**Setup and Use of the Cisco UCS Platform Emulator**

The UCS Platform Emulator provides the ability to configure virtual hardware which is then accessed via UCS Manager, which is the UCS platform’s management tool. This article provides an overview of how to use the UCS Platform Emulator step by step. Step 1 - Step 7 are used to configure UCSPE, and Step 8 - Step 10 are to configure UCSM.

Here is the original link of this document:

<http://vmiss.net/2016/07/19/setup-and-use-of-the-cisco-ucs-platform-emulator/>

Some minor changes are made based on it.

**Step 1: Download Cisco UCSPE .ova image**

Cisco link: <https://communities.cisco.com/docs/DOC-37827>

SH copy for UCSPE\_3.1.2e: [\\10.62.59.130\maglev\RackHD](file:///\\10.62.59.130\maglev\RackHD) OVA

**Step 2: Deploy OVA on ESXi**

This article assumes you know how to deploy an OVA. However, if you encountered below issue when power on the deployed OVA:

Machine generated alternative text:
Virtual Machine Message 
Virtualized Intel W-x/EPT is incompatible With this Virtual machine configuration. 
Contnue without Virtualized msg. intel. hvhwmmu? 
Yes 

You should upgrade virtual hardware with the deployed OVA:

Machine generated alternative text:
ubuntu 1404 desktop_c.ean 
u buntu 1404 server clean 
Power 
Guest 
Snapshot 
Open Console 
Edit Settin 
Upgrade Virtual Hardware 
Add Permission... 
Report Performance... 
Rename 
Open in New Window... 
Remove from Inventory 
Delete from Disk 
Ctrl* p 
Ctrl*Alt+N 

**Step 3: Initial Setup of Emulator**

Power on UCSPE, login with VMWare console. The default login password and username are: **ucspe/ucspe**

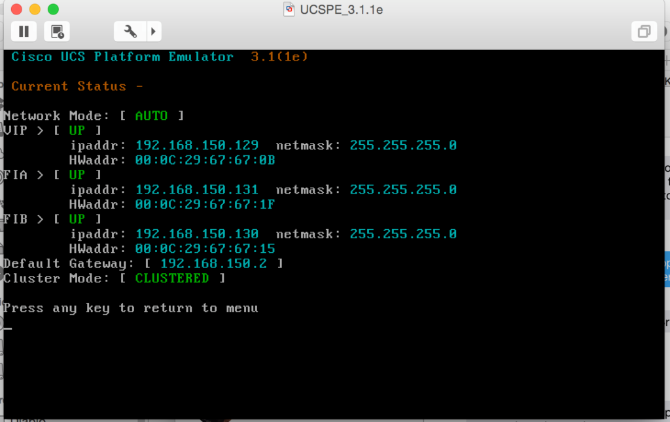
Machine generated alternative text:
UCSPE new on localhost.localdomain 
File View VM 
Cisco OCS Platform Emulator 3. 
Connect to u: .laa.zeq 
1 (2bPE1) 
REPRESENTATIONS EXPRESS, 
WARRANTIES OF QUALITY, PERF 
THE UCSPE IS PBOUIDED as IS, WITHOUT arty WARRANTIES 
IMPLIED OR STRTUTOHY, INCLUDING, WITHOUT LIMITATION, 
ORMANCE, NONINFRINGEMENT, MEHCHRNBILITY OR FITNESS 
available login: user 'ucspe' 
password ' ucspe' (console R ssh) 
ucspe login: 

Here is the console after login:

Machine generated alternative text:
UCSPE new on localhost.localdomain 
File View VM 
Czsco 
Choose 
Show 
Login 
Y i attorm Emu iator 
option: 
Status 
to 
s 
r 
x 
z 
Network Settings 
System Settings 
UCSPE 
Processes 
Mod i f g 
Mod i f g 
Best-art. 
Perform a 
Fact.org Reset 
Beboot 
Logout 
user 
Shutdown 
the 

By default, the VM will use DHCP, but you can put in static IP addresses if you would like.

If you want to continue with DHCP, hit **a** to view your current IP address.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-appliance-ip.png)

If you want to use a static address, hit **n** for modify network settings, enter **y** for confirmation and choose **c** to customize IPs.

