

Foglight™ for Hyper-V 7.3.0
Installation Guide



© 2024 Quest Software Inc.

ALL RIGHTS RESERVED.

This guide contains proprietary information protected by copyright. The software described in this guide is furnished under a software license or nondisclosure agreement. This software may be used or copied only in accordance with the terms of the applicable agreement. No part of this guide may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording for any purpose other than the purchaser's personal use without the written permission of Quest Software Inc.

The information in this document is provided in connection with Quest Software products. No license, express or implied, by estoppel or otherwise, to any intellectual property right is granted by this document or in connection with the sale of Quest Software products. EXCEPT AS SET FORTH IN THE TERMS AND CONDITIONS AS SPECIFIED IN THE LICENSE AGREEMENT FOR THIS PRODUCT, QUEST SOFTWARE ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL QUEST SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT, EVEN IF QUEST SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Quest Software makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Quest Software does not make any commitment to update the information contained in this document.

If you have any questions regarding your potential use of this material, contact:

Quest Software Inc.
Attn: LEGAL Dept.
4 Polaris Way
Aliso Viejo, CA 92656

Refer to our website (<https://www.quest.com>) for regional and international office information.

Patents

Quest Software is proud of our advanced technology. Patents and pending patents may apply to this product. For the most current information about applicable patents for this product, please visit our website at <https://www.quest.com/legal>.

Trademarks

Quest, the Quest logo, and Join the Innovation are trademarks and registered trademarks of Quest Software Inc. For a complete list of Quest marks, visit <https://www.quest.com/legal/trademark-information.aspx>. "Apache HTTP Server", Apache, "Apache Tomcat" and "Tomcat" are trademarks of the Apache Software Foundation. Google is a registered trademark of Google Inc. Android, Chrome, Google Play, and Nexus are trademarks of Google Inc. Red Hat, JBoss, the JBoss logo, and Red Hat Enterprise Linux are registered trademarks of Red Hat, Inc. in the U.S. and other countries. CentOS is a trademark of Red Hat, Inc. in the U.S. and other countries. Fedora and the Infinity design logo are trademarks of Red Hat, Inc. Microsoft, .NET, Active Directory, Internet Explorer, Hyper-V, Office 365, SharePoint, Silverlight, SQL Server, Visual Basic, Windows, Windows Vista and Windows Server are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. AIX, IBM, PowerPC, PowerVM, and WebSphere are trademarks of International Business Machines Corporation, registered in many jurisdictions worldwide. Java, Oracle, Oracle Solaris, PeopleSoft, Siebel, Sun, WebLogic, and ZFS are trademarks or registered trademarks of Oracle and/or its affiliates in the United States and other countries. SPARC is a registered trademark of SPARC International, Inc. in the United States and other countries. Products bearing the SPARC trademarks are based on an architecture developed by Oracle Corporation. OpenLDAP is a registered trademark of the OpenLDAP Foundation. HP is a registered trademark that belongs to Hewlett-Packard Development Company, L.P. Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both. MySQL is a registered trademark of MySQL AB in the United States, the European Union and other countries. Novell and eDirectory are registered trademarks of Novell, Inc., in the United States and other countries. VMware, ESX, ESXi, vSphere, vCenter, vMotion, and vCloud Director are registered trademarks or trademarks of VMware, Inc. in the United States and/or other jurisdictions. Sybase is a registered trademark of Sybase, Inc. The X Window System and UNIX are registered trademarks of The Open Group. Mozilla and Firefox are registered trademarks of the Mozilla Foundation. "Eclipse", "Eclipse Foundation Member", "EclipseCon", "Eclipse Summit", "Built on Eclipse", "Eclipse Ready" "Eclipse Incubation", and "Eclipse Proposals" are trademarks of Eclipse Foundation, Inc. IOS is a registered trademark or trademark of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Apple, iPad, iPhone, Mac OS, Safari, Swift, and Xcode are trademarks of Apple Inc., registered in the U.S. and other countries. Ubuntu is a registered trademark of Canonical Ltd. Symantec and Veritas are trademarks or registered trademarks of Symantec Corporation or its affiliates in the U.S. and other countries. OpenSUSE, SUSE, and YAST are registered trademarks of SUSE LCC in the United States and other countries. Citrix, AppFlow, NetScaler, XenApp, and XenDesktop are trademarks of Citrix Systems, Inc. and/or one or more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries. AlertSite and DéjàClick are either trademarks or registered trademarks of Boca Internet Technologies, Inc. Samsung, Galaxy S, and Galaxy Note are registered trademarks of Samsung Electronics America, Inc. and/or its related entities. MOTOROLA is a registered trademarks of Motorola Trademark Holdings, LLC. The Trademark BlackBerry Bold is owned by Research In Motion Limited and is registered in the United States and may be pending or registered in other countries. Quest is not endorsed, sponsored, affiliated with or otherwise authorized by Research In Motion Limited. Ixia and the Ixia four-petal logo are registered trademarks or trademarks of Ixia. Opera, Opera Mini, and the O logo are trademarks of Opera Software ASA. Tevron, the Tevron logo, and CitraTest are registered trademarks of Tevron, LLC. PostgreSQL is a registered trademark of the PostgreSQL Global Development Group. MariaDB is a trademark or registered trademark of MariaDB Corporation Ab in the European Union and United States of America and/or other countries. Vormetric is a registered trademark of Vormetric, Inc. Intel, Itanium, Pentium, and Xeon are trademarks of Intel Corporation in the U.S. and/or other countries. Debian is a registered trademark of Software in the Public Interest, Inc. OpenStack is a trademark of the OpenStack Foundation. Amazon Web Services, the "Powered by Amazon Web Services" logo, and "Amazon RDS" are trademarks of Amazon.com, Inc. or its affiliates in the United States and/or other countries. Infobright, Infobright Community Edition and Infobright Enterprise Edition are trademarks of Infobright Inc. POLYCOM®, RealPresence® Collaboration Server, and RMX® are registered trademarks of Polycom, Inc. All other trademarks and registered trademarks are property of their respective

owners.

Legend

- **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

- ⚠ **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

- ⓘ **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

Foglight™ for Hyper-V Installation Guide
Foglight Version - 7.3.0
Cartridge Version - 7.3.0

Contents

Installing and configuring Foglight for Hyper-V	5
Requirements and compatibility	5
Foglight for Hyper-V Management Server	5
Foglight for Hyper-V Agent Manager	5
Monitored hosts	6
Installation and setup	6
Installing the Foglight for Hyper-V Management Server	6
Installing the Foglight for Hyper-V Agent Manager	6
Installing and enabling Foglight for Hyper-V	6
Deploying agent packages to monitored hosts	7
Configuring monitoring agents for data collection	9
Using an alternative method to create and activate agent Instances, and to start their data collection	18
Setting the agent properties	21
Upgrading Foglight for Hyper-V	25
About Us	26
We are more than just a name	26
Our brand, our vision. Together.	26
Contacting Quest	26
Technical support resources	26

Installing and configuring Foglight for Hyper-V

Foglight™ for Hyper-V monitors the health of your virtual system by tracking resource consumption such as CPU, network, and memory consumption for individual servers and virtual machines in your integrated environment. This chapter contains information about the system requirements and takes you through the installation procedure, step by step.

i | **IMPORTANT:** See the *Foglight for Hyper-V Release Notes* for important additional information about this version of the cartridge.

- [Requirements and compatibility](#)
- [Installation and setup](#)
- [Upgrading Foglight for Hyper-V](#)

Requirements and compatibility

The following components are required to successfully integrate Foglight™ for Hyper-V into Foglight for Hyper-V.

Foglight for Hyper-V Management Server

The cartridge can be used on a Foglight for Hyper-V™ platform to gain in-depth insight into the health of the virtual machine, the server, and the virtual environment as a whole.

Before installing the cartridge, ensure that your Foglight Management Server is properly installed and configured. For information on how to install and configure the Foglight Management Server, please refer to the *Installation and Setup Guide* set and the *Administration and Configuration Help*.

Foglight for Hyper-V Agent Manager

The Agent Manager component collects data from monitored hosts and sends it to the Management Server.

Foglight™ for Hyper-V monitors host machines remotely using the WinRM or WMI service. For that reason, the Agent Manager does not need to be installed on each individual host that you want to monitor. The Management Server includes an embedded Agent Manager instance that starts and stops with the server.

One Agent Manager installation per Management Server is often enough, unless additional installations are required to balance the collection load onto other machines. The cartridge is compatible with the Agent Manager version 5.8.1 or later.

Monitored hosts

Each monitored server must be running Microsoft® Windows Server® 2008 R2 or later, Windows Server 2012, or Windows Server 2012 R2.

Installation and setup

Installing Foglight™ for Hyper-V involves several tasks.

First, install Foglight for Hyper-V, and the Agent Manager (if multiple instances are required). Next, install Foglight for Hyper-V on the Management Server and deploy the agent package. As the final step, you create agent instances, configure their properties, activate them, and start their data collection. For details, see the following sections:

- [Installing the Foglight for Hyper-V Management Server on page 6](#)
- [Installing the Foglight for Hyper-V Agent Manager on page 6](#)
- [Installing and enabling Foglight for Hyper-V on page 6](#)
- [Deploying agent packages to monitored hosts on page 7](#)
- [Configuring monitoring agents for data collection on page 9](#)
- [Using an alternative method to create and activate agent Instances, and to start their data collection on page 18](#)

Installing the Foglight for Hyper-V Management Server

Install Foglight for Hyper-V™ using the installer for your platform. For complete information, see the Foglight for Hyper-V *Installation and Setup Guide* set.

