

IBM Tivoli Composite Application Manager for Microsoft
Applications: Microsoft Hyper-V Server Agent
6.3.1 Fix Pack 10

Installation and Configuration Guide



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Note

Before using this information and the product it supports, read the information in "Notices" on page 17.

This edition applies to version 6.3.1.10 of IBM Tivoli Composite Application Manager for Microsoft Applications: Microsoft Hyper-V Server Agent (product number 5724-U17) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. Overview of the agent

The IBM Tivoli Composite Application Manager for Microsoft Applications: Microsoft Hyper-V Server Agent (product code HV) provides you with the capability to monitor Microsoft Hyper-V Server. You can also use the agent to take basic actions with the Microsoft Hyper-V Server.

IBM® Tivoli® Monitoring is the base software for the Microsoft Hyper-V Server agent.

IBM Tivoli Monitoring

IBM Tivoli Monitoring provides a way to monitor the availability and performance of all the systems in your enterprise from one or several designated workstations. It also provides useful historical data that you can use to track trends and to troubleshoot system problems.

You can use IBM Tivoli Monitoring to achieve the following tasks:

- Monitor for alerts on the systems that you are managing by using predefined situations or custom situations.
- Establish your own performance thresholds.
- Trace the causes leading to an alert.
- Gather comprehensive data about system conditions.
- Use policies to take actions, schedule work, and automate manual tasks.

The Tivoli Enterprise Portal is the interface for IBM Tivoli Monitoring products. You can use the consolidated view of your environment as seen in the Tivoli Enterprise Portal to monitor and resolve performance issues throughout the enterprise.

See the IBM Tivoli Monitoring publications listed in “Prerequisite publications” on page 15 for complete information about IBM Tivoli Monitoring and the Tivoli Enterprise Portal.

Functions of the monitoring agent

Availability Monitoring

Monitors the following services:

- Hyper-V Image Management Service
- Hyper-V Networking Management Service
- Hyper-V Virtual Machine Management Service
- Hyper-V Data Exchange Service
- Hyper-V Guest Shutdown Service
- Hyper-V Heartbeat Service
- Hyper-V Remote Desktop Virtualization Service
- Hyper-V Time Synchronization Service
- Hyper-V Volume Shadow Copy Requestor

Configuration Information

Provides Hyper-V configuration and virtual machine configuration information such as the number of virtual machines, the state of the virtual machines, the number of allocated virtual disks, the allocated virtual memory, the number of allocated virtual processors, and so on.

Performance Monitoring

Collects performance attributes in the following areas, providing situations where appropriate:

- Event Log

- Root Virtual Processor
- Virtual Processor
- Logical Processor
- Hypervisor Root Partition
- Hypervisor Partition
- Virtual Machine
- Virtual Disk
- Virtual Memory
- Dynamic Memory
- Virtual Network
- Resource metering
- VM Migration without Cluster
- VM Storage Migration
- VM Replication
- VM Replication Statistics
- Hyper-V Server Disk
- Hyper-V Server Network Interface

Enterprise Dashboard

Displays the enterprise level information for all the Hyper-V systems in the following areas:

- Physical Processor Utilization
- Memory Utilization
- Network Utilization
- Disk Operations Rate
- Logical Processor Utilization
- Virtual Processor Utilization

Actions

Provides actions to start and stop the Hyper-V services and virtual machines and to enable resource metering.

High Availability Monitoring

Monitors the high availability of virtual machines. The agent uses the following crosslink and workspaces to monitor the high availability of virtual machines:

- Cluster Migration Summary cross-link that is available on the Microsoft Hyper-V Server navigator item to provide information about the active node where the clustered virtual machines are present.
- Cluster Dashboard cross-link that is available on the Migration navigator item to provide the information about the cluster and its resources capacity.
- VM Modification and Migration workspaces provide information on clustered virtual machines.

Dynamic Navigation View

Provides dynamic navigation view, which dynamically populates itself with available Hyper-V agents. This view organizes the agents according to their domain.

IBM Systems Director Integration

Provides integration with the IBM Systems Director. With the IBM Systems Director, you can open the VM control web page from the Tivoli Enterprise Portal and manage the physical and virtual machines.

