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ZENworks
Ondemand Content Reference

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About This Guide

This *ZENworks Ondemand Reference* provides information to help you understand how ondemand content is managed in a ZENworks zone and how to configure ondemand content settings.

Audience

This guide is written for the ZENworks Configuration Management administrators.

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

Additional Documentation

ZENworks Endpoint Security Management is supported by other documentation (in both PDF and HTML formats) that you can use to learn about and implement the product. For additional documentation, see the ZENworks documentation website.

1 Concepts and Requirements

ZENworks ondemand content is content served to workstations from content servers upon request from the workstation. One example of this type of content in ZENworks is malware signature content used for malware scans and routines to disinfect workstation files on devices with the Antimalware Policy enforced. From ZENworks 2020 Update 3 onwards, all content types such as bundles, system updates, policies and patch bundles (new feed) are supported.

ZENworks uses primary and satellite servers as content servers for ondemand content requests and distribution. All primary servers function as content servers, but satellite servers need to be assigned a Content Server role to function as a content server. Primary servers, and only primary servers, can also function as ondemand content masters (OCM) when so configured. The OCM distinction is typified by the ability to download content from a content distribution network (CDN).

Definitions

Reference the following definitions to better understand ondemand concepts, architecture, and configuration:

Ondemand Content

Content that is served to the requesting workstation or server upon request from that device.

Content Server

A primary server or satellite server with a Content Server role that is used to store content intended for replication to other workstations or other servers.

Ondemand Content Master (OCM)

A primary server with an OCM assignment, either by default or by designation in the Server Hierarchy configuration.

Content Distribution Network (CDN)

A server external to the ZENworks zone that maintains content intended for enterprise downloads to accomplish a specific purpose. Typically, patching, updating software, and updating system security.

Ondemand Content Master List

The ZENworks zone architecture of primary servers that are configured as OCMs for the purpose of ondemand content replication.

Content Replication Method

The ZENworks zone architecture of primary servers and satellite servers networked for the purpose of content replication.

Shared Content Repository

The ZENworks zone architecture of managing content storage on content servers.

Throttling

> A configuration setting that determines the rate of content being downloaded to agent devices. This setting is designed to provide the least disruption of network operations due to content downloads.

Ondemand Content Master - Requirements

Ondemand content masters (OCM) download content for managed device distribution from content distribution networks (CDN). Only primary servers can be OCMs.

Configuring a proxy: If the OCM requires a proxy to access the service, the OCM server's Subscription proxy configuration file is used.

If you have configured your network to use a proxy server, you must configure the proxy server subscriptions.

1. On the Primary Server on which the Ondemant Content Master is configured to run, navigate to the `lpm-server.properties` file.

   - `/etc/opt/microfocus/zenworks/`

   An example of the content within the `lpm-server.properties` file is displayed below:

   ```
   Debug=false
   TTL=24
   subscription-proxyaddress=
   subscription-proxyport=
   subscription-proxyuser=
   subscription-proxypassword=
   subscription-useNTLM=false
   ```

2. Modify and save the file with the following subscription proxy details:

   - Set the value of `subscription-proxyaddress` to the IP address of the proxy server.
   - Set the value of `subscription-proxyport` to the port number of the proxy server.
   - (Conditional) If the proxy is authentication-based, set the value of `subscriptionproxyuser` to the name of the proxy user.
   - (Conditional) If the proxy is authentication-based, set the value of `subscriptionproxypassword` to the password associated with the proxy user name.
   - It is recommended to use the `zman srpp` command to specify an obfuscated password instead of specifying the raw password.
   - (Conditional) If the proxy server uses an NTLM realm, set the value of `subscriptionuseNTLM` to true. By default, the value is false.

3. Restart the ZENworks services.

Accessing the CDN: The following URL must be open to access the CDN: `https://microfocus-2dcb60a8-26c9-4560-9cc2-34a16ea5f6e6.2d7dd.cdn.bitdefender.net`

Proxy Server Settings: This setting is useful for restrictive environments where you do not want all of your production servers to have Internet access. For more information, see System Update Settings in the ZENworks System Updates Reference.

Ondemand Content Server Architecture

Ondemand content is replicated in similar fashion as other ZENworks content using both Primary and Satellite Servers or via a Shared Content Repository. The process for content requests originates with an agent on the workstation and each request moves upstream through content server channels until the request for content is fulfilled. This sequence is explained below:

1. A request for content is made by an agent installed on the workstation to its content server. Typically a satellite assigned a Content Server role. Satellite Server serving bundle, policy, system update and patch (new feed) content can have both SSL and non-SSL. Only for Antimalware content, content satellite SSL should be enabled.