Installing the Foglight for Hyper-V Agent Manager

The Management Server includes an Agent Manager which can be used to remotely monitor hosts. To balance the collection load, you can choose to install the Agent Manager on additional hosts. For complete information, refer to the *Agent Manager Guide*.

Installing and enabling Foglight for Hyper-V

Foglight™ for Hyper-V is distributed in a CAR file, *Virtual-HyperV-7_3_0.car*. While most of Foglight for Hyper-V components are defined in this file, some of its browser interface elements are defined in two additional CAR files, *DRP-7_3_0.car* and *Virtual-Hyper-V-Admin-7_3_0.car*. The cartridge included in the *Virtual-Hyper-V-Admin-7_3_0.car* file provides access to Hyper-V administrative actions through the Hyper-V Explorer's **Administration** tab, when your user account is granted the Hyper-V Automation User role. To enable the **Administration** tab, install this cartridge on the Management Server. For more information about the Hyper-V Explorer, see the *Foglight for Hyper-V User and Reference Guide*.

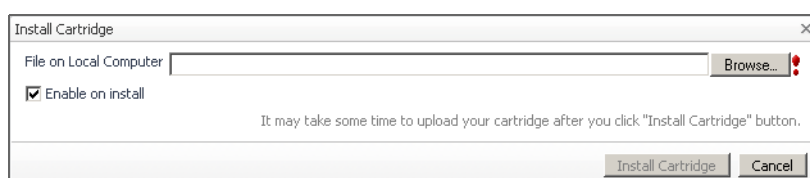
Installing and enabling these cartridges on the Management Server adds the Hyper-V capabilities to your Foglight environment and makes their components available for use. When a cartridge is installed and enabled, all of its components become part of the Management Server.

The following procedure describes the process of installing and enabling the available cartridges using the browser interface. Another way to install and enable cartridges is through the `fglcmd` command-line interface. For more information about the available `fglcmd` commands, see the *Command-Line Reference Guide*.

To install and enable a Foglight for Hyper-V cartridge:

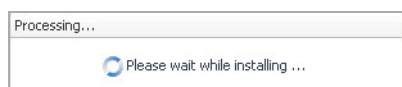
- 1 On the navigation panel, under **Dashboards**, choose **Administration > Cartridges > Cartridge Inventory**.
- 2 On the Cartridge Inventory dashboard, click **Install Cartridge**.

The **Install Cartridge** dialog box appears.



- 3 In the **Install Cartridge** dialog box, click **Browse** and navigate to the `Virtual-HyperV-7_3_0.car` file that you want to install.
- 4 Ensure that the **Enable on install** check box is selected.
- 5 Click **Install Cartridge**.

A message box appears.



After a few moments, the **Operation(s) Complete** message box appears, indicating a success.

- 6 Click **OK** to close the **Operation(s) Complete** message box.
- 7 Repeat [Step 2](#) through [Step 6](#) to install the DRP cartridge, `DRP-7_3_0.car`, and `Virtual-HyperV-Admin-7_3_0.car` (if applicable).
- 8 Observe the list of installed cartridges.

The list of installed cartridges refreshes, showing the newly installed cartridges.

	DRP	5.7.3
	Virtual-HyperV	5.7.3
	Virtual-HyperV-Admin	5.7.3
	Virtual-HyperV-Base	5.7.3
	Virtual-HyperV-Intelliprofile	5.7.3
	Virtual-HyperV-Lite	5.7.3

From here, you can proceed to deploying the agent packages.

Deploying agent packages to monitored hosts

Foglight™ for Hyper-V uses Hyper-V, System Center Virtual Machine Manager (SCVMM), and Scale-Out File Server (SOFS) Agent instances to collect information from monitored hosts. Installing and enabling Foglight for Hyper-V on the Management Server makes its agent packages available for deployment.

Hyper-V, SCVMM, and SOFS Agents use the Agent Manager for communication with the Management Server. Foglight for Hyper-V monitors host machines remotely using the WMI infrastructure. For that reason, the Agent Manager does not need to be installed on each individual host that you want to monitor. It is typically installed on one host; some scenarios may require multiple Agent Manager installations to balance the collection load.

After you have installed the Foglight for Hyper-V, you must deploy the Hyper-V, SCVMM, and SOFS Agent packages to the applicable Agent Manager instances. Deploying the package is only required if you plan to use additional Agent Manager instances.

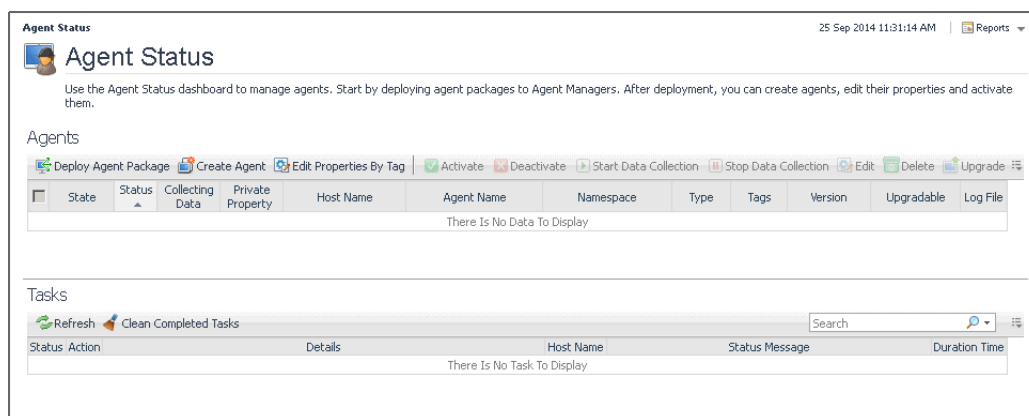
The following procedure describes the deployment process using the Agent Status dashboard. This administrative dashboard is useful for deploying the agent package one host at a time. Alternatively, for deploying the Hyper-V Agent package to multiple hosts, you can use the Agent Hosts dashboard. For more information, see the *Administration and Configuration Guide*.

Another way to deploy agent packages is through the `fglcmd` command-line interface. For more information about the available `fglcmd` commands, see the *Command-Line Reference Guide*.

To deploy the Hyper-V, SCVMM, and SOFS agent packages:

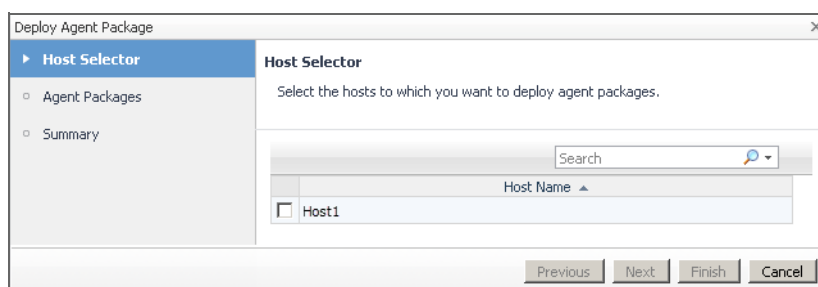
- 1 Log in to the Foglight browser interface.
- 2 On the navigation panel, under **Dashboards**, click **Administration > Agents > Agent Status**.

The Agent Status dashboard appears in the display area.



- 3 On the Agent Status dashboard, click the **Deploy Agent Package** button in the lower-left corner.

The **Deploy Agent Package** wizard appears.



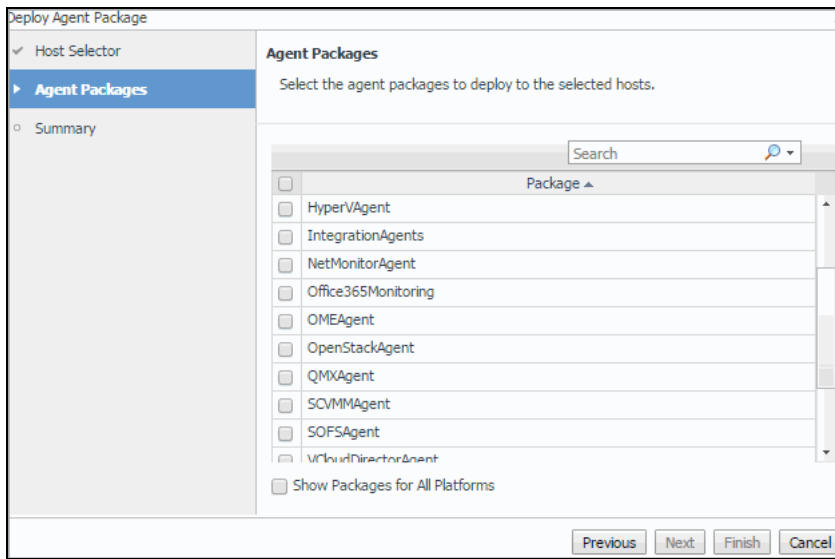
TIP: To have a monitored host available for selection, the Agent Manager must be up and running on that host, and connected to the Foglight Management Server.

- 4 Specify the monitored host to which you want to deploy the Agent package.

In the **Deploy Agent Package** wizard, on the **Host Selector** page, select the system on which the Agent Manager is running, and click **Next**.

