





PCT0147

## Capacity Max System Server Upgrade

 Click the icon to test your audio settings.

 Click the icon to learn about course navigation.

Capacity Max System Server Upgrade

## Course Objectives

After completing this course, you will be able to:

- Conduct a CMSS upgrade by preparing the ESU Launchpad software.
- Execute using the ESU Launchpad software in the virtual machine, and the server and components.
- Complete a run of the CMSS upgrade process successfully from start to finish.

**State the Objectives**

### Narration

Please familiarise yourself with the objectives of this course.

Capacity Max System Server Upgrade

## Course Map

- 1 | Module 1
- 2 | Module 2
- 3 | Module 3
- 4 | Module 4
- 5 | Final Assessment

### Provide the modules for the course

Module 1: Prepare Software (ESU Launchpad)

Module 2: Using ESU Launchpad

Module 3: Run the CMSS Upgrade

Module 4: Basic Troubleshooting

### Narration

Choose a module from the list or click Next to continue.

**1**

Capacity Max System Server Upgrade

**Module 1: Prepare Software (ESU Launchpad)**

## Narration

Welcome to Module 1: Prepare Software (ESU Launchpad).

Capacity Max System Server Upgrade

## Introductory (Prerequisite for course)

- Memory, HD Space, and PC to install Launchpad software.
- Network Check (need to have a specific network card to run virtual machine).
- Use the System Release Upgrade Guide as reference during installation.
  - Module 1: Chapter 8, 8.3.3.1, Steps 1-6, and 8.3.3.3, Steps 1-5
  - Module 2: Chapter 9, 9.3.3.1, IP Information: 9.3.3.3, Discovery process stops at Step 11.
  - Module 3: Chapter 9, 9.3.3.3, start at step 12.
- Obtain ESU Launchpad (covered in later modules)
  - Install the ESU Launchpad
  - Setup Virtual Machine Settings
  - Start Launchpad
- Obtain the Capacity Max System Server Application Software (covered in later modules)

### Narration

Before taking this course you will need to obtain specific software needed prior to starting with the upgrade course.

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## Step 1: Obtain ESU Launchpad

- Order MOTOTRBO Capacity Max System Server SW Update Launch Pad, which contains the new ESU LP software files on a DVD.
- If you have the MSI MyView portal access, you can order MOTOTRBO Capacity Max System Server SW Update Launch Pad and receive an email with a unique link to access the ESU LP application files from the MyView portal. The T8483A requires an e-mail address at the time of order.



**NOTE:** The DVD (T8486A) takes 2–3 weeks to be delivered, while the downloadable MyView portal file (T8483A) is available within a week. It is recommended to include the time taken for the package to be delivered into planning.



**NOTE:** The ESU Launchpad **About** page describes the target CMSS supported versions. Please ensure that the appropriate ESU Launchpad version is ordered along with the CMSS upgrade installation files.

### Narration

The first step to the Capacity Max System Server Upgrade is getting the necessary files need to be successfully with the upgrade. You need to obtain by ordering the MOTOTRBO Capacity Max System Server SW Update Launch Pad, which contains the new ESU LP software files on a DVD. If you have the MSI MyView portal access, then you can order the MOTOTRBO Capacity Max System Server SW Updated Launch Pad and receive an email with a unique link to access the files. Please note that ESU Launchpad versions are backwards compatible, but in case of several version upgrades only the latest version is required.

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## Step 2: Minimum System Requirements

- Operating System: Windows 10
- Processor: 64-bit x86 Intel Core i7-4800MQ or equivalent
- 8 GB RAM
- 80.5 GB of free disk space
- 1000 Mbps Ethernet adapter
- Antivirus software
- Antimalware software

### Narration

Here are the minimum system requirements you need to be able to run the software on your PC.

Capacity Max System Server Upgrade

## Step 3: Disable Hibernation and Sleep Mode

- Disable hibernation and sleep mode on the PC.

Note

### Narration

Step 3 requires you to disable hibernation and sleep mode on the PC your installing the files to.

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## Steps 4 & 5: ESU Launchpad and Virtualization Technology (VT)

- Ensure that the ESU Launchpad user interface launches automatically in the default browser.



**NOTE:** The web browser must support HTML5 and File API. Use a version equal to or greater than Chrome 39, IE11, or Firefox 29.

- Enable Virtualization Technology (VT) in the BIOS of your PC.
- Disable Microsoft Hyper-V and make sure to turn Windows features On and Off.



**NOTE:** Running ESU Launchpad without VT enabled is not possible, as a 64-bit virtual machine cannot be powered on. For more information, see the [VMware website](#). For instructions on how to enable the VT, see the vendor documentation.

### Narration

Step 4 we need to ensure that the ESU Launchpad user interface launches automatically in your default browser. Make sure the web browser you are using supports HTML5 and File API. Step 5, make sure you enable Virtualization Technology (VT) within the BIOS of your PC. If your unsure how to do this, please consult your vendors documentation. Also, make sure to disabled Microsoft Hyper-V and to turn Microsoft Windows Features On and Off.

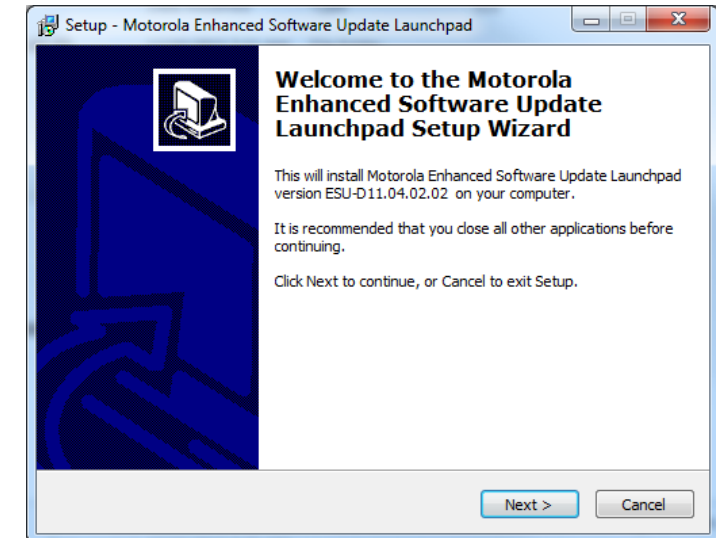
# ESU Launchpad (Install)

Narration

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## Steps 1-3: Insert DVD or Download ISO file

1. Perform one of the following actions:
  - a. Insert the ESU Launchpad media into the DVD drive and launch *mysetup.exe*.
  - b. Download the ISO file from MyView Portal on the laptop used to perform the CMSS upgrade, mount it as a virtual DVD or extract the ISO content, and launch *mysetup.exe*.
2. When Prompted, enable the VT, and click **Next**.
3. Install Motorola Solutions ESU Launchpad, click **Install**.
  - a. Once installed, VMware Workstation 15 Player Setup Wizard appears.



### Narration

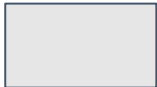
We are moving on to the Installation of the ESU Launchpad and the steps need to be completed. Step 1, we need to perform the following actions, insert the ESU Launchpad DVD and launch mysetup.exe, or download the ISO file from the MyView Portal on your computer to perform the CMSS upgrade. Step 2, when your prompted, go ahead and enable the VT, and click Next. Step 3, Install the Motorola Solutions ESU Launchpad, by clicking Install. Lastly, once everything is installed, the VMware Workstation 15 player Setup Wizard will appear.

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## Step 4: VMware Workstation 15 Player Setup

In the VMware Workstation 15 Player Setup window, click Next and perform one of the following actions:

If...	Then...
If prompted with a window containing Repair and Remove options,	perform the following actions: <b>a</b> Click <b>Cancel</b> and confirm that you want to stop the VMware Workstation installation. <b>b</b> Exit the <b>VMware Workstation 15 Player Setup</b> by clicking <b>Finish</b> .
If prompted with a window containing the VMware Workstation 15 Player License Agreement,	perform the following actions: <b>a</b> Accept the license agreement and click <b>Next</b> . <b>b</b> Progress through the installer by following the on-screen instructions. It is recommended not to install any additional VMware features during this setup. <b>c</b> Clear all the feature check boxes that you see in the installer windows. <b>d</b> When the installation is complete, click <b>License</b> . <b>e</b> Enter the license key and click <b>Enter</b> . <b>f</b> Click <b>Finish</b> .