New in this release

For version 6.3.1.10 of the Microsoft Hyper-V Server agent, no new features were added since version 6.3.1. For version 6.3.1 of the Microsoft Hyper-V Server agent, the following enhancements have been made since version 6.3, including the fix packs:

- Changes related to system requirements. See the information about system requirements in Software product compatibility reports (<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html>).
- New attribute groups:
 - VM Mig WO Cluster
 - VM Storage Migration
 - Hyper-V Replica VM
 - Hyper-V Replication Statistics
 - Hyper-V Server Disk
 - Hyper-V Server Network Interface
- New or changed attributes in the following attribute groups:
 - Hyper-V Dynamic Memory VM
 - Hyper-V Dynamic Memory Balancer
 - Memory
 - Disk
- New or changed workspaces:
 - VM Modification
 - VM Storage Migration
 - VM Replication
 - Dynamic Memory
 - Virtual Disk
 - Virtual Memory
 - Hypervisor
- New or changed views:
 - VM Migration without Cluster
 - VM Replication Statistics
 - Hyper-V Server Disk
 - Hyper-V Server Network Interface
 - Virtual Disk Details
 - Virtual Memory Details
 - Dynamic Memory VM
 - VM Replication
 - VM Storage Migration
- New or changed situations:
 - KHV_HV_VMMig_WO_Cluster_Info
 - KHV_HV_StorageMigrate_Info
 - KHV_VM_Replication_Health_Crit
 - KHV_VM_Replication_Health_Warn
- Updated the khv.baroc file to support event mapping changes
- Added new Cognos® data models and reports

- Added the Prerequisite Scanner report to verify the availability of tables and views in the Tivoli Data Warehouse for the predefined reports

Components of the IBM Tivoli Monitoring environment

After you install and set up the Microsoft Hyper-V Server agent, you have an environment that contains the client, server, and monitoring agent implementation for Tivoli Monitoring.

This Tivoli Monitoring environment contains the following components:

Tivoli Enterprise Portal client

The portal has a user interface based on Java™ for viewing and monitoring your enterprise.

Tivoli Enterprise Portal Server

The portal server is placed between the client and the Tivoli Enterprise Monitoring Server and enables retrieval, manipulation, and analysis of data from the monitoring agents. The Tivoli Enterprise Portal Server is the central repository for all user data.

Tivoli Enterprise Monitoring Server

The monitoring server acts as a collection and control point for alerts received from the monitoring agents, and collects their performance and availability data. The Tivoli Enterprise Monitoring Server is also a repository for historical data.

Tivoli Enterprise Monitoring Agent, Microsoft Hyper-V Server agent

This monitoring agent collects data and distributes the data to the Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, Tivoli Enterprise Portal, Tivoli Data Warehouse, and Tivoli Integrated Portal.

IBM Tivoli Netcool/OMNIBus

Tivoli Netcool/OMNIBus is an optional component and the recommended event management component. The Netcool/OMNIBus software is a service level management (SLM) system that delivers real-time, centralized monitoring of complex networks and IT domain events. Event information is tracked in a high-performance, in-memory database and presented to specific users through individually configurable filters and views. The software includes automation functions that you can use to perform intelligent processing on managed events. You can use this software to forward events for Tivoli Monitoring situations to Tivoli Netcool/OMNIBus.

IBM Tivoli Enterprise Console®

The Tivoli Enterprise Console is an optional component that acts as a central collection point for events from various sources, including events from other Tivoli software applications, Tivoli partner applications, custom applications, network management platforms, and relational database systems. You can view these events through the Tivoli Enterprise Portal (by using the event viewer), and you can forward events from Tivoli Monitoring situations to the Tivoli Enterprise Console component. If you do not already use Tivoli Enterprise Console and need an event management component, you can choose to use IBM Tivoli Netcool/OMNIBus.

IBM Tivoli Common Reporting

Tivoli Common Reporting is a separately installable feature available to users of Tivoli software that provides a consistent approach to generating and customizing reports. Some individual products provide reports that are designed for use with Tivoli Common Reporting and have a consistent look and feel.