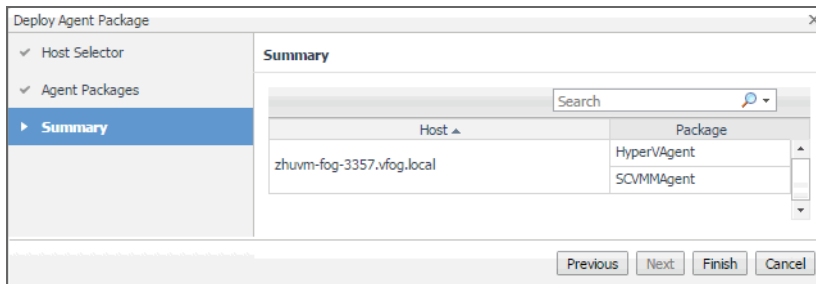
If the system name does not appear in the list, check that its Agent Manager is active and connected to the Management Server.

The **Deploy Agent Package** wizard refreshes, showing the **Agent Packages** page.



- 5 In the **Deploy Agent Package** wizard, on the **Agent Packages** page, select the HyperVAgent, SCVMMAgent, and SOFSAgent packages, and then click **Next**.

The **Deploy Agent Package** wizard refreshes, showing the **Summary** page.



- 6 In the **Deploy Agent Package** wizard, on the **Summary** page, verify that the host name and package are correct, and click **Finish**.

The **Deploy Agent Package** wizard closes, and the Agent Status dashboard refreshes, showing in the **Tasks** area that the **Deploy Agent Package** task is in progress. After a few moments, a green icon appears in the **Status** column, indicating a successful deployment.

If agent deployment is not successful, there are several things you can do to troubleshoot the deployment failure. For more information, see the online help for the Agent Status dashboard.

From here, you can proceed to create Hyper-V, SCVMM, and SOFS Agent instances to monitor hosts. For more information, see [Configuring monitoring agents for data collection](#) on page 9.

Configuring monitoring agents for data collection

Foglight™ for Hyper-V uses the Hyper-V, SCVMM, and SOFS agents to collect information about your virtual environment:

- *Hyper-V Agents* collect information from monitored Hyper-V servers. A Hyper-V server is a physical component required to begin building a virtual infrastructure. Hyper-V servers provide hypervisor-based architecture for controlling and managing resources for the virtual machines that run on it.

- **SCVMM Agents** collect information from Virtual Machine Managers (VMM). A VMM allows you to manage host, networking and storage resources when creating and deploying virtual machines to virtual clouds.
- **SOFS Agents** collect information from monitored SOFS servers. An SOFS server is a Windows Server cluster with some form of shared storage and provides highly available file-based storage for applications and general use.

When Hyper-V, SCVMM, and SOFS agent packages are successfully deployed, you can create agent instances, activate them and start their data collection. To perform these steps in a single operation for one or more monitored hosts, use the **Agents** area on the **Administration** tab.

When you add an agent instance, the agent process is created on the Agent Manager host. Activating the agent instance starts that agent process. When you start an agent's data collection, the agent process starts collecting data from the monitored host and to sends it to Foglight for Hyper-V.

To create, activate agent instances, and start their data collection:

- 1 Log in to the Foglight browser interface.
- 2 On the navigation panel, under **Dashboards**, choose **Hyper-V > Hyper-V Environment**.
- 3 On the Hyper-V Environment dashboard that appears in the display area, open the **Administration** tab.



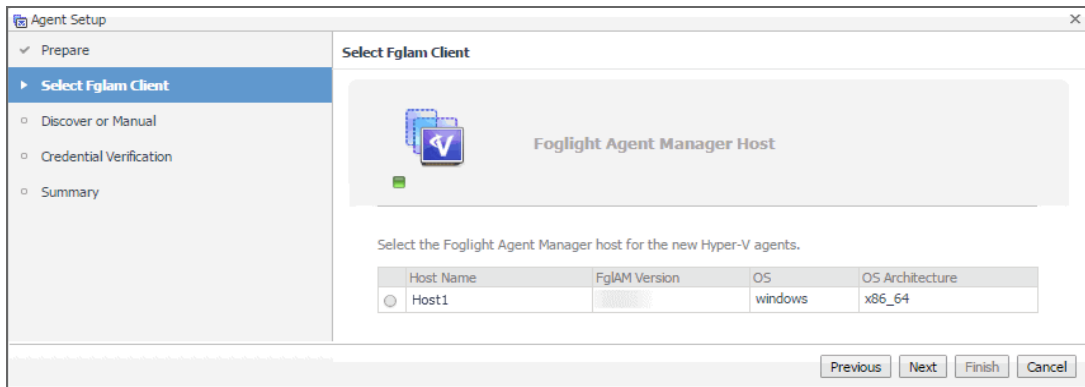
- 4 On the **Administration** tab, under **Agents**, open the **Hyper-V Agents**, **SCVMM Agents**, or the **SOFS Agents** tab, as required.
- 5 On the **Administration** tab, under **Agents**, click **Add** to launch the Agent Setup wizard.

The **Agent Setup** wizard appears, showing the **Prepare** page.

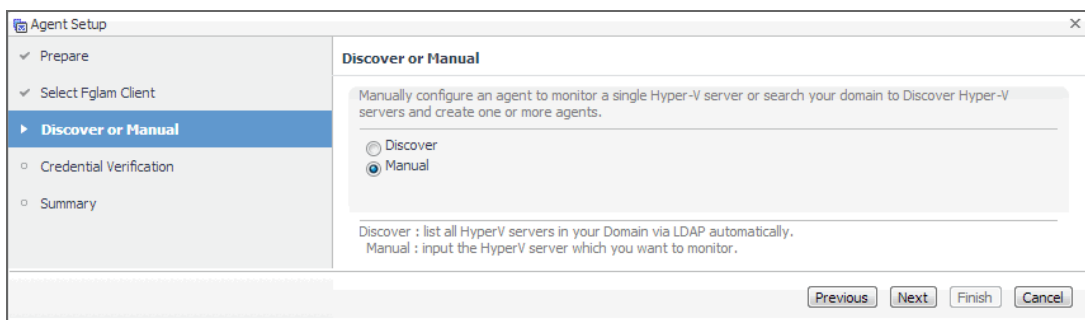
- 6 Review the information on this page. If you want to configure WinRM or DCOM settings automatically, download the appropriate script, and follow the instructions provided with the scripts. When done, click **Next**.

The **Agent Setup** wizard refreshes, showing the **Select Fglam Client** page. The page shows a list of all hosts that already have the Agent Manager installed and running, and to which you can deploy the Hyper-V Agent package.

- 7 Select the Agent Manager on which you want to create the Agent instance, and click **Next**.



- 8 **Hyper-V Agents only.** On the **Discover or Manual** page that appears, you can indicate if you want to manually specify the Hyper-V Server that you want to monitor, or to choose between the servers running in a given domain.

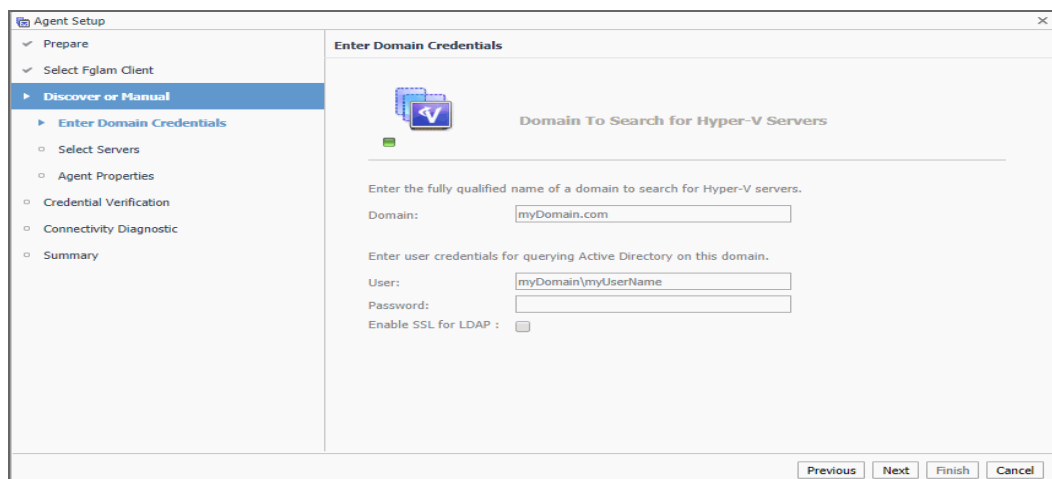


Select one of the following options:

Discover. Select this option if you want to choose from the available Hyper-V Servers running in the desired domain. Click **Next** and proceed to Step a.

Manual. Select this option if you want to manually specify the name of the Hyper-V Server. Click **Next** and proceed to Step b.

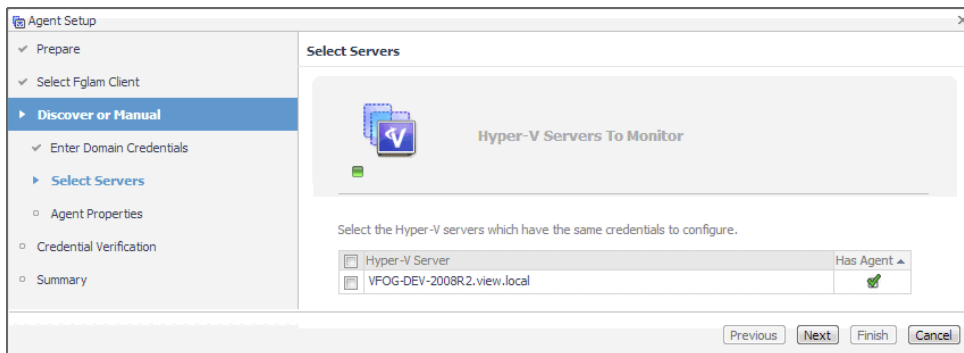
- a **Discovering Hyper-V Servers only.** On the **Enter Domain Credentials** page that appears, specify the information needed to search for the running Hyper-V Servers.



