

## **Troubleshooting ZENworks System Update**

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# Troubleshooting ZENworks System Update Agenda

- Server System Update Workflow
- Troubleshooting Server System Update
- Agent System Update Workflow
- Troubleshooting Agent System Update
- Best Practices
- Reboot Behavior



## Server System Update Workflow

### Server System Update Workflow





## **Troubleshooting Server System Update**

### **Troubleshooting Server System Update Prepare Phase**

#### **Potential Problem Description**

During Prepare Phase, we make a few REST calls to ZEUS to get the current version of ZEUS, to update it. This involves talking to OSP to fetch tokens, which will be passed as headers to authenticate.

Multiple issues have been observed in the field during the OSP interaction, causing the prepare phase to fail.

#### **Recommended Solution**

Instead of interacting with OSP for fetching tokens, use a Local Device Authentication where ZEUS can authenticate the REST calls with device GUID and Password.

#### **Additional Information**

Logs to look for when there are prepare phase failures - /var/opt/microfocus/log/zenworks/prepare-update.log



### **Troubleshooting Server System Update Prepare Phase**

#### **Potential Problem Description**

At 23.4 if we had imported a latest update, deleted it later before deploying the update to the zone, and reimported the update, prepare phase will fail.

Caused by: org.springframework.web.client.HttpClientErrorException\$BadRequest: 400 Bad Request: "<Map><timestamp>2024-10-28T19:21:01.104+00:00</timestamp><status>400</status><error>Bad Request</error><path>/rest/get-zeus-version</path></Map>

#### **Recommended Solution**

Apply 23.4 Server FTF 97 PH\_217327 or above

#### **Additional Information**

Logs to look for when there are prepare failures - /var/opt/microfocus/log/zenworks/prepare-update.log



#### **Potential Problem Description**

While an update deployment is in progress, if you delete the update, download, and reimport the update, then when you try to "Configure Update" from ZCC, the following error is displayed:



(continued...)



#### **Recommended Solution**

On Linux/Appliance:

Go to /var/opt/microfocus/zenworks/content-repo/system-update/"SU GUID"

Copy configure-input.war and configure-input.xml from the above location and replace them in the following location: /var/opt/novell/zenworks/ZeUS/webserver/webapps

After copying the files, restart ZENworks Updater Service (ZEUS).

### **Additional Information**

Logs to look for when there are configure failures - /var/opt/novell/zenworks/zeus.out



#### **Potential Problem Description**

When configuring the update to select port, an error is seen

HTTP ERROR 500 javax.servlet.ServletException: org.springframework.web.util.NestedServletException: Request processing failed; nested exception is java.lang.NullPointerException

Caused by: java.lang.NullPointerException at com.novell.zen.server.web.controllers.ErrorMessageController.getCancelMessagePage(ErrorMessageController.java:52) at sun.reflect.NativeMethodAccessorImpl.invoke(Native Method) at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62) at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43) at java.lang.reflect.Method.invoke(Method.java:498) at org.springframework.web.method.support.InvocableHandlerMethod.doInvoke(InvocableHandlerMethod.java:190) at org.springframework.web.method.support.InvocableHandlerMethod.invokeForRequest(InvocableHandlerMethod.java:138) at org.springframework.web.servlet.mvc.method.annotation.ServletInvocableHandlerMethod.invokeAndHandle(ServletInvocableHandlerMethod.java:105) at org.springframework.web.servlet.mvc.method.annotation.RequestMappingHandlerAdapter.invokeHandlerMethodAdapter.java:878) at org.springframework.web.servlet.mvc.method.annotation.RequestMappingHandlerAdapter.invokeHandlerMethodAdapter.java:878) at org.springframework.web.servlet.mvc.method.Annotation.RequestMappingHandlerAdapter.invokeHandlerMethodAdapter.java:879) at org.springframework.web.servlet.mvc.method.AbstractHandlerMethodAdapter.handle(AbstractHandlerMethodAdapter.java:879) at org.springframework.web.servlet.DispatcherServlet.doDispatch(DispatcherServlet.java:1040) at org.springframework.web.servlet.DispatcherServlet.doService(DispatcherServlet.java:1040) at org.springframework.web.servlet.FrameworkServlet.processRequest(FrameworkServlet.java:1086)

#### (continued...)



#### **Recommended Solution**

To resolve this issue, ensure that an actual DNS (hostname -f) is used in the OpenID Provider properties. The openid-provider.properties file is available in the following location:

[For Windows]: %ZENSERVER\_HOME%/conf/

[For Linux]: /etc/opt/microfocus/zenworks/

Here is an example of a FQDN (fully qualified domain name) which consists of a hostname and the DNS domain name. In the following URL domain.com is a FQDN (fully qualified domain name) of a Primary Server: openid\_provider\_url=https://domain.com\zenworks/?requestHandler\=ZENOpenIDHandler

#### **Additional Information**

Logs to look for when there are configure failures - /var/opt/novell/zenworks/zeus.out

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### Troubleshooting Server System Update Deploy Phase

How does the 'Deploy Phase' progress?