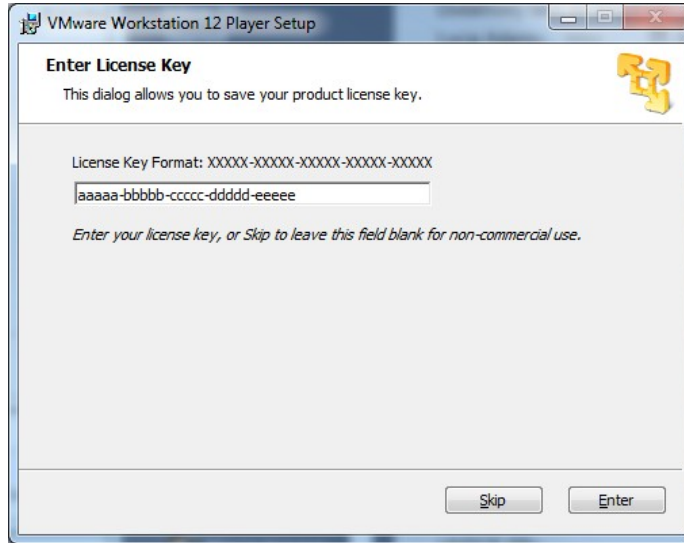
**NOTE:** If your OS does not contain the required version of Microsoft Visual C++, Microsoft Visual C++ Setup Wizard window will appear.

### Narration

Step 4, within the VMware Workstation 15 Player setup window, go ahead and click Next to perform the following actions, please refer to the table image for the necessary steps.

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## Steps 5: VMware Workstation Player



### Narration

Step 6, we need to prepare the VMware Workstation Player commercial license key, please go ahead and find your information and enter it in the dialog box. To find this information, there are two ways. First if you ordered via MyView, you should receive a separate email with you information. Second, if you ordered a physical shipment, there is a separate CD that will be shipped to you.

Note: VMware Workstation Player will only need to be installed one time only.

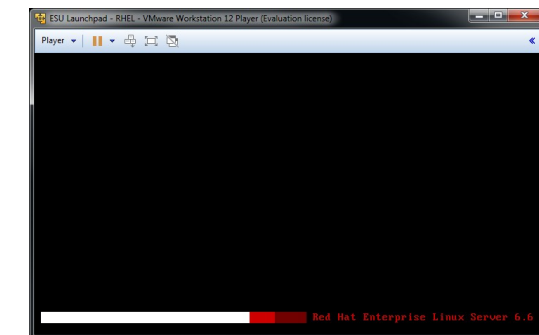
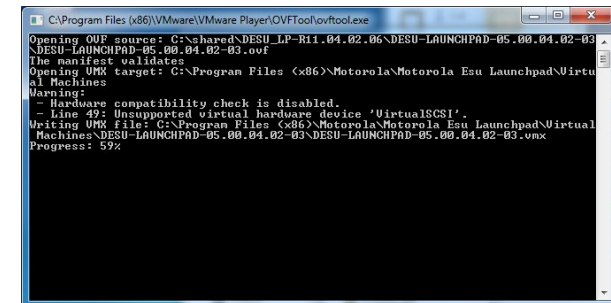
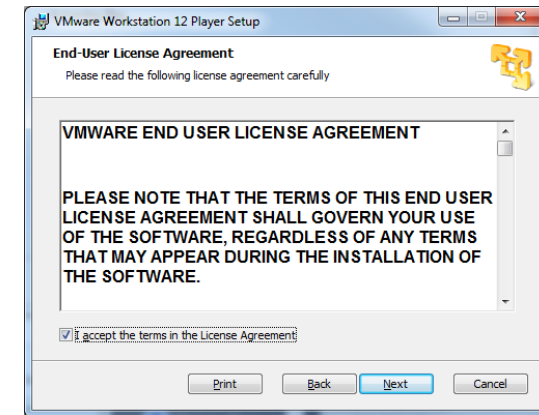
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## Step 6: Accept License and OVFtool.exe

- Accept the license conditions and click **Install**.
- Wait for the ESU Launchpad to finish the installation process.
- The OVFtool.exe command line window will appear, this is where you can view the progress of the ESU LP virtual machine deployment.



**WARNING:** Do not interrupt the virtual machine deployment process.



### Narration

Step 5, we need to accept the license conditions and then click Install. Go ahead and wait for the ESU Launchpad to finish the installation, once the installation is complete the OVFtool.exe command line window will appear. This is where you can view the progress of the ESU Launchpad virtual machine deployment. Note, do not interrupt the virtual machine deployment process.

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## Step 7: Motorola Enhanced Software Update Launchpad Window



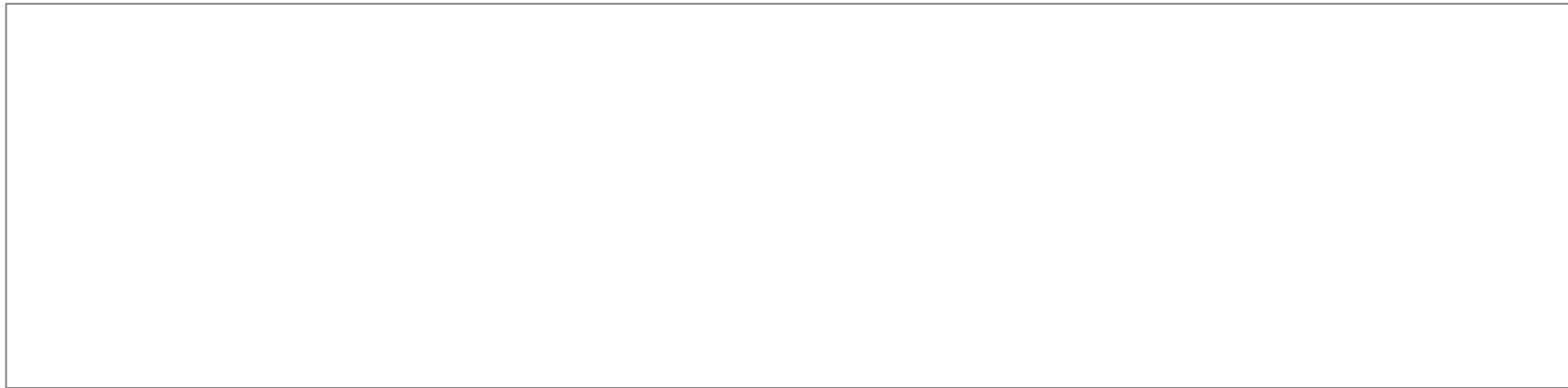
### Narration

Step 6, go ahead and monitor the progress of the Setup- Motorola Enhanced Software Update Launchpad window, once finished click Finish. A ESU Launchpad icon will be displayed on the desktop.



# Setup Virtual Machine Settings

Narration



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## Virtual Machine Settings Setup

1. Ensure that the connection is properly bridged by performing the following actions:
  - a. Ensure that the LAN connection of your physical Ethernet adapter is bridged and configured to properly access the upgraded CMSS.
  - b. Ensure that only one physical Ethernet adapter is used for the connection with CMSS.
  - c. Check ESU LP virtual machine network settings.
  - d. Under **Hardware** tab select **Network Adapter 2** → **Configure Adapters**
  - e. Under **Automatic Bridging Settings** ensure that only one physical Ethernet adapter used for connection with CMSS is selected. If there are other adapters present in the list, clear them.
2. Click **Ok**, and **close**.

### Narration

We are going to setup the proper setting for the Virtual Machine. First, we need to ensure that the connection is properly bridged by performing the following actions. Ensure that the the LAN connection of your Ethernet adapter is bridged and configured correctly, which provides proper access to the CMSS upgrade. Next, we need to check to make sure that only one physical Ethernet adapter is being used for the connection to the CMSS. Check the ESU LP virtual machine network settings, under Hardware tab, go ahead and select Network Adapter 2, then Configure Adapters. Let's check under Automatic Bridging Settings to make sure that only one physical Ethernet adapter is used for the connection and is selected. If there are other adapters present in the list, go ahead and clear them. Click ok and close.