- a Provide the following information, and then click **Next**.
- **Domain:** Type the fully qualified name of a domain to search for the Hyper-V Server. For example, myDomain.com.

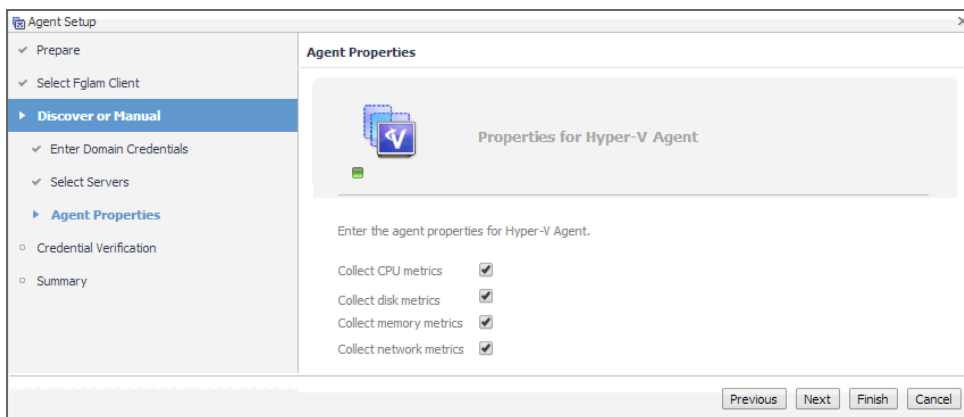
- **User:** Type the user name to be used by the agent to be used to query Active Directory on the selected domain using the syntax *Domain\UserName*. For example, *myDomain\myUserName*.
- **Password:** Type the password associated with the above user name.

The **Agent Setup** wizard refreshes, showing the **Select Servers** page. The page shows a list of all Hyper-V servers that you have access to, based on the domain name and user credentials you provided in this step.



- b Select one or more Hyper-V Servers that you want to monitor and click **Next**.

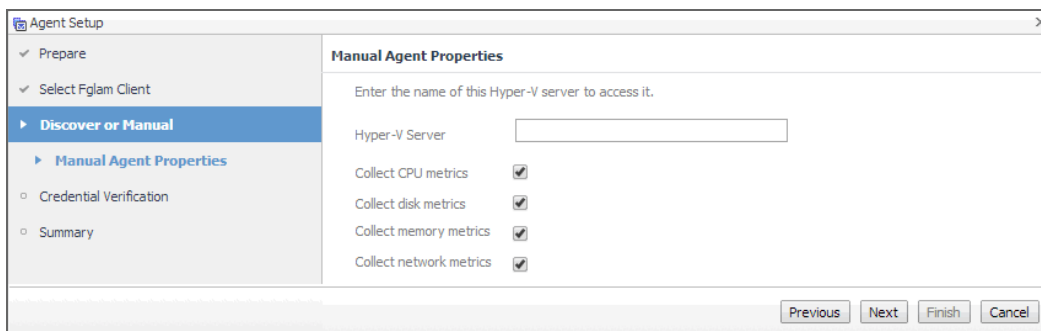
The **Agent Setup** wizard refreshes, showing the **Agent Properties** page.



- c By default, the options for collecting CPU, disk, memory, and network metrics are selected. Review these settings, and make any changes, if required. When done, click **Next**.

- d Proceed to Step c.

- b **Manually specifying a Hyper-V Server only.** On the **Manual Agent Properties** page that appears, specify the information needed to search for the running Hyper-V servers.

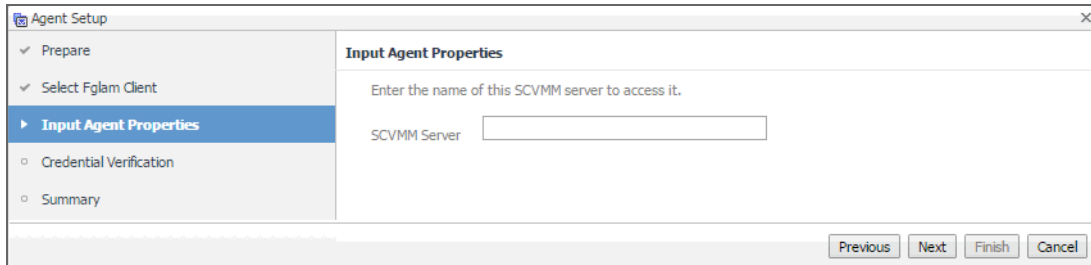


Click **Next**.

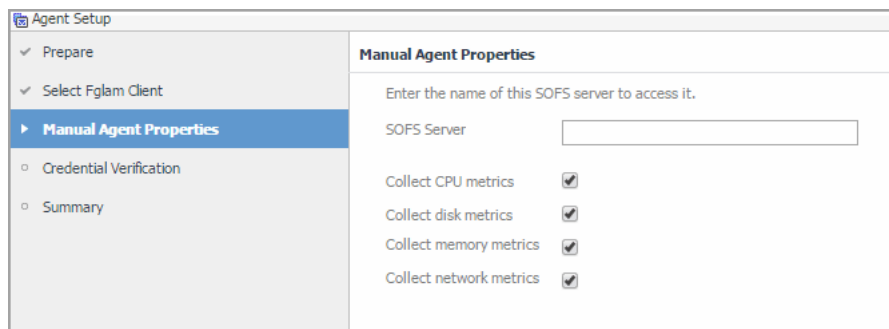
- c On the **Credential Verification** page that appears, review the existing set of credentials. If the wizard determines that the selected Agent Manager has any credentials configured for the host on which the Hyper-V Server is running, they appear listed on this page.

i | **IMPORTANT:** Credentials are security data that provide the Infrastructure agent with the permission to monitor system resources, such as a host or a range of hosts.

- 9 **SCVMM Agents only.** On the Input Agent Properties page that appears, type the name of the SCVMM server, and click **Next**.

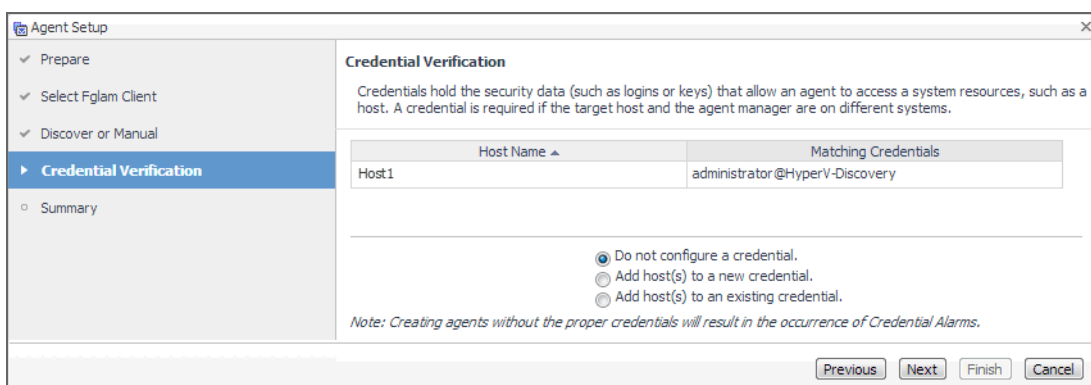


- 10 **SOFS Agents only.** On the Manual Agent Properties page that appears, type the name of SOFS Server, specify whether or not this SOFS Server collects CPU/disk/memory/network metrics, and click **Next**.



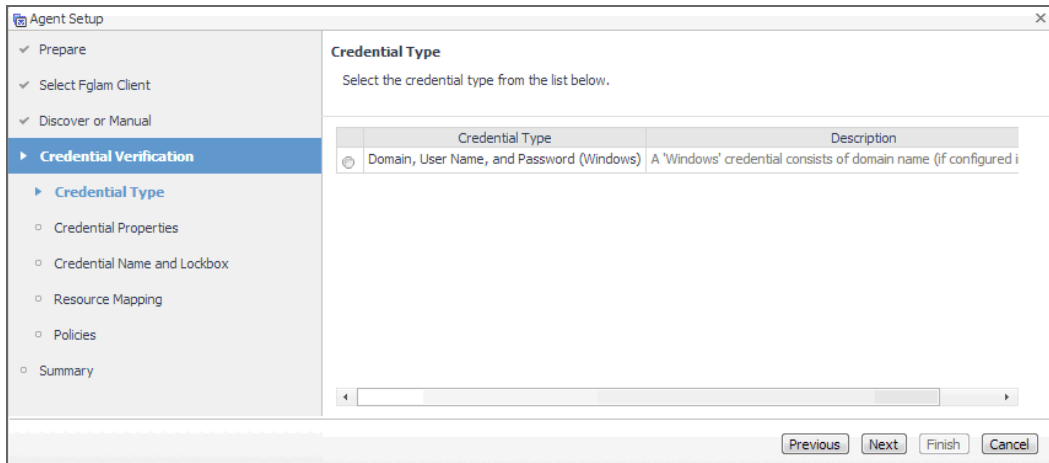
- 11 On the **Credentials Verification** page, select one of the following options:

- **Do not configure a credential:** Select this option if you want to configure the credential for this resource at a later time. Click **Next** and continue with Step 14.
- **Add host(s) to a new credential:** Select this option if you want to add the host to a new credential. This option is suitable if none of the existing credentials have the connection details needed to access the new host. Click **Next** and continue with Step 12.
- **Add host(s) to an existing credential:** Select this option if you want to add the host to an existing credential. This option is suitable if an existing credential has the security data needed to access the new host, but you need to edit its resource mappings to include this host. Click **Next** and continue with Step 13.