IBM Tivoli Application Dependency Discovery Manager (TADDM)

TADDM delivers automated discovery and configuration tracking capabilities to build application maps that provide real-time visibility into application complexity.

IBM Tivoli Business Service Manager

The Tivoli Business Service Manager component delivers real-time information to help you respond to alerts effectively based on business requirements. Optionally, you can use this component to meet service-level agreements (SLAs). Use the Tivoli Business Service Manager

tools to help build a service model that you can integrate with Tivoli Netcool/OMNIBus alerts or optionally integrate with data from an SQL data source. Optional components provide access to data from other IBM Tivoli applications such as Tivoli Monitoring and TADDM.

Tivoli Integrated Portal

Tivoli Integrated Portal helps the interaction and secure passing of data between Tivoli products through a common portal. Within the same dashboard view, you can launch from one application to another and research different aspects of your managed enterprise. This component is installed automatically with the first Tivoli product that uses the Tivoli Integrated Portal framework. Subsequent products can install updated versions of Tivoli Integrated Portal. After version 2.2, this component is replaced by the Dashboard Application Services Hub.

Agent Management Services

You can use IBM Tivoli Monitoring Agent Management Services to manage the Microsoft Hyper-V Server agent.

Agent Management Services is available for the following IBM Tivoli Monitoring OS agents: Windows, Linux, and UNIX. The services are designed to keep the Microsoft Hyper-V Server agent available, and to provide information about the status of the product to the Tivoli Enterprise Portal. For more information about Agent Management Services, see *Agent Management Services* in the *IBM Tivoli Monitoring Administrator's Guide*. IBM Tivoli Monitoring V6.2.2, Fix Pack 2 or later provides support for Agent Management Services. .

User interface options

Installation of the base IBM Tivoli Monitoring software and other integrated applications provides various interfaces that you can use to work with your resources and data.

The following interfaces are available:

Tivoli Enterprise Portal user interface

You can run the Tivoli Enterprise Portal as a desktop application or a browser application. The client interface is a graphical user interface (GUI) based on Java on a Windows or Linux workstation. The browser application is automatically installed with the Tivoli Enterprise Portal Server. The desktop application is installed by using the Tivoli Monitoring installation media or with a Java Web Start application. To start the Tivoli Enterprise Portal browser client in your Internet browser, enter the URL for a specific Tivoli Enterprise Portal browser client installed on your Web server.

Command-line interface

You can use Tivoli Monitoring commands to manage the Tivoli Monitoring components and their configuration. You can also run commands at the Tivoli Enterprise Console event server or the Tivoli Netcool/OMNIBus ObjectServer to configure event synchronization for enterprise situations.

Manage Tivoli Enterprise Monitoring Services window

You can use the window for the Manage Tivoli Enterprise Monitoring Services utility to configure the agent and start Tivoli services not designated to start automatically.

IBM Tivoli Netcool/OMNIBus event list

You can use the Netcool/OMNIBus event list to monitor and manage events. An event is created when the Netcool/OMNIBus ObjectServer receives an event, alert, message, or data item. Each event is made up of columns (or fields) of information that are displayed in a row in the ObjectServer alerts.status table. The Tivoli Netcool/OMNIBus web GUI is also a web-based application that processes network events from one or more data sources and presents the event data in various graphical formats.

IBM Tivoli Enterprise Console

You can use the Tivoli Enterprise Console to help ensure the optimal availability of an IT service for an organization. The Tivoli Enterprise Console is an event management application that integrates system, network, database, and application management. If you do not already use Tivoli Enterprise Console and need an event management component, you can choose to use Tivoli Netcool/OMNIBus.

IBM Tivoli Common Reporting

Use the Tivoli Common Reporting web user interface for specifying report parameters and other report properties, generating formatted reports, scheduling reports, and viewing reports. This user interface is based on the Tivoli Integrated Portal.

IBM Tivoli Application Dependency Discovery Manager

The Discovery Management Console is the TADDM client user interface for managing discoveries.