Machine generated alternative text:
UCSPE new on localhcst.lccaldcmain 
File View VM 
Cisco LJI,S Fiati orm Emu iator 
Network Status 
Network Mode: 
i paddr: 
i paddr:l 
i paddr: 
Default Gateway: 
Custom 
. 285 
net.mask : 
net.mask : 
.51 
255 . 
255 . 
c 
24B. 
24B. 
Modify connections? n): y 
Set Hetwark Mode (a : auto d : DHCP c : Custom): 
Setting to Custom mode , 
Conf igttre network with Custom Conf iguration - 
Enter UI P Address: 

You need to configure all 3 NICs with static IP if you choose to use static IP.

**Step 4 Logging into the UCS Platform Emulator**

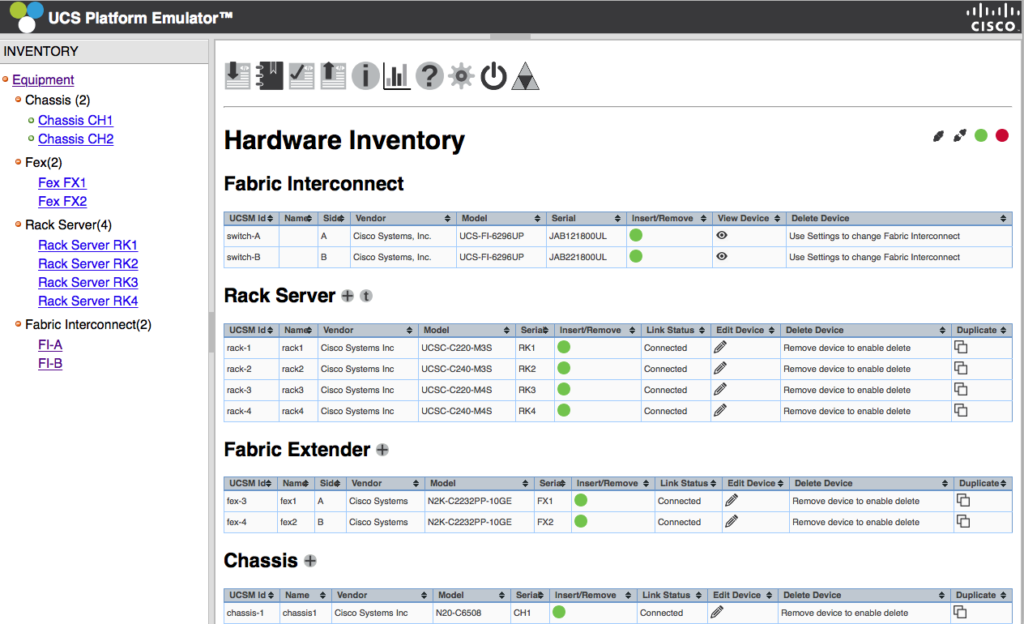
Navigate to the IP address of the VIP in a browser, and you will be greeted with the UCS Emulator interface. There are two main parts of the interface, the Equipment Inventory and UCS Manager. First, we are going to start with the equipment interface.

Machine generated alternative text:
UCS Platform Emulator"' 
INVENTORY 
o Equipment 
UCS Manager 
3.1(2e) 
Launch UCS Nianager 
CISCO 
L aunch KVM 
launches require Java Runtime Environment I. 6 or higher 
Launch UCS Manager 
Launch Kinvf Manager 
This requires J ava Runtime Environment I. 6 or higher 
Unified Computing v3 _ I (2e) 
UCS 
are by third puties disfrl&uted 
2005-2014 All nghts 
The æpyights to ætain 
GNU 
Li—_ C u-tain cf this li—d the GNU Public L— (GPL) 
"12.0 Public L ic— (L GPL) 2.1 
T 
Stat —t Policy of CiÆ0 

**Step 5 Managing Equipment**

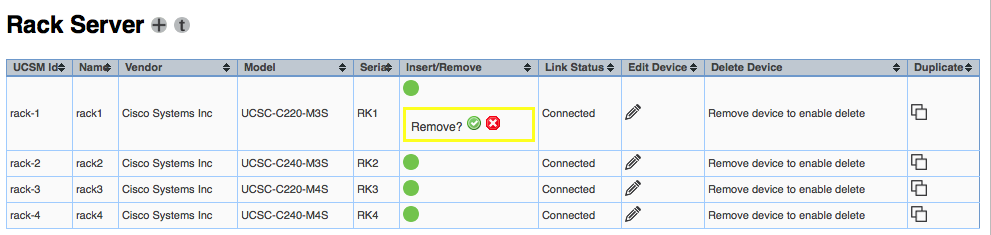
**Note:** if you want to use default UCSPE devices configuration, you can skip step 5 and step 6.

