

Compass Web Development



Compass Web Development

› Introduction

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- › Mentor: **Harry Huang**
- › OPNFV Project: **Compass Web Development**

Compass Web Development

- › Project Overview

To improve existing web UI (compass-web) for Compass

- › Frameworks/Tools/Languages Used

Python, Docker, Coffeescript, AngularJS, HTML, CSS

Compass Web Development

- › Project Objectives: The project had 5 major components-
 - › Obj 1: Porting the compass-web to use AngularJS instead of Coffeescript.
 - › Obj 2: Implementing the functionality of discovering servers without switch.
 - › Obj 3: Implementing the the support of using multiple MAC addresses.
 - › Obj 4: Modification of Network Tabs (Physical N/W and Virtual N/W).
 - › Obj 5: Support for Openstack and Kubernetes flavor.

Compass Web Development

- › Project Deliverables
 - › Deliverable 1: Porting the codebase to AngularJS
 - › Deliverable 2: Adding support for multiple MAC addresses, improving the display and error handling
 - › Deliverable 3: New page design for Physical Network page and modification for Virtual Network page

Compass Web Development

- › Project Execution & Accomplishments
 - › All 3 objectives completed with code committed.
 - › The v2.5 version of compass-web completed!

Compass Web (Old version)

Compass Clusters Servers

Cluster Wizard

+ Add a New Machine

Select a switch: * 1.1.1.1

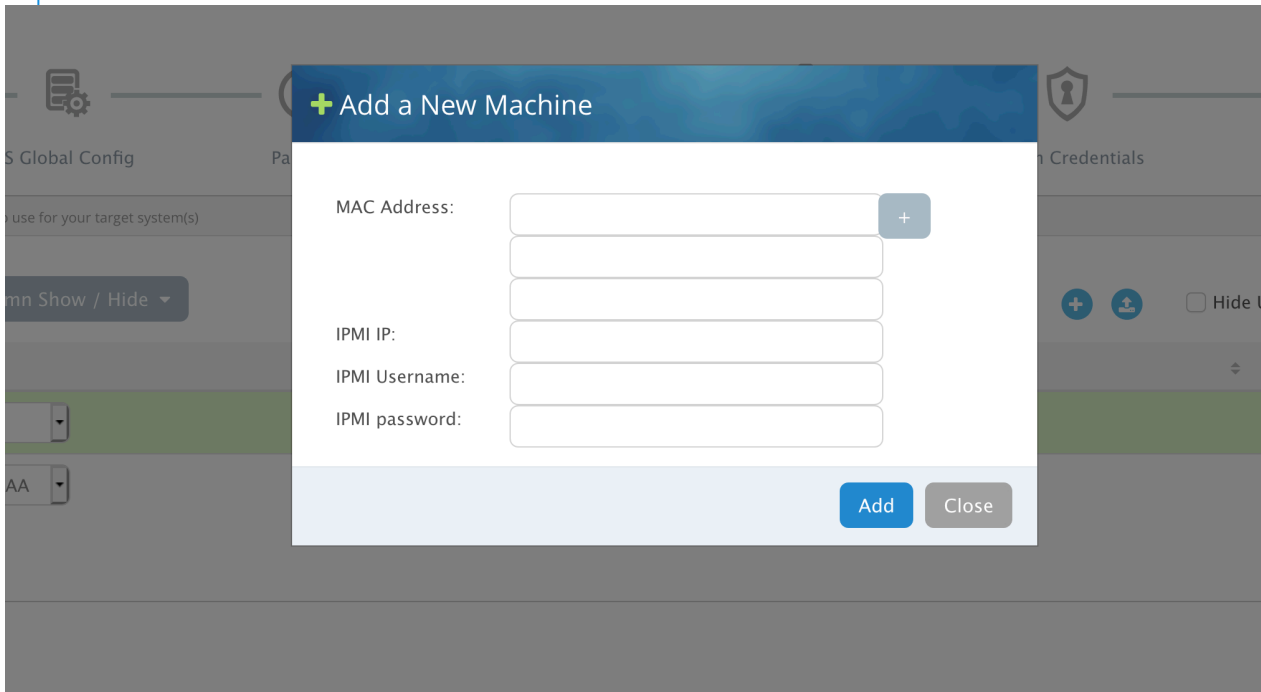
MAC Address:

Add Close

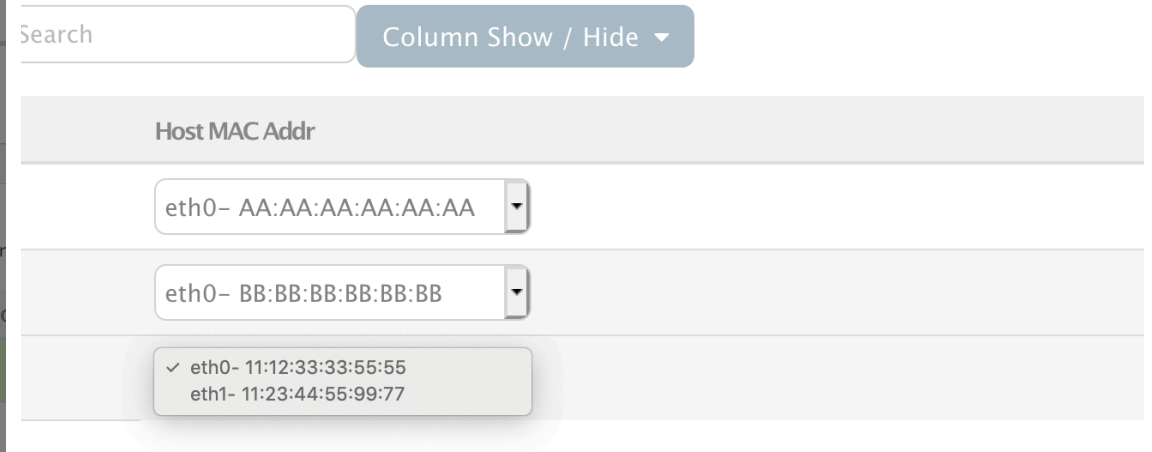
Host MACAddr	Switch IP	Host	OS	OS Reinstall
E8:4D:D0:BA:63:95	1.1.1.1	host1	opnfv ubuntu-16.04.3-server-x86_64	<input type="checkbox"/>
E8:4D:D0:BA:63:51	1.1.1.1	host2	opnfv ubuntu-16.04.3-server-x86_64	<input type="checkbox"/>
E8:4D:D0:BA:64:45	1.1.1.1	host3	opnfv ubuntu-16.04.3-server-x86_64	<input type="checkbox"/>
E8:4D:D0:BA:63:81	1.1.1.1	host4	opnfv ubuntu-16.04.3-server-x86_64	<input type="checkbox"/>
E8:4D:D0:BA:5F:85	1.1.1.1	host5	opnfv ubuntu-16.04.3-server-x86_64	<input type="checkbox"/>

Single MAC address

Compass Web (New version)



Adding multiple MAC addresses



Multiple MAC address display

Compass Web (Old version)

Please provide 3 subnets.
Check one as OS install network and use Autofill to assign ips. This is used to install OS.
The other 2 subnets are used in the next step to configure openstack network.

Autofill IP Address for All Interfaces Enable Autofill Add Subnet

Action	Interface	Is OS Install Network	Promisc Mode	Subnet
+	<input type="text" value="Interface"/>			

Column Show / Hide Set Subnet

Host MAC Addr	Switch IP	Port	Hostname
cc:cc:cc:cc:cc:cc	1.1.1.1	0	<input type="text" value="Hostname"/>

Physical Network page

Compass Web (New version)

Provider Network Settings +

Name	Network	Interface
br-provider	physnet	eth1

Tenant Network Settings

Type Range Provider Network

All Subnets

	Name	Subnet	Reserved Range
<input type="checkbox"/>	mgmt	<input type="text" value="1.2.3.4"/>	<input type="text" value="Reserved Range"/>

Physical Network Page

Compass Web (Old