IBM Tivoli Business Service Manager

The Tivoli Business Service Manager console provides a graphical user interface that you can use to logically link services and business requirements within the service model. The service model provides an operator with a second-by-second view of how an enterprise is performing at any moment in time or how the enterprise performed over a time period.

Data sources

Monitoring agents collect data from specific data sources.

The Microsoft Hyper-V Server agent collects data from the following sources:

WMI By using WMI (Windows Management Instrumentation), you can monitor and control managed resources throughout the network. Resources include hard drives, file systems, operating system settings, processes, services, shares, registry settings, networking components, event logs, users, and groups. WMI is built into clients with Windows 2000 or later, and can be installed on any 32-bit Windows client.

Perfmon

Use the Windows Performance Monitor, or Perfmon, to view various system and application performance metrics for collection and use by management applications. You typically view system metrics on a Windows system through the 'perfmon' application.

Scripts

The agent uses application-specific commands and interfaces to gather metrics.

Windows Event Log

The agent collects Windows Event Log entries related to the monitored resource and forwards them to IBM Tivoli Monitoring.

Table 1. Mechanisms used to gather attributes

Attribute group	Collection source
Availability	Operating system
Performance Object Status	Operating system
Hypervisor	WMI
Hyper-V Summary	WMI
Director	IBM Director Environment variable
Hyper-V Dynamic Memory Balancer	Perfmon
Hyper-V Dynamic Memory VM	Perfmon
Virtual Machine	WMI

Table 1. Mechanisms used to gather attributes (continued)

Attribute group	Collection source
Hyper-V Virtual Machine Summary	Perfmon
Hyper-V Virtual Machine Health Summary	Perfmon
Hyper-V Virtual Machine Bus	Perfmon
Hyper-V Task Manager Detail	Perfmon
Hyper-V Task Manager Recent Time	Perfmon
Hyper-V Hypervisor Root Partition	Perfmon
Disk	WMI
Hyper-V Virtual IDE Controller	Perfmon
Hyper-V Virtual Storage Device	Perfmon
Memory	WMI
Hyper-V VM Vid Partition	Perfmon
Processor	WMI
Hyper-V Hypervisor Logical Processor	Perfmon
Hyper-V Hypervisor Root Virtual Processor	Perfmon
Hyper-V Hypervisor Root Virtual Processor More	Perfmon
Hyper-V Hypervisor Virtual Processor	Perfmon
Hyper-V Hypervisor Virtual Processor More	Perfmon
Hyper-V VM IO APIC	Perfmon
Virtual Switch	WMI
VLAN Endpoint	WMI
Hyper-V Legacy Network Adapter	Perfmon
Hyper-V Virtual Switch	Perfmon
Hyper-V Virtual Switch Port	Perfmon
Hyper-V Virtual Network Adapter	Perfmon
Hyper-V VM Association with Virtual Network	WMI
Migration	WMI
Memory in Percentage	Script
Event Log	Windows Event Log
VM Modification	Windows Event Log
Hyper-V Virtual IDE Controller Win2K12	Perfmon
Hyper-V Virtual IDE Controller Filter	Hyper-V Virtual IDE Controller and Hyper-V Virtual IDE Controller Win2K12 attribute groups.
Resource Metering	PowerShell
Hyper-V Replication Statistics	WMI
Hyper-V Server Disk	WMI
Hyper-V Server Network Interface	WMI
Hyper-V Replica VM	Perfmon
VM Storage Migration	CDP
VM Mig WO Cluster	CDP

Chapter 2. Agent installation and configuration

Agent installation and configuration requires the use of the *IBM Tivoli Monitoring Installation and Setup Guide* and agent-specific installation and configuration information.

To install and configure the Microsoft Hyper-V Server agent, use the *Installing monitoring agents* procedures in the *IBM Tivoli Monitoring Installation and Setup Guide* along with the agent-specific installation and configuration information.

If you are installing silently by using a response file, see *Performing a silent installation of IBM Tivoli Monitoring* in the *IBM Tivoli Monitoring Installation and Setup Guide*.

