USER GUIDE

HYCU
OBM Management Pack
for Citrix

HYCU

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Chapter 1

Introduction

This chapter introduces the HYCU OBM Management Pack for Citrix (Citrix MP) and explains how it interacts with Operations Bridge Manager (OBM) and Citrix.

About Citrix

Citrix is the leader in application and desktop virtualization, providing a complete, flexible solution that delivers Windows applications and desktops to any user on any device while keeping valuable information locked down in the datacenter. Citrix application and desktop virtualization technology helps your organization keep pace with changing business demands while increasing productivity, simplifying management, improving security, and reducing costs.

Citrix MP supports the following Citrix products:

- **Citrix Virtual Apps and Desktops**

   Citrix Virtual Apps and Desktops (CVAD), which was previously known as XenApps and XenDesktops (XAXD), is the central software component of the Citrix Windows application delivery infrastructure, it transforms Windows applications into secure mobile services. Virtual Apps is an on‑demand application delivery solution that enables any Windows application to be virtualized, centralized, and managed in the data center and instantly delivered as a service to users anywhere on any device. Citrix Virtual Desktops delivers full Windows VDI as well as virtual applications as secure mobile services and enables access to applications, desktops, and data.

- **Citrix StoreFront**

   Citrix StoreFront (SF) is an enterprise application store that helps IT enable mobility while allowing users to work from any device. It improves enterprise security and simplifies deployments to make it easier to manage multi-site Virtual Apps and Desktops environments.

- **Citrix Licensing**

   Citrix Licensing (CLS) allows licenses to be shared across the network. It stores license files that you need to license your product.

- **Citrix Provisioning**

   Citrix Provisioning (CPVS) allows you to have a single instance image management of your virtual machines hosted in the Virtual Apps and Desktops environment. The

computers are provisioned and re-provisioned in real-time from a single shared-disk image, which eliminates the need to manage and patch individual systems.

For more information, see the Citrix related documentation.

About OBM

OBM is the event management foundation for a complete Business Service Management (BSM) monitoring solution. It consolidates all IT infrastructure monitoring to provide a common structured event management model that applies the same processes to both business service management and IT infrastructure management. It enables you to keep track of all the events that occur in your monitored environment.

OBM provides automated monitoring and integration of multiple external applications. All event and performance management originating from servers, networks, applications, storage, and other IT silos in your infrastructure are consolidated into a single event stream in an advanced, central event console. The console displays monitoring alerts to the appropriate team of operators. You can quickly identify, monitor, troubleshoot, report on, and resolve problems in your distributed IT environment. These abilities make it possible for you to improve the performance and availability of the infrastructure and services in your monitored environment, adding to the efficiency and productivity of your business. OBM helps you locate and solve event-related issues before business service quality degrades. It offers the tools that help operators solve problems without involving a subject matter expert. With centralized, consolidated information, you can create consistent, reusable, and optimized processes for even response.

For more information, see the OBM documentation, located at:
https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?doctype=manuals

About Citrix MP

Citrix MP (HYCU OBM Management Pack for Citrix) is an availability and performance management solution that extends the end-to-end service monitoring capabilities of OBM to include the Citrix infrastructure. It fully integrates topology, health, and performance data into the OBM Operations Console, providing the operations overview across the Citrix Virtual Apps and Desktops environment and enabling delivery of effective business service management. Citrix MP enables users to monitor, detect, troubleshoot, solve, and prevent problems occurring in networks, systems, and applications Citrix environment. It also provides alerts generated according to availability, performance, configuration or security situations that are identified.

Citrix MP provides the following major features:

Discovery and visualization

- Automatic discovery and visualization of the Citrix environment (Virtual Apps and Desktops, StoreFront, Citrix Provisioning, and Citrix Licensing) using topology view and event, health, and performance perspectives.
- Centralized monitoring of the Citrix discovered hierarchies via the OBM Administration Console.

Health, availability, and performance monitoring

- Monitoring of the Citrix environment health and state from connectivity issues to utilization, load, and availability.
- Detection of performance degradation before it affects end users.

Monitoring of Citrix components and tasks

- Automatic detection of the Citrix components, such as:
  - Virtual Apps and Desktops: Delivery Controller, Applications, Virtual Machines, Services, Hypervisor Connection, Site, Delivery Groups
  - StoreFront: Server, Services, Broker, Receiver, Store, Farm
  - Citrix Licensing: Server, Services, Ports, License Files
  - Citrix Provisioning: Servers, Services, Device Collection, Store, Farm, vDisks
- Monitoring of the Citrix tasks such as:
  - StoreFront sites availability and performance
  - CVAD controller broker availability and performance from StoreFront point of view
  - User logon process and performance
  - CVAD delivery group availability, performance, and health
  - Server OSes health
  - Essential Citrix services and service interfaces
  - Citrix license usage and license services
  - TCP/IP port availability
  - Virtual desktop RAM cache utilization
  - Size of the device disk cache on a server
  - Network load
  - Citrix Provisioning server services

Problem identification and resolving mechanism

- Generating messages according to different availability, performance, configuration, or security problems and sorting them by users-profiles, so that the users see only messages they need.
- Event propagation to topology to visualize components in error state.

- Providing information that can help you identify the cause of a problem and possible solutions with instructions.
- Operator initiated actions that address frequent Citrix operations.

Reporting functionality

- Collecting data from the Citrix environment and keeping it for report generating purposes.
- Generating reports from the collected data considering user-defined scope and parameters.

The Citrix MP includes the following components for monitoring the health and status of the Citrix environment:

- Management Templates and Aspects
- Performance Dashboards
- Run-time Service Model (RTSM) Views
- Graph Templates
- Policy Templates
- Tools
- Report Templates

Agentless monitoring with VDA Machine Monitor

- Citrix MP provides a VDA Machine Monitor for the performance monitoring of the Server OS machines provisioned by Citrix Virtual Apps and Desktops. A Citrix MP VDA Machine Monitor eliminates a need to install the Micro Focus Operations agent software on those machines.

Architecture

The Citrix MP environment is a set of systems and components that discover, analyze, and manage the specified data in the Citrix infrastructure. It fully integrates topology, health, and performance data into the OBM Operations Console, providing the operations overview across Citrix. The Citrix MP environment consists of the following parts:

Citrix MP	Citrix MP is installed on the Operations Bridge Manager server. It consists of the Content Pack and the RTSM package.
Citrix monitored nodes	The Citrix components are installed on the OBM managed nodes (systems with the installed Micro Focus Operations Agent). Citrix MP subagent should be installed on the following Citrix systems to provide monitoring capabilities: - For Citrix Virtual Apps and Desktops: CVAD

	Delivery Controller - For Citrix StoreFront: StoreFront Server - For Citrix Licensing: Citrix license server - For Citrix Provisioning: Citrix Provisioning server - For VDA monitoring: A dedicated windows machine with remote access to CVAD delivery controllers and, to VDA machines tha will be monitored The Citrix Licensing and Citrix Provisioning are monitored without the Citrix MP subagent.
VDA Machine Monitor	VDA Machine Monitor is a Citrix MP component installed on a separate monitored node for the performance monitoring of the Windows Desktop and Server OS machines provisioned by Citrix Virtual Apps and Desktops. The Micro Focus Operations Agent and Citrix MP subagent should be also installed on this system.

This diagram shows how the systems and components in the Citrix MP environment interact with each other:
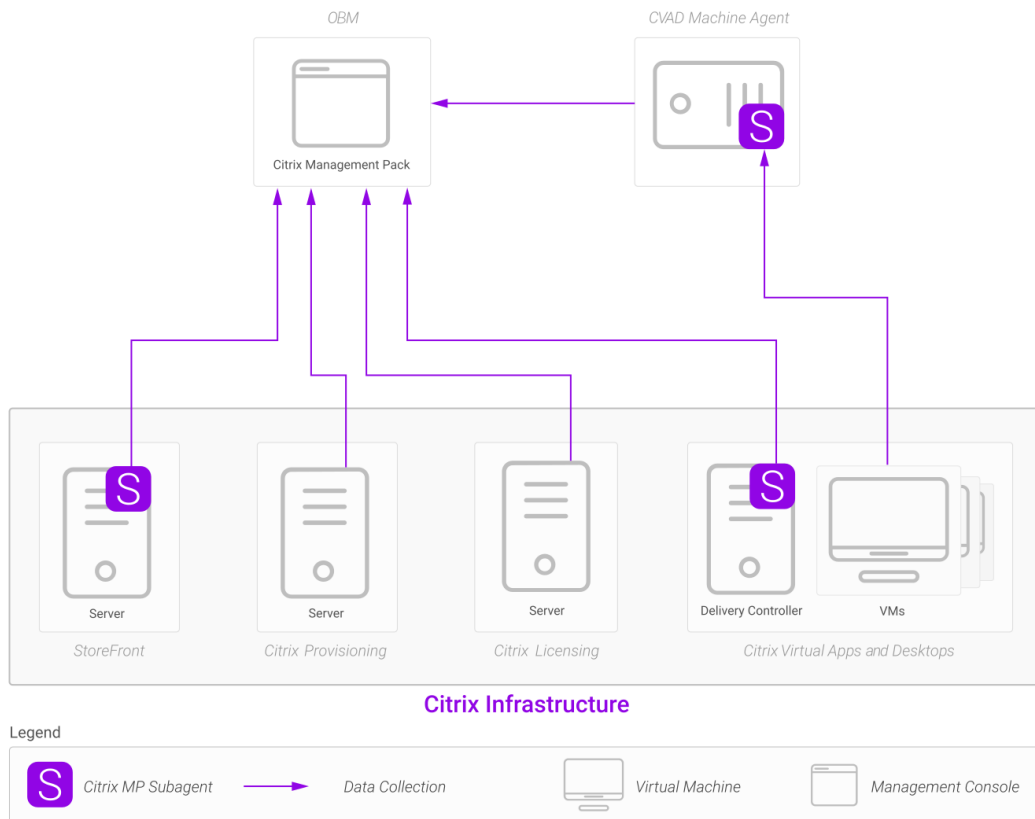
Figure 1–1: Citrix MP environment

Chapter 2

Installing and configuring

This chapter summarizes procedures to install and configure the Citrix MP on the OBM and the Citrix sides. The installation procedure refers to the standalone and distributed OBM Environments, it includes configuration and licensing tasks as well deployment of Citrix MP specific management templates and policies. See diagram "Installation flow" on the next page, which explains the installation procedure.

At the end of the installation procedure, your Citrix environment will be discovered and you will be able to start with monitoring.

The installation procedure consists of the following tasks:

1. Check system requirements. For more information, see "Installation requirements" on page 14.

2. Before installing Citrix MP, perform necessary procedures to prepare the OBM environment. This includes installing the Micro Focus Operations Agent on the Citrix Virtual Apps and Desktops, StoreFront, License Server, and the VDAM monitor systems that you want to monitor, adding them to OBM as managed nodes and granting certificate to these systems. If you installed an Micro Focus Operations Agent to monitor this system before, you can also use it for the Citrix MP. For detailed procedures, see "Preparing OBM environment" on page 14.

