Installing Software Maintenance Update for Spring4Shell Vulnerability

Installing Software Maintenance Update on Cisco DCNM Windows and Linux Deployment

This section provides instructions to install Software Maintenance Update (SMU) on Cisco Windows and Linux deployments Release 11.5(4) to address **CVE-2022-22965** issue.

✎

Note Only a **root** or **admin** user can install the SMU on the Cisco DCNM setup.

This section contains the following topics:

Installing the SMU on Cisco DCNM Windows Appliance

To install the SMU on Cisco DCNM Windows appliance, perform the following:

Before you begin

- Take a backup of the Cisco DCNM application. Copy the backup file to a safe location outside the DCNM server.

- If Cisco DCNM appliance is installed in VMware environment, ensure that you take VM snapshots for all nodes. For instructions, refer to *VMware Snapshot Support* section in your Cisco DCNM Release Notes.

- Ensure that you plan for a maintenance window to install SMU.

- Ensure that Cisco DCNM 11.5(4) is up and running.

✎

Note   Only a **root** user can install the SMU on the Cisco DCNM Release 11.5(4) appliance

Procedure

Step 1   Download the SMU file.

a) Go to the following site: https://software.cisco.com/download/.

A list of the latest release software for Cisco DCNM available for download is displayed.

b) In the Latest Releases list, choose Release 11.5(4).

c) Locate **DCNM 11.5(4) Maintenance Update for Windows and Linux servers to address CVE-2022-22965** and click Download icon.

d) Save the **dcnm-win-linux-patch.11.5.4.zip** file to your directory that is easy to find when you start to apply the maintenance update (patch).

Step 2   Upload the file to the **C:\Users\<UserName>\Desktop** folder in the DCNM setup.

Step 3   Log on to Cisco DCNM using SSH as a **Administrator** user.

Step 4   Unzip the **dcnm-win-linux-patch.11.5.4.zip** file in **c:\Users\<UserName>\Desktop** directory.

Step 5   Open **Command prompt** and run as **Administrator**.

Step 6   Change directory to **/patch** using **c:\Users\<UserName>\Desktop\patch** command.

Step 7   Apply the patch.

```
C:\Users\dcnm\spring4shell-patch>patch.bat
========================================================
============ spring4shell patch for DCNM 11.x ==============
========================================================
Enter DCNM root directory [C:\Program Files\Cisco Systems\dcm]:
C:\Users\dcnm\spring4shell-patch
The system cannot find the file specified.
"Preparing patch, please wait...."

Initializing...

mds.nmsRoot: C:\Program Files\Cisco Systems\dcm
Patching dcm.ear...
Patching SanAnalytics.war...
C:\Program Files\Cisco
Systems\dcm\wildfly-14.0.1.Final\standalone\sandeployments\SanAnalytics.war does not exists,

no need to patch war file.
Patching dcnmweb.war...

"Stopping DCNM service..."
The service is not responding to the control function.
More help is available by typing NET HELPMSG 2186.
Waiting for  0 seconds, press CTRL+C to quit ...

"Applying patch..."
        1 file(s) copied.
        1 file(s) copied.
```

```
"Removing wildfly temp directory..."

"Starting DCNM server..."
The Cisco DCNM SAN Server service is starting.
The Cisco DCNM SAN Server service was started successfully.

Waiting for  0 seconds, press CTRL+C to quit ...
C:\Users\dcnm\spring4shell-patch>
```

Installing the SMU on Cisco DCNM Linux Appliance

To install the SMU on Cisco DCNM Linux appliance, perform the following:

Before you begin

- Take a backup of the Cisco DCNM application. Copy the backup file to a safe location outside the DCNM server.

- If Cisco DCNM appliance is installed in VMware environment, ensure that you take VM snapshots for all nodes. For instructions, refer to *VMware Snapshot Support* section in your Cisco DCNM Release Notes.

- Ensure that you plan for a maintenance window to install SMU.

- Ensure that Cisco DCNM 11.5(4) is up and running.

✎

Note   Only a **root** user can install the SMU on the Cisco DCNM Release 11.5(4) appliance

Procedure

Step 1   Download the SMU file.
a) Go to the following site: https://software.cisco.com/download/.

A list of the latest release software for Cisco DCNM available for download is displayed.

b) In the Latest Releases list, choose Release 11.5(4).
c) Locate **DCNM 11.5(4) Maintenance Update for Windows and Linux servers to address CVE-2022-22965** and click Download icon.
d) Save the **dcnm-win-linux-patch.11.5.4.zip** file to your directory that is easy to find when you start to apply the maintenance update (patch).

Step 2   Upload the file to the **/root/** folder in the DCNM setup.

Step 3   Log on to Cisco DCNM using SSH as a **root** user.

Step 4   Unzip the **dcnm-win-linux-patch.11.5.4.zip** file in **/root/** directory.

Step 5   Change directory to **/patch**.

```
[root@dcnm]# cd patch
```

Step 6 Apply the patch.

```
[root@dcnm]# ./patch.sh
=============================================================
============ spring4shell patch for DCNM 11.x ==============
=============================================================

Please enter DCNM install directory.  Press Enter to select default.
[Default:/usr/local/cisco/dcm]:

DCNM Home Dir: /usr/local/cisco/dcm
Preparing patch, please wait...

mds.nmsRoot: /usr/local/cisco/dcm
Patching dcm.ear...
Patching SanAnalytics.war...
Patching dcnmweb.war...

Stopping DCNM service...
Stopping FMServer (via systemctl):                         [  OK  ]

Applying patch...
Removing wildfly temp directory...

Starting DCNM server...
Starting FMServer (via systemctl):                         [  OK  ]
[root@esc-11-4-a spring4shell-patch]#
```

Installing Software Maintenance Update on Cisco DCNM OVA/ISO Deployment

This section provides instructions to install Software Maintenance Update (SMU) on OVA/ISO deployments in Cisco DCNM Release 11.5(4) to address **CVE-2022-22965** issue.

This section contains the following topics:

Installing SMU on DCNM Standalone Deployment

This section provides instructions to install Software Maintenance Update (SMU) on OVA/ISO deployments in Cisco DCNM Release 11.5(4) to address **CVE-2022-22965** issue.

To apply the Software Maintenance Update (SMU) on Cisco DCNM OVA/ISO in Standalone deployment mode, perform the following steps:

Before you begin

- Take a backup of the application data using the **appmgr backup** command on the DCNM appliance.

  ```
  dcnm# appmgr backup
  ```

  Copy the backup file to a safe location outside the DCNM server.

• If Cisco DCNM appliance is installed in VMware environment, ensure that you take VM snapshots for all nodes. For instructions, refer to *VMware Snapshot Support* section in your Cisco DCNM Release Notes.

• Ensure that you plan for a maintenance window to install SMU.

• Ensure that Cisco DCNM 11.5(4) is up and running.

Note   Only a **root** user can install the SMU on the Cisco DCNM Release 11.5(4) appliance

Procedure

Step 1   Download the SMU file.

     a) Go to the following site: https://software.cisco.com/download/.

        A list of the latest release software for Cisco DCNM available for download is displayed.

     b) In the Latest Releases list, choose Release 11.5(4).

     c) Locate **DCNM 11.5(4) Maintenance Update for VMWare, KVM, Bare-metal, and Appliance servers to address CVE-2022-22965** and click Download icon.

     d) Save the **dcnm-va-patch.11.5.4-p1.iso** file to your directory that is easy to find when you start to apply the maintenance update (patch).

Step 2   Unzip the **dcnm-va-patch.11.5.4-p1.iso** file and upload the file to the /root/ folder in the DCNM node.

Step 3   Log on to the Cisco DCNM appliance using SSH as a **sysadmin** user.

Run the **su** command to enable **root** user.

```
dcnm# su
Enter the root password:
[root@dcnm]#
```

Step 4   Run the following command to create a screen session.

```
[root@dcnm]# screen
```

This creates a session which allows you to execute the commands. The commands continue to run even when the window is not visible or if you get disconnected.

Step 5   Create a folder named **iso** using the **mkdir /mnt/iso** command.

```
[root@dcnm1]# mkdir -p /mnt/iso
```

Step 6   Mount the DCNM 11.5(4) SMU file in the /mnt/iso folder.

```
[root@dcnm]# mount -o loop dcnm-va-patch.11.5.4-p1.iso /mnt/iso
```

Step 7   Navigate to **/scripts/** directory.

```
[root@dcnm]# cd /mnt/iso/packaged-files/scripts/
```

Step 8   Run the **./inline-upgrade.sh** script.

```
[root@dcnm]# ./inline-upgrade.sh
```

The progress is displayed on the screen. When the installation of SMU is complete, a successful message appears.

Note   After the SMU is installed successfully, the DCNM process restarts. This results in a momentary loss of access to the DCNM Web UI.

Step 9   Ensure the DCNM application is functional, by using the **appmgr status all** command.

```
[root@dcnm]# appmgr status all
```

Step 10   Terminate the **screen** session, by using the **exit** command.

```
[root@dcnm]# exit
```

Step 11   Unmount the **dcnm-va-patch.11.5.4-p1.iso** file from the DCNM setup.

Note   You must terminate the **screen** session before unmounting the SMU file.

```
[root@dcnm]# umount /mnt/iso
```

Step 12   Start SMI-S service by using the **systemctl start CISCOSMIS** command.