Capacity Max System Server Upgrade

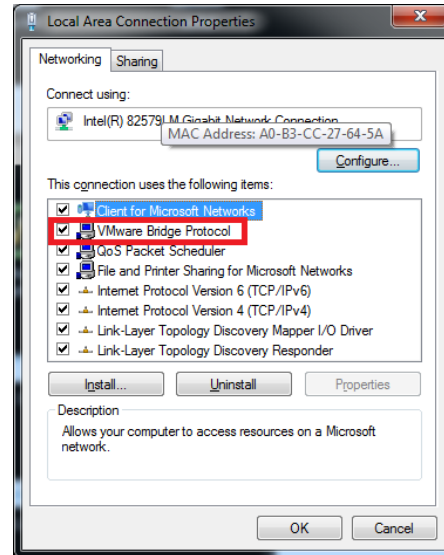
## Virtual Machine Settings Setup

Note: PC Settings might be different than what's picture in the next section.

Narration

Capacity Max System Server Upgrade

## LAN Connection

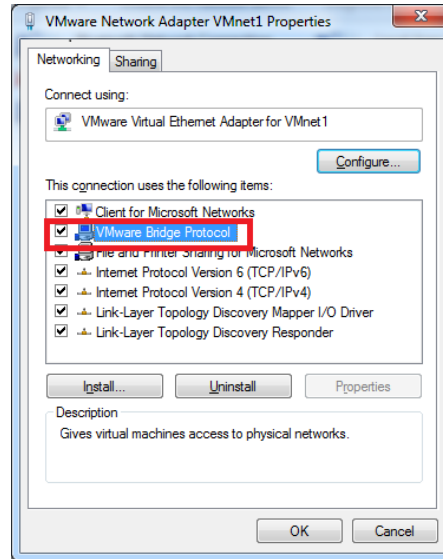


### Narration

LAN connection of your physical Ethernet adapter should be bridged and configured properly to have access to CMSS which should be upgraded.

Capacity Max System Server Upgrade

## LAN Connection

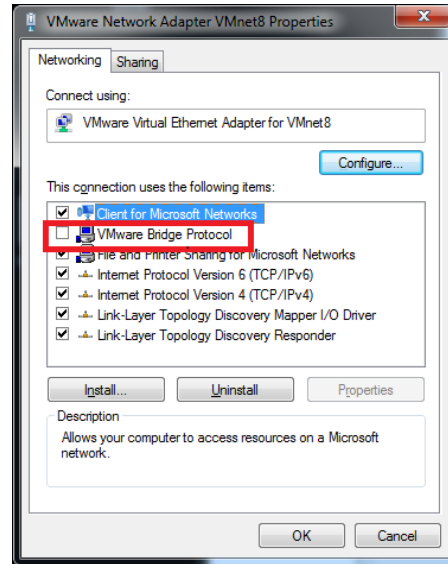


### Narration

VMnet1 LAN connection also should be bridged:

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## LAN Connection

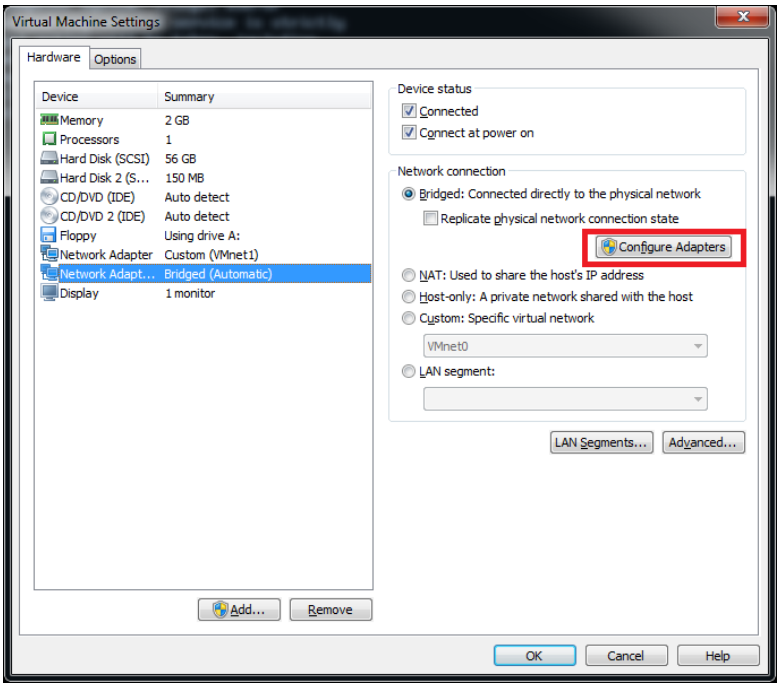
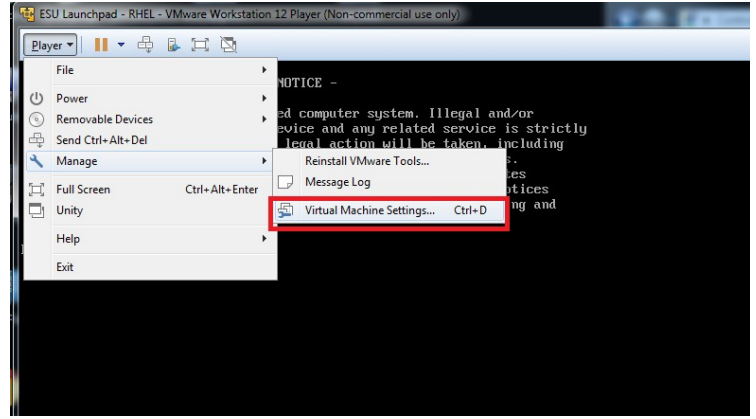


### Narration

VMnet8 LAN and all other available connections should NOT be bridged:

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# ESU LP Virtual Machine Network Settings

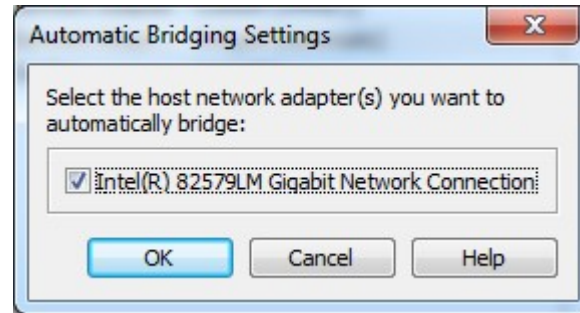


### Narration

Please check the ESU LP virtual machine network settings.

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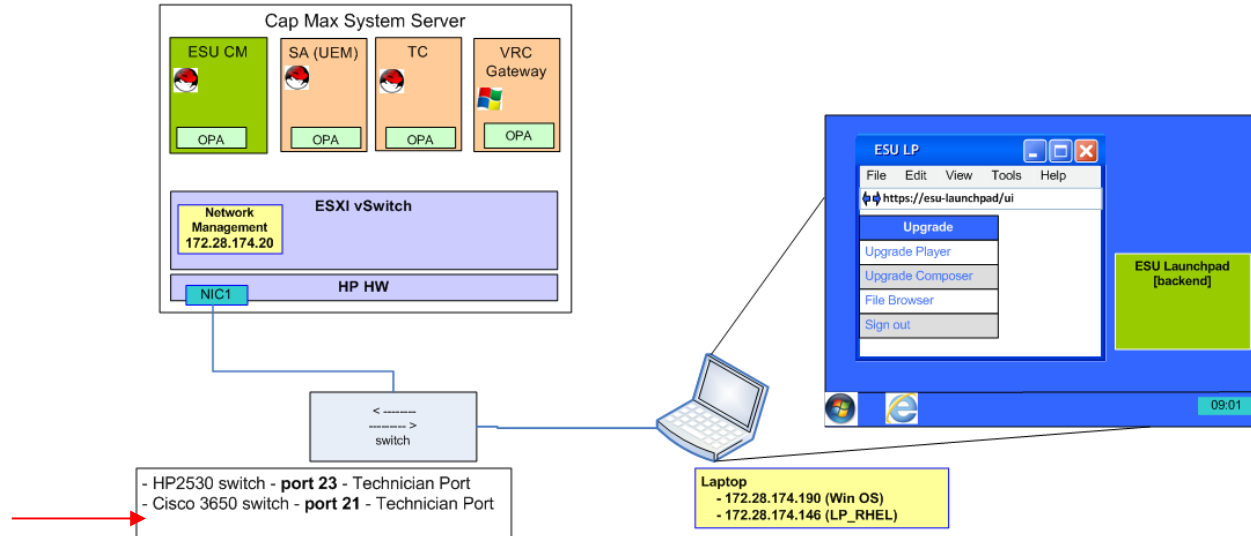
## ESU LP Virtual Machine Network Settings



### Narration

Only one physical Ethernet adapter which is used for connection with CMSS should be selected. If there are other adapters present in list they are should be unselected.