3. Install the Citrix MP on the OBM management server. If you have a distributed OBM environment, the procedure is different. For a detailed procedure, see:

   - "Installing Citrix MP on a standalone OBM management server" on page 15

   - "Installing Citrix MP on the OBM management server in a distributed environment" on page 15

4. Prepare the OBM managed nodes for the Citrix MP installation. For a detailed procedure, see "Preparing managed nodes for Citrix MP installation" on page 17.

5. Configure Citrix MP. For a detailed procedure, see "Configuring Citrix MP" on page 18.

6. Perform licensing related tasks. For a detailed procedure, see "Licensing Citrix MP" on page 19.

7. Install Citrix MP on managed nodes. For a detailed procedure, see "Installing Citrix MP on managed nodes" on page 21.

8. Deploy the `Citrix MP Discovery` management template to the nodes with the Citrix

environment you want to monitor (Virtual Apps and Desktops, StoreFront, License Server, VDA Machine Monitor, Citrix Provisioning). For a detailed procedure, see "Deploying the Citrix MP Discovery management template" on page 22.

9. Perform initial discovery of the Citrix environment. For a detailed procedure, see "Initial discovery" on page 23.

10. Verify that the required management templates are assigned automatically. If it is required by your environment, you can additionally assign some aspects that are not included in the auto-assignment rules. For details, see "Citrix management templates assignment" on page 23.

The following diagram explains the installation flow:
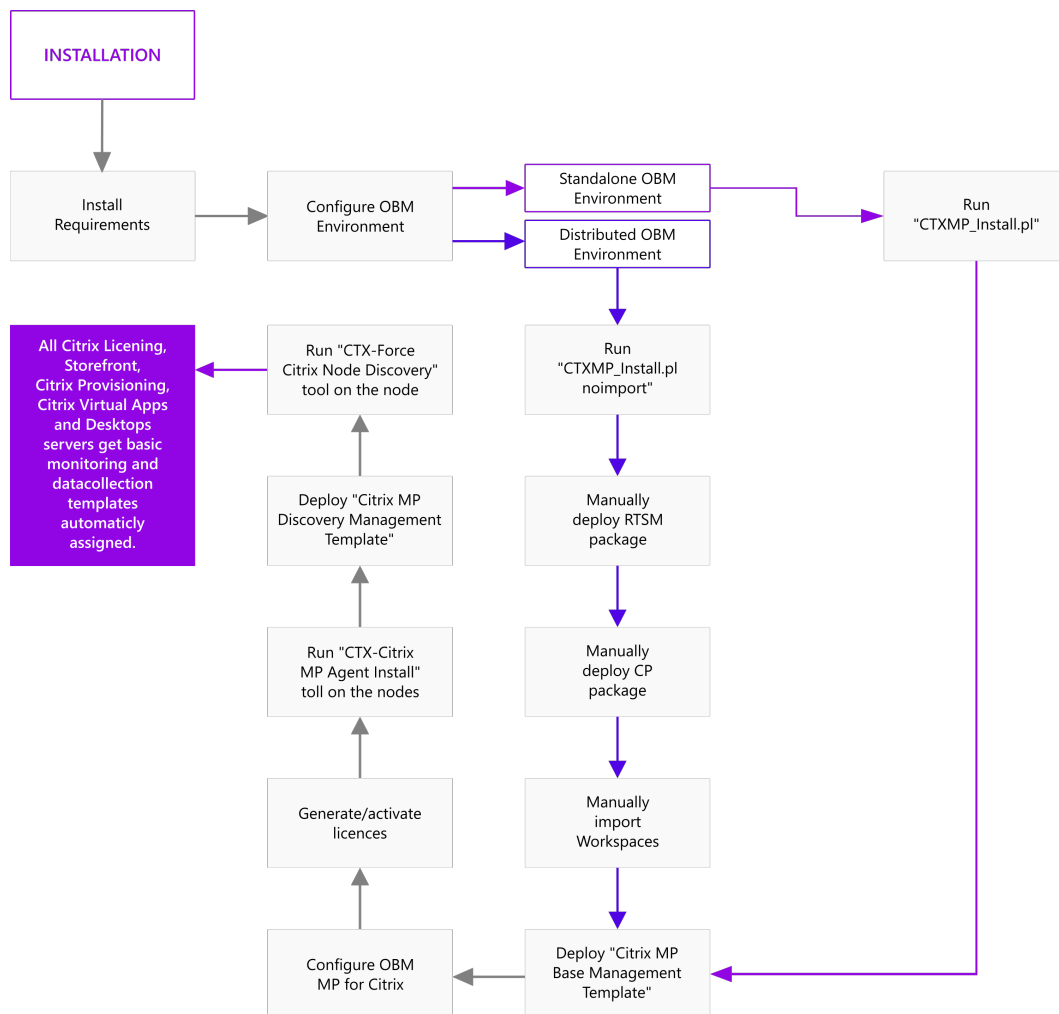
Figure 2–1: Installation flow

Installation requirements

For detailed information on Citrix MP and OBM including hardware and software requirements, operating systems support, installation and configuration procedures, See the product related documentation at:

https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?doctype=manuals

Before you start with the Citrix MP installation, make sure that the installation requirements are met.

- The following required software is installed and configured. For the supported versions of the required software, see the *Citrix MP Support Matrix*.
  - OBM for Linux or OBM for Windows
  - Citrix Virtual Apps and Desktops
  - Citrix StoreFront
  - Citrix Provisioning
  - Citrix Licensing
  - Micro Focus Operations Bridge Reporter (Micro Focus OBR)
- On the Citrix Virtual Apps and Desktops delivery controllers, StoreFront servers, and Citrix Provisioning Server systems that you want to monitor, a user account with all administrator's rights exists.
- The following OBM Management Pack is installed: `OBM Management Pack for Infrastructure`.

Preparing OBM environment

Before installing Citrix MP, make sure that the OBM environment is configured appropriately and is prepared for installation. Perform these procedures for every system that you want to monitor using Citrix MP.

For detailed information on Citrix MP and OBM including hardware and software requirements, operating systems support, installation and configuration procedures, see the product related documentation at:

https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?doctype=manuals

1. Install the Micro Focus Operations Agent on every node that you want to monitor using Citrix MP.

   If you used the Micro Focus Operations Agent to monitor the managed nodes Citrix environment before, you can use this agent also for the Citrix MP. If the OBM agent is already installed, skip this procedure and continue with installing MP.

2. Add a new node that you want to monitor using Citrix MP.

In the OBM Administration console, select **Administration** > **Setup and Maintenance** > **Monitored Nodes** and then add a new node with the supported Citrix application installed.

3. Grant a certificate request to the node.

    In the OBM Administration console, select **Administration** > **Setup and Maintenance** > **Certificate Requests**, then select the pending certificate request for the node and grant it.

Installing Citrix MP on a standalone OBM management server

Run the installation of the Citrix MP on the OBM management server.

1. Log in to the OBM management server as administrator.

2. Mount the Citrix MP installation ISO image or extract the content of the ZIP file to the installation depot (*<InstallDepot>*).

3. In the command-line console, run the following command:

    On Windows:

    ```
    "<OvInstallDir>\nonOV\perl\a\bin\perl.exe" "<InstallDepot>\CTXMP_
    Install.pl"
    ```

    On Linux:

    ```
    # <InstallDepot>/CTXMP_Install.pl
    ```

4. Follow the prompts and provide the username and password that you use to log in to the OBM management server. If you have a configured HTTPS server, grant the certificate when prompted by clicking **y**.

Installing Citrix MP on the OBM management server in a distributed environment

Run the installation of the Citrix MP on the OBM management server.

1. Log in to the OBM management server as administrator.

2. Mount the Citrix MP installation ISO image or extract the content of the ZIP file to the installation depot (*<InstallDepot>*).

3. In the command-line console, run the following command:

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On Windows:

```
"<OvInstallDir>\nonOV\perl\a\bin\perl.exe" "<InstallDepot>\CTXMP_
Install.pl noimport"
```

On Linux:

```
# <InstallDepot>/CTXMP_Install.pl noimport
```

Follow the prompts and provide the username and password that you use to log in to the OBM management server. If you have a configured HTTPS server, grant the certificate when prompted by clicking **y**.

> ⚠ Important If your distributed environment contains more than one Gateway server, run this command on every Gateway server system.

4. Log in to the OBM Administration Console as administrator.

5. Import the RTSM package:

   a. Switch to the Package Manager (**Administration** > **RTSM Administration** > **Package Manager**).

   b. Click ⬙ **Deploy packages to server (from local disk)**.

   c. In the Deploy Packages to Server window, click ⊞ **Add**.

   d. Navigate to the Citrix MP installation depot, select the HPOprCtx.zip package, and then click **Open**.

   e. In the Deploy Packages to Server window, click select the HPOprCtx.zip package and then click **Deploy**.

   f. In the Status Report window, click **OK**.

6. Import the Content Pack:

   a. Switch to the Content Packs View (**Administration** > **Setup and Maintenance** > **Content Packs**).

   b. Click 🗔 **Import Content Pack Definitions and Content...**

   c. In the Import Content Pack window, click **Choose File**, navigate to the Citrix MP installation depot, then select the OBM_Management_Pack_for_Citrix.zip, and then click **Import**.

   d. In the Result window, click **Close**.

7. Import the Workspaces:

   a. Connect to the OBM Gateway server.

   > 🗏 Note If you use more than one Gateway servers and load balancing, you need to perform this procedure just on one of them.

   b. Copy all files from the following location:

On Linux: From `//var/opt/OV/shared/SPI-Share/ctxspi/ws` to `//opt/HP/BSM/conf/uimashup/import/toload/Pages`

On Windows: From `\\%ProgramData%\HP\HPBTOSoftware\shared\SPI-Share\ctxspi\ws` to `\\%TOPAZ_HOME%\conf\uimashup\import\toload\Pages`

c. Go to OBM jmx console (http://<Gateway>:29000) and log in by using the jmx-console credentials.

> 📄 Note By default, remote access to jmx-console is blocked. If it needs to be enabled do so via Infrastructure Settings > context "Security".

d. In the Foundations section, click the **Foundations:service=UIMDataLoader** link.

e. Search for the `boolean loadAllData` section, then specify value **1** for customer ID, and then click **Invoke**.