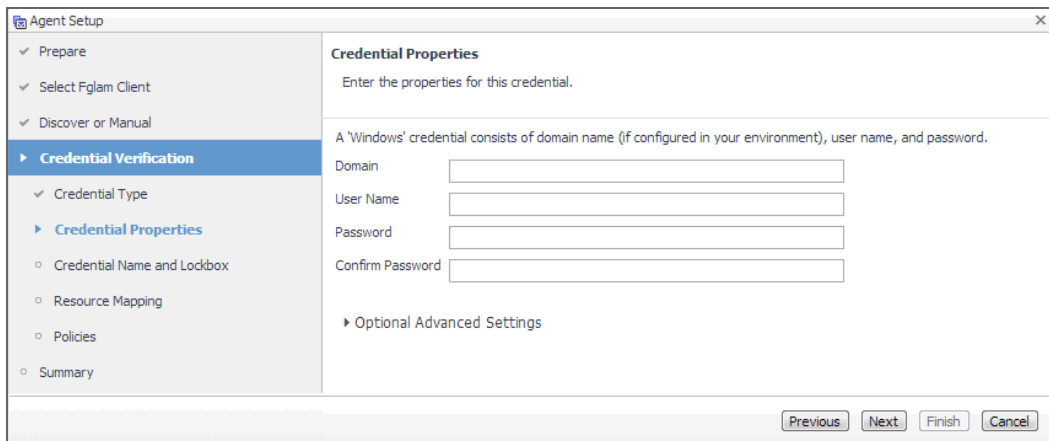
12 Create a new credential.

- a On the **Credential Type** page that appears, select the credential type from the available options.



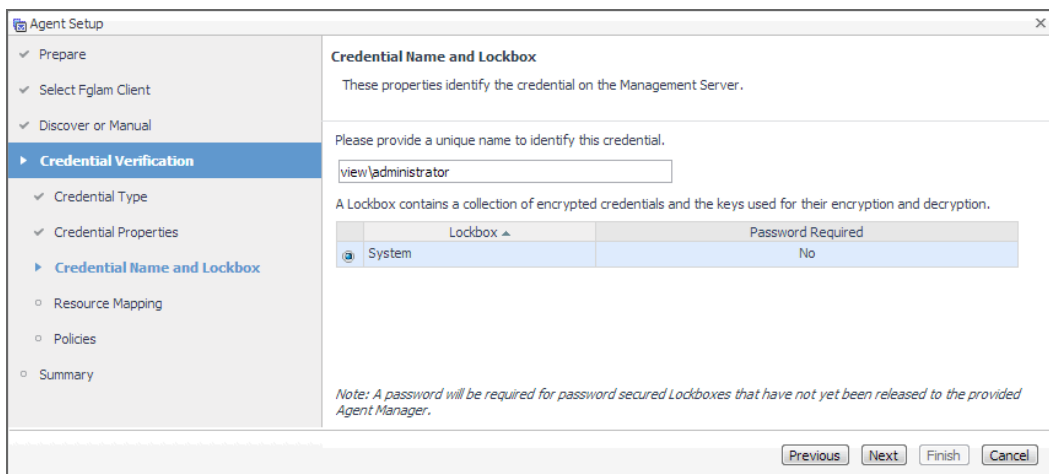
- b Click **Next**.

The **Credential Properties** page appears.



- c On the **Credential Properties** page, type the required properties, and click **Next**.

The **Credential Name and Lockbox** page appears.



- d On the **Credential Name and Lockbox** page, provide a name to uniquely identify the credential, and select a lockbox in which you want to keep the credential. A lockbox can be used to group credentials for access and/or security. In smaller Foglight installations, using the default **System** lockbox should be sufficient.

i | **NOTE:** If a lockbox is password protected and is not released to the target Foglight Agent Manager, you can provide the lockbox password on the last page of the wizard.

Click **Next**.

The **Resource Mapping** page appears.

The screenshot shows the 'Resource Mapping' page in the 'Agent Setup' wizard. The left sidebar contains a navigation menu with the following items: Prepare, Select Fglam Client, Discover or Manual, **Credential Verification** (expanded), Credential Type, Credential Properties, Credential Name and Lockbox, **Resource Mapping** (selected), Policies, and Summary. The main content area is titled 'Resource Mapping' and contains the instruction: 'Select the appropriate resource mapping option below.' There are two radio button options: 'Provided host names and IP addresses (only)' (selected) and 'All hosts and provided IP addresses'. Below these are two input fields: 'Host Names' with the value 'Host1' and 'IP Addresses' with the text 'There Is No Data To Display'. At the bottom right, there are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'.

- e On the **Resource Mapping** page, indicate which hosts you want to associate with this credential. Click **Next**.

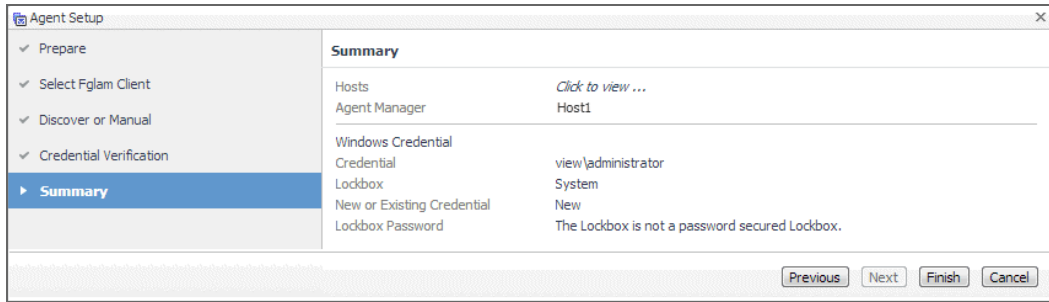
The **Policies** page appears.

The screenshot shows the 'Policies' page in the 'Agent Setup' wizard. The left sidebar is the same as in the previous screenshot, but 'Policies' is now selected. The main content area is titled 'Policies' and contains the instruction: 'Add policies for this credential. This is an optional step. Click 'Next' if you do not wish to add more policies at this time.' Below this is a table with columns for 'Policy Type' and 'Details'. The table has one row with 'Failure Rate' and 'Max Failure Count=3 and Time Period=1 hours'. Above the table are buttons for 'Add', 'Copy', and 'Delete', and a search box. At the bottom right, there are four buttons: 'Previous', 'Next', 'Finish', and 'Cancel'.

- f Optional—On the **Policies** page, define one or more policies for this credential. A policy defines the number of times a credential can be used, the number of allowed authentication failures, the time range during which the credential is valid, or the length of time the credential data can be cached on the client. For example, you can specify the number of times the credential can be used, or the time period during which it can be used. For complete information about the available credential policies, see the *Administration and Configuration Help*.

Click **Next**.

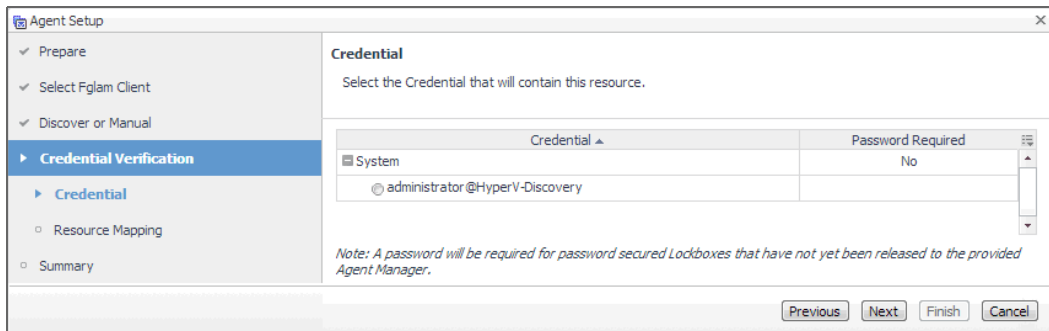
The **Summary** page appears.



g Proceed to Step 14.

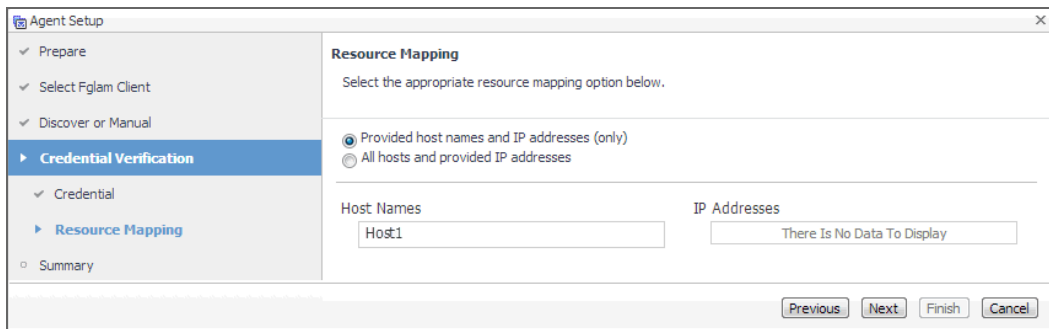
13 Use an existing credential.

a On the **Credential** page that appears, select an existing credential to contain this host.



b Click **Next**.