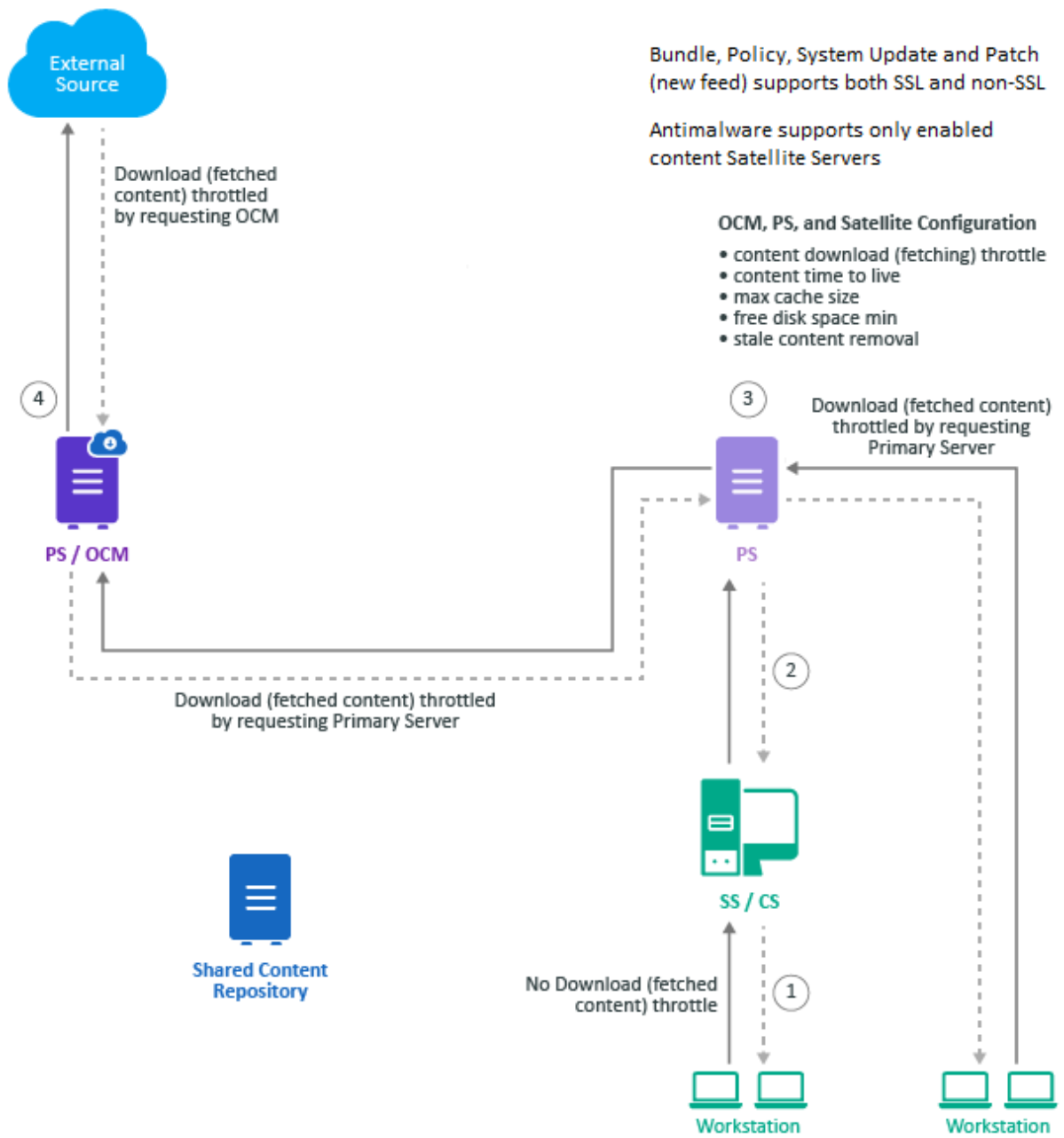   If the content is available on that content server, it is served to the workstation.

2. If the content is not available, the satellite server checks its Content Replication Method to discover its upstream content server (a primary server) and forwards the request to that server.

   If the content is available on that Primary Server and only throttling is enabled, it is throttled to the workstation through the satellite content server.

3. If the content is not available on the primary server, it checks its Ondemand Content Master list to discover its upstream OCM, and then sends the content request to that server.

   If the content is available on the OCM, it is throttled to the workstation through the primary server.

4. If the content is not available upstream, the OCM downloads the content from the CDN and throttles it to the workstation through the primary server.

External
Source

Download (fetched
content) throttled
by requesting OCM

Bundle, Policy, System Update and Patch
(new feed) supports both SSL and non-SSL

Antimalware supports only enabled
content Satellite Servers

OCM, PS, and Satellite Configuration
- content download (fetching) throttle
- content time to live
- max cache size
- free disk space min
- stale content removal

④

③ Download (fetched content)
throttled by requesting
Primary Server

PS / OCM

PS

Download (fetched content) throttled
by requesting Primary Server

②

SS / CS

**Shared Content
Repository**

No Download (fetched
content) throttle ①

Workstation

Workstation

2 Ondemand Content Configuration

The Ondemand Content configuration enables you to control when and how fast a Content Server can download requested ondemand content, as well as define how long the content is cached.

Zone-level settings apply to all Content Servers, but the settings can be overridden on device folders and devices to provide more granular control for groups of Content Servers or individual Content Servers.