Verifying installation Citrix MP on OBM management server

After the installation completes, Citrix MP related files and folders are located at:

Windows: `%ProgramData%\HP\HP BTO Software\shared\SPI-Share\ctxspi`

Linux: `/var/opt/OV/shared/SPI-Share/ctxspi`

The following new entities display in the OBM Administration Console:

- Content Packs View (**Administration** > **Setup and Maintenance** > **Content Packs**): `OBM Management Pack for Citrix`

- Configuration Folders (**Administration** > **Monitoring** > **Management Templates and Aspects**): `Citrix Management`

- Package Manager (**Administration** > **RTSM Administration** > **Package Manager**): `HpOprCtx`

Preparing managed nodes for Citrix MP installation

Perform this procedure on all managed nodes that will be monitored with the Citrix MP.

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click a managed node and then select **List Assignments for Selected Item...**

5. In the Assignments window, click the **New Assignments...** icon and then select **Assign**

Management Template…

An Assign and Deploy Management Template wizard starts.

6. Select **Citrix MP Base Management Template** template group and then click **Next**.

7. In the Parameter Summary window, review the specified parameters, make sure that the `Enable Assignment(s)` option is selected, and then click **Finish**.

8. After the deployment runs successfully, click **OK** in the Summary window.

Repeat this procedure for each managed node that will be monitored with the Citrix MP.

Configuring Citrix MP

Configure Citrix MP depending on your environment:

1. Log in to the OBM management server as administrator.

2. In the command-line console, run the following command to open the Citrix MP Configuration wizard:

   On Windows:

   ```
   "%OvInstallDir%\nonOV\perl\a\bin\perl.exe" "%ProgramData%\HP\HP BTO
   Software\shared\SPIShare\ctxspi\bin\CTX_ConfigTool.pl"
   ```

   On Linux:

   ```
   cd /var/opt/OV/shared/SPI-Share/ctxspi/bin
   /CTX_ConfigTool.pl
   ```

3. In the Citrix MP Configuration wizard, select the Citrix component you need to configure, and then enter the corresponding number to open the specific component configuration page. Depending on needs of your evironment, select the following components:

   - For StoreFront monitoring: `StoreFront Configuration`

   - For Virtual Apps and Desktops monitoring: `Virtual Apps and Desktops Configuration` and `Computer Configuration`

   - For VDA Machine Monitor: `VDA Machine Monitor Configuration`, `Computer Configuration`, and `Virtual Apps and Desktops Configuration`

   - For Citrix Provisioning monitoring: `Citrix Provisioning Configuration` and `Computer Configuration`

   ⎟ 🗒 Note License Server does not require specific configuration.

4. Enter **1** to start configuration.

5. Provide the following configuration settings for accessing and monitoring Citrix environment:

`StoreFront:` Store name and user account that can log in to the store web (you can use wildcards for a Store name). It is recommended that user account has at least one application or desktop assigned.

`Virtual Apps and Desktops:` Virtual Apps and Desktops site name, the site administrator account with the "`Log on as a service`" right

> 📋 Note Virtual Apps and Desktops site name is case-sensitive.

`Citrix Provisioning:` CPVS Farm name and the farm administrator account.

`VDA Machine Monitor:` hostname of the system where the Citrix MP VDA Machine Monitor will be installed and the list of Delivery Controllers (use a comma as a delimiter, for example, `DC1,DC2,DC3`) that you want to monitor with the VDA Machine Monitor (that the VDA Machine Monitor will connect to)

`Computer:` Delivery Controller or Provisioning Server hostnames and local administrator accounts on these systems (use a comma as a delimiter, for example, `DC1,DC2,DC3`); virtual machines hostnames (you can use wildcards to specify VDA machines hostnames, for example, `XADC1-*.domain.local`), VDA machines administrator accounts

> 📋 Note To specify the hostname, use the fully-qualified domain name (FQDN).

6. After you configure all needed Citrix components, exit the Citrix MP Configuration wizard.

   The `CTX_Config.json` configuration file is created in the following directory:

   On Windows: `<ProgramData>\HP\HP BTO Software\shared\SPI-Share\ctxspi\conf`

   On Linux: `/var/opt/OV/shared/SPI-Share/ctxspi/conf`

You can later change configuration by using the Citrix MP Configuration wizard.

Licensing Citrix MP

Before you can start using Citrix MP, you must obtain a valid license key for each Citrix Virtual Desktops Delivery Controller (DDC) or StoreFront server, Provisioning server that you want to monitor Citrix MP licenses are node locked. The number of Citrix MP licenses depends on the number of users on the Citrix license and the type of Citrix license you own. If you upgrade your licenses or you increase the number of Citrix user licenses you will have to upgrade or purchase additional Citrix MP licenses. You can use as many servers as needed to support the number of purchased user licenses.

The VDA Monitor Agent does not require a license file because it first communicates to the Delivery Controller before it can operate.

Prerequisite

You have already bought the Citrix MP licenses and have an entitlement order.

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1. Generate the license request file. See "Generating license request file" below.

2. Obtain the license activation file. See "Requesting and retrieving licenses" below.

3. Activate licenses on the management server. See "Activating licenses on the management server" on the next page.

4. Deploy the license files to the applicable managed nodes with Citrix environment you want to monitor. See "Installing Citrix MP on managed nodes" on the next page.

Generating license request file

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click the management server node and then select **Launch Tool...**

5. In the Select Tool window, select the `CTX-1.Clear License Request File on Mgmt Server` tool, and then click **Run**.

6. After the tool runs successfully, click **Close** in the Execution Result window.

7. In the All Nodes pane, select one or more managed nodes with the Citrix Virtual Apps and Desktops, right-click on them, and then select **Launch Tool...**

8. In the Select Tool window, select the `CTX-2.Generate License Request for Node` tool, and then click **Next**.

9. In the Specify Parameters window, specify your company name and then click **Run**.

10. After the tool runs successfully, click **Close** in the Execution Result window.

The `ctxmpi_license_requests.dat` is generated in `<ProgramData>\HP\HP BTO Software\shared\SPI-Share\ctxspi\conf`.

Requesting and retrieving licenses

After you create a license request file, you can obtain the licenses from the licensing portal.

Prerequisite

You have already bought the Citrix MP licenses and have an entitlement order. Have your purchase order (PO) information ready.

1. Connect to the web licensing portal at:

   https://licensing.hycu.com/

2. If you already have a licensing portal account, click **Sign in**, enter your user name and password, and then click **Login**. Otherwise, create an account and then sign in with a newly created user account.

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3. Click the **License Activation** link and then enter the Entitlement Order in the text box. Click **Next**.

4. Select **Citrix MP**, browse for your license request file, and then click **Send Request**.

   Within a few minutes, you should receive an email with a license activation file `ctxmpi_licact_new.dat` attached.

If you have issues with licensing portal or any license issues, you can send the generated license request file by e-mail to the HYCU Licensing Department at: support@hycu.com. Ensure that your email contains issue description, company information, and the purchase order number if requesting permanent licenses.

You will receive a license activation file `ctxmpi_licact_new.dat` by e-mail.

Activating licenses on the management server

After you submit your license request for Citrix MP licenses to the web licensing portal, you get an email with a product license activation file `ctxmpi_licact_new.dat` attached. Save this file at: *%ProgramData%*\HP\HP BTO Software\shared\SPI-Share\ctxspi\conf.

Before you start using Citrix MP, activate the licenses.

1. Log in to the OBM Administration Console as user `admin`.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click the management server node and then select **Launch Tool...**

5. In the Select Tool window, select the `CTX-3.Merge License Activation Codes on Mgmt Server` tool, and then click **Run**.

6. After the tool runs successfully, click **Close** in the Execution Result window.

7. Right-click the management server node and then select **Launch Tool...**

8. In the Select Tool window, select the `CTX-List License Activation Codes` tool, and then click **Run**.

The `ctxmpi_licact.dat` file is created in the following directory:

Windows: *%ProgramData%*\HP\HP BTO Software\shared\SPI-Share\ctxspi\conf.

Linux: /var/opt/OV/shared/SPI-Share/ctxspi/conf

Installing Citrix MP on managed nodes

Run the `CTX-Citrix MP Agent Install` tool to deploy the Citrix MP configuration file, license file, create and start Citrix MP related services on every managed node that will be monitored with the Citrix MP.

1. In the All Nodes pane, right-click the managed node that you want to monitor using Citrix MP and then select **Launch Tool...**

2. In the Select Tool window, select the `CTX-Citrix MP Agent Install` tool, and then click **Run**.

3. After the tool runs successfully, click **Close** in the Execution Result window.

The `ctxmpi_licact.dat` (licensing information) and `CTX_Config.json` (configuration) are saved on the managed node.

After you run the `CTX-Citrix MP Agent Install` tool, the Citrix MP subagents are registered with OBM Operations Agent on the respective nodes. Depending on the policy templates assigned for specific Citrix component, the following subagents are registered:

`ctxmpivdamm "Citrix MP VDA Machine monitor"` - if this node is defined as s VDA Machine Monitor in the Citrix MP configuration.

`ctxmpisfagt "Citrix MP StoreFront Agent"` - if a Citrix StoreFront server is discovered on the node.

`ctxmpixaxdagt "Citrix MP CVAD Agent"` - if a Virtual Apps and Desktops delivery controller is detected on the node and the CVAD credentials are set for the Site to which this CVAD delivery controller belongs to.

Deploying the Citrix MP Discovery management template

Before you can discover Citrix environment, deploy the `Citrix MP Discovery` management template to the nodes with the Citrix environment you want to monitor (Virtual Apps and Desktops, StoreFront, License Server, VDA Machine Monitor).

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click a managed node and then select **List Assignments for Selected Item...**

5. In the Assignments window, click the **New Assignments...** icon and then select **Assign Management Template...**

   An Assign and Deploy Management Template wizard starts.

6. Select **Citrix MP Discovery Management Template** and then click **Next**.

7. In the Parameter Summary window, review the specified parameters, make sure that the `Enable Assignment(s)` option is selected, and then click **Finish**.

8. After the deployment runs successfully, click **OK** in the Summary window.

Repeat this procedure on every node with the Citrix environment you want to monitor (Virtual Apps and Desktops, StoreFront, Citrix Provisioning, Citrix Licensing, VDA Machine Monitor).

Initial discovery

Perform initial discovery and ensure that all assigned management templates are enabled on each node with Citrix MP installed.

1. Log in to the OBM Administration Console as user `admin`.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. In the All Nodes pane, right-click the managed node that you want to monitor and then select **Launch Tool...**

5. In the Select Tool window, select the `CTX-Force Discovery` tool, and then click **Next**.

6. After the tool runs successfully, click **Close** in the Execution Result window.

Citrix management templates assignment

After discovery is performed, the following management templates are automatically assigned to the respective configuration items:

Citrix MP management templates	Configuration Items
Citrix VDA Machine Monitoring	CTX VDAM Monitor
Citrix StoreFront Monitoring	CTX SF Server
Citrix Provisioning Monitoring	CTX CPVS Server
Citrix Virtual Apps and Desktops Monitoring	CTX CVAD Delivery Controller
Citrix Licensing Server Monitoring	CTX CLS Server

Some aspects provided with the Citrix MP are not contained in the auto-assignment rules. If your environment requires in-depth monitoring, assign such aspects manually:

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Configuration Folders by selecting **Administration** > **Monitoring** > **Management Templates and Aspects**.