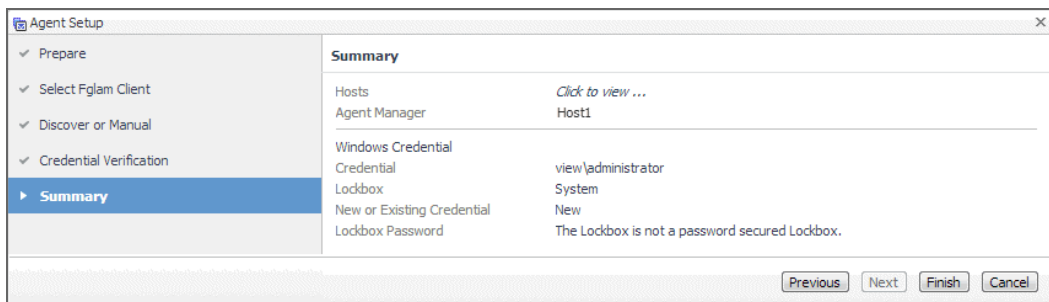
The **Resource Mapping** page appears.



c On the **Resource Mapping** page, indicate which hosts you want to associate with this credential. You can either select the host that you are about to start monitoring, all monitored hosts, or hosts whose name contains a specific text string.

Click **Next**.

The **Summary** page appears.



- d Proceed to Step 14.
- 14 On the **Summary** page that appears, review the information provided about the host and the monitoring agent.
- 15 Click **Finish**.

The new host is added to the Hosts dashboard after a short delay. The monitoring agent is created. If the operation is successful, the **Agent Setup** message box appears. Review the information and close the message box.



The agent instances created to monitor the new host appear on the **Administration** tab, in the **Agents** area.

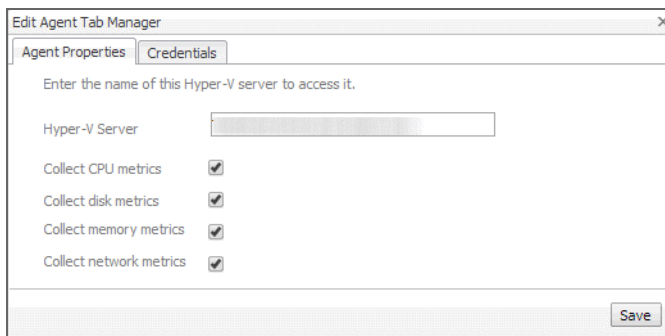
Close the dialog box. The Hyper-V Agent Management dashboard refreshes, showing the newly created Hyper-V Agent in the list.

- 16 If required, reconfigure the agent properties or credentials. For example, you can specify the name of the monitored Hyper-V server or the authentication schema.

When a Hyper-V Agent, for example, connects to the Management Server, it is provided with sets of properties that it uses to configure its correct running state. Foglight for Hyper-V stores agent properties on the Management Server.

- a Select an agent and click **Edit Properties**.

The **Edit Agent Tab Manager** dialog box appears, showing the Hyper-V Agent properties on the **Agent Properties** tab.

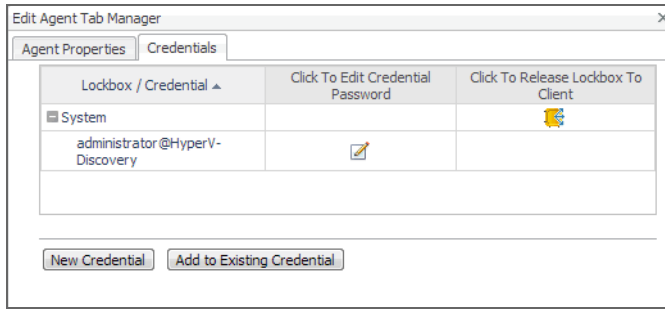


NOTE: When multiple agents are selected, you can only edit the properties that are common to all selected agents.

- b Review and edit the agent properties, as required.

The combination of properties you can configure in this step and the required values depend on the desired collection method (WinRM or DCOM) and the type of authentication required (local or domain-based). For complete information, about the possible configuration scenarios, see [Setting the Hyper-V Agent Configuration properties](#) on page 23.

- c Open the **Credentials** tab, and review the available credentials.



- d If required, you can create a new credential for this agent, or associate it with an existing credential.

Creating a new credential. Click **New Credential** and use the **Create Credential Wizard** that appears to provide the required information. For more details, see Step 12.

Associating the agent with an existing credential. Click **Add to Existing Credential** and use the **Create Credential Wizard** that appears to provide the required information. For more details, see Step 13.

- 17 Activate one or more agents.

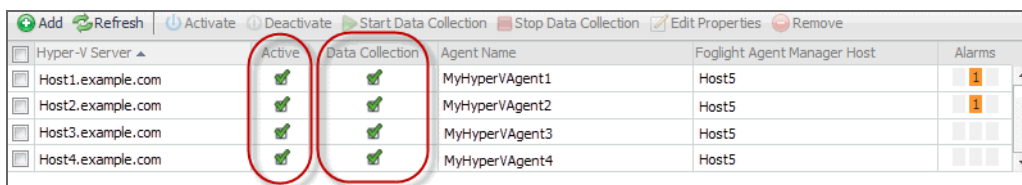
On the Agent Management dashboard, select the agents that you want to activate and click **Activate**.

- 18 Start the data collection for one or more agents.

On the Agent Management dashboard, select the agents whose data collection you want to start and click **Start Data Collection**.

- 19 Click **Refresh**.

If the agent configuration is successful, the **Active** and **Data Collection** columns show green check marks indicating that the agents are active and collecting data.



If the agent unexpectedly fails or stops, this is an indicator of an incorrect configuration. Unknown host names or invalid WinRM configuration can cause the agent to fail. Incorrect configuration causes the agent to stop. If this happens, the agent generates an observation containing a message with more information about the failure. You can view the message contents in the Data Browser. For example, to find out any messages related to the Hyper-V Agent, in the Data Browser, navigate to **Hyper-V > Hyper-V Agents > <Hyper-V Agent instance> > Messages > History > <message>**. For more information about the Data Browser, see the *Data Model Guide*.

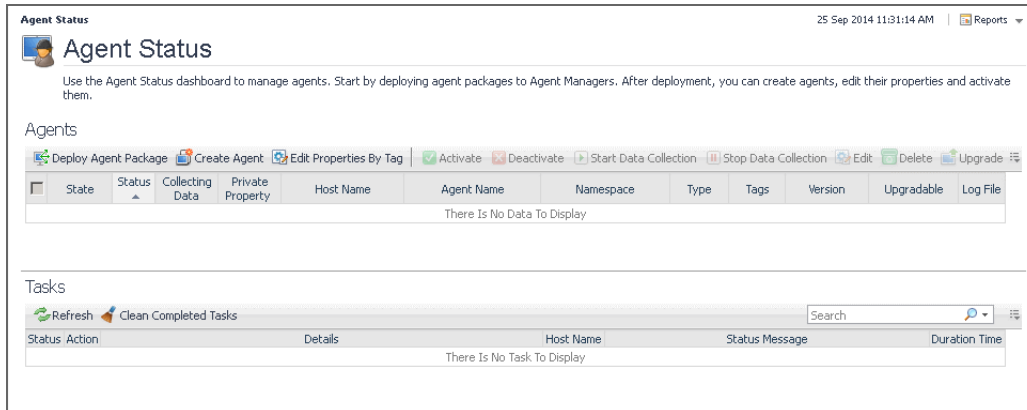
Using an alternative method to create and activate agent Instances, and to start their data collection

The following procedure describes the process of creating and activating Agent instances and starting their data collection using the Agent Status dashboard. This dashboard is useful for creating agent instances one Agent Manager at a time.

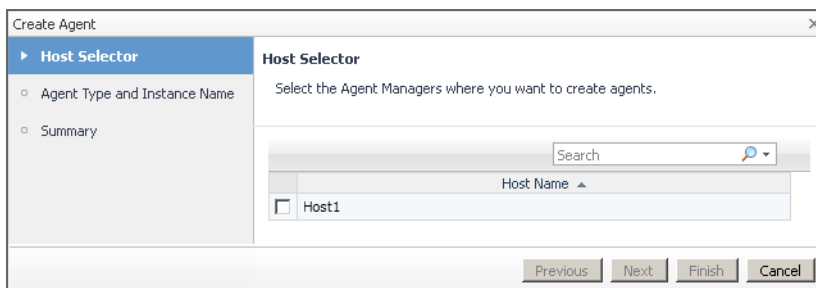
Another way to create agent instances is using the `fglcmd` command-line interface. For more information about the available `fglcmd` commands, see the *Command-Line Reference Guide*.