The UCS Emulator comes with equipment already “installed”. Click Equipment in the Inventory pane on the left to get started.

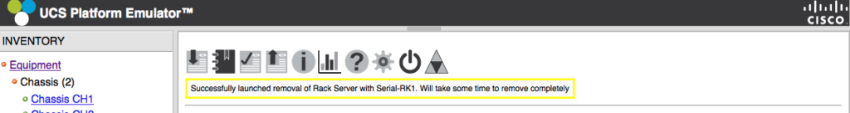
[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-inventory-setup.png)

* **Removing Equipment**

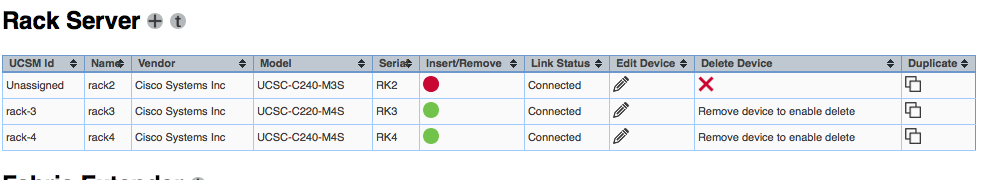
Click the green circle under Insert/Remove. You will see a little box that says “Remove?” , click the **Green Checkmark**.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-inventory-rack-server.png)

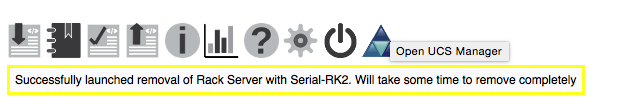
Now you will see the message that your removal has launched successfully.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-removal.png)

Wait until the green circle changed to red, click the **Red X** under Delete Device.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-rack-server-delete.png)

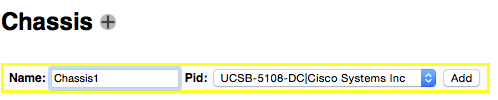
Continue to use this process for everything else you would like to delete in the inventory.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-rack-server-removal.png)

Note, that if you delete a blade chassis, it will also delete all the blade servers in it.

* **Adding Equipment**

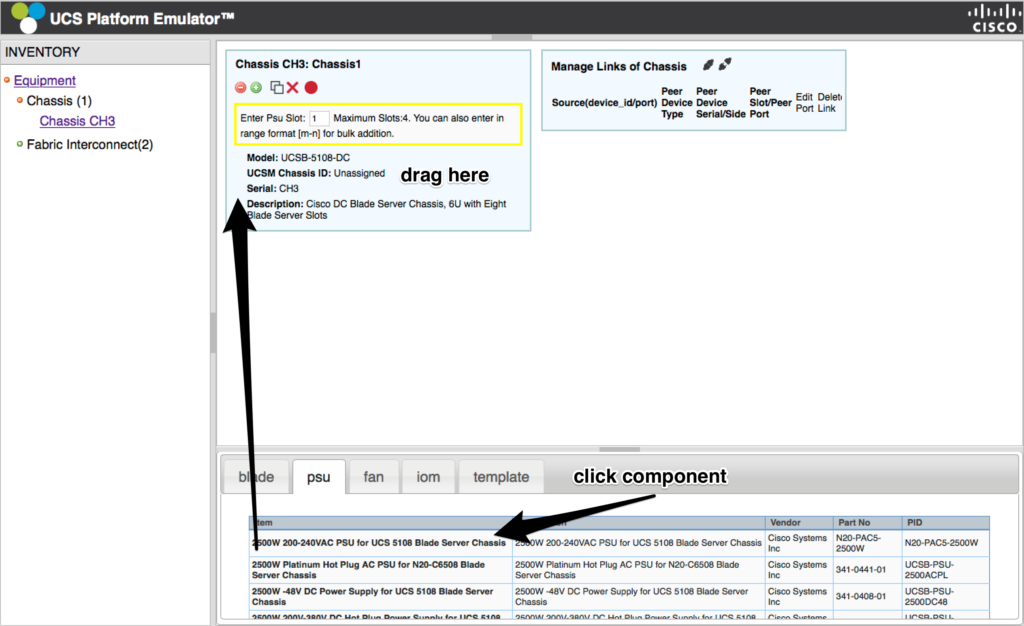
To add something simply click the + button of each hardware type, below picture shows the button for adding Chassis. Enter the name, choose a Chassis model and click "Add" button.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-add-chassis.png)