With the self-describing agent capability, new or updated IBM Tivoli Monitoring agents using IBM Tivoli Monitoring V6.2.3 or later can become operational after installation without having to perform additional product support installation steps. To take advantage of this capability, see *Enabling self-describing agent capability at the hub monitoring server* in the *IBM Tivoli Monitoring Installation and Setup Guide*. Also, see *Self-describing monitoring agents* in the *IBM Tivoli Monitoring Administrator's Guide*.

Requirements

Before installing and configuring the agent, make sure your environment meets the requirements for the IBM Tivoli Composite Application Manager for Microsoft Applications: Microsoft Hyper-V Server Agent.

For the most current information about system requirements, see the Software product compatibility reports (<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html>). Search for the ITCAM for Microsoft Applications product.

Language pack installation

The steps for installing language packs depend on which operating system and mode of installation you are using.

To install a language pack for the agent support files on the Tivoli Enterprise Monitoring Server, the Tivoli Enterprise Monitoring Agent, and the Tivoli Enterprise Portal Server, make sure that you installed the product in the English language. Then use the steps for the operating system or mode of installation you are using:

- “Installing language packs on Windows systems”
- “Installing language packs on UNIX or Linux systems” on page 10
- “Installing language packs on Windows, UNIX, or Linux systems silently” on page 10

Installing language packs on Windows systems

You can install the language packs on a Windows system.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. On the language pack CD, double-click the `lpinstaller.bat` file to start the installation program.
2. Select the language of the installer and click **OK**.
3. In the Introduction panel, click **Next**

4. Click **Add/Update** and click **Next**.
5. Select the folder where the National Language Support package (NLSPackage) files are located. Typically, the NLSPackage files are located in the `nlspackage` folder where the installer executable file is located.
6. Select the language support for the agent of your choice and click **Next**. To make multiple selections, press Ctrl and select the language that you want.
7. Select the languages that you want to install and click **Next**.
8. Examine the installation summary page and click **Next** to begin installation.
9. After installation completes, click **Finish** to exit the installer.
10. Restart the Tivoli Enterprise Portal, Tivoli Enterprise Portal Server, and Eclipse Help Server if any of these components are installed.

Installing language packs on UNIX or Linux systems

You can install the language packs on a UNIX or Linux system.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. Enter the `mkdir` command to create a temporary directory on the computer, for example, `mkdir dir_name`. Make sure that the full path of the directory does not contain any spaces.
2. Mount the language pack CD to the temporary directory that you created.
3. Enter the following command to start the installation program:

```
cd dir_name |pinstaller.sh -c install_dir
```

Where: *install_dir* is where you installed IBM Tivoli Monitoring. Typically, the directory name is `/opt/IBM/ITM` for UNIX and Linux systems.

4. Select the language of the installer and click **OK**.
5. In the Introduction panel, click **Next**.
6. Click **Add/Update** and click **Next**.
7. Select the folder where the National Language Support package (NLSPackage) files are located. Typically, the NLSPackage files are located in the `nlspackage` folder where the installer executable file is located.
8. Select the language support for the agent of your choice and click **Next**. To make multiple selections, press Ctrl and select the language that you want.
9. Select the languages that you want to install and click **Next**.
10. Examine the installation summary page and click **Next** to begin installation.
11. After installation completes, click **Finish** to exit the installer.
12. Restart the Tivoli Enterprise Portal, Tivoli Enterprise Portal Server, and Eclipse Help Server if any of these components are installed.

Installing language packs on Windows, UNIX, or Linux systems silently

You can use the silent-mode installation method to install the language packs. In silent mode, the installation process obtains the installation settings from a predefined response file. It does not prompt you for any information.

Before you begin

First, make sure that you installed the product in the English language.

Procedure

1. Copy and paste the `ITM_Agent_LP_silent.rsp` response file template as shown in “Response file example.”
2. Change the following parameter settings:

NLS_PACKAGE_FOLDER

Folder where the National Language Support package (NLSPackage) files are located. Typically, the NLSPackage files are located in the `nlspackage` folder, for example:
`NLS_PACKAGE_FOLDER = //tmp//LP//nlspackage.`

PROD_SELECTION_PKG

Name of the language pack to install. Several product components can be included in one language package. You might want to install only some of the available components in a language pack.

