
- The affected systems are not running out of memory or storage space.

Problems and solutions

This section lists symptoms of common problems that you may encounter while using SCOM MP for F5, together with proposed actions – resolution steps.

Workflows are not triggered

Case 1

Symptoms

No discovery, monitor, or rule workflow for SCOM MP for F5 is triggered on a SCOM management server.

Possible resolution steps

There may be pending updates for Windows Server or System Center Operations Manager on the SCOM management server. In this case, install the updates and restart the system.

Case 2

Symptoms

SCOM MP for F5 monitors or rules appear to be functioning only for certain objects. For example, some of the discovered virtual servers are being monitored while others are not and their health status indicators are not set.

Possible resolution steps

BIG-IQ iControl REST API service that monitors BIG-IQ devices might not respond to the SCOM MP for F5 requests correctly or in time for the particular objects.

If the BIG-IQ device is a standalone device, restart the iControl REST API service. Do the following:

- 1. Log in to the BIG-IQ device though the command-line interface.
- 2. In the BIG-IQ Traffic Management Shell (tmsh), run the following command:

```
restart /sys service icrd
```

F5 BIG-IP devices are not discovered

Symptoms

SCOM MP for F5 cannot discover F5 BIG-IP devices that are managed by BIG-IQ, and therefore cannot monitor their health state. Inspection of the problem reveals that the BIG-IP devices are not visible to SCOM.

Possible resolution steps

Check if the BIG-IP devices are properly configured in BIG-IQ. For more information, see the F5 BIG-IQ documentation.

Getting additional information and latest updates

For additional information about SCOM MP for F5, visit the SCOM MP for F5 BIG-IQ | HYCU webpage.

For the latest product version and most up-to-date documentation, go to the F5 Monitoring – HYCU webpage.

Collecting data for HYCU Customer Support

If you have an issue with the product or your monitored environment, collect the following data before contacting the Customer Support department:

- Basic information about the environment such as:
 - Host operating system
 - Microsoft System Center Operations Manager version
 - F5 BIG-IQ version
 - Version of the installed SCOM MP for F5 (the product)
 - Whether the product is installed in a development or production environment
- Additional information such as:
 - Whether the product was installed or it was upgraded from an earlier version
 - Time when the product was installed
 - Time when the product was most recently reconfigured
 - Time when you first noticed issue symptoms
 - Versions of the monitored applications
 - Operating systems on which monitored applications are running
 - Whether the host operating system or monitored environment were updated recently
- Detailed explanation of the issue, including:
 - Expected behavior
 - Issue symptoms
 - Screen shots of the user interfaces
 - List of troubleshooting actions that you have already taken

The listed pieces of information are required by HYCU Customer Support so that a support engineer can efficiently investigate the issue from the very beginning. Pack the data collection into an archive, and do one of the following:

- *Preferred.* On the HYCU webpage, submit your request (support case) with the archive attached.
- Send an email with the attached archive to support@hycu.com.

HYCU Customer Support will contact you shortly.

Important If the email attachment is too large or the email is getting rejected by the company email server, deliver the archive by using Comtrade File Sharing Facility.

To deliver data by using Comtrade File Sharing Facility, do the following:

- 1. Open a web browser and go to the Comtrade File Sharing Facility website.
- 2. Click SHARE A FILE NOW and then click Browse.
- 3. In the Choose File to Upload dialog box, browse to and select your archive file, and then click **Open**.
- 4. Repeat step 3 for each additional file you want to send.
- 5. On the Comtrade File Sharing Facility webpage, click **Upload Now** and then allow file processing to finish.
- 6. In the **To:** text box, type support@hycu.com and leave other text boxes blank.

- 7. At the bottom of the webpage, type the given anti-spam verification code in the corresponding text box.
- 8. Click Process Details Now.

Before contacting HYCU Customer Support

If you cannot solve your issue, report it. Before contacting HYCU Customer Support, make sure that:

- You perform the general checks. For details, see section "Troubleshooting" on page 27.
- You verify that your problem is not documented in this chapter. For more information, see section "Problems and solutions" on page 27.
- You collect relevant data that might be required to send to HYCU Customer Support: a description of your problem, configuration specification of your environment, and similar information. For details, see section "Customer Support" on page 34.

The HYCU Customer Support team will provide you with further instructions. Among other things, you may be asked to perform diagnostic operations in your environment and collect specific data from your systems and send it to HYCU.

Note The HYCU Customer Support team is not qualified to solve the issues related to third-party software or hardware.

For information on how to reach HYCU Customer Support, see part "HYCU Customer Support and information " on page 34.

Appendix A Advanced tasks

Installing the product in quiet mode or passive mode

With quiet installation or passive installation, the following typical features are installed by using default installation parameters:

- Data Collector
- Management pack
- Support tool

Default port value for HYCU SCOM Data Collector for F5 BIG-IQ is 19704. This port is used during quiet installations and passive installations.