To make a chassis valid, we need to add blades, power supplies, fans, and IO modules.  Click the "Edit Device" button,

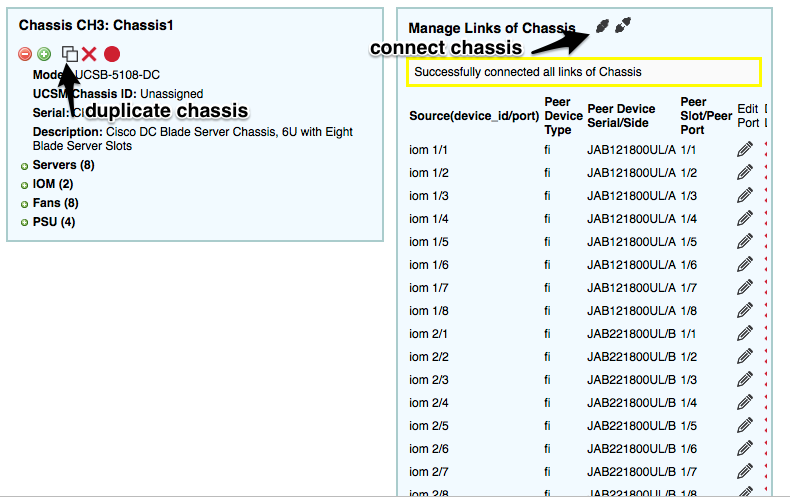
Machine generated alternative text:
UCSM Id 
chassis-3 
chassis-4 
chassis-S 
chassis-6 
Unassigned 
chassis2 
chassis3 
chassisl 
chassis4 
chassisO 
Cisco Systems Inc 
Cisco Systems Inc 
Cisco Systems Inc 
Cisco Systems Inc 
Cisco Systems Inc 
UCSB-S108-AC2 
Ucsc-C3X60-BASE 
N20-C6S08 
Ucsc-C3X60-BASE 
Ucsc-C3X60-BASE 
Ser. 
CH33 
CH34 
CH3S 
CH36 
CH37 
In serURemove A 
Link Status 
Connected 
Connected 
Connected 
Connected 
Disconnect 
Edit Device; 
Delete Device 
Remcwe device to enable delete 
Remcwe device to enable delete 
Remcwe device to enable delete 
Remcwe device to enable delete 
Dupl- 

You will enter below page:

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-add-to-chassis.png)

Click the item in the bottom pane and drag it to the Chassis1 pane.  Enter the slot you are putting the hardware in (or a range like 1-4 if you want to fill 4 psu slots with the same device) and repeat these steps for all components.  You must have appropriate power supplies and fans in the system. For the blades, UCSPE has a number of configuration templates for various servers.

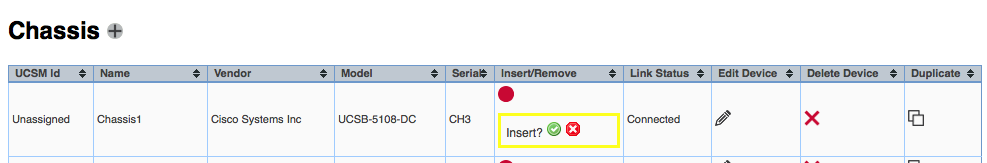
After add all devices, click the Connect button next in the Manage Links of Chassis pane.  After everything connected, we can duplicate that chassis if we need multiple ones.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-connect-chassis-1.png)