Zone Settings

To modify default zone settings in the ZENworks Control Center, navigate to **Configuration** > **Management Zone Settings** > **Bundle, Policy and Content** > **Ondemand Content** link. For specific information about configuration options, see:

- Configure the Content Download Settings
- Configure the Content Cache Settings

Device Folder Settings

To override zone settings on a device folder:

1 Click the **(Details)** link for the desired folder (for example, "Servers").

2 Navigate to **Settings** > **Bundle, Policy and Content** > **Ondemand Content** link.

3 Click the **Override** link at the top of the page.

4 Modify the zone settings as required and **Apply** the changes. For specific information about configuration options, see:

- Configure the Content Download Settings
- Configure the Content Cache Settings

Device Settings

To override zone settings on a device:

1 Navigate to and click the device link. The device can be either a server or a workstation configured with a Content Server role.

2 Go to **Settings** > **Bundle, Policy and Content** > **Ondemand Content** link.

NOTE: The Ondemand Content link will only display in Bundle, Policy and Content settings for a Workstation device if the device is already configured as a satellite server with the Content Server role. For information about configuring Workstation devices as satellite servers, see "Adding and Configuring Satellite Devices" in the *ZENworks Primary Server and Satellite Reference*.

3 Click the **Override** link at the top of the page.

4 Modify the zone settings as required and **Apply** the changes. For specific information about configuration options, see:

- Configure the Content Download Settings
- Configure the Content Cache Settings

Ondemand Content Management Server Configuration

ZENworks zone with Antimalware enabled or the new Patch Feed enabled, OCM is mandatory and this will be automatically configured as part of the feature enablement.

The Ondemand Content Master requires an Internet connection to communicate and download content from the external Antimalware cloud service or Patch New feed external source such as Google or Microsoft etc. This service is a Content Distribution Network (CDN) that manages all the malware signature files required to disinfect files on managed devices for Antimalware and for the Patch New feed it will download the patches from external sources like Google or Microsoft and content will be download based on the requests from manage devices.

In a zone, it is always recommended to have a single OCM server as a minimum requirement, and the Administrator can decide to have multiple OCM servers depending on the scale requirements so that the overall load can be distributed among OCM servers in the zone.

Configure the Content Download Settings

The Content Download settings enable you to define daily throttling of content downloads to ZENworks content servers based on enterprise bandwidth needs. For example, you can prohibit downloads altogether for certain time periods during the week, add a throttling rate for other time periods, and define again other time periods where little network traffic is expected for unrestricted downloads.

To configure your content download schedule, click **Add** in the Content Download panel for each download window that you want to set up and use the Content Download Override settings to define the throttle rate (Unthrottled, Throttled, or Blacked Out) and to schedule the window for that setting to apply (start and end times).

Configure the Content Cache Settings

The Content Cache settings enable you to define cache size limits, minimum requirements for disk space, and the content retention period for content downloaded to ZENworks ondemand content servers and satellites with an Ondemand Content role. You can also specifically set how long metadata and content are maintained for downloaded files. See the descriptions below for more information about metadata and content:

 ◆ **Metadata:** The "index" file that the Content Server uses to know what content to send to a device when it requests an update. The metadata needs to have a short Time-to-Live (TTL) so that the Content Server requests it frequently and has the latest index of content. Otherwise, it will continue to serve it to devices, resulting in devices not receiving the most recent content.

 ◆ **Content:** The content pertains to what the Content Server is downloading and distributing to managed devices. For example, malware signatures and agent updates for devices that have the Antimalware Agent installed. The content should have a longer TTL so that it does not repeat downloads.

To change the default or currently configured settings for the general cache, modify the fields directly for Cache Size, Disk Space, and Content Retention. To modify the settings for Cached File Time to Live, select Antimalware Metadata or Antimalware Content, and click **Edit**.

Configure Ondemand Content Master Settings

Ondemand content masters (OCM) download content for managed device distribution from content distribution networks (CDN). Only primary servers can be OCMs. Satellite servers can function as ondemand content servers for content replication purposes, but they cannot download content from a CDN. There must always be at least one primary server designated as OCM.

OCMs require an Internet connection to communicate with and download content from the CDN. If the OCM requires a proxy to access the CDN, the OCM server's Subscription proxy configuration file (`lpm-server.properties`) is used. For more information on configuring the proxy, see "Ondemand Content Master - Requirements" on page 8.

To designate a primary server as an OCM:

Navigate to Configuration > Server Hierarchy, select the primary server in the Server Hierarchy panel, and select **Set as Ondemand Content Master** in the Action drop-down menu.

To remove the OCM designation from a primary server:

Navigate to Configuration > Server Hierarchy, select the primary server in the Server Hierarchy panel, and select **Remove as Ondemand Content Master** in the Action drop-down menu.

While removing or deleting the ZENworks Server, ensure that you remember the following points:

1. If this is the last server with the OCM role, then the other Primary Server should be assigned the OCM role.

2. If the Content is not replicated when pre-caching of content is not enabled, then the content will not be available in the new OCM server if assigned.