Tomcat Update

Tomcat Update

Perform the following procedure to update Tomcat version on Call Server, Operations Console, VXML Server, and Web Services Manager (WSM). For example, you can update from Tomcat version 9.0.8 to 9.0.x.

Before you begin

- Save a backup copy of the Tomcat folder from the following locations:

  - For Call Server: `C:\Cisco\CVP\CallServer`

  - For VXML Server: `C:\Cisco\CVP\VXMLServer`

  - For Operations Console: `C:\Cisco\CVP\OPConsoleServer`

  - For WSM: `C:\Cisco\CVP\wsm\Server`

  Note Save a backup copy of the Tomcat folder on a directory path that is different from the default destination folder (C:\Cisco\CVP).

- Rename the Tomcat folders with a different name. For example: Tomcat_backup.

Procedure

Step 1 Stop the Tomcat service.

Step 2 Remove the Tomcat folder from the following locations:

- For Call Server: `C:\Cisco\CVP\CallServer`
- For VXML Server: `C:\Cisco\CVP\VXMLServer`
- For Operations Console: `C:\Cisco\CVP\OPConsoleServer`

• For WSM: `C:\Cisco\CVP\wsm\Server`

Step 3 Download the Tomcat binary apache-tomcat-9.0.x-windows-x64.zip file from the following location: https://archive.apache.org/dist/tomcat/tomcat-9/.

Step 4 Right-click the apache-tomcat-9.0.x-windows-x64.zip file and extract the files to a known location on the local drive.

Step 5 Rename the folder apache-tomcat-9.0.x to Tomcat.

Step 6 Copy the Tomcat folder to the following locations:

- For Call Server: `C:\Cisco\CVP\CallServer`
- For VXML Server: `C:\Cisco\CVP\VXMLServer`
- For Operations Console: `C:\Cisco\CVP\OPConsoleServer`
- For WSM: `C:\Cisco\CVP\wsm\Server`

Step 7 Copy the webapps file from the Tomcat_backup folder (...`\Tomcat_backup\webapps`) and paste it in the following folder locations:

- For Call Server: `C:\Cisco\CVP\CallServer\Tomcat`
- For VXML Server: `C:\Cisco\CVP\VXMLServer\Tomcat`
- For Operations Console: `C:\Cisco\CVP\OPConsoleServer\Tomcat`
- For WSM: `C:\Cisco\CVP\wsm\Server\Tomcat`

Step 8 Copy the missing jar files from the Tomcat_backup folder (`..\Tomcat_backup\lib`) to the following locations:

- For Call Server: `C:\Cisco\CVP\CallServer\Tomcat\lib`
- For VXML Server: `C:\Cisco\CVP\VXMLServer\Tomcat\lib`
- For Operations Console: `C:\Cisco\CVP\OPConsoleServer\Tomcat\lib`
- For WSM: `C:\Cisco\CVP\wsm\Server\Tomcat\lib`

Note Copy the contents of the `..\Tomcat_backup\Shared folder` to `C:\Cisco\CVP\OPSConsoleServer\Tomcat\`.

Step 9 Copy the `context.xml` file from the Tomcat_backup folder (`..\Tomcat_backup\conf`) to the following locations:

- For Call Server: `C:\Cisco\CVP\CallServer\Tomcat\conf`
- For VXML Server: `C:\Cisco\CVP\VXMLServer\Tomcat\conf`
- For Operations Console: `C:\Cisco\CVP\OPConsoleServer\Tomcat\conf`
- For WSM: `C:\Cisco\CVP\wsm\Server\Tomcat\conf`

Step 10 Update the new server.xml files with the existing properties from the backed up server.xml files.

Step 11 For wsm Tomcat upgrade, ensure the `jaas.conf` from the backed up Tomcat folder is copied to the new `Tomcat/conf` folder.

Step 12 Back up **connector.property** that was created before starting the process from:.

- For Operations Console:
  `C:\Cisco\CVP\OPConsoleServer\Tomcat_backup\bin\connector.property`

- For VXML Server:
  `C:\Cisco\CVP\VXMLServer\Tomcat_backup\bin\connector.property`

Step 13   Restore these to:

- For Operations Console:
  `C:\Cisco\CVP\OPConsoleServer\Tomcat\bin\connector.property`

- For VXML Server: `C:\Cisco\CVP\VXMLServer\Tomcat\bin\connector.property`

Step 14   Restart the following Tomcat services:

- Cisco CVP CallServer
- Cisco CVP OPSConsoleServer
- Cisco CVP VXMLServer
- Cisco CVP WebServicesManager

Step 15   Ensure that the CVP Diag portal is up and running.

Step 16   Check Tomcat and CVP logs for any exceptions.

Running Tomcat Service without Administrator Privileges

Procedure

Step 1   Create a Windows user, for example, *cvp_guest*.

Step 2   In `C:\Cisco` folder, grant read, write, modify permission to cvp_guest.

Step 3   Grant permission to cvp_guest to access the machine remotely (to allow remote connection capability in future) by right clicking **This Computer** from `File Explorer > Properties > Remote Settings > Allow remote connections to this computer > Select Users > Add`, type the name of the new user (eg. cvp_guest) > Check Names > OK.

Step 4   Log out as the current user, and log on as cvp_guest.

Step 5   Get the SID of the cvp_guest user to grant cvp_guest the required permissions to start and stop the Windows services.

  a) Go to `Start > regedit > HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVersion\ProfileList\`.

  b) Browse to the folder that has the **ProfileImagePath** value as `C:\Users\cvp_guest`.

  c) Right-click that folder and select **Copy Key Name** to copy the key name to Notepad. By default, the key name appears with the full path. Copy only the last part (for example, S-1-5-21-1386459338-4158420048-3623644462-1067).

Step 6   Log out as cvp_guest and log in as Administrator to assign permission to cvp_guest for starting and stopping the Tomcat service(s) that are to be run on that node.

  a) Go to command prompt and run: sc.exe sdshow **<service_name>**. For example, on a Call Server node, type **sc.exe sdshow callserver** in the command prompt. Refer to the following table for all possible values of <service_name>.

  Sample Output:

  ```
  D:(A;;CCLCSWRPWPDTLOCRRC;;;SY)(A;;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;BA) (A;;CCLCSWLOCRRC;;;IU)
  (A;;CCLCSWLOCRRC;;;SU)S:(AU;FA;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;WD)
  ```

This output lists the permissions for each user and group on this system.

Copy this output for reference and use in the following steps.

b) Suffix the key to **A;;RPWPCR;;;** (for example: A;;RPWPCR;;;<KEY_NAME>) and insert it in the output from Step 6a just before 'S:' as shown:

Example:

```
D:(A;;CCLCSWRPWPDTLOCRRC;;;SY)(A;;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;BA)(A;;CCLCSWLOCRRC;;;IU)(A;;CCLCSWLOCRRC;;;SU)
```

```
(A;;RPWPCR;;;S-1-5-21-1386459338-4158420048-3623644462-1067)S:(AU;FA;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;WD)
```

Step 7   Go to command prompt and run **sc.exe sdset <service_name> <Output from Step 6b>**

Example:

```
sc.exe sdset callserver "D:(A;;CCLCSWRPWPDTLOCRRC;;;SY)(A;;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;BA)
```

```
(A;;CCLCSWLOCRRC;;;IU)(A;;CCLCSWLOCRRC;;;SU)(A;;RPWPCR;;;S-1-5-21-1386459338-4158420048-3623644462-1067)S:(AU;FA;CCDCLCSWRPWPDTLOCRSDRCWDWO;;;WD"
```

Depending on which CVP services are to be run on a node, grant permissions to the cvp_guest as follows. For example: on a Call Server node, run Steps 6 and 7 for 'callserver' and 'vxmlserver' Tomcat services.

Use the following table to refer to the possible values of <service_name> in the above commands to be run on each node:

Node	Service	<service_name>
Call Server/VXML Server	Call Server	callserver
	VXML Server	vxmlserver
	Web Services Manager	WebServicesManager
	SNMP Management	"Cisco CVP SNMP Management"
OAMP	OPS Console Server	OPSConsoleServer
	Web Services Manager	WebServicesManager
	SNMP Management	"Cisco CVP SNMP Management"
Reporting Server	Call Server	callserver
	Web Services Manager	WebServicesManager
	SNMP Management	"Cisco CVP SNMP Management"
	Informix IDS	cvp