3. Expand **Citrix Management** and then expand **Citrix MP Aspects**. In the list of folders, select the one corresponding to the Citrix component you want to monitor in more detail. A list of availlable Citrix MP aspects displays in the Management Templates and

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Aspects pane.

You can manually assign the following aspects:

Citrix Component	Aspects
Citrix License Server	Citrix LS Event Extensive Citrix LS Service Extensive
Citrix Provisioning	Citrix CPVS Cache Citrix CPVS Event Extensive
Citrix Store Front	Citrix SF Event Extensive Citrix SF Store Extensive
Citrix VDA Machine Monitor	Citrix Desktop OS Session Resources Extensive Citrix Server OS Machine Resources Extensive Citrix VDA Machine Monitor Self-Monitoring Extensive
Citrix Virtual Apps and Desktops	Citrix CVAD Delivery Group User Logon Details Citrix CVAD Event Extensive Citrix CVAD Server OS Machine Services Citrix CVAD Service Extensive Citrix CVAD Site User

4. Right-click an ascpect that you want to deploy to the managed node and then select **Assign and Deploy Item...**

5. In the Assign and Deploy window, select one or more nodes, to which you want to assign the selected template, and then click **Next**.

   When deploying aspects to the managed nodes, deploy the specific aspects to the respective Citrix component.

6. In the Parameter Summary page, view the available parameters. You can leave the default values or change them to better suit your environment needs. Click **Next**.

7. In the Configure Options page make sure that the `Enable Assignment(s)` option is selected.

   Click **Finish.**

   The apects are assigned to the selected managed nodes. Perform this procedure for each aspect that you want to assign. You can assign different sets of aspects to different nodes.

You can now start using the OBM Operations Console for monitoring your Citrix environment. See .

Installing and configuring Citrix MP reporting

You need the Micro Focus OBR environment to install and use the Citrix MP reporting functionality.

Prerequisites

- The Micro Focus OBR is installed and configured appropriately. The following Citrix MP specific configuration is required:

    - The Topology Source in OBR is set to the OBM management server with Citrix MP.

    - The Data Source Selection in OBR is set to Micro Focus Operations Agent.

    - The following System Performance content pack components are installed on OBR: `SysPerf_Etl_PerformanceAgent`, `SysPerf_Domain`, `SysPerf_Reports`.

    For detailed information on Micro Focus OBR including hardware and software requirements, operating systems support, installation and configuration procedures, see the OBR related documentation at: https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?doctype=manuals

- The following Citrix MP policies are deployed to the managed nodes with the respective environment (CVAD, StoreFront, LS, CPVS, VDA Machine Monitor) from which you want to collect data for reports:

    - `CTX-CVAD-LogSitePerformanceData`

    - `CTX-SF-LogStorePerformanceData`

    - `CTX-CLS-LogLicenseUseData`

    - `CTX-CPVS-LogCachePerformanceData`

    - `CTX-CPVS-LogNetworkLoadPerformanceData`

    - `CTX-CPVS-LogServicePerformanceData`

    - `CTX-VDAM-LogMachinePerformanceData`

    For detailed procedure, see the OBM related documentation at: https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?doctype=manuals

Run the installation of the Citrix MP reporting on the Micro Focus OBR system.

1. Log in to Micro Focus OBR as administrator.

2. Mount the Citrix MP installation ISO image or extract the content of the ZIP file to the installation depot (`<InstallDepot>`).

3. In the command-line console, run the following command:

    On Windows:

    ```
    "<OvInstallDir>\nonOV\perl\a\bin\perl.exe""<InstallDepot>\CTXOBR_
    Install.pl"
    ```

On Linux:

```
# <InstallDepot>/CTXOBR_Install.pl
```

When the reports are installed, you can start generating reports using the SAP launch pad, for details, see "Reporting" on page 54.

Chapter 3

Removing

To completely remove Citrix MP from your OBM environment you should remove it from the OBM managed nodes and from the OBM management server. You can also remove it from some managed nodes and continue using it on others.

- "Removing the Citrix MP Configuration from Managed Nodes" below
- "Removing Citrix MP from the Management Server" below
- "Removing Citrix MP Reporting from the Micro Focus OBR" on page 29

Removing the Citrix MP Configuration from Managed Nodes

You can remove Citrix MP from specific managed nodes and continue using it on other managed nodes. If you want to completely remove Citrix MP from your environment, perform this procedure for each managed node.

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Topology View by selecting **Monitoring**> **Assignments & Tuning**.

3. From the drop-down menu, select one by one the available Citrix topologies (**Citrix StoreFront Topology**, **Citrix CVAD Topology**, **Citrix CP Topology**, **Citrix License Server Topology**, or **Citrix VDAM Topology**).

4. Select the assigned items and then click **Delete Assignment**, agree to delete the selected assignment by clicking **Yes**.

5. Perform a cleanup of the following files:

```
# rd /s /q "c:\ProgramData\HP\HP BTO Software\ctxspi"
# del /q "c:\ProgramData\HP\HP BTO Software\bin\instrumentation\ctx*"
```

Removing Citrix MP from the Management Server

After you remove the Citrix MP configuration from all managed nodes, remove it also from the management server.

1. Log in to the OBM Administration Console as administrator.

2. Switch to RTSM Administration by selecting **Administration** > **RTSM Administration** > **IT Universe Manager** > **Search CIs** > **CI Type:Managed Object** > **Search CI Name** > **Sort by CI Type**. Delete objects of CVAD*, License Server*, CP*, StoreFront*, and VDAM* types.

3. Switch to the Package Manager by selecting **Administration** > **RTSM Administration** > **Package Manager**. Locate and right-click the HpOprCtx package, then click **Undeploy**.

4. In the Undeploy Package Resource window, select all resources and then click **Next**. Click **Finish**. If you are notified, that some resources cannot be deleted, click **OK**.

5. Switch to the Content Packs View by selecting **Administration > Setup and Maintenance** > **Content Packs**.

6. Right-click **OBM Management Pack for Citrix** and then select **Delete Item**.

7. Perform a cleanup of the following files:

   On Windows:

```
# rd /s /q "c:\ProgramData\HP\HP BTO Software\shared\SPI-Share\ctxspi"
# rd /s /q "c:\ProgramData\HP\HP BTO
Software\shared\server\tmp\deployment\instrumentation\MP_for_Citrix_
Agent"
# rd /s /q "c:\ProgramData\HP\HP BTO
Software\shared\server\tmp\deployment\instrumentation\MP_for_Citrix_
Base"
# del /q "c:\ProgramData\HP\HP BTO Software\bin\instrumentation\CTXSPI_
Perl.bat"
# del /q "c:\ProgramData\HP\HP BTO Software\ctxspi"
```

   On Linux:

```
# rm -rf /var/opt/OV/shared/SPI-Share/ctxspi/
# rm -rf /var/opt/OV/shared/server/tmp/deployment/instrumentation/SPI_
for_Citrix_Agent
# rm -rf /var/opt/OV/shared/server/tmp/deployment/instrumentation/SPI_
for_Citrix_Base
# rm -f /var/opt/OV/bin/instrumentation/CTXSPI_Perl
# rm -rf /var/opt/OV/ctxspi
# rm -f /var/opt/OV/log/ctxspi.log
```

Removing Citrix MP Reporting from the Micro Focus OBR

If you have the Citrix MP reporting feature installed and want to remove it, you need to perform this task on the Micro Focus OBR system.

1. In the command-line console, run the following command:

   - **On Windows:**

   ```
   "<OvInstallDir>\nonOV\perl\a\bin\perl.exe" "<InstallDepot>\CTXOBR_
   Uninstall.pl"
   ```

   - **On Linux:**

   ```
   # <InstallDepot>/CTXOBR_Uninstall.pl
   ```

2. Log in to the Micro Focus OBR Administration Console.

3. Click the **SAP BOBJ** tab. In the SAP BOBJ page, click the **Launch CMC** link to open the Business Objects Central Management Console.

4. In the Business Objects Central Management Console, switch to **Universes**, then click the **Universes** > **Universes list** .

5. In the Universes list, locate and right-click the universe you want to delete (`CitrixStoreFront_Reporting.unx` or `CitrixXAXD_Reporting.unx`), and then select **Delete**.

Chapter 4

Using

The functionality of the Citrix MP is comparable to the functionality of other management packs used with OBM. You can monitor and manage the supported Citrix environments from the OBM Administration Console. For more information on using OBM Administration Console, see the OBM online Help.

This chapter describes specifics of the Citrix MP features set and advises on available configuration options. The following topics are described:

- "Discovered Configuration Items" below
- "Citrix MP Tools" on page 33
- "Template Groups and Policies" on page 41
- "Dashboards" on page 50
- "Graphs" on page 51
- "Reporting" on page 54

Discovered Configuration Items

Citrix MP discovers the configuration item (CI) types described in the following table:

Table 4–1: Discovered Citrix CIs

CI type	Description
Virtual Apps and Desktops CIs	
Citrix Virtual Apps and Desktops Topology	The root element for the Virtual Apps and Desktops topology
CVAD Site	A Virtual Apps and Desktops site, a container element for CVAD Site Data Collector, CVAD Delivery Controller, and CVAD Application Folder
CVAD Site Data Collector	A container element for CVAD Delivery Group, CVAD Hypervisor Connection, and Server OS machines that deliver desktops and published applications.
CVAD Delivery Group	Contains CVAD computers, CVAD applications and computers that hosted these applications.