BASE_AGENT_FOUND_PKG_LIST

Agent for which you are installing language support. This value is usually the same as `PROD_SELECTION_PKG`.

LANG_SELECTION_LIST

Language you want to install.

3. Enter the command to install the language pack with a response file (silent installation):

- For Windows systems:
`lpinstaller.bat -f path_to_response_file`
- For UNIX or Linux systems:
`lpinstaller.sh -c candle_home -f path_to_response_file`

where `candle_home` is the IBM Tivoli Monitoring base directory.

Response file example

```
# IBM Tivoli Monitoring Agent Language Pack Silent Installation Operation
#
#This is a sample response file for silent installation mode for the IBM Tivoli
#Monitoring Common Language Pack Installer.
#
#This file uses the IBM Tivoli Monitoring Common Agent Language Pack with the
#install package as an example.
#Note:
#This response file is for the INSTALLATION of language packs only.
#This file does not support UNINSTALLATION of language packs in silent mode.
#-----
#-----
#To successfully complete a silent installation of the the example of Common Agent
#localization pack, complete the following steps:
#
#1.Copy ITM_Agent_LP_silent.rsp to the directory where lpinstaller.bat or
#lpinstaller.sh is located (IBM Tivoli Monitoring Agent Language Pack build
#location).
#
#2.Modify the response file so that it is customized correctly and completely for
#your site.
# Complete all of the following steps in the response file.
#
#3.After customizing the response file, invoke the silent installation using the
#following command:
#For Windows:
# lpinstaller.bat -f <path_to_response_file>
#For UNIX and Linux:
# lpinstaller.sh -c <candle_home> -f <path_to_response_file>
#Note:<candle_home> is the IBM Tivoli Monitoring base directory.
#-----
```

```

#-----
#Force silent install mode.
#-----
INSTALLER_UI=silent
#-----
#Run add and update actions.
#-----
CHOSEN_INSTALL_SET=ADDUPD_SET
#-----
#NLS Package Folder, where the NLS Packages exist.
#For Windows:
# Use the backslash-backslash(\\) as a file separator (for example,
#C:\\zosgm\\LCD7-3583-01\\nlspackage).
#For UNIX and Linux:
# Use the slash-slash (//) as a file separator (for example,
#//installtivolii//lpsilenttest//nlspackage).
#-----
#NLS_PACKAGE_FOLDER=C:\\zosgm\\LCD7-3583-01\\nlspackage
NLS_PACKAGE_FOLDER=//tmp//LP//nlspackage
#-----
#List the packages to process; both variables are required.
#Each variable requires that full paths are specified.
#Separate multiple entries with a semicolon (;).
#For Windows:
# Use the backslash-backslash(\\) as a file separator.
#For Unix and Linux:
# Use the slash-slash (//) as a file separator.
#-----
#PROD_SELECTION_PKG=C:\\zosgm\\LCD7-3583-01\\nlspackage\\KIP_NLS.nlspkg
#BASE_AGENT_FOUND_PKG_LIST=C:\\zosgm\\LCD7-3583-01\\nlspackage\\KIP_NLS.nlspkg
PROD_SELECTION_PKG=//tmp//LP//nlspackage//kex_nls.nlspkg;//tmp//LP//nlspackage//
koq_nls.nlspkg
BASE_AGENT_FOUND_PKG_LIST=//tmp//LP//nlspackage//kex_nls.nlspkg;//
tmp//LP//nlspackage//koq_nls.nlspkg
#-----
#List the languages to process.
#Separate multiple entries with semicolons.
#-----
LANG_SELECTION_LIST=pt_BR;fr;de;it;ja;ko;zh_CN;es;zh_TW

```

Running as a non-administrator user

You can run the monitoring agent for Hyper-V Server as a non-administrator user; however, some functionality is unavailable.