## Capacity Max System Server Upgrade

**ESU Launchpad - Connection to the PCR System**

Note: Juniper is the recommended vendor to use for switches and routers.

## Narration

PCR 2.8 reference transport network setup, the technician laptop should be connected to:

- HP2530 switch - port 23 - Technician Port
- Cisco 3650 switch - port 21 - Technician Port
- Juniper switch - Port 20 - Technician Port

NOTE: Please check the following settings on your laptop:

- LAN connection of your physical Ethernet adapter should be bridged and configured properly to have access to the CMSS, which should be upgraded.



## 2 | Capacity Max System Server Upgrade

# Module 2: Using ESU Launchpad

### Narration

Welcome to Module 2: Using ESU Launchpad



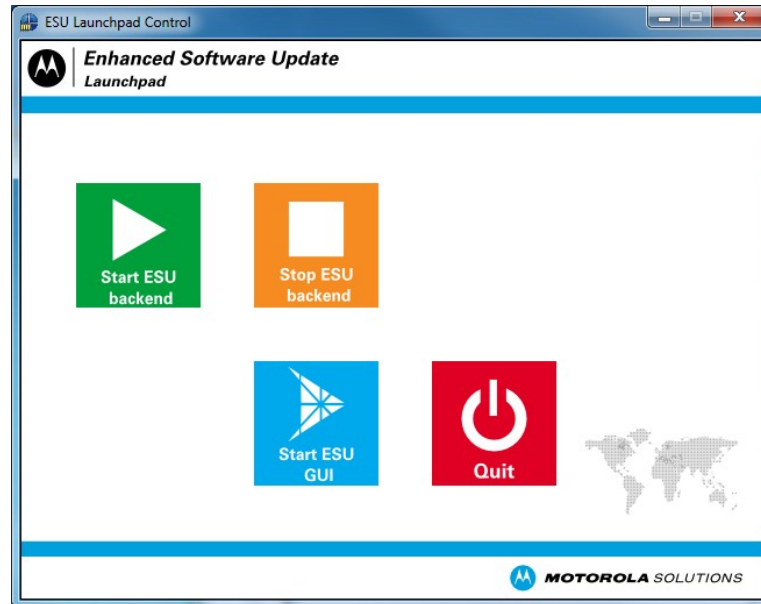
# Start Launchpad

Narration

A large, empty rectangular box intended for narration text.

Capacity Max System Server Upgrade

## Motorola Solutions ESU Launchpad Control Application Window



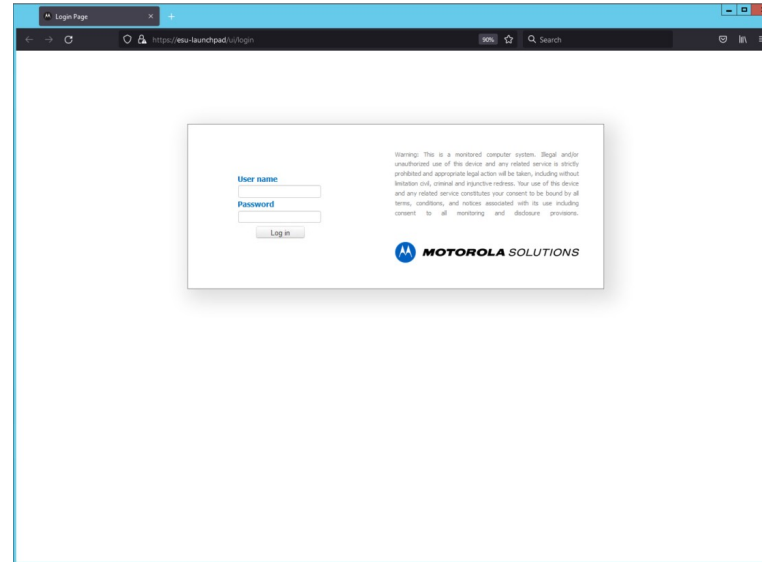
### Narration

Here is the ESU Launchpad Control application window. Please go ahead and click each of the buttons to learn more.

## Capacity Max System Server Upgrade

**Steps 1-4: Start ESU Launchpad**

1. Connect the laptop to a technician switch port.
2. Start the **ESU Launchpad Control** application, and run the ESU Launchpad tool by clicking the **Start ESU backend**.
3. When **ESU Backend Status** shows *Started*, click **Start ESU GUI**.
4. Log onto the ESU interface by using the upgrade role.
  - a. Username: upgrade
  - b. Password: upgrade



**NOTE:** Use the newly changed password if you have changed it.

## Narration

Lets go ahead and get started with getting the ESU Launchpad started. Step 1, go ahead and connect the PC/laptop to a technician switch port. Next, go ahead and start the ESU Launchpad Control application, run the ESU Launchpad tool by clicking on the Start ESU backend. Step 3, when the ESU backend status shows Started, go ahead and click Start ESU GUI. Step 4, log onto the ESU interface by using the upgrade roles, username upgrade and password upgrade.

## Capacity Max System Server Upgrade

**Step 8: ESXI IP Address**

1. Click Add and perform the following actions:
  - a. Enter *target ESXI IP Address*

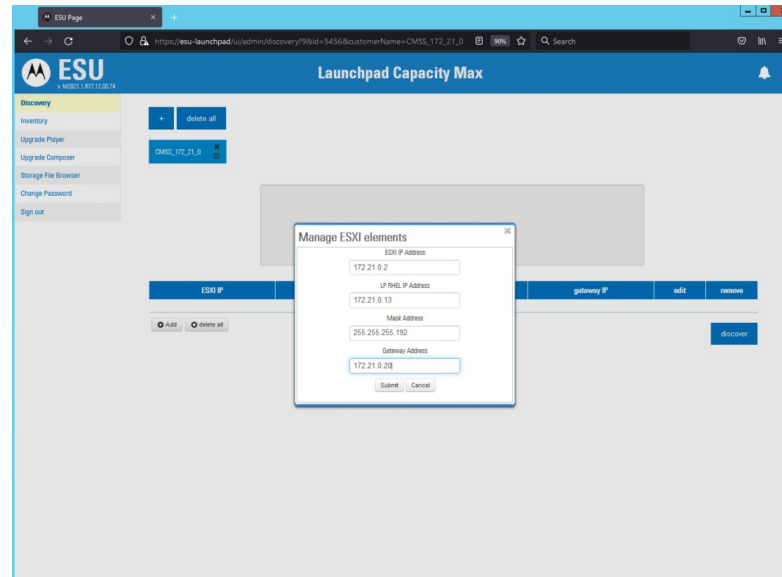
Where *target ESXI IP Address* is the IP address of ESXI on the CMSS being upgraded.

ESXI address follows the TC IP + 1 rule in the last octet.

Step example:

TC IP: 172.21.0.1

ESXI IP: 172.21.0.2



## Narration

Let's perform the following actions, click + to add a tab, enter target ESXI IP Address.

## Capacity Max System Server Upgrade

**Step 8b: Enter the ESU LP RHEL IP Address**

1. Click Add and perform the following actions:
  - a. Enter the *ESU LP RHEL IP* address



**IMPORTANT:** This address should belong to the same subnet as the laptop on which the ESU LP is installed. The address is assigned to the LP RHEL virtual machine during the discovery process.