**Step-1:** QuickTask to stop services on other primaries

• **Potential Problem:** Unreachable servers might require to be manually stopped

**Step-2:** Schema Update

**Step-3:** ZEUS Refresh launches ZENUpdater with install\_commands.xml

**Step-4:** ZENUpdater launches ZUPER which deploys the below \*.zup files:

- microfocus-zenworks-server-\*.zup
- microfocus-zenworks-server-imaging-\*.zup
- microfocus-zenworks-server-zav-\*.zup
- microfocus-zenworks-server-tools-\*.zup

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### Troubleshooting Server System Update Deploy Phase

#### **Additional Information**

Logs to look for additional information:

- /var/opt/microfocus/log/zenworks/loader-messages.log
- /var/opt/microfocus/log/zenworks/pre-global-actions
- /var/opt/novell/log/zenworks/system-update/SUGUID/system-update.log
- /var/opt/novell/log/zenworks/system-update/SUGUID/\*.zup.log files
- /var/opt/microfocus/log/zenworks/microfocus-zenworks-configure.log



## **Agent System Update Workflow**

#### **Primary Server ZENworks** Control Center Assign Update Refresh ZEUS Marks Marks FINISHED AWAITNG\_REBOOT status status ZENUpdater ZEUS Execute (Fetch Assignments Download SU Content Launch ZUPER update\_command Launch ZENUpdater ZUPER Extract Agent ZUP Upgrade MSI's Windows Managed Device

### Agent System Update Workflow

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## **Troubleshooting Agent System Update**

### **Troubleshooting Agent System Update**

#### **Potential Problem Description**

After a system update the status remains stuck at "Awaiting Reboot"

#### **Recommended Solution**

After a system update, once reboot is done, '*update\_needs\_reboot*' file is not getting cleaned up. Instead of relying on Microsoft Native Libraries to delete a file on reboot, ZEUS will handle the removal.

#### **Additional Information**

Logs to look for additional information: %ZENWORKS\_HOME\logs\system-update\SUGUID\\*.log



### Best Practices How to use Staging

- Deploy an update one step at a time, such as to a test group first, and then to your managed devices.
- Testing the system update on certain devices before deploying it to your production environment.
- Ensuring the updates are deployed to Primary and Satellite devices before being deployed to agents.
- Different staging behaviors:
  - Advance Through Stages Automatically
  - Advance Through Stages Automatically with Notification
  - Advance to Next Stage Manually and Notify When Complete



### How to use Standalone Agent Updater

- The Standalone Agent Updater is an independent executable to update Windows managed devices and Windows Satellite Servers, which could be used in the below cases:
  - Issues pulling down content to agents during agent update
  - ZEUS is broken
- Bundle created with the Standalone Update executables for easy/independent deployment



### How to use Standalone Agent Updater

- How to create the bundle?
  - 1. zman sucp "ZENworks 24.4" -p Windows -a 64 -n ZCM24.4AgentUpgrade-x64

2. Extract the executable into a temporary directory

"ZCM24.4AgentUpgrade-x64.exe" -n -d "C:\ZCM 24.4 Standalone Update Bundle\ZCM24.4AgentUpgradex64"

- 3. Create a bundle with a "Install Directory" Action with the above extracted directory.
- 4. To perform a silent install of the updater, create a simple VB script and launch the executable.
- 5. Case where user logged in and no user logged in.



### How to use Standalone Agent Updater

• Fail the Standalone Updater Bundle if a reboot is pending (System Requirements with Registry Key Check)

System Require	ments				
pecify the syster	n requirements for this bund	e and indicate if the applicat	tion icon should be displayed	d to the user.	
C Show applicat	ion icon if system requiremer	ts fail			
Add Filter	Add Filter Set Insert Filter	Delete Show Summary			
Combine Filters u	sing: Or 🗸 Filter Sets w	ll be combined using: AND			
The following con	ditions should be effective fo	or this object to be enforced:			
Registry	Key Value		NI Version	String Type	23 4 0 88
			Voloidi		20.1.0.00
Architect	ure	= < 64 <			
AND					
Registry	Key Exists	HKEY_LOCAL_MACHI	NI No 🗸		
AND			15		
Registry	Key Exists	HKEY_LOCAL_MACHI	NI No 🗸		
AND		28 			
Registry	Key and Value Exists	HKEY_LOCAL_MACHII	NI PendingFileRenameOpe	er No 🗸	
AND		-			
Registry	Key Exists	HKEY_LOCAL_MACHII	NI No 🗸		
AND		<b>—</b>			
Disk Spa	ice Free	✓] [C:	>= ♥   1	GB V	
AND			Constant and a second second	5 10 10 10 10 10	1.2
Operatin	g System - Windows	✓ Version ✓ >= ✓	10.0 - Windows 10 / Wind	ows Server 10 Versions	l⊗I

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### How to use Standalone Agent Updater

Registry keys to check if there is a pending reboot:

- *HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Component Based Servicing\RebootPending* 
  - KEY must NOT exist
- *HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\WindowsUpdate\Auto Update\RebootRequired* 
  - KEY must NOT exist
- *HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager* 
  - Value PendingFileRenameOperations (Multi-String) must NOT exist
- *HKEY\_LOCAL\_MACHINE\SOFTWARE\Software\Microsoft\AppV\Client\PendingTasks* 
  - KEY must NOT exist

#### Note:

Ensure the standalone updater package created using *zman* sucp is always the latest, if slipstreaming of agent FTF's are done.