To create a non-administrator user, create a new user (non-administrator) and set up registry permissions for the new user as follows:

- Full access to the HKEY_LOCAL_MACHINE\SOFTWARE\Candle directory
- Read access to the HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Perflib directory
- Full access to the CANDLE_HOME directory

If you define these permissions for a non-administrator user, data is displayed for all the Perfmon-based attribute groups.

The following attribute groups show data for users who are members of the *Administrators* group:

- Migration
- Hypervisor
- Hyper-V Summary
- Virtual Machine
- Disc

- Memory
- Processor
- Virtual Switch
- VLAN Endpoint
- VM Association with Virtual Network

Prerequisites checking

The prerequisite checker utility verifies whether all the prerequisites that are required for the agent installation are met. The prerequisite checker creates a log file that contains a report of all the prerequisites checks when the prerequisite checker was run.

For the Microsoft Hyper-V Server agent, the prerequisite checker verifies the following requirements:

- Memory
- Disk
- Operating systems
- Microsoft Hyper-V Server versions

Additionally, the prerequisite checker verifies whether the user, who installs the agent, is a member of the Administrators group.

For detailed information about installation prerequisites, see the Software product compatibility reports (<http://publib.boulder.ibm.com/infocenter/prodguid/v1r0/clarity/index.html>).

You can run the prerequisite checker in stand-alone mode or remotely. For more information about the prerequisite checker, see "Prerequisite Checking for IBM Tivoli Monitoring Agents" in the *IBM Tivoli Monitoring Installation and Setup Guide*.

Agent-specific installation and configuration

In addition to the installation and configuration information in the *IBM Tivoli Monitoring Installation and Setup Guide*, use this agent-specific installation and configuration information to install the Microsoft Hyper-V Server agent.

No special setup is necessary to manage this application.

Configuration values

For both local and remote configuration, you provide the configuration values for the agent to operate.

When you are configuring an agent, a panel is displayed so you can enter each value. When a default value exists, this value is pre-entered into the field. If a field represents a password, two entry fields are displayed. You must enter the same value in each field. The values you type are not displayed to help maintain the security of these values.

The configuration for this agent is organized into the following groups:

IBM Systems Director configuration (IBM_DIRECTOR_CONFIGURATION)

Null Description for section.

The configuration elements defined in this group are always present in the agent's configuration.

This group defines information that applies to the entire agent.

IBM Systems Director Server Port Number (KHV_DIRECTOR_PORT)

This is the port number for the IBM Systems Director Server.

The type is numeric.

This value is optional.

Default value: None

IBM Systems Director Server Host Name (KHV_DIRECTOR_SERVER)

Host name or IP address of the IBM Systems Director Server that is managing the environment.

The type is string.

This value is optional.

Default value: None

Authenticate using Tivoli Enterprise Portal credentials (KHV_TEP_CREDENTIAL)

Indicates whether or not to authenticate to the IBM Systems Director Server using the Tivoli Enterprise Portal userid and password.

The type is one of the following values: "Yes", "No".

This value is optional.

Default value: Yes

Remote installation and configuration

You can install the monitoring agent remotely from the Tivoli Enterprise Portal or from the command line.

When installing the agent remotely, you must provide the configuration values for the agent to operate. See "Configuration values" on page 13.

To install from the portal, see the *IBM Tivoli Monitoring Installation and Setup Guide*.

To remotely install or configure an agent through the Tivoli Enterprise Portal, you must have installed the application support for that agent (Tivoli Enterprise Monitoring Server, Tivoli Enterprise Portal Server, and Tivoli Enterprise Portal). You must also have installed the agent bundle into the Remote Deploy Depot.

For information about displaying the configuration options that are available to use with the **configureSystem** or **addSystem** commands see "tacmd describeSystemType" in the *IBM Tivoli Monitoring Command Reference*.

If you are using the command line, the following command is an example of remote installation and configuration for Windows operating systems:

```
tacmd addSystem -t HV -n Primary:sample.node.name:NT
-p IBM_DIRECTOR_CONFIGURATION.KHV_DIRECTOR_PORT=value
  IBM_DIRECTOR_CONFIGURATION.KHV_DIRECTOR_SERVER=value
  IBM_DIRECTOR_CONFIGURATION.KHV_TEP_CREDENTIAL=value
```

Appendix. ITCAM for Microsoft Applications documentation library

Various publications are relevant to the use of ITCAM for Microsoft Applications.