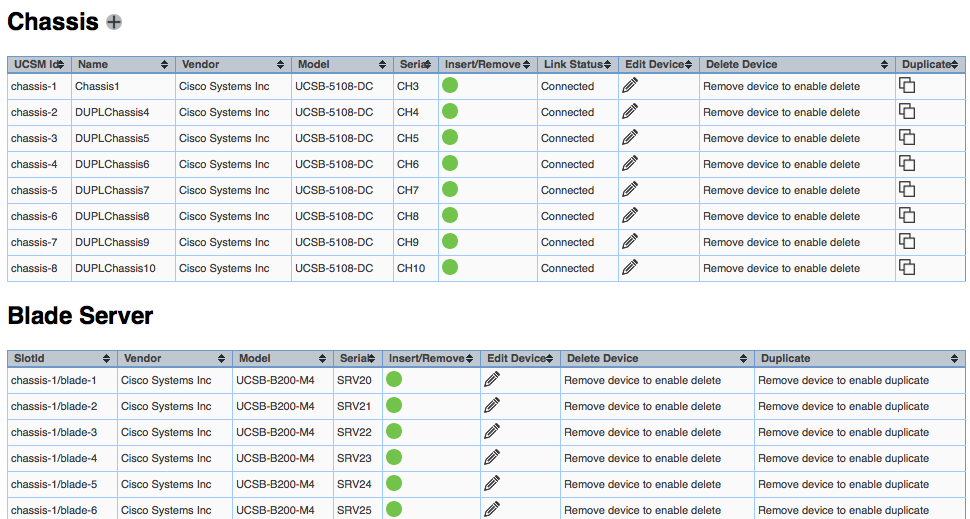
Click connect in the of Hardware Inventory to connect all copied chassis.

Machine generated alternative text:
Hardware Inventory 

Click the red circle under Insert/Remove of each chassis, click the Green Checkbox to insert the chassis. Once Chassis is inserted, all blades to each chassis will be inserted automatically.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-insert-chassis.png)

All devices, including Chassis and Blade Server will have green "Insert/Remove" button if insertion is successful, like below.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-hardware-connected.png)

**Step 6 Restart UCSPE**

To make change effective, we need restart UCSPE.

Machine generated alternative text:
INVENTORY
EauiDment I I ? IIi1 ? 0 ___
? Fex(2) Removed chassis CH33. Restart UCSPE
FexFX13
Fex FX 14 Factory Reset
-慠ack Server(1) Hardware Inventory Rebt1 ? .
- Fabric Interconnect(2)
Shutdown VM
Fabric Interconnect

**Step 7 Saving and Loading Hardware Configurations**

After manual configuration, we can save the virtual hardware configuration. To do this, head back to the UCS Platform Emulator page and click equipment, Click the fourth icon from the left and select Export XML. The XML file will open in a new window. It is suggested to use IE to do the export.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-save-options.png)

If you want to load an existing UCPSE configuration. You can import it by clicking the first icon on the right and selecting Import from a Saved XML.

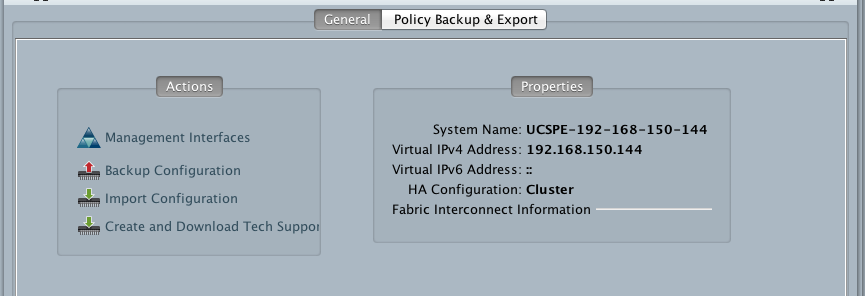
**Step 8 Launching UCS Manager**

Launch UCS Manager by clicking the UCS Manager symbol on the top of the Hardware Inventory pane.

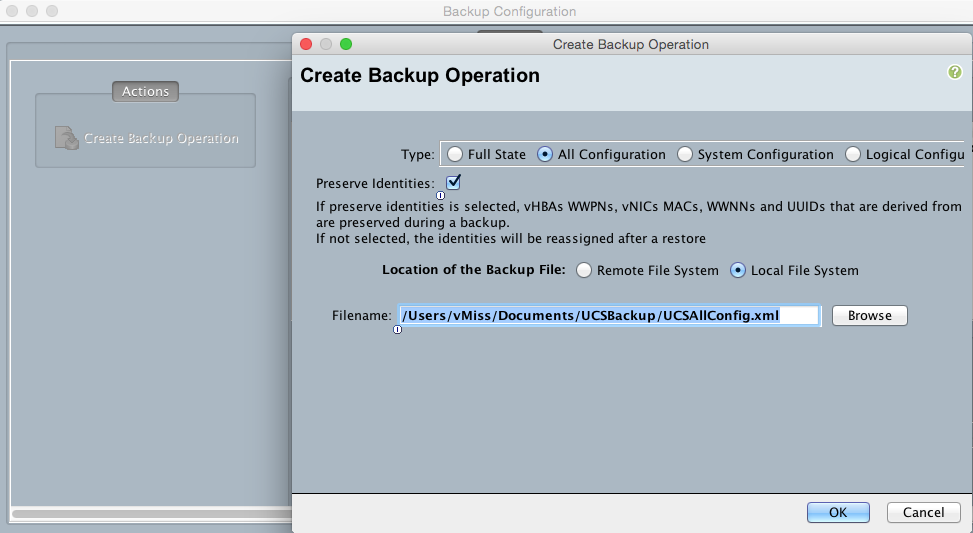
Machine generated alternative text:
UCS Platform 
INVENTORY 
Equipment 
Chassis (5) 
Chassis CH33 
o Server (4) 
o Chassis CH34 
0 Chassis CH35 
0 Chassis CH36 
Chassis CH38 
Em ulatorTM 
All removed devices have been connected 
Open UCS Manager 
Hardware Inventory 
Fabric Interconnect 
CISCO 