Example:

Laptop: 172.21.0.38

LP RHEL: 172.21.0.39

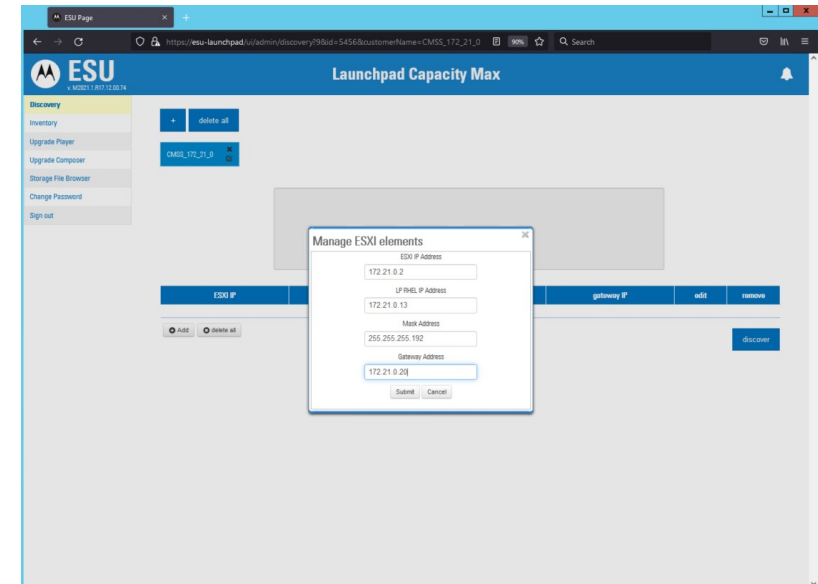
**NOTE:** If you want to upgrade several CMSSs in the network, the IP should be unique for each CMSS. This is to avoid conflict between OPA agents from VMs on different CMSSs during discovery and upgrade processes. If some CMSSs were previously upgraded by using LP, perform a re-discovery process for all CMSSs with the new IP addresses for each CMSS before upgrading them, to avoid conflicts with OPA agents.

- c Enter **Netmask/Gateway** for the ESU LP address added in [step 8b](#).



**NOTE:** Configure the Netmask/Gateway to communicate to ESXI. The Netmask/Gateway must be the same as the Netmask/Gateway of the laptop.

- d Click **Submit**.



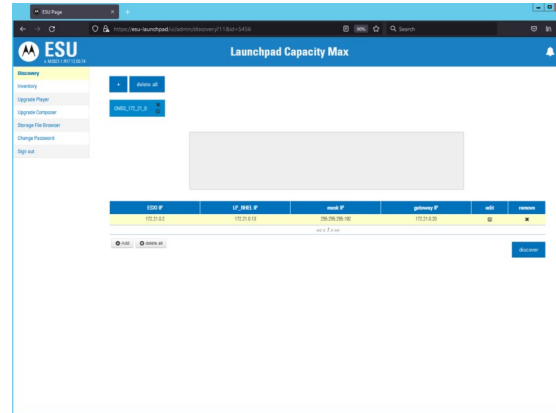
## Narration

Lets click the + again to add the following actions. Enter the ESU LP RHEL IP address. Next, enter the Netmask/Gateway for the ESU LP address that was in the previous step. Let's check and see if we can pin all IP addresses that include RHEL IP, Laptop IP, and all CMSS VM's. Click Submit.

Capacity Max System Server Upgrade

## Step 9 and 10: CMSS Instance Discover

1. Select the CMSS instance to be discovered, and click **Discover**.
2. When the **Confirm Discovery Configuration** screen appears, click **Yes**.



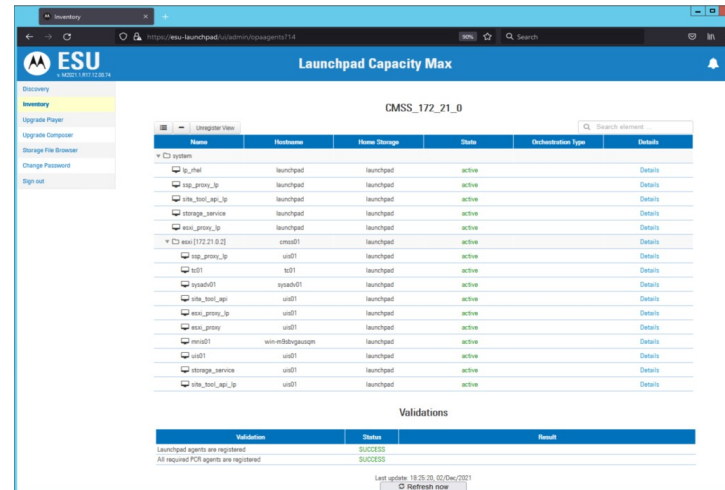
### Narration

Let's go ahead and try to find the CMSS instance that we installed. First click, Discover and when the Confirm Discovery Configuration screen appears, click Yes.

## Capacity Max System Server Upgrade

**Step 11: Inventory Screen**

1. Verify the registered agents by performing the following actions:
  - a. Navigate to the **Inventory** screen.
  - b. Verify that all the agents (**uis01**, **sysadv01**, **tc01**, and **mnis01**) are registered and showing *active* under the ESXi folder.
  - c. Verify that the validation status is *Success*.



The screenshot shows the 'Inventory' screen in the Launchpad Capacity Max interface. The page title is 'Launchpad Capacity Max' and the sub-header is 'CMSS\_172\_21\_0'. A search bar is present at the top right of the table area. The table lists various agents under different categories. The 'ESXi' folder is expanded, showing a list of agents with columns for Name, Hostname, Home Storage, Status, and Definition Type. The status for all listed agents is 'active'. Below the table, there is a 'Validations' section with a table showing the validation status.

Name	Hostname	Home Storage	Status	Definition Type	Details
CD system					
ip_tst	launchpad	launchpad	active		Details
ip_proxy_ip	launchpad	launchpad	active		Details
site_tst_ap_ip	launchpad	launchpad	active		Details
storage_service	launchpad	launchpad	active		Details
esxi_proxy_ip	launchpad	launchpad	active		Details
ESXi (172.21.0.2)					
ip_proxy_ip	uis01	launchpad	active		Details
tc01	uis01	launchpad	active		Details
sysadv01	sysadv01	launchpad	active		Details
site_tst_ap_ip	uis01	launchpad	active		Details
esxi_proxy_ip	uis01	launchpad	active		Details
esxi_proxy	uis01	launchpad	active		Details
mnis01	win-ef8b3gcauqn	launchpad	active		Details
uis01	uis01	launchpad	active		Details
storage_service	uis01	launchpad	active		Details
site_tst_ap_ip	uis01	launchpad	active		Details

Validation	Status	Result
Launchpad agents are registered	SUCCESS	
All required FCX agents are registered	SUCCESS	

Last update: 18:25:32, 01 Dec 2021  
Refresh now

**NOTE:** If the status of discovery is *FAILED* or *non\_opa* do not proceed with the upgrade. If you would like to get the details for why the failure occurred, go to the far right column to see details.

## Narration

Next, let's verify the registered agents by performing the following actions. Navigate to the Inventory screen. Then, let's verify that all agents **uis01**, **sysadv01**, and **mnis01** are all registered and showing active under the ESXi folder. Lastly, let's go ahead and verify that the validation status is Success.



# 3

Capacity Max System Server Upgrade

## Module 3: Run the CMSS Upgrade

Narration

Capacity Max System Server Upgrade

## Prerequisites

Obtain software from Motorola Solutions:

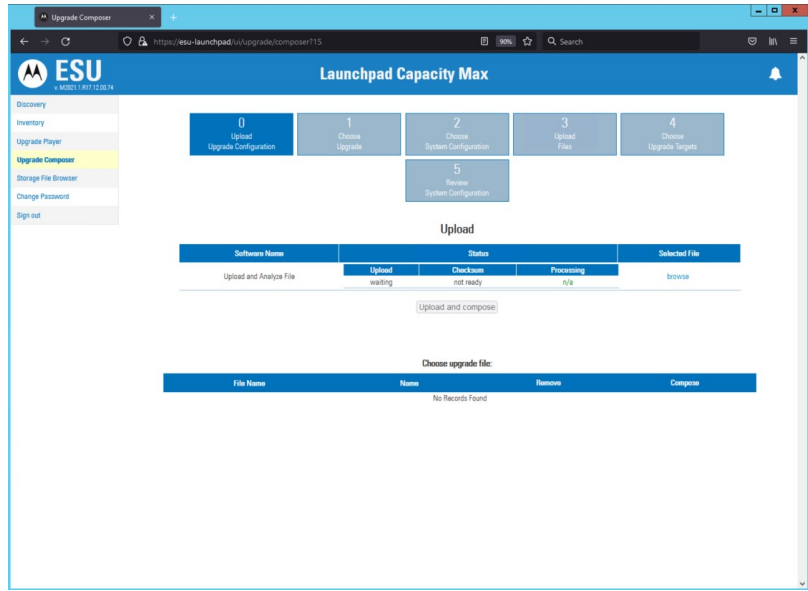
- Physical USB or Software download (customer needs to order, or myportal).
- Extract the zip file and store it on the computer, which is used to perform Capacity Max System Server (CMSS) upgrade.
- Obtain the Capacity Max System Server Application SW (Part Number for release you need to upgrade to) which contains the upgrade software files on an USB flash drive.
  - If you have the MSI MyView portal access, you can order MOTOTRBO M2021.01 Capacity Max System Server Application SW (Part Number for release you need to upgrade to) and receive an email with a unique link to access the file from the MyView portal which contains `cmss_upgrade_M20xx.xx.x.zip`
- Extract the zip file and store it on the laptop used to perform the Capacity Max System Server (CMSS) upgrade. All files from the extracted location are referenced to perform the upgrade of the system.