For information about how to access and use the publications, see *Using the publications* (http://www.ibm.com/support/knowledgecenter/SSTFXA_6.3.0.1/com.ibm.itm.doc_6.3/common/using_publications.htm).

To find publications from the previous version of a product, click **Previous versions** under the name of the product in the **Contents** pane.

Documentation for this product is in the ITCAM for Microsoft Applications Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSDKXQ_6.3.1/com.ibm.itcamms.doc_6.3.1/welcome_msapps631.html)

- Quick Start Guides
- Offering Guide
- Download instructions
- Links to Prerequisites
- Installation and Configuration Guide for each agent
- Link to Reference information for each agent
- Link to Troubleshooting Guide for each agent

Prerequisite publications

To use the information about the agents effectively, you must have some prerequisite knowledge.

See the following information at the IBM Tivoli Monitoring Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSTFXA_6.3.0.2/com.ibm.itm.doc_6.3fp2/welcome.htm) to gain prerequisite knowledge:

- *IBM Tivoli Monitoring Administrator's Guide*
- *IBM Tivoli Monitoring Installation and Setup Guide*
- *IBM Tivoli Monitoring High Availability Guide for Distributed Systems*
- IBM Tivoli Monitoring: Installation and Configuration Guides for the following agents: Operating System agents and Warehouse agents
- IBM Tivoli Monitoring: User's Guides for the following agents: Agentless OS monitors, Log file agent, System p agents, Systems Director base agent
- *IBM Tivoli Monitoring Agent Builder User's Guide*
- *IBM Tivoli Monitoring Command Reference*
- *IBM Tivoli Monitoring: Messages*
- *IBM Tivoli Monitoring Troubleshooting Guide*
- IBM Tivoli Monitoring: References for the following agents: Operating System agents and Warehouse agents
- IBM Tivoli Monitoring: Troubleshooting Guides for the following agents: Operating System agents and Warehouse agents
- *Tivoli Enterprise Portal User's Guide*

Related publications

The publications in related information centers provide useful information.

See the following information centers, which you can find by accessing Tivoli Documentation Central (<https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli%20Documentation%20Central>):

- Tivoli Monitoring
- Tivoli Application Dependency Discovery Manager
- Tivoli Business Service Manager
- Tivoli Common Reporting
- Tivoli Enterprise Console
- Tivoli Netcool/OMNIBus

Tivoli Monitoring Community on Service Management Connect

Service Management Connect (SMC) is a repository of technical information that is organized by communities.

Access Service Management Connect at <https://www.ibm.com/developerworks/servicemanagement>.

For information about Tivoli products, see the Application Performance Management community (<http://www.ibm.com/developerworks/servicemanagement/apm/index.html>).

Connect, learn, and share with Service Management professionals. Get access to developers and product support technical experts who provide their perspectives and expertise. You can use SMC for these purposes:

- Become involved with transparent development, an ongoing, open engagement between other users and IBM developers of Tivoli products. You can access early designs, sprint demonstrations, product roadmaps, and prerelease code.
- Connect one-on-one with the experts to collaborate and network about Tivoli and the Application Performance Management community.
- Read blogs to benefit from the expertise and experience of others.
- Use wikis and forums to collaborate with the broader user community.

Other sources of documentation

You can obtain additional technical documentation about monitoring products from other sources.

See the following sources of technical documentation about monitoring products:

- IBM Integrated Service Management Library (<http://www.ibm.com/software/brandcatalog/ismlibrary/>) is an online catalog that contains integration documentation as well as other downloadable product extensions.
- IBM Redbook publications (<http://www.redbooks.ibm.com/>) include Redbooks® publications, Redpapers, and Redbooks technotes that provide information about products from platform and solution perspectives.
- Technotes (<http://www.ibm.com/support/entry/portal/software>), which are found through the IBM Software Support website, provide the latest information about known product limitations and workarounds.

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Printed in USA

SC27-5657-01