To create, activate agent instances and start their data collection using the Agent Status dashboard:

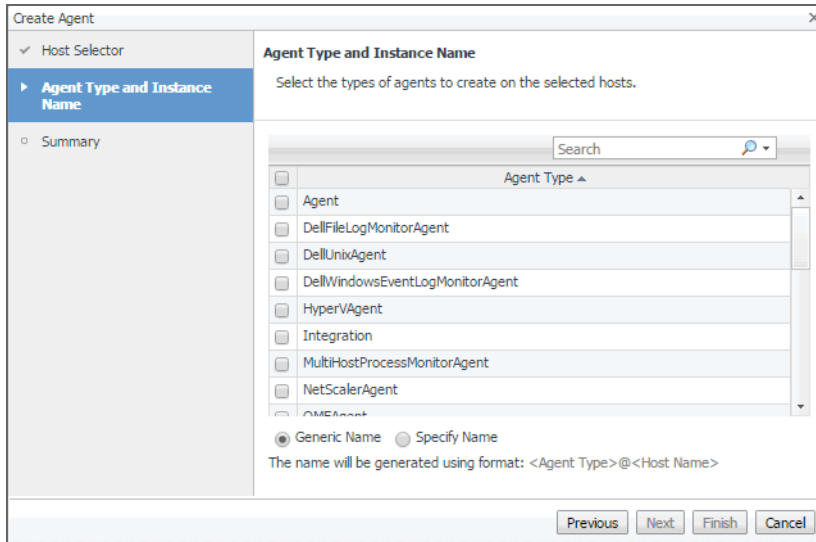
- 1 Log in to the Foglight for Hyper-V™ browser interface.
- 2 On the navigation panel, under **Dashboards**, choose **Administration > Agents > Agent Status**.
The Agent Status dashboard appears in the display area.



- 3 On the Agent Status dashboard, click **Create Agent**.
The **Create Agent** wizard appears with the **Host Selector** page open.

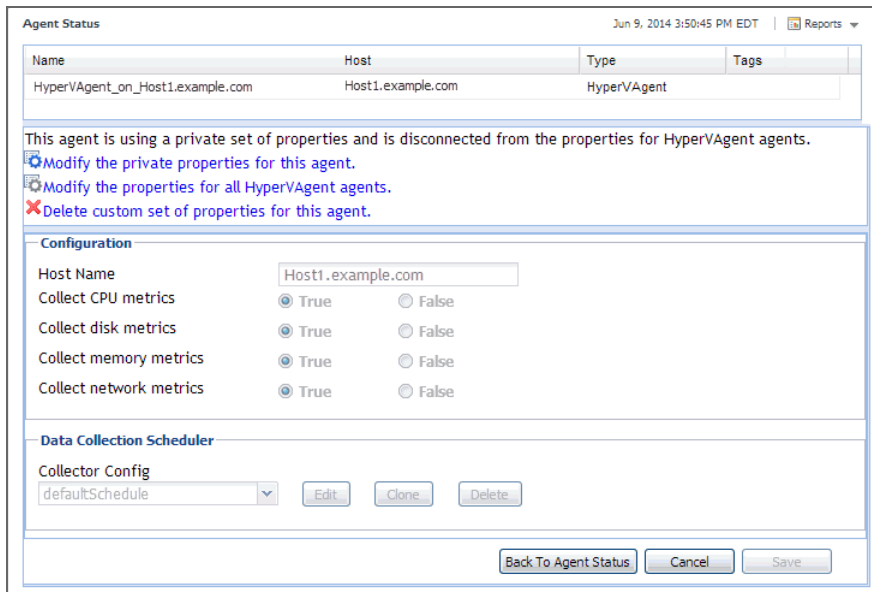


- 4 Specify the monitored host that you want to use to monitor with the Hyper-V Agent.
In the **Create Agent** wizard, on the **Host Selector** page, select the system on which the Agent Manager is running, and click **Next**.
If the system name does not appear in the list, check that its Agent Manager is active and connected to the Management Server.
The **Create Agent** wizard refreshes, showing the **Agent Type and Instance Name** page.



i | IMPORTANT: If the HyperVAgent, SCVMMAgent, or SOFSAgent type is not listed, you need to deploy the Hyper-V, SCVMM, or SOFS Agent package to that host. For more information, see [Deploying agent packages to monitored hosts](#) on page 7.

- 5 On the **Agent Type and Instance Name** page, select **HyperVAgent**, **SCVMMAgent**, or **SOFSAgent**, as required.
- 6 Specify the name of the agent instance that you are about to create.
 - To have Foglight for Hyper-V assign a generic name, ensure that **Generic Name** is selected.
 - To use a specific agent name, select **Specify Name**, and in the **Name** box that appears, type the agent name.
- 7 Click **Next**.
The **Create Agent** wizard refreshes, showing the **Summary** page.
- 8 In the **Create Agent** wizard, on the **Summary** page, verify that the host name and agent name are correct, and click **Finish**.
The **Create Agent** wizard closes, and the Agent Status dashboard refreshes, showing in the **Tasks** area that the **Deploy Agent Package** task is in progress. After a few moments, a green icon appears in the **Status** column, indicating a successful deployment.
- 9 Configure the properties of the newly created agent instance.
When an agent connects to the Management Server, it is provided with sets of properties that it uses to configure its correct running state. Foglight stores agent properties on the Management Server.
 - a On the Agent Status dashboard, select the newly created Hyper-V, SCVMM, or SOFS agent instance, click **Edit**, and chose **Edit Properties** from the menu that appears.
The Agent Status dashboard refreshes, showing the agent properties in the display area.



NOTE: When multiple agents are selected, you can only edit the properties that are common to all selected agents.

- b Click **Modify the private properties for this agent**.
- c Edit the agent's properties, as required.

For more information, see the following sections:

- [Setting the Hyper-V Agent Configuration properties on page 23](#)
- [Setting the SCVMM Agent Configuration properties on page 23](#)
- [Setting the SOFS Agent Configuration properties on page 24](#)
- [Setting the Hyper-V, SCVMM, or SOFS Agent Data Collection Scheduler properties on page 24.](#)

- d When finished, click **Save**, then click the **Back to Agent Status** button.

10 Activate the newly created Agent instance.

On the Agent Status dashboard, select the row containing the agent instance that you want to activate, and click **Activate**.

The **Activate Agent(s)** message box appears, showing the status of the activation process. If the agent configuration is successful, after a few moments, the **Activate Agent(s)** message box closes, and the Agent Status dashboard refreshes, showing a green check mark in the **Status** column.

If the agent unexpectedly fails or stops, this is an indicator of an incorrect configuration. Unknown host names or invalid WinRM configuration can cause the agent to fail. Incorrect configuration causes the agent to stop. If this happens, the agent generates an observation containing a message with more information about the failure. You can view the message contents in the Data Browser. For example, to find out any messages related to the Hyper-V Agent, in the Data Browser, navigate to **Hyper-V > Hyper-V Agents > <Hyper-V Agent instance> > Messages > History > <message>**. For more information about the Data Browser, see the *Data Model Guide*.

Setting the agent properties

The Hyper-V and SCVMM Agents collect data from your virtual infrastructure and sends it to the Management Server. The agents keep track of resource utilization metrics and alerts you when certain pre-defined thresholds are reached.

When an agent connects to Foglight Management Server, it is provided with sets of properties that it uses to configure its correct running state. Each agent is provided with a combination of two types of properties: agent properties and shareable properties.


Default versions of these properties are installed with Foglight™ for Hyper-V. However, you can edit the default shareable and agent properties, configure agent properties that apply only to a specific agent instance, and create edited clones of shareable properties that are used by a subset of agents of a certain type.

There are two ways to access the Hyper-V and SCVMM Agent properties:

- On the Hyper-V Environment dashboard, on the **Administration** tab, select an agent instance and click **Edit Properties** (see [Configuring monitoring agents for data collection](#) on page 9). This method only provides access to the Configuration properties, but not the Data Collection Scheduler properties.
- On the Agent Status dashboard, select an agent instance and click **Edit Properties**. This method provides access to the full set of Hyper-V Agent properties, and is described in this topic.

For more information about working with agent properties, see the *Administration and Configuration Guide*.

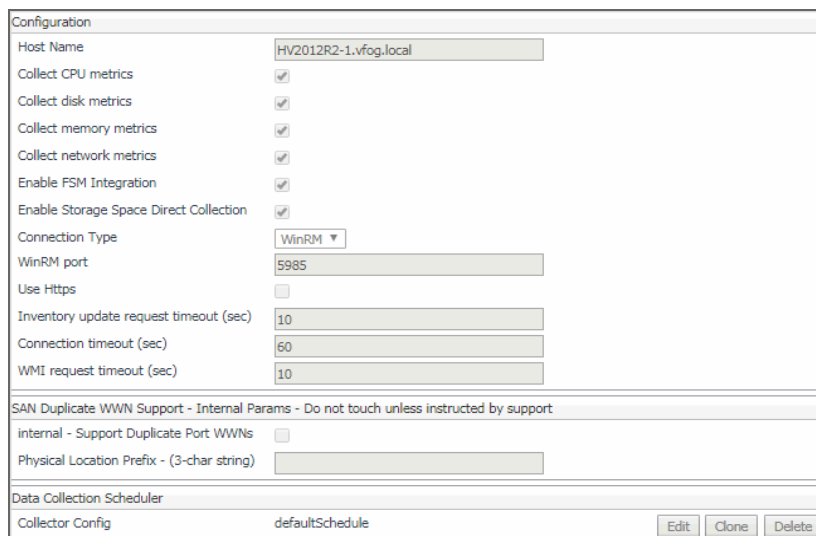
To modify agent properties:

- 1 Log in to the Foglight browser interface.
- 2 Ensure that the navigation panel is open.
To open the navigation panel, click the right-facing arrow  on the left.
- 3 Open the Agent Status dashboard and navigate to the agent properties.
 - e On the navigation panel, under **Dashboards**, choose **Administration > Agents > Agent Status**.

i **IMPORTANT:** Another way of editing agent properties is through the Agent Properties dashboard. The properties you specify on this dashboard apply to all instances of the selected type. To be certain that you are editing properties for a particular agent instance, without overwriting any properties of other agent instances of the same type, use the Agent Status dashboard instead of the Agent Properties dashboard.