### Best Practices How to use Standalone Agent Updater

### **Launch Action**

Su	Immary	Dashboard	Relationships	Requirements	Actions	Settings	Share	Audit	License
Di	stribute	Install Lau	Inch Repair	Uninstall Terr	ninate				
	Add 🔻 R	emove Move Up	p Move Down Dup	licate Relocate.	Enable Di	sable Options			
	Name			T	ype			State	
	Create Sci	ript to Launch th	e Agent Upgrade	E	dit Text File			Enabled	
	Run Script	to Upgrade ZCM	Agent When a User	is Logged in L	aunch Executa	ble		Enabled	
	Start ZCM	Agent Upgrade V	When No User is Log	ged in L	aunch Executa	ble		Enabled	
1 - 3	of 3 items				M	< <u>1</u> /1 ► ►	l		



Reset



### How to use Standalone Agent Updater

#### **Reboot Behavior**

#### • System Update Assigned to devices

Reboot Behavior will be the settings set during SU assignment.

Create System Update Deployment

Step 2: Choose the Reboot Behavior for the Deployment

Choose the Reboot Behavior for the Deployment:

Prompt user to reboot when update finishes applying

 $\Box$  Reboot device when no user is logged into the system

 $\Box$  Reboot device when the device is locked

 $\bigcirc$  Do not reboot device

Start ZENworks Agent with limited functionality

 $\bigcirc$  Force device to reboot

Note: Reboot Behavior is applicable only if the update requires a reboot.

<< Back	Next >>	Cancel



### How to use Standalone Agent Updater

#### **Reboot Behavior**

#### No System Update Assignment

Reboot behavior will be from this setting Configuration->Infrastructure Management -> System Update Settings->Reboot Behavior

Reboot Behavior	^
This settings allows the administrator to control the reboot behavior for devices that will be registered in the zone after an update has been baselined.	
Choose the Reboot Behavior:	
Prompt user to reboot when update finishes applying (Default)	
$\Box$ Reboot device when no user is logged into the system	
Reboot device when the device is locked	
$\bigcirc$ Do not reboot device	
Start ZENworks Agent with limited functionality	
$\bigcirc$ Force device to reboot	

OK Anniv Reset Cancel



#### **Planning before Update**

- Before planning to update primary servers, ensure content gets replicated on all primary servers.
- Before planning to update managed devices, ensure content is replicated on all satellites.
- Agent packages can be slipstreamed, where prepare will be retried on all primaries, and also creates sync state entries for content satellites.
- For Windows managed devices, ensure the Windows Updates are scheduled when ZENworks system update is not going on.



### **System Update Reboot Behavior**

• Do not reboot device

\*Reboot Prompt Nag Dialog – ON

\*Reboot Prompt Max Postpone – 5

#### \*Reboot Prompt Nag Time – 15 mins

Though user will not be presented with a Reboot Prompt with options to Postpone, a nag message indicating a reboot is required is displayed to the user.





### System Update Reboot Behavior

• Do not reboot device

\*Reboot Prompt Nag Dialog – OFF

\*Reboot Prompt Nag Time – 15 mins

#### \*Show System Update Progress - ON

AC	12/ 1/2024 /103 FIVE	Text Document	577 ND
-update	12/1/2024 7:05 PM	Text Document	41 KB
-update-watcher	12/1/2024 7:29 PM	Text Document	43 KB
_commands	12/1/2024 6:50 PM	Microsoft Edge H	7 KB
_needs_reboot	12/1/2024 7:03 PM	File	0 KB
microfocus-zenworks-agent-win	12/1/2024 7:03 PM	Text Document	99 KB
		7 Chluerke Lind	
		A system reboo complete the Z	<b>ate</b> ot is required to ENworks Update

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### System Update Reboot Behavior

Prompt User to reboot when update finishes applying

\*Reboot Prompt Nag Dialog – ON

\*Reboot Prompt Max Postpone – 5

\*Reboot Prompt Nag Time – 15 mins





### System Update Behavior on Agent

#### Configuration->Device Management ->System Update Agent

System Update Agent			
Show Permission Prompt	○ On <sup>●</sup> Off		
Permission Prompt Max Postpone	○ Unlimited		
Permission Prompt Timeout	○ No Timeout		
Permission Prompt Nag Time	15 * mins		
Permission Prompt Max Wait Time	120 * mins		
Reboot Prompt Nag Dialog	● On ○ Off		
Reboot Prompt Max Postpone	○ Unlimited		
Reboot Prompt Timeout	○ No Timeout		
Reboot Prompt Nag Time	15 * mins		
Show System Update Progress			
Update Watcher Icons	c:\program files\novell\zenworks\bin\alternate.ico		
	* The path must resolve on the managed device running the agent.		
Agent Message Overrides			
Add Remove Edit			
Key Message			
No items available.			



## **Questions?**

## Thank You!!!