**Step 9 Saving the UCS Manager Configuration**

Once you restart the VM, or restart the services, your configuration is gone. **The emulator does not save the UCS Manager state.**  Luckily, UCS has backup functionality built right in.  Navigate to the Admin tab in the left pane, and you will see Backup Configuration under Actions.  Click Backup Configuration, and Create Backup Operation.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-ucs-manager-general-actions.png)

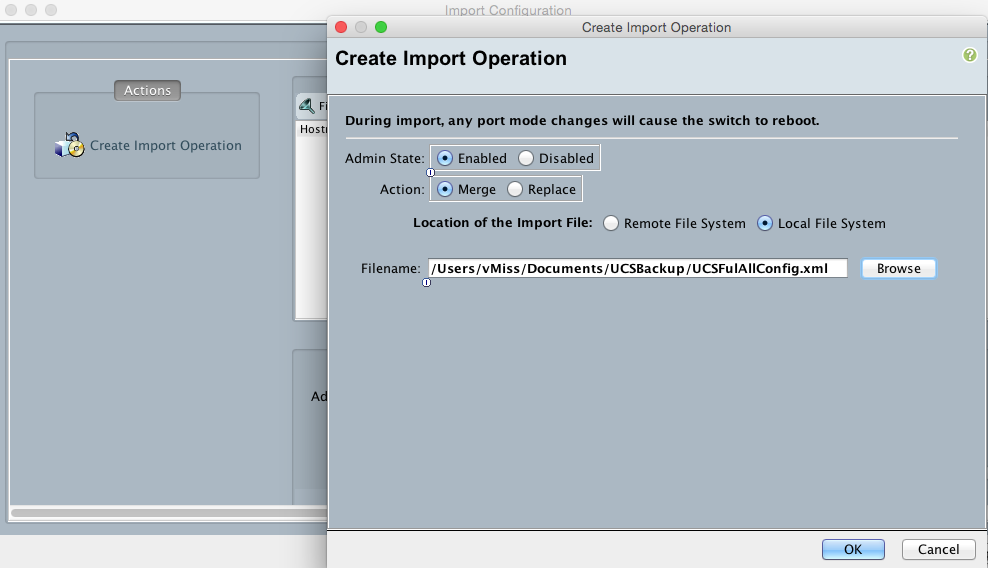
Admin State Enabled means back up right now, so make sure to click the Enabled radio button if you are backing up to a network location.  The UCS Emulator Platform does not support Full State backups, so select any of the others.  I like to select All Configuration and Preserve Identities.  You can back up to a server, or locally.  I just back up locally by selecting Location of Backup File as Local File System.  Browse to the location you would like to select, and type a file name at the end ending with XML – and no spaces in the name.

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-ucs-manager-backup-operation.png)

You will get a popup that says your Backup File has successfully downloaded. Save the Port Channels!

**Step 10 Importing (Restoring) UCS Manager Configuration**

Navigate to the admin tab in the left pane. You will see Import Configuration under Actions. Select Create Import Operation and select your configuration file. As with backing your configuration, Admin State Enabled means do it right now. Then click OK. You will see a message that the configuration has imported successfully and you can pick up where you left off. Your Port Channels are back!

[](http://vmiss.net/wp-content/uploads/2016/07/cisco-ucs-emulator-ucs-manager-import-operation.png)