- f On the Agent Status dashboard, select the instance of the Hyper-V or SCVMM Agent whose properties you want to modify and click **Edit Properties**.
- g Indicate that you want to edit the properties of the selected agent instance.

A list of agent properties appears in the display area.



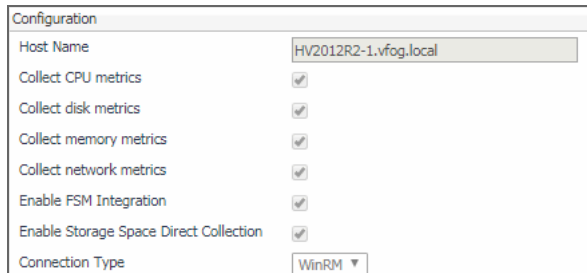
The position of the Properties pane depends on the dashboard you used to access agent properties. If you used the Agent Properties dashboard, the Properties pane appears to the right of

the **Namespace > Type** pane in the display area. If you used the Agent Status dashboard, the Properties pane appears across the display area.

Setting the Hyper-V Agent Configuration properties

To monitor a desired Hyper-V[®] server, ensure the Hyper-V Agent's **Configuration** properties are set up as required.

Figure 1. Hyper-V Agent Configuration properties



The screenshot shows a configuration window titled "Configuration". It contains the following settings:

Host Name	HV2012R2-1.vfog.local
Collect CPU metrics	<input checked="" type="checkbox"/>
Collect disk metrics	<input checked="" type="checkbox"/>
Collect memory metrics	<input checked="" type="checkbox"/>
Collect network metrics	<input checked="" type="checkbox"/>
Enable FSM Integration	<input checked="" type="checkbox"/>
Enable Storage Space Direct Collection	<input checked="" type="checkbox"/>
Connection Type	WinRM

To set the Hyper-V Agent configuration properties:

- 1 Locate the Hyper-V Agent's **Configuration** properties.
- 2 Set the **Configuration** properties as follows:
 - **Host Name:** Type the fully qualified host name of the machine on which the monitored Hyper-V Server is running.
 - **Collect CPU metrics:** Select this option if you want to collect CPU metrics from the monitored Hyper-V environment.
 - **Collect disk metrics:** Select this option if you want to collect disk metrics from the monitored Hyper-V environment.
 - **Collect memory metrics:** Select this option if you want to collect memory metrics from the monitored Hyper-V environment.
 - **Collect network metrics:** Select this option if you want to collect network metrics from the monitored Hyper-V environment.

To start monitoring for a specific Hyper-V server, use the Hyper-V Agent's Configuration properties.

Setting the SCVMM Agent Configuration properties

To monitor a desired System Center Virtual Machine Manager (SCVMM), ensure the SCVMM Agent's **Configuration** properties are set up as required.

Figure 2. SCVMM Agent Configuration properties



The screenshot shows a configuration window titled "Configuration". It contains the following setting:

SCVMM Host Name	Host1.example.com
-----------------	-------------------

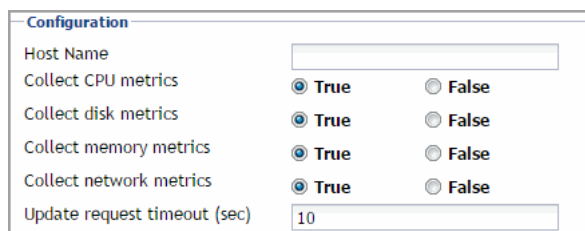
To set the SCVMM Agent Configuration properties:

- 1 Locate the SCVMM Agent's **Configuration** properties.
- 2 In the **Configuration** area, in the **SCVMM Host Name** box, type the name of the machine on which the Virtual Machine Manager is running.

Setting the SOFS Agent Configuration properties

To monitor a desired Scale-Out File Server (SOFS), ensure the SOFS Agent's **Configuration** properties are set up as required.

Figure 3. SOFS Agent Configuration properties



The screenshot shows a configuration window titled "Configuration". It contains the following fields and options:

Host Name	<input type="text"/>
Collect CPU metrics	<input checked="" type="radio"/> True <input type="radio"/> False
Collect disk metrics	<input checked="" type="radio"/> True <input type="radio"/> False
Collect memory metrics	<input checked="" type="radio"/> True <input type="radio"/> False
Collect network metrics	<input checked="" type="radio"/> True <input type="radio"/> False
Update request timeout (sec)	<input type="text" value="10"/>

To set the SOFS Agent Configuration properties:

- 1 Locate the SOFS Agent's **Configuration** properties.
- 2 Set the **Configuration** properties as follows:
 - **Host Name:** Type the fully qualified host name of the machine on which the monitored SOFS Server is running.
 - **Collect CPU metrics:** Select this option if you want to collect CPU metrics from the monitored environment.
 - **Collect disk metrics:** Select this option if you want to collect disk metrics from the monitored environment.
 - **Collect memory metrics:** Select this option if you want to collect memory metrics from the monitored environment.
 - **Collect network metrics:** Select this option if you want to collect network metrics from the monitored environment.

Setting the Hyper-V, SCVMM, or SOFS Agent Data Collection Scheduler properties

Use the Data Collection Scheduler properties to adjust how frequently the Hyper-V or SCVMM Agent collects data from the monitored server.

To set data collection scheduler properties:

- 1 Locate the Hyper-V or SCVMM Agent **Data Collection Scheduler** properties.
- 2 Select the collection configuration list that you want to use.

Click **Collection Config**, and from the list that appears, select a collection list.

i **TIP:** If you want to clone a list and associate it with the agent instance whose properties you are editing, select it and click **Clone**. When prompted, enter a name for the cloned list. For more information on cloning, see the *Administration and Configuration Guide*.

The following collection lists are available:

- **Essential Collection:** Includes the server host OS, memory, and processor metrics, the server property values, the server host metrics for the LanmanServer, LanmanWorkstation, Netlogon, Dnscache, RpcSs, vhdsv, nvspwmi, vmms and OS services, the VM processor metrics, and the VM host metrics for the Key-Value Pair Exchange, Shutdown, Heartbeat, and Time Synchronization OS services.
- **Resource Collection:** Includes the VM processor, network, and storage metrics.

- **Inventory Collection:** Includes the cluster, server, and VM collections.

i | **TIP:** The Inventory Collection process does not submit data back to the Management Server, it is used entirely to support the Essential and Resource metric collections.

3 Update the selected collection configuration list.

- a Click the **Edit** button on the right of **Collector Config**.

A dialog box appears.

- b Edit the entries in the list, as required.

- c To edit a value in the table, double-click the table cell, and enter the required value. Each list has the following values:

- **Collector Name:** Contains the name of the collector: **Essential Collection**, **Resource Collection (Resource, Disk, Network)**, and **Inventory Collection**.
- **Default Collection Interval:** Contains the length of the default collection interval.
- **Time Unit:** Contains the time unit for measuring the default collection interval: *milliseconds*, *seconds*, *minutes*, *hours*, or *days*.
- **Fast-Mode Collection Interval:** Contains the length of the collection interval when the agent is running in fast mode.
- **Fast-Mode Time Unit:** Contains the length of the collection interval when the agent is running in fast mode.
- **Fast-Mode Max Count:** Contains the maximum count of entries when the agent is running in fast mode.

- d Save your changes to the list by clicking **Save Changes** in the dialog box.

The dialog box closes.

4 In the display area, click **Save**.

Upgrading Foglight for Hyper-V

The latest version of the Foglight™ for Hyper-V is 7.3.0.

To upgrade Foglight for Hyper-V, you must first stop Hyper-V agent services, or uninstall any older Hyper-V Agent instances. Do not delete the older version of the *.car* file. Then, install version 7.3.0 of the cartridge on top of the older version. Refer to [Installation and setup](#) on page 6 for the installation procedure.

For complete information about the upgrade procedure, see the *Foglight Upgrade Guide*.

i | **NOTE:** When upgrading the cartridge from a version earlier than 5.6.7, you must deploy the Hyper-V Agent package to monitored hosts using the Update Agent button on the **Administration** tab of the Hyper-V Environment dashboard, not the Agent Status dashboard.

We are more than just a name

We are on a quest to make your information technology work harder for you. That is why we build community-driven software solutions that help you spend less time on IT administration and more time on business innovation. We help you modernize your data center, get you to the cloud quicker and provide the expertise, security and accessibility you need to grow your data-driven business. Combined with Quest's invitation to the global community to be a part of its innovation, and our firm commitment to ensuring customer satisfaction, we continue to deliver solutions that have a real impact on our customers today and leave a legacy we are proud of. We are challenging the status quo by transforming into a new software company. And as your partner, we work tirelessly to make sure your information technology is designed for you and by you. This is our mission, and we are in this together. Welcome to a new Quest. You are invited to Join the Innovation™.

Our brand, our vision. Together.

Our logo reflects our story: innovation, community and support. An important part of this story begins with the letter Q. It is a perfect circle, representing our commitment to technological precision and strength. The space in the Q itself symbolizes our need to add the missing piece—you—to the community, to the new Quest.

Contacting Quest

For sales or other inquiries, visit <https://www.quest.com/company/contact-us.aspx> or call +1-949-754-8000.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at <https://support.quest.com>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.