### Narration

Here are the prerequisites required before you continue the upgrade process.

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# Step 12: Upgrade Composer Tab



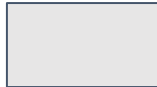
### Narration

Let's go ahead and navigate to the Upgrade Composer tab on the left hand side of the menu.

## Capacity Max System Server Upgrade

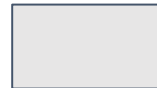
**Step 13: Upgrade CMSS Application**

1. Upgrade the Capacity Max System Server Application from M2020.x by performing the following actions:
  - a. Click **Browse**, and locate the `cmss_upgrade_application_M2021.01.x.iso` file.
  - b. Click **Upload and Compose**.



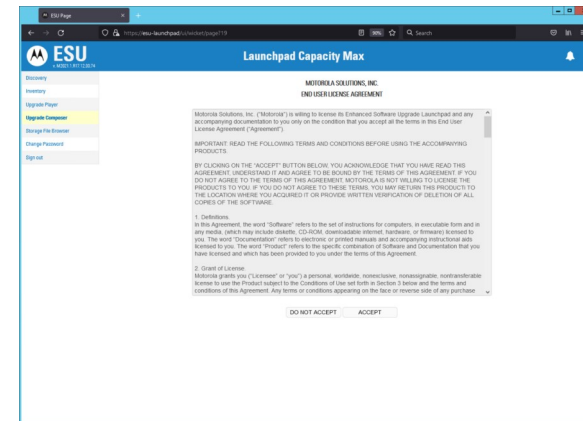
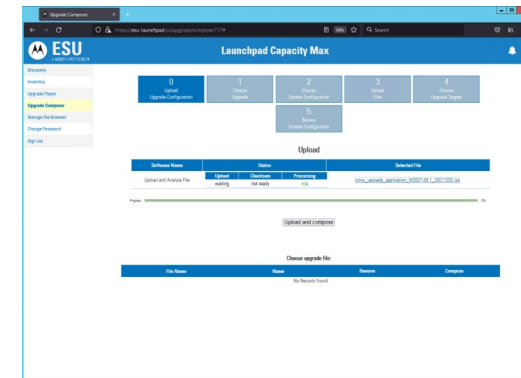
**NOTE:** The Status columns of the Upload Software table displays the progress of the upload and processing of the files. The process takes approximately 15 to 30 minutes.

- C. When the **Motorola Solutions, Inc. End User License Agreement** screen appears, read the terms and conditions, and click **Accept**.
- D. When the upload is complete, navigate to the application upgrade bundle tab section, and click **Execute** to start upgrading the ESU CM, Trunk Controller (TC), VRC Gateway, and System Advisor (SA) applications.



**NOTE:** The Status columns of the Upload Software table displays the progress of the upload and processing of the files. The process takes approximately 15 to 30 minutes.

- If the upgrade is completed successfully, continue to the next step.
- If the application upgrade failed, follow the section *Rolling Back a CMSS Application Upgrade (M2021.01)* on page 117 to reverse the upgrade.
- If the application upgrade failed, do not proceed with ESXI hypervisor upgrade.



## Narration

Let's go ahead and apply the Windows MotoPatch on the CMSS by performing the following actions. Click Browse to find and locate the `cmss_upgrade_application_M20xx.xx.x.iso` file, then go ahead and click Upload and Compose. Next a dialog box will appear for the Motorola Solutions, Inc. End User License Agreement, read the terms and conditions, then click Accept. When the upload is complete, go ahead and navigate to the application upgrade bundle tab section, then click Execute. Which is going to start the upgrade process for the ESU CM, Trunk Controller (TC), VRC Gateway, and the System Advisor (SA) applications.

Capacity Max System Server Upgrade

## Step 14: Windows MotoPatch

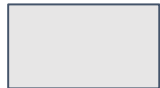
1. Apply Windows MotoPatch on the CMSS by performing the following actions:
  - a. Navigate to **Upgrade Composer** tab.
  - b. Click Browse and locate the `cmss_upgrade_motopatch_M2021.01.x.iso` file.
  - c. Click **Upload** and **Compose**.



**NOTE:** The *Status* columns of the *Upload Software* table display the progress of the upload and processing of the files. The process can take approximately 10 to 15 minutes.

D. When the **Motorola Solutions, Inc. End User License Agreement** screen appears, read the terms and conditions, and then click **Accept**.

E. When the upload is complete, navigate to the **Motopatch Upgrade** tab, and click **Execute**.



**NOTE:** Windows Patched take between 6- and 9- minutes to install. MNIS restarts twice, If the Motopatch upgrade fails, follow *Rolling Back Failed Motopatch Upgrade (M2021.01)* on page 118 to reverse the upgrade.


### Narration

Let's go ahead and apply the Windows MotoPatch on the CMSS by performing the following actions. Navigate to the the Upgrade Composer tab, then click Browse. Next, let's locate the `cmss_upgrade_motopatch_M20XX.XX.x.iso` file. Click Upload and then Compose. Next a dialog box will appear for the Motorola Solutions, Inc. End User License Agreement, read the terms and conditions, then click Accept. When the upload is complete, go ahead and navigate to the application upgrade bundle tab section, then click Execute.

Capacity Max System Server Upgrade

## Step 15: ESXi Hypervisor

1. Upgrade the ESXi hypervisor on the CMSS from M2020.x to M2021.01 by performing the following actions:
  - a. Navigate to Upgrade Composer Tab.
  - b. Click Browse, and locate the `cmss_upgrade_hypervisor_M20121.01.x` iso file.
  - c. Click Upload and Compose.

 **NOTE:** The Status columns of the Upload Software table displays the progress of the upload and processing of the files. The process takes approximately 10 to 15 minutes.

D. When **Motorola Solutions, Inc. End User License Agreement** screen appears, read the terms and conditions, and click **Accept**.

E. When the upload is complete, navigate to the **Hypervisor Upgrade** bundle tab section, and click **Execute**.

F. When the status displays *Waiting (1 out of 5)*, click **Open**.

G. In the **Shutdown all virtual machines** row, click **Run**.

H. When complete, click **Back** to the **Upgrade Player Dashboard** and click **Execute**. Wait for the upgrade to complete.

 **NOTE:** If ESXi hypervisor upgrade failed, follow *Rolling Back Failed ESXi Hypervisor Upgrade (M2021.01)* on page 119 to reverse the upgrade.

### Narration

Let's go ahead and apply the Windows MotoPatch on the CMSS by performing the following actions. Navigate to the the Upgrade Composer tab, then click Browse. Next, let's locate the `cmss_upgrade_hypervisor_M20XX.XX.x.iso` file. Click Upload and then Compose. Next a dialog box will appear for the Motorola Solutions, Inc. End User License Agreement, read the terms and conditions, then click Accept. When the upload is complete, go ahead and navigate to the Hypervisor Upgrade bundle tab section, then click Execute. When the status display Waiting (1 out of 5), go ahead and click Open. Next, in the Shutdown all virtual machines row, click Run. When that is complete, click Back and go to the Upgrade Player Dashboard and click Execute and wait for the upgrade to complete.

Capacity Max System Server Upgrade

## Steps 16-19: Stop ESU Backend

1. When the server upgrade is complete, log out of the ESU interface.
2. Navigate to the **ESU Launchpad Control** application GUI.
3. Click **Stop ESU Backend** and wait for the **ESU backend status** to show *Stop*.
4. To close the ESU Launchpad control application, click **Quit**.



**NOTE:** After the upgrade, you may be asked to change your System Advisor password. After changing the System Advisor password, you need to reopen the System Advisor client.