CI type	Description
CVAD Computer	Virtual machines provisioned by Citrix Virtual Apps and Desktops
CVAD Hypervisor Connection	CVAD Hypervisor Connection
CVAD Delivery Controller	A container element for Delivery Controllers and the corresponding Windows services as well Citrix MP Agent Service used for monitoring Virtual Apps and Desktops infrastructure
CVAD Service	Citrix services related to the CVAD Delivery Controller, such as Citrix Monitor Service, Citrix Machine Creation Service, Citrix Configuration Logging Service, and other
CVAD Application Folder	A container element for CVAD Applications Relationship between a Server OS delivery group and its published application
CVAD Application	Relationship between a Server OS or a Desktop OS Random delivery group and its published application
StoreFront CIs	
Citrix StoreFront Topology	The root element of the StoreFront topology, populates StoreFront root object with discovered StoreFront server groups
StoreFront Server Group	A container element for StoreFront Servers
StoreFront Server	Citrix MP StoreFront Agent Service used for monitoring the StoreFront infrastructure, contains StoreFront Service Objects
StoreFront Service	Discovers StoreFront Receiver Websites, Stores FarmSets, Farms and Brokers
StoreFront Store	StoreFront Store
StoreFront Receiver Website	StoreFront Receiver Website
StoreFront FarmSet	A container element for StoreFront Farms
StoreFront Farm	StoreFront Farm
StoreFront Broker	StoreFront Broker

Citrix Provisioning CIs

Citrix Provisioning Topology	The root element of the CPVS topology, populates CPVS root object with discovered CPVS farms
CPVS Farm Group	A container element for CPVS Farms
CPVS Farm	CPVS Farm
CPVS Service	Discovers Citrix CPVS services, such as: Two-Stage Boot Service, BootP Service, PXE Service, RAMDisk Server, Soap Server, Stream Service, TFTP Service.
CPVS Store	CPVS Store
CPVS Device Collection	CPVS Device Collection
CPVS vDisks	CPVS vDisks
CPVS Site	CPVS Site

License Server CIs

Citrix Licensing Topology	The root element of the License Server topology, populates License Server root object with discovered License Server groups
License Server	A container element for License Server License Files, License Server Services, and License Server TCP Probe
License Server License Files	A container for License Server License files, `Citrix.opt` and `citrix_startup.lic`
License Server Services	Citrix License Server services: Citrix Licensing, Citrix Licensing WMI, Citrix Web Services for Licensing, Citrix Licensing Support Service, Citrix License Managment Console Service, Citrix CLS Port Updater Service
License Server TCP Probe	Citrix License Server ports (by default, `443`, `8082`, `27000`)

VDAM CIs

Citrix VDAM Topology	The root element of the VDAM Monitor topology, populates VDAM root object with VDAM Monitors
VDAM	A container for all VDAM Monitors in use

Monitor	
VDAM Site	A container for all CVAD Sites that contain CVAD Delivery controllers monitored by VDAM Monitor
VDAM Delivery Controller	Container for all delivery controllers monitored by VDAM
VDAM Computer	Container for all Server and Desktop OS machines monitored by VDAM Monitor

Citrix MP Tools

Citrix MP provides tools to perform installation, configuration, licensing, and support tasks. Such tools are related to nodes and do not depend on the installed applications, they are generic. Tools that provide monitoring of the application specific services are available only with the respective application.

- "Generic Citrix MP Tools" below
- "Application-Specific Citrix MP Tools" on page 35

Generic Citrix MP Tools

You can access a generic tool as follows:

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration** > **Setup and Maintenance** > **Monitored Nodes**.

3. Expand **Predefined Node Filters** and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click the management server node and then select **Launch Tool...**

5. In the Select Tool window, a list of all available tools is displayed.

Table 4–2: Generic Citrix MP tools

Tool	Description
`CTX-1.Clear License Request File on Mgmt Server`	Deletes a Citrix MP license request file on an OBM management server. It is usually the first task of the licensing procedure.
`CTX-2.Generate License Request for Node`	Generates Citrix MP license request information for a managed node. Run this tool on multiple nodes at the same time to speed up generation of the license request. License request information

Tool	Description
	for all nodes is collected on the management server in a single license request file, `CTX_license_requests.dat`.
`CTX-3.Merge License Activation Codes on Mgmt Server`	Merges newly obtained Citrix MP license activation codes with the existing license activations. After a successful license merge, the license activation codes are ready to be deployed to the managed nodes.
`CTX-Check Requirements/Configuration`	Checks that a managed node meets the Citrix MP requirements and is configured appropriately.
`CTX-CleanUp Node`	Cleans up Citrix MP files from the managed node.
`CTX-Collect Citrix MP Support Information`	Collects information about a managed node for support purposes.
`CTX-Display Citrix Node Type Version`	Displays the installation status and version of a Citrix product or component on the managed node. Supported node types are: Virtual Apps server, Web Interface, Citrix License Server, Secure Gateway, Desktop Delivery Controller, and Provisioning Server.
`CTX-Force Citrix Node Discovery`	Starts discovery of the Virtual Apps and Desktops and StoreFront environments.
`CTX-Citrix MP Agent Install`	Deploys the Citrix MP configuration file, license file, creates and starts Citrix MP related services on the managed node.
`CTX-List Citrix MP License Activation Codes`	Lists and counts the existing Citrix MP license activation codes on the management server.
`CTX-Start Citrix MP VDA Machine Monitor`	Starts Citrix MP VDA Machine Monitor.
`CTX-Stop Citrix MP VDA Machine Monitor`	Stops Citrix MPVDA Machine Monitor.
`CTX-Show Citrix MP Config`	Displays the configuration file of the selected managed node or management server.
`CTX-Citrix MP Agent Uninstall`	Removes the Citrix MP from the managed node.
`CTX-Citrix MP Agent Update`	Updates HYCU OBM Management Pack for Citrixconfiguration, licenses and instrumentation

Tool	Description
	on managed node.

Application-Specific Citrix MP Tools

You can access an application-specific tool as follows:

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Workspaces-> Event Perspective**.

3. In the drop-down list of the Browse Views tab, select **Citrix StoreFront Topology**, **Citrix CVAD Topology**, **Citrix CPVS Topology**, **Citrix VDAM Monitor Topology**, or **Citrix License Server Topology**.

4. Expand the tree and then right-click the following item:

   For Citrix Virtual Apps and Desktops Topology: **CVAD Delivery Controller**

   For Citrix StoreFront Topology: **StoreFront Server**

   For Citrix Provisioning Topology: **CPVS Server**

   For Citrix Licensing Topology: **License Server**

   For Citrix VDAM Monitor Topology: **VDAM**

   Select **Launch Tool...**

   A list of the application-specific tools displays.

Table 4–3: Application-specific Citrix MP tools

Tool	Description
CTX-Display Citrix Node Type Version	Displays the installation status and version of the Citrix product or component on the managed node. Supported node types are: Virtual Apps server, Web Interface, Citrix License Server, Secure Gateway, Desktop Delivery Controller, and Provisioning Server.
Virtual Apps and Desktops specific tools	
CTX-Start Citrix AD Identity Service	Starts a Citrix AD Identity service. The service manages Active Directory Computer Accounts.
CTX-Start Citrix Broker Service	Starts a Citrix Broker service. The service provides configuration and allows brokering of connections to desktops and applications.
CTX-Start Citrix Config Synchronizer Service	Starts a Citrix Config Synchronizer service. This service copies brokering configuration locally for high-availability mode.

Tool	Description
`CTX-Start Citrix Configuration Logging Service`	Starts a Citrix Configuration Logging service. The service logs Administrator activity and configuration changes in a Virtual Desktops deployment.
`CTX-Start Citrix Configuration Service`	Starts a Citrix Configuration service. The service stores service configuration information.
`CTX-Start Citrix Delegated Administration Service`	Starts a Citrix Delegated Administration service. The service manages configuration of delegated administration permissions.
`CTX-Start Citrix Diagnostic Facility COM Server Service`	Starts a Citrix Diagnostic Facility COM Server service. This service manages and controls Citrix diagnostic trace sessions on the system.
`CTX-Start Citrix Environment Test Service`	Starts a Citrix Environment Test service. The service manages tests for evaluating the state of a Virtual Desktops Site.
`CTX-Start Citrix High Availability Service`	Starts a Citrix High Availability service. This service provides continuity of service during outage of central site.
`CTX-Start Citrix Host Service`	Starts a Citrix Host service. The service manages Hosts, and Hypervisor Connections.
`CTX-Start Citrix Machine Creation Service`	Starts a Citrix Machine Creation service. The service creates new Virtual Machines.
`CTX-Start Citrix Monitor Service`	Starts a Citrix Monitor service. The service monitors the FlexCast system.
`CTX-CTX-Start Citrix MP Virtual Apps And Desktops Agent`	Starts a Citrix MP Virtual Apps And Desktops Agent.
`CTX-Start Orchestration Service`	Starts a Citrix Orchestration service.
`CTX-Start Citrix Remote Broker Provider Servic`	Starts Citrix Remote Broker Provider Service. This service enables communication to a remote Broker service from local VDAs and StoreFront servers.
`CTX-Start Citrix StoreFront Privileged Administration Service`	Starts a Citrix Storefront Privileged Administration Service.
`CTX-Start Citrix Storefront`	Starts a Citrix StoreFront service. The service

Tool	Description
`Service`	manages deployment of StoreFront.
`CTX-Start Citrix Telemetry Service`	Starts a Citrix Telemetry service.
`CTX-Start Citrix Trust Service`	Starts a Citrix Trust service.
`CTX-Status Virtual Apps and Desktops Services`	Shows the status of all Virtual Apps and Desktops services.
`CTX-Stop Citrix AD Identity Service`	Stops a Citrix AD Identity service. The service manages Active Directory Computer Accounts.
`CTX-Stop Citrix Broker Service`	Stops a Citrix Broker service. The service provides configuration and allows brokering of connections to desktops and applications.
`CTX-Stop Citrix Configuration Logging Service`	Stops a Citrix Configuration Logging service. The service logs Administrator activity and configuration changes in a Virtual Desktops deployment.
`CTX-Stop Citrix Configuration Logging Service`	Stops a Citrix Configuration Logging service. The service logs Administrator activity and configuration changes in a Virtual Desktops deployment.
`CTX-Stop Citrix Configuration Service`	Stops a Citrix Configuration service. The service stores service configuration information.
`CTX-Stop Citrix Delegated Administration Service`	Stops a Citrix Delegated Administration service. The service manages configuration of delegated administration permissions.
`CTX-Stop Citrix Diagnostic Facility COM Server Service`	Stops a Citrix Diagnostic Facility COM Server service. This service manages and controls Citrix diagnostic trace sessions on the system.
`CTX-Stop Citrix Environment Test Service`	Stops a Citrix Host service. The service manages Hosts, and Hypervisor Connections.
`CTX-Stop Citrix High Availability Service`	Stops a Citrix High Availability service. This service provides continuity of service during outage of central site.
`CTX-Stop Citrix Host Service`	Starts a Citrix Host service. The service manages Hosts, and Hypervisor Connections.
`CTX-Stop Citrix Machine`	Stops a Citrix Machine Creation service. The service

Tool	Description
`Creation Service`	creates new Virtual Machines.
`CTX-Stop Citrix Monitor Service`	Stops a Citrix Monitor service. The service monitors the FlexCast system.
`CTX-Stop Citrix MP Virtual Apps And Desktops Agent`	Stops a Citrix MP Virtual Apps And Desktops Agent.
`CTX-Stop Orchestration Service`	Stops a Citrix Orchestration service.
`CTX-Stop Citrix Remote Broker Provider Servic`	Stops Citrix Remote Broker Provider Service. This service enables communication to a remote Broker service from local VDAs and StoreFront servers.
`CTX-Stop Citrix StoreFront Privileged Administration Service`	Stops a Citrix StoreFront Privileged Administration Service.
`CTX-Stop Citrix StoreFront Service`	Stops a Citrix StoreFront service. The service manages deployment of StoreFront.
`CTX-Stop Citrix Telemetry Service`	Stops a Citrix Telemetry service..
`CTX-Stop Citrix Trust Service`	Stops a Citrix Trust service.