Note Quiet and passive modes of installation can be also used for upgrading the product.

Quiet installation

Quiet installation installs SCOM MP for F5 without displaying the progress status and without requiring user input.

To install the product in quiet mode, do the following:

- 1. On the SCOM management server, open a Command Prompt window with administrative privileges.
- 2. Change the current directory to the directory where the HYCU.SCOM.MP.F5.msi file is located.

```
Example
A command line that changes the current directory:
cd D:\temp
```

- ca D:\temp
- 3. Run the following command:

```
msiexec.exe /i HYCU.SCOM.MP.F5.msi /quiet
```

Continue the process with product configuration by following instructions in section "Configuring HYCU F5 BIG-IQ Appliance Action Account" on page 21.

Passive installation

Passive installation installs SCOM MP for F5 in unattended mode. In this mode, installation progress status is displayed, but you are not prompted for option selections or confirmations.

- 1. On the SCOM management server, open a Command Prompt window with administrative privileges.
- 2. Change the current directory to the directory where the HYCU.SCOM.MP.F5.msi file is located.

```
Example
```

A command line that changes the current directory:

```
cd D:\temp
```

3. Run the following command:

```
msiexec.exe /i HYCU.SCOM.MP.F5..msi /passive
```

Continue the process with product configuration by following instructions in section "Configuring HYCU F5 BIG-IQ Appliance Action Account" on page 21.

Manually importing included management pack

To import the management pack included in the product into SCOM, do the following:

- 1. Log on to the SCOM management server¹ and start the SCOM Operations console.
- 2. In the Administration view, click Management Packs.
- 3. In the Actions task pane, select Import management packs.
- 4. Locate the management pack and click **Open**.

Default management pack location:

```
%ProgramFiles(x86)%\Comtrade Software\HYCU SCOM Management Pack for
F5\Management pack
```

5. Import

¹SCOM management server where the Management pack feature of SCOM MP for F5 is installed.

HYCU.SCOM.MP.F5.mpb

6. Click **Install** to complete the import procedure.

If the same version of the management pack has already been imported, the SCOM Operations console shows the following status:

"A management pack contained in HYCU SCOM Management Pack for F5 bundle (version <*Major*>.<*BuildNumber*>) has already been imported"

Continue the installation and configuration process by following instructions in section "Configuring HYCU F5 BIG-IQ Appliance Action Account" on page 21.

Creating a management pack for overrides

Most vendor management packs are sealed for changes so it is not possible to change any of the original settings in the management pack file. However, customizations can be created, such as overrides or new monitoring objects, and saved to a different management pack. By default, System Center Operations Manager saves all customizations to the default management pack. As a best practice, create a separate management pack for each sealed management pack you want to customize.

Creating a new management pack for storing overrides has the following advantages:

- It simplifies the process of customizations export created in your test and preproduction environments to your production environment. For example, instead of exporting the default management pack containing customizations from multiple management packs, you can export the management pack containing customizations of a single management pack.
- You can delete the original management pack without first needing to delete the default management pack. A management pack containing customizations is dependent on the original management pack. This dependency requires deleting the management pack with customizations before deleting the original management pack. If all of your customizations are saved to the default management pack, export the default management pack, delete the customizations from the default management pack and reimport the default management pack again before deleting the management pack.
- It is easier to track and to update customizations of individual management packs.

HYCU Customer Support and information

Use the communication channels listed in this section if you need:

- Help with the product licensing process
- Assistance while using the product
- Additional information about this product
- Information about other HYCU products

Customer Support

Should you require additional information or assistance while using the product, contact the vendor that shipped it.

If you have purchased the product directly from HYCU, and are experiencing a problem, search for a solution on the following webpage:

support.hycu.com

In the absence of an article addressing your problem, ask HYCU Customer Support for assistance: on the webpage, click **Submit a request** and fill in the request form. You must be signed in with a valid account prior to submission. Apply for an account at the following email address:

support@hycu.com

Important: Before submitting a request to the Customer Support department, perform a health check on all systems that are in failed (critical, red) state and have the following information ready:

- Symptoms
- Sequence of events leading to the problem
- Commands and options that you used
- Messages you have received (a description with the date and time)

For a complete list of pieces of required support information, check troubleshooting sections in the product documentation.

Company website and video channel

For more information about our company and other products we offer, visit HYCU website at:

www.hycu.com

For additional product-related information, watch videos on the HYCU channel on YouTube: www.youtube.com/c/HYCUInc

General information

For questions related to product business or purchase of this or other HYCU products, send an email to:

info@hycu.com

Feedback

For comments or suggestions about this product, including its documentation, send an email to:

info@hycu.com

We will be glad to hear from you!



www.hycu.com