### Narration

The last steps in the upgrade process, when the server upgrade is complete, go ahead and log out of the ESU interface. Next, navigate to the ESU Launchpad Control application GUI. Click Stop ESU Backend and wait for the ESU backend status to show Stop. Once Stop is displayed, go ahead and close the ESU Launchpad control application, by clicking Quit.



**4** | Capacity Max System Server Upgrade  
**Module 4: Basic Troubleshooting**

Narration

Capacity Max System Server Upgrade

## Prerequisites

- What to do if upgrade fails.
- Rollback server, basic troubleshooting (If fail upgrade, rerun).
  - Use Rolling back in Upgrade Guide:
    - CMSS Application Upgrade: 9.3.3.5
    - Failed Motopatch Upgrade: 9.3.3.6
    - Failed ESXi Hypervisor Upgrade: 9.3.3.7

### Narration

Here are a few prerequisites for basic troubleshooting if the upgrade has failed, and a walkthrough on how to rollback server.

Capacity Max System Server Upgrade

## Common Upgrade Failures

1. \*If upgrade failure, consider rollback, before proceeding with upgrade.
  - a. Lost connection, connectivity to launchpad times out.
  - b. Check network connectivity/connections.
    - i. Check Discovery (window boxes, server can't restart, etc.)

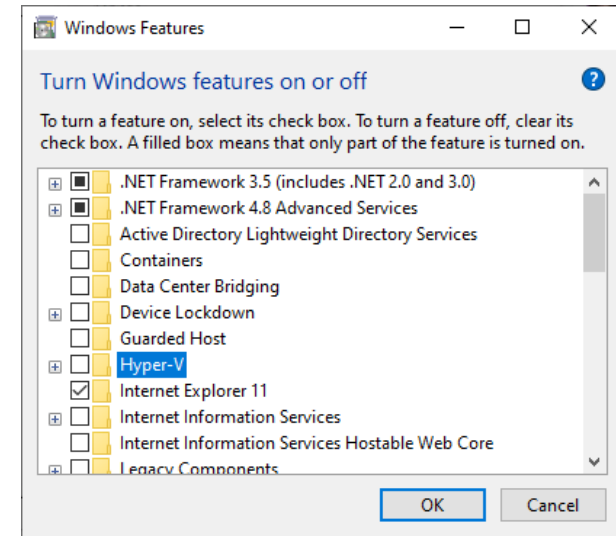
### Narration

Here are some of the common upgrade failures that a typically have been noted by customers performing the system upgrades. For example, if you lose connection or connectivity while trying to connect to the launchpad or it times out. Also, be sure to check the network connectivity/connections. Lastly, go ahead and use check Discovery, which are the window boxes, or the server can't restart.

Capacity Max System Server Upgrade

## What To Do When Upgrade Fails

- If an upgrade fails, do not start an upgrade on top of it. Always rollback first, then start another one. **(When you start a new upgrade, a rollback snapshot is created and only one can be created at a time.)**
- Make sure you use a unique IP address for ESU Launchpad and RHEL IP.
- Verify Hard Drive space for ESU Launchpad and Virtual Machines.
- Verify the bridge settings are correct in your network settings.
- Make sure [Hyper-V](#) is not enabled in Windows features.



### Narration

Here are a few things to keep in mind when going through the Capacity Max System Server upgrade and what to do when your upgrade fails.

Capacity Max System Server Upgrade

## Conclusion

- Make sure you sure you keep your ESXi and VMware workstation licenses keys after the upgrade. **ESXi key is used during installation.**

Narration

# Rolling Back a CMSS Application Upgrade

## Narration

Follow these steps to roll back an upgrade of an application on the Capacity Max System Server (CMSS).

Perform the procedure in one of the following cases:

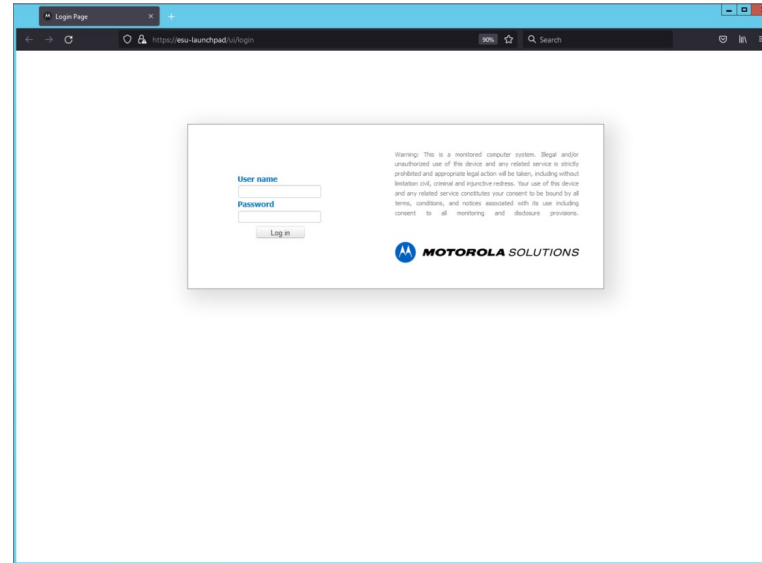
- After a failed upgrade of the Trunk Controller (TC), System Advisor (SysAdv), MNIS, or ESU VM
- After the primary CMSS is upgraded to M2021.02 and configured, it is possible to test the functionality of M2021.02 features on the upgraded device. If the performance is unsatisfactory, a rollback to the M2020.x versions of the CMSS application is possible.

The process takes approximately 5 to 10 minutes.

## Capacity Max System Server Upgrade

**Steps 1-4**

1. Connect the laptop to the CMSS technician switch port.
2. Start the ESU Launchpad Control application, and run the ESU Launchpad tool by clicking **Start ESU backend**.
3. When the **ESU Backend Status** shows *Started*, click Start ESU GUI.
4. Re-login.



## Narration

Let's get started on the Rolling back of the CMSS Application Upgrade. Step One, we need to connect the laptop to the CMSS technician switch port. Next, go ahead and start the ESU Launchpad Control application, then run the ESU Launchpad tool by clicking on the Start ESU backend. When the ESU Backend Status shows Started, go ahead and click on Start ESU GUI, then Re-login.

Capacity Max System Server Upgrade

## Steps 5-8

1. Click on the **Upgrade Player** to access the list of executable upgrade tasks.
2. Click on the task tab for which the rollback is required.
3. Click on the **Upgrade Flow**, and select the upgrade which requires rollback.
4. Optional: If rollback on the upgrade failed, locate the failed application, and perform the following suggested Application rolling back failure actions:
  - a. Scroll down to the **Rollback Phase**, locate the failed application (TC, MNIS, SysAdv, or ESU).
  - b. Under **Revert Application Snapshot**, select **Open** → **Run**.
  - c. When the rollback status appears as *Completed*, click **Back**.
  - d. If more than one application has failed, repeat [step 8a](#) for each application.
  - e. When failed rollback completes, skip to [step 10](#).

### Narration

Let's go ahead and click on the Upgrade Player to access the list of executable upgrade tasks. Next, click on the task tab for which the rollback is required. Step 3, click on the Upgrade Flow, then select the upgrade which requires rollback. The last step is optional, if you rollback on the upgrade that failed, go ahead and locate the failed application and perform the following steps for the application rolling back failure actions.

Scroll down to the Rollback Phase, and locate the failed application (TC, MNIS, Sysdv, or ESU). Next, under the Revert Application Snapshot, select Open, then Run. When the rollback status appears as Completed, go ahead and click Back. If more than one of the applications has fail, go back and repeat step 8a for each of the applications. When the failed rollback completes, go ahead and skip to step 10.

Capacity Max System Server Upgrade

## Step 9

For CMSS system rollback, perform the following actions:

- a. Scroll down to **Rollback Phase**, locate **Revert Trunk Controller (TC) Snapshot** and select **Open**→**Run**.
- b. When the rollback status appears as *Completed*, click **Back**.
- c. Under Rollback Phase, locate **Revert System Advisor (SysAdv) Snapshot** and select **Open**→**Run**.
- d. When the rollback status appears as *Completed*, click **Back**.
- e. Under Rollback Phase, locate **Revert MNIS Snapshot** and select **Open**→ **Run**.
- f. When the rollback status appears as *Completed*, click **Back**.
- g. Under Rollback Phase, locate **Revert ESU (UIS) Snapshot** and select **Open**→**Run**.
- h. When the rollback status appears as *Completed*, click **Back**.