StoreFront specific tools

`CTX-Start Citrix Cluster Join Service`	Starts a Citrix Cluster Join Service.
`CTX-Start Citrix Configuration Replication Service`	Starts a Citrix Configuration Replication Service.
`CTX-Start Citrix Credential Wallet Service`	Starts a Citrix Credential Wallet Service.
`CTX-Start Citrix Default Domain Service`	Starts a Citrix Default Domain Service.
`CTX-Start Citrix MP StoreFront Agent`	Starts a Citrix MP StoreFront Agent.
`CTX-Start Citrix Peer Resolution Service`	Starts a Citrix Peer Resolution Service.
`CTX-Start Citrix Subscriptions Store`	Starts a Citrix Subscriptions Store.

Tool	Description
`CTX-Start Citrix Telemetry Service`	Starts a Citrix Telemetry service.
`CTX-Status StoreFront Services`	Shows the status of all StoreFront services.
`CTX-Stop Citrix Cluster Join Service`	Stops a Citrix Cluster Join Service.
`CTX-Stop Citrix Configuration Replication Service`	Stops a Citrix Configuration Replication Service.
`CTX-Stop Citrix Credential Wallet Service`	Stops a Citrix Credential Wallet Service.
`CTX-Stop Citrix Default Domain Service`	Stops a Citrix Default Domain Service.
`CTX-Stop Citrix MP StoreFront Agent`	Stops a Citrix MP StoreFront Agent.
`CTX-Stop Citrix Peer Resolution Service`	Stops a Citrix Peer Resolution Service.
`CTX-Stop Citrix Subscriptions Store`	Stops a Citrix Subscriptions Store.
`CTX-Stop Citrix Telemetry Service`	Stops a Citrix Telemetry service.

Citrix Provisioning specific tools

Tool	Description
`CTX-Start Citrix CPVS BOOTP Service`	Starts a Citrix CPVS Bootstrap Protocol (BOOTP) service.
`CTX-Start Citrix CPVS PXE Service`	Starts a Citrix CPVS Preboot Execution Environment (PXE) service.
`CTX-Start Citrix CPVS Ramdisk Server Service`	Starts a Citrix CPVS Ramdisk Server service.
`CTX-Start Citrix CPVS Soap Server Service`	Starts a Citrix CPVS Soap Server service.
`CTX-Start Citrix PVS API Service`	Starts a Citrix PVS Provisioning API service.
`CTX-Start Citrix CPVS Stream Service`	Starts a Citrix CPVS Stream service.
`CTX-Start Citrix CPVS TFTP`	Starts a Citrix CPVS Trivial File Transfer Protocol

Tool	Description
`Service`	(TFTP) service.
`CTX-Start Citrix CPVS Two-Stage Boot Service`	Starts a Citrix CPVS Two-Stage Boot service.
`CTX-Start Citrix Telemetry Service`	Starts a Citrix Telemetry service.
`CTX-Start Citrix Diagnostic Facility COM Server Service`	Starts a Citrix Diagnostic Facility COM Server service. This service manages and controls Citrix diagnostic trace sessions on the system.
`CTX-Status Provisioning Server Services`	Shows the status of all Provisioning Server services.
`CTX-Stop Citrix CPVS BOOTP Service`	Stops a Citrix CPVS Bootstrap Protocol (BOOTP) service.
`CTX-Stop Citrix CPVS PXE Service`	Stops a Citrix CPVS Preboot Execution Environment (PXE) service.
`CTX-Stop Citrix CPVS Ramdisk Server Service`	Stops a Citrix CPVS Ramdisk Server service.
`CTX-Stop Citrix CPVS Soap Server Service`	Stops a Citrix CPVS Soap Server service.
`CTX-Stop Citrix PVS Provisioning API service`	Stops a Citrix PVS Provisioning API service.
`CTX-Stop Citrix CPVS Stream Service`	Stops a Citrix CPVS Stream service.
`CTX-Stop Citrix CPVS TFTP Service`	Stops a Citrix CPVS Trivial File Transfer Protocol (TFTP) service.
`CTX-Stop Citrix CPVS Two-Stage Boot Service`	Stops a Citrix CPVS Two-Stage Boot service.
`CTX-Stop Citrix Telemetry Service`	Stops a Citrix Telemetry service.
`CTX-Stop Citrix Diagnostic Facility COM Server Service`	Stops a Citrix Diagnostic Facility COM Server service. This service manages and controls Citrix diagnostic trace sessions on the system.

Citrix Licensing specific tools

`CTX-Display License Usage`	Displays Citrix License Server license use information, including number of available and

Tool	Description
	used licenses per feature as well as percentage of used licenses.
`CTX-Display License Usage Details`	Displays additional details on Citrix License Server license usage.
`CTX-Display License Usage Diagnostics`	Displays detailed information on the existing licenses, including properties, status, expiration date.
`CTX-Status License Server Services`	Displays License Server services status. Available services are the following: Citrix Licensing, Citrix Licensing WMI, Citrix Web Services for Licensing, Citrix Licensing Support Service, Citrix License Managment Console Service, Citrix CLS Port Updater Service. It depends on your environment, which services run on your system.

VDA Machine Monitoring specific tools

`CTX-Start Citrix MP VDA Machine Monitor`	Starts Citrix MP VDA Machine Monitor.
`CTX-Stop Citrix MP VDA Machine Monitor`	Stops Citrix MPVDA Machine Monitor.

Template Groups and Policies

Citrix MP provides policies to monitor your Citrix environment. All Citrix MP policies are organized in logical template groups. To view the Citrix MP related template groups and the respective policies, perform the following steps:

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Policy Templates Views by selecting **Administration** > **Monitoring** > **Policy Templates**.

3. Expand **Policy Management** > **Template Groups** > **Citrix MP**. A list of the Citrix MP template groups displays. You can view the content of each template group by clicking on it. The Policy Template pane displays the respective policies.

   You can use the default policy parameters or change them to better suit your environment needs.

Citrix MP provides template groups and policies described in the following tables:

- "Citrix MP template groups and policies" below
- "Citrix MP Citrix Virtual Apps and Desktops template groups and policies" below

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Table 4–4: Citrix MP template groups and policies

Policy	Summary
CTX-MP-Discovery	
CTX-MP-DiscoveryRead	Service Auto-Discovery policy for uploading discovered Citrix Elements to OBM.
CTX-MP-DiscoveryWrite	Scheduled task that discovers Citrix elements and prepares discovery file to be uploaded to OBM.
CTX-MP-SelfMonitoring\CTX-MP-Licensing	
CTX-MP-LicOpcMsg	Intercepts all Citrix MP licensing related messages.
CTX-MP-LicenseCheck	Checks Citrix MP license on the managed nodes.
CTX-MP-Self-Monitoring\CTX-MP-LogMonitoring	
CTX-MP-LogError	Monitors Citrix MP log file for messages with Error severity.
CTX-MP-LogWarning	Monitors Citrix MP log file for messages with Warning severity.

Table 4–5: Citrix MP Citrix Virtual Apps and Desktops template groups and policies

Policy	Summary
CTX-CVAD-Monitoring\CTX-CVAD-Event	
CTX-CVAD-ApplicationEventWarningError	Forwards all Citrix Virtual Apps and Desktops related warning and error messages from windows application event log.
CTX-CVAD-ApplicationEventInfo	Forwards all Citrix Virtual Apps and Desktops related informational messages from windows application event log.

Policy	Summary
CTX-CVAD-Service	
`CTX-CVAD-ServiceStatus`	Monitors mandatory and optional Citrix Virtual Apps and Desktops services.
`CTX-CVAD-ServiceHealth`	Monitors status for Citrix Virtual Apps and Desktops services.
`CTX-CVAD-ServiceInterface`	Monitors status of Citrix Virtual Apps and Desktops services interfaces.
CTX-CVAD-Service\CTX-CVAD-ServerOSMachine	
`CTX-CVAD-AudioRedirectionService`	Monitors the current state of Citrix Audio Redirection Service.
`CTX-CVAD-CheckLoadIndex`	Monitors load of Server OS machines that are delivering desktops and applications to users.
`CTX-CVAD-DesktopService`	Monitors the current state of Citrix Desktop Service.
`CTX-CVAD-DiagnosticFacilityCOMServerService`	Monitors the current state of Citrix Diagnostic Facility COM Server service.
`CTX-CVAD-EncryptionService`	Monitors the current state of Citrix Encryption Service.
`CTX-CVAD-EndUserExperiencingMonitoringService`	Monitors the current state of Citrix End User Experiencing Monitoring service.
`CTX-CVAD-GroupPolicyEngineService`	Monitors the current state of Citrix Group Policy Engine service.
`CTX-CVAD-HDXMediaStreamforFlashService`	Monitors the current state of Citrix HDX MediaStream for Flash Service.
`CTX-CVAD-LocationAndSensorVirtualChannelService`	Monitors the current state of Citrix Location and Sensor Virtual Channel Service.
`CTX-CVAD-MobileReceiverVirtualChannelService`	Monitors the current state of Citrix Mobile Receiver Virtual Channel Service.
`CTX-CVAD-PrintManagerService`	Monitors the current state of Citrix Print Manager Service.
`CTX-CVAD-ProfileManagementService`	Monitors the current state of Citrix Profile

Policy	Summary
	Management service.
`CTX-CVAD-CPvsForVMsAgentService`	Monitors the current state of Citrix PVS for VMs Agent Service.
`CTX-CVAD-ServicesManagerService`	Monitors the current state of Citrix Services Manager Service.
`CTX-CVAD-SmartCardService`	Monitors the current state of Citrix Smart Card Service.
`CTX-CVAD-StackControlService`	Monitors the current state of Citrix Stack Control Service.

CTX-CVAD-DeliveryGroup

Policy	Summary
`CTX-CVAD-DeliveryGroupActiveSessions`	Monitors the number of active Virtual Apps and Desktops sessions in a delivery group.
`CTX-CVAD-DeliveryGroupAllSessions`	Monitors the number of all Virtual Apps and Desktops sessions in a group.
`CTX-CVAD-DeliveryGroupDisconnectedSessions`	Monitors the number of disconnected Virtual Apps and Desktops sessions in a delivery group.
`CTX-CVAD-DeliveryGroupAvailability`	Monitors the availability of a delivery group.
`CTX-CVAD-DeliveryGroupMaintenance`	Monitors if the delivery group is in maintenance mode.
`CTX-CVAD-DeliveryGroupFailedRegistrations`	Monitors the availability of a delivery group.

CTX-CVAD-DeliveryGroup\CTX-CVAD-UserLogon

Policy	Summary
`CTX-CVAD-AverageUserLogonAuthTime`	Monitors the average user logon authentication time in a delivery group.
`CTX-CVAD-AverageUserLogonBrokTime`	Monitors the average user logon brokering time in a delivery group.
`CTX-CVAD-AverageUserLogonDuration`	Monitors the average user logon duration in a delivery group.
`CTX-CVAD-AverageUserLogonGPOTime`	Monitors the average user logon GPOs time in a delivery group.

Policy	Summary
CTX-CVAD-AverageUserLogonHDXConnTime	Monitors the average user logon HDX connection time in a delivery group.
CTX-CVAD-AverageUserLogonIntSessTime	Monitors the average user logon interactive session time in a delivery group.
CTX-CVAD-AverageUserLogonProfLoadTime	Monitors the average user logon profile load time in a delivery group.
CTX-CVAD-AverageUserLogonScrExecTime	Monitors the average user logon scripts execution time in a delivery group.
CTX-CVAD-AverageUserLogonVMStartTime	Monitors the average user logon VM start time in a delivery group.
CTX-CVAD-TotalUserLogonAuthTimeCVAD-TotalUserLogonAuthTime	Monitors the total user logon authentication time in a delivery group.
CTX-CVAD-TotalUserLogonBrokTime	Monitors the total user logon brokering time in a delivery group.
CTX-CVAD-TotalUserLogonDuration	Monitors the total user logon duration in a delivery group.
CTX-CVAD-TotalUserLogonGPOTime	Monitors the total user logon GPOs time in a delivery group.
CTX-CVAD-TotalUserLogonHDXConnTime	Monitors the total user logon HDX connection time in a delivery group.
CTX-CVAD-TotalUserLogonIntSessTime	Monitors the total user logon interactive session time in a delivery group.
CTX-CVAD-TotalUserLogonProfLoadTime	Monitors the total user logon profile load time in a delivery group.
CTX-CVAD-TotalUserLogonScrExecTime	Monitors the total user logon scripts execution time in a delivery group.
CTX-CVAD-TotalUserLogonVMStartTime	Monitors the total user logon VM start time in a delivery group.

CTX-CVAD-DeliveryGroup\CTX-CVAD-Site

CTX-CVAD-SiteActiveSessions	Monitors the number of active Virtual Apps and Desktops sessions on a site.
CTX-CVAD-SiteAllSessions	Monitors the number of all Virtual Apps

Policy	Summary
	and Desktops sessions on a site.
CTX-CVAD-SiteConnectedUsers	Monitors the number of currently connected users on a Virtual Apps and Desktops site.
CTX-CVAD-SiteDisconnectedSessions	Monitors the number of disconnected Virtual Apps and Desktops sessions on a site.
CTX-CVAD-DeliveryGroup\CTX-CVAD-HypervisorConnection	
CTX-CVAD-HypervisorConnectionStatus	Monitors the availability of a delivery group.
CTX-CVAD-DeliveryGroup\CTX-CVAD-PerformanceDataCollection	
CTX-CVAD-LogSitePerformanceData	Logs the Virtual Apps and Desktops performance data.

Table 4–6: Citrix MP VDA Machine monitor template groups and policies

Policy	Summary
CTX-VDAM-ResourceMonitoring\CTX-VDAM-DesktopOS	
CTX-VDAM-DesktopSessionCPUUtilization	Monitors CPU utilization in Desktop OS session over time interval.
CTX-VDAM-DesktopSessionDiskLatancy	Monitors disk transfer (reads and writes) latency in Desktop OS session over time interval.
CTX-VDAM-DesktopSessionMemoryPageFaults	Monitors memory hard page faults (per second) in Desktop OS session over time interval.
CTX-VDAM-DesktopSessionMemoryPhysicalUtilization	Monitors physical memory usage in Desktop OS session over time interval.
CTX-VDAM-DesktopSessionNetworkTraffic	Monitors bandwidth usage in the Desktop OS session over time interval.
CTX-VDAM-ResourceMonitoring\CTX-VDAM-ServerOS	
CTX-VDAM-ServerMachineCPUUtilization	Monitors CPU utilization on Server OS machine over time interval.
CTX-VDAM-ServerMachineCPUUtilization	Monitors number of disk IO operations

Policy	Summary
	on Server OS machine over time interval.
`CTX-VDAM-ServerMachineDiskLatancy`	Monitors disk transfer (reads and writes) latency on Server OS machine over time interval.
`CTX-VDAM-ServerMachineDiskQueue`	Monitors disk queue length on Server OS machine over time interval.
`CTX-VDAM-ServerMachineDiskReads`	Monitors disk read operations on Server OS machine over time interval.
`CTX-VDAM-ServerMachineDiskUtilization`	Monitors disk utilization on Server OS machine over time interval.
`CTX-VDAM-ServerMachineDiskWrites`	Monitors disk write operations on Server OS machine over time interval.
`CTX-VDAM-ServerMachineMemoryPageFaults`	Monitors memory page hard faults (per second) on Server OS machine over time interval.
`CTX-VDAM-ServerMachineMemoryPhysicalUtilization`	Monitors physical memory utilization on Server OS machine over time interval.
`CTX-VDAM-ServerMachineNetworkTraffic`	Monitors network traffic (send and receive) on Server OS machine over time interval.
`CTX-VDAM-ServerSessionCPUUtilization`	Monitors CPU utilization in Server OS session over time interval.
`CTX-VDAM-ServerSessionMemoryPhysicalUtilization`	Monitors physical memory usage in Server OS session over time interval.
`CTX-VDAM-ServerSessionNetworkTraffic`	Monitors bandwidth usage in Server OS session over time interval.

CTX-VDAM-ResourceMonitoring\CTX-VDAM-SelfMonitoring

`CTX-CVADMACtrlConn`	Monitors the VDA Machine Monitor connection to the configured Citrix Delivery Controllers.
`CTX-CVADMADiscDuration`	Monitors that duration of the VDA Machine Monitor discovery takes more time than the discovery interval on agent.
`CTX-VDAM-FailedConnectionsPercentage`	Monitors the percentage of machines

Policy	Summary
	from which VDA Machine Monitor cannot get data (cannot connect to).
CTX-VDAM-ResourceMonitoring\CTX-VDAM-PerformanceDataCollection	
`CTX-VDAM-LogMachinePerformanceData`	Logs the VDA Machine Monitor performance data.

Table 4–7: Citrix MP StoreFront template groups and policies

Policy	Summary
CTX-SF-Event	
`CTX-SF-ApplicationEventWarningError`	Forwards all Citrix StoreFront related info messages from windows application event log.
`CTX-SF-ApplicationEventInfo`	Forwards all Citrix StoreFront related warning and error messages from windows application event log.
CTX-SF-Service	
`CTX-SF-ServiceStatus`	Monitors mandatory and optional Citrix StoreFront services.
CTX-SF-BrokerMonitor	
`CTX-SF-BrokerAvailability`	Monitors whether the Citrix Broker Server is available.
CTX-SF-StoreMonitor	
`CTX-SF-ReceiverWebSiteAvailability`	Monitors whether the StoreFront Web Receiver website is available.
`CTX-SF-StoreServiceProbeStatus`	Monitors whether the StoreFront Store service probe is successful.
CTX-SF-PerformanceDataCollection	
`CTX-SF-LogStorePerformanceData`	Logs the StoreFront Store performance data.

Table 4–8: Citrix MP Citrix Provisioning template groups and policies

Policy	Summary
CTX-CPVS-Event	
CTX-CPVS-ApplicationEventInfo	Forwards all Citrix Provisioning Server Application informational event log entries.
CTX-CPVS-ApplicationEventWarningError	Forwards all Citrix Provisioning Server Application warning and error event log entries.
CTX-CPVS-Network	
CTX-CPVS-NetworkLoad	Checks network load on a system.
CTX-CPVS-NetworkTraffic	Checks the number of mega bytes per second which are sent and received over network adapters on a system.
CTX-CPVS-Cache	
CTX-CPVS-DesktopRamCache	Monitors virtual desktop RAM cache utilization.
CTX-CPVS-DiskCacheSize	Monitors the size of the device disk cache on a server.
CTX-CPVS-Service	
CTX-CPVS-ServiceStatus	Monitors all mandatory and optional Citrix Provisioning Server services.
CTX-CPVS-PerformanceDataCollection	
CTX-CPVS-LogCachePerformanceData	Logs virtual disk cache usage on Provisioning Server.
CTX-CPVS-LogNetworkLoadPerformanceData	Logs network load on Provisioning Server.
CTX-CPVS-LogServicePerformanceData	Logs the selected performance data for Provisioning Server services.

Table 4–9: Citrix MPCitrix Licensing template groups and policies

Policy	Summary
CTX-CLS-Event	

Policy	Summary
`CTX-CLS-ApplicationEventWarningError`	Forwards all Citrix Licensing Server Application warning / error event log entries.
`CTX-CLS-ApplicationEventInfo`	Forwards all Citrix Licensing Server Application info event log entries.
CTX-CLS-Service	
`CTX-CLS-ServiceStatus`	Monitors Citrix Licensing Server services.
`CTX-CLS-TcpPortProbe`	Monitors availability of TCP ports used by Citrix Licensing Server (default 27000, 8082 and 443).
CTX-CLS-CitrixLicense	
`CTX-CLS-LicenseUsage`	Monitors Citrix Licensing Server license use.
CTX-CLS-PerformanceDataCollection	
`CTX-CLS-LogLicenseUseData`	Logs Citrix Licensing Server license use information.

Dashboards

Citrix MP contains dashboards to highlight the events in `Error` and `Warning` state for the respective environment and to provide details on health state, event state for the specific components, historical data, topology view, and the event list.

You can select a specific dashboard in the **OBM Operations Console** > **Workspaces**.

Table 4–10: Citrix MP dashboards

Dashboard	Description
Citrix	Displays donut charts with the number of events in `Error` and `Warning` state for the Citrix Virtual Apps and Desktops, Citrix StoreFront, Citrix License Server, and Citrix Provisioning Services environments as well as a list of these events.
Citrix CVAD	Displays a donut chart with the number of events in `Error` and `Warning` state and a list of such events for the Citrix Virtual Apps and Desktops environment. It also provides details on health state, event state for the Delivery Controller, site, and

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Dashboard	Description
	services, historical data, and the Citrix Virtual Apps and Desktops environment topology view.
Citrix SF	Displays a donut chart with the number of events in `Error` and `Warning` state and a list of such events for the Citrix StoreFront environment. It also provides details on health state, event state for the StoreFront server and services, historical data, and the Citrix StoreFront environment topology view.
Citrix CLS	Displays a donut chart with the number of events in `Error` and `Warning` state and a list of such events for the Citrix License Server environment. It also provides details on health state, event state for the Citrix License Server, services, and TCP/IP Probe, historical data, and the Citrix License Server environment topology view.
Citrix CPVS	Displays a donut chart with the number of events in `Error` and `Warning` state and a list of such events for the Citrix Provisioning Services environment. It also provides details on health state, event state for the Citrix Provisioning Server and services, historical data, and the Citrix Provisioning Services environment topology view.
Citrix VDAM	Displays a donut chart with the number of events in `Error` and `Warning` state and a list of such events for the Citrix VDAM Monitor environment. It also provides details on health state for the Citrix VDAM Monitor, Site, Machines, historical data, and the Citrix VDAM Monitor environment topology view.

Graphs

Citrix MP provides Citrix environment specific graphs to cover in detail the performance aspect of the respective Citrix components.

To view the Citrix MP graphs, perform the following steps:

1. Switch to the Node Views by selecting **Workspaces** > **Performance Perspective**.

2. In the drop-down list of the Browse Views tab, select **Citrix StoreFront Topology**, **Citrix Virtual Apps and Desktops Topology**, **Citrix Provisioning Topology**, **Citrix Licensing Topology**, or **Citrix VDAM Topology**.

3. Expand the tree and then click the following item depending on the selected topology, :

For Citrix Virtual Apps and Desktops Topology: **CVAD Site Data Collector**, **CVAD Delivery Group**, **CVAD Computer**

For Citrix StoreFront Topology: **StoreFront Store**, **StoreFront Receiver WebSite**, **StoreFront Broker**

For Citrix Licensing Topology: **License Server Feature**

For Citrix Provisioning Topology: **CPVS Server**, **CPVS Services**

For VDAM Topology: **VDAM Computer**

One or more component related graphs display.

Table 4–11: Citrix MP performance graphs

Topology	Graph
Citrix Virtual Apps and Desktops Topology	
CTX CVAD Site Data Collector	• CTX CVAD Site Data Collector • CTX CVAD Site Data Collector Logon • CTX CVAD Site Data Collector Sessions
CTX CVAD Delivery Group	• CTX CVAD Delivery Group • CTX CVAD Desktop count • CTX CVAD Logon • CTX CVAD Logon duration • CTX CVAD Sessions • CTX CVAD Session count • CTX CVAD Machine Load indices
CTX CVAD Computer	• CTX VDAM Disk latency • CTX VDAM Disk reads/writes • CTX VDAM Disk IO • CTX VDAM Disk queue • CTX VDAM Disk utilization • CTX VDAM Machine Info • CTX VDAM Machine CPU Usage • CTX VDAM Machine Memory Page faults • CTX VDAM Machine Memory Utilization • CTX VDAM Machine Network reads/writes

Citrix StoreFront Topology

CTX SF Server Store	- CTX SF Store Initial Response time - CTX SF Store Login time - CTX SF Store Resourse Enumeration time
CTX SF Server Receiver Website	- CTX SF Receiver Website load time - CTX SF Broker response time

Citrix Licensing Topology

CTX CLS Feature	CTX CLS License Feature Usage

Citrix Provisioning Topology

CTX CPVS Server	- CTX CPVS Network usage - CTX CPVS Network utilization
CTX CPVS Services	- CTX CPVS Service PercentProcessorTime - CTX CPVS Service PageFileBytes - CTX CPVS Service WorkingSet

Citrix VDAM Topology

CTX VDAM Computer	- CTX VDAM Disk latency - CTX VDAM Disk reads/writes - CTX VDAM Disk IO - CTX VDAM Disk queue - CTX VDAM Disk utilization - CTX VDAM Machine Info - CTX VDAM Machine CPU Usage - CTX VDAM Machine Memory Page faults - CTX VDAM Machine Memory Utilization - CTX VDAM Machine Network reads/writes

Reporting

The Citrix MP reporting functionality is available, if you installed it. For installation instructions, see "Installing and configuring Citrix MP reporting" on page 25.

Prerequisite

Before you can start using Citrix MP report functionality, make sure to perform discovery for the environments for which you want to generate reports.

To generate and view the Citrix MP in the BI Launch Pad, perform the following steps:

1. Log in to the Micro Focus OBR Administration Console and click the **SAP BOBJ** tab.

2. In the SAP BOBJ page, click the **Launch BI launch pad** link.

3. In the BI Launch Pad, select the **Documents** tab and click **Public Folders** > **Operations Bridge Reporter** > **Infrastructure Management** > **Enterprise Infrastructure Management**. Depending on your selection during the reporting functionality installation, one or both of the following report sets are available: `Citrix CLS`, `Citrix CPVS`, `Citrix SF`, and `Citrix CVAD`.

4. Select a report set, the list of the Citrix MP reports related to the selected environment displays.

5. Click the report you want to generate, specify the available parameters and then click **OK**.

   The report generates based on your selection. Two report views are available - "with sections" and "with regions" you can switch between them using tabs. The "with sections" report type features separate reports for each selected server, while the "with regions" report type presents all selected servers data on the same graph.

   The data can also be drilled down or up. Reports are exportable to PDF.

Table 4–12: Citrix MP reports

Report	Description
Citrix CLS	
License Usage	Shows license usage for all selected features and time period.
Citrix PVS	
Disk cache usage	Shows disk cache usage in MB for all devices and selected time period.
Disk cache usage (statistic)	Shows disk cache usage in MB for all servers and selected time period. It also shows minimum, average, maximum, and total disk cahe usage for the available servers.

Report	Description
Network utilization	Shows network utilization in B/s for all adapters and selected time period.
Network utilization (statistic)	Shows network utilization in percentage for all servers and selected time period.
RAM cache utilization	Shows RAM cache utilization for all devices and selected time period.
RAM cache utilization (statistic)	Shows RAM cache utilization in percentage for all servers and selected time period. It also shows minimum, average, and maximum RAM cache utilization for the available servers.
Service counters	Shows service counters for selected services and selected time period.
Citrix SF	
Broker responsiveness	Shows the response time and availability for the selected broker and time period. The broker is configured on Citrix StoreFront stores. The response time is measured from the moment a request is made to a Broker to the moment the StoreFront receives an answer.
Store responsiveness	Shows responsiveness for the selected store and time period. It shows time of each phase of the resource enumeration on a store, namely, initial response time, login time, and the resource enumeration time.
Web responsiveness	Shows load time for the selected Web Receiver and time period.
Citrix CVAD	
Delivery Group Desktops	Shows desktop usage for the selected delivery group and time period.
Delivery Group Sessions	Shows sessions for the selected delivery group and time period.
Delivery Group Desktops and Sessions	Shows the number of desktops and sessions for the specified delivery group and time period. Using this report, you can determine how the Virtual Desktops site maintains the

Report	Description
	"Ready Pool Settings" levels, which are defined for every delivery group.
Delivery Group Logon Times	Shows average, maximum, and total logon time for the selected delivery group and time period.
Server OS Machine Performance	Shows server performance for the selected server OS machine and time period. The displayed metrics are: **Overall metrics:** `CPU util (%)` - CPU utilization **Memory metrics:** `Physical Memory (MB` - Physical memory used by processes on a system `Page Faults per Second` - Memory page faults per second is the rate at which pages are read from or written to disk to resolve hard page faults. High value typically indicates a memory bottleneck. **Disk metrics:** `Disk Read (KB/s)` - Transfer rate of read operation on the disk `Disk Write (KB/s)` - Transfer rate of write operations on the disk `Disk IOPS (IO/s)` - Transfer rate of read and write operations on the disk `Disk Latency (ms)` - Disk latency in milliseconds **Network metrics:** `Network Send (B/s)` - Network traffic from machine `Network Receive (B/s)` - Network traffic to machine
Site Connected Users	Shows the amount of connected users for the selected site and time period.
Site Logon Times	Shows user logon duration for the selected site

Report	Description
	and time period. Logon duration is time to complete all logon phases including Brokering Time, VM Start Time, Authentication Time, Profile Load Time, and other.
Site Sessions	Shows all, active, disconnected, and non brokered sessions for the selected site and time period.

Chapter 5

Customer support

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

Before contacting support

Before contacting the support department, perform a health check on nodes in error state.

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration > Setup and Maintenance > Monitored Nodes**.

3. Expand Predefined Node Filters and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click the managed node and then select Launch Tool...

5. In the Select Tool window, select the `CTX-Check Requirements/Configuration` tool, and then click **Run**.

6. After the tool runs successfully, review the output.

The tool executes some basic health checks that report simple configuration and licensing issues and produces a summary report.

Contacting support

If the errors persist, prepare data so that a technical support analyst can work on your problem more efficiently. Perform the following tasks:

1. Increase the log level, see "Increasing the log level" below.

2. Increase the log file size, see "Increasing the log file size" on the next page.

3. Create the support file, see "Preparing a support file" on the next page.

Increasing the log level

To increase the log level, perform the following steps:

1. Connect to the affected monitored nodes and navigate to the `<OvDataDir>\bin\instrumentation` directory.

2. Open configuration file `CTX_Config.json` and then search for `settings` in section `common`.

3. Change the number in line `ctx_cs_log_level` to 5 (by default, 3).

> 📋 Note Available are the following log levels: `1 - Error`, `2 - Warning`, `3 - Info`, `4 - Debug`, `5 - Dump`.

Increasing the log file size

To increase the log file size, perform the following steps:

1. Connect to the affected monitored nodes and navigate to the `<OvDataDir>\bin\instrumentation` directory.

2. Open configuration file `CTX_Config.json` and then search for `settings` in section `common`.

3. Change the number in line `ctx_cs_log_size` to `52488000` (by default, `1048576`).

> 📋 Note The log size is specified in bytes. After you change it, the log file size will be increased to 50MB from the default 10MB.

Preparing a support file

To create support file `support.zip`, perform the following steps:

1. Log in to the OBM Administration Console as administrator.

2. Switch to the Node Views by selecting **Administration > Setup and Maintenance > Monitored Nodes**.

3. Expand Predefined Node Filters and then click **Monitored Nodes**. A list of the managed nodes added to this management server displays in the All Nodes pane.

4. Right-click the management server node and then select **Launch Tool...**

5. In the Select Tool window, select the **CTX-Collect Citrix MP Support Information** tool, and then click **Run**.

6. After the tool runs successfully, click **Close** in the Execution Result window.
   The file with the support information is created in the following directory on the nodes: `<OvDataDir>\ctxspi`.

   > 📋 Note After successfully creating the `support.zip` file, you can revert the changes made to `CTX_Config.json`. To revert changes, follow the procedures "Increasing the log level" on the previous page and "Increasing the log file size" above and set the default values.

7. Please send the collected supported information (support.zip).

Also, describe the following:

- OBM version
- symptoms

- sequence of events leading to the problem
- commands and options that you used
- messages you have received (a description with the time and date)
- company information
- PO information

If you have purchased the software directly from HYCU, send an e-mail to: support@hycu.com, otherwise contact the vendor that shipped the software.

Provide feedback

For any suggestions and comments regarding this product or its documentation, send us an e-mail to:

support@hycu.com

We will be glad to hear from you!