### Narration

CMSS system rollback, perform the following actions.

Capacity Max System Server Upgrade

## Steps 10-13

1. When rollback is complete, log out of the ESU interface.
2. Navigate to the **ESU Launchpad Control** application GUI.
3. Click **Stop ESU Backend** and wait for the **ESU backend status** to show *Stop*.
4. To close the ESU Launchpad control application, click **Quit**.

### Narration

Let's finish the last three steps of the CMSS application upgrade rollback. When you finished with the rollback, go ahead and log out of the ESU interface. Navigate to the ESU Launchpad Control application GUI. Next, click Stop ESU Backend and then wait for the ESU backend status to show Stop. Go ahead and close the ESU Launchpad control application and click Quit.



# Rolling Back Failed Motopatch Upgrade

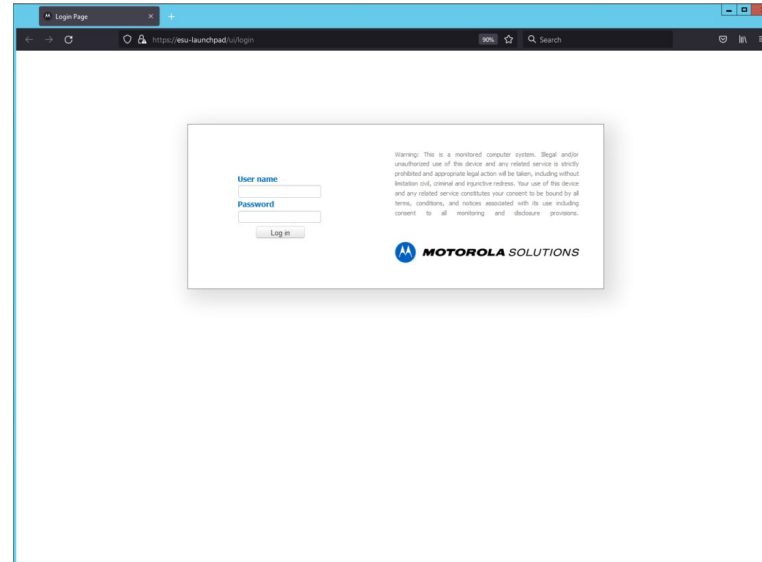
## Narration

Follow these steps to revert a failed Motopatch Upgrade procedure. The process takes approximately 5 to 10 minutes.

## Capacity Max System Server Upgrade

**Steps 1-4**

1. Connect the laptop to the CMSS technician switch port.
2. Start the ESU Launchpad Control application, and run the ESU Launchpad tool by clicking **Start ESU backend**.
3. When the **ESU Backend Status** shows *Started*, click Start ESU GUI.



**NOTE:** Use the newly changed password if you have changed it.

## Narration

Let's get started on the Rolling back a failed Motopatch upgrade. Step One, we need to connect the laptop to the CMSS technician switch port. Next, go ahead and start the ESU Launchpad Control application, then run the ESU Launchpad tool by clicking on the Start ESU backend. When the ESU Backend Status shows Started, go ahead and click on Start ESU GUI, then Re-login.

Capacity Max System Server Upgrade

## Steps 5-12

1. Click on the **Upgrade Player** to access the list of executable upgrade tasks.
2. Click on the task tab for which the rollback is required.
3. Click on the **Upgrade Flow**, and select the upgrade which requires rollback.
4. Scroll down to **Rollback Phase** to locate Revert MNIS Snapshot and select **Open**→**Run**.
5. When the rollback is complete, log out of the **ESU interface**.
6. Navigate to the **ESU Launchpad Control** application GUI.
7. Click **Stop ESU Backend** and wait for the **ESU Backend Status** to show *Stop*.
8. To close the **ESU Launchpad** control application, click **Quit**.

### Narration

Let's get started on Steps 5 through 12. First click on the Upgrade Player, to access the list of executable upgrade tasks. Then we will click on the task tab for which the rollback is required. Again, click on the Upgrade Flow and then select the upgrade which requires rollback, then scroll down to Rollback Phase to locate the Revert MNIS Snapshot and select Open and Run. When the rollback is completed. Go ahead and log out of the ESU interface and then navigate to the the ESU Launchpad Control application GUI, click Stop ESU backend and wait for the ESU Backend Status to show Stop. Close the ESU Launchpad control application and click Quit.

|

# Rolling Back Failed Hypervisor Upgrade

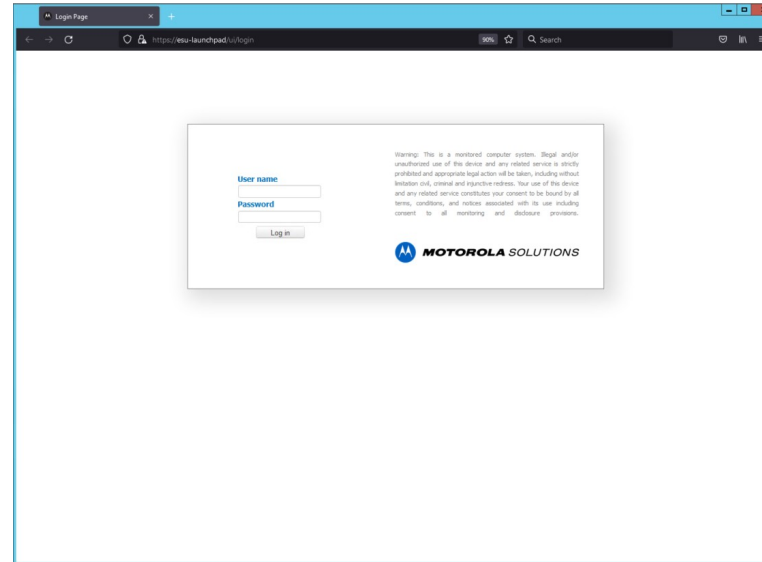
## Narration

Follow these steps to revert a failed ESXi Upgrade procedure. The process takes approximately 10 to 20 minutes.

## Capacity Max System Server Upgrade

**Steps 1-4**

1. Connect the laptop to the CMSS technician switch port.
2. Start the **ESU Launchpad Control** application, and run the ESU Launchpad tool by clicking **Start ESU backend**.
3. When the **ESU Backend Status** shows *Started*, click Start ESU GUI.



**NOTE:** Use the newly changed password if you have changed it.

## Narration

Let's get started on the Rolling back a failed Motopatch upgrade. Step One, we need to connect the laptop to the CMSS technician switch port. Next, go ahead and start the ESU Launchpad Control application, then run the ESU Launchpad tool by clicking on the Start ESU backend. When the ESU Backend Status shows Started, go ahead and click on Start ESU GUI, then Re-login.

Capacity Max System Server Upgrade

## Steps 5-14

1. Click on the **Upgrade Player** to access the list of executable upgrade tasks.
2. Click on the task tab for which the rollback is required.
3. Click on the **Upgrade Flow**, and select the upgrade which requires rollback.
4. Locate the failed steps and their details of the operator rollback ID, and perform the suggested rolling back failure actions.
5. Scroll down to **Rollback Phase** to locate required rollback phase and select Open.
6. Click Run All.
7. When the rollback is complete, log out of the **ESU interface**.
8. Navigate to the **ESU Launchpad Control** application GUI.
9. Click **Stop ESU Backend** and wait for the **ESU Backend Status** to show *Stop*.
10. To close the **ESU Launchpad** control application, click **Quit**.

### Narration

Let's get started on Steps 5 through 14. Go ahead and click on the Upgrade Player, which will access the list of executable upgrade tasks, then click on the the task tab for which the rollback is required. Next, go ahead and click on the Upgrade Flow and select the upgrade which is required rollback, then locate the failed steps and their details of the operator rollback ID.

Next, go ahead and perform the suggested rolling back failure actions. Scroll down to the Rollback Phase to locate the required rollback phase and select Open, then click Run all. When the rollback is complete, go ahead and log out of the ESU interface. Next, Navigate to the ESU Launchpad Control application GUI, click Stop ESU backend and wait for the ESU Backend Status to show Stop. Go ahead and close the ESU Launchpad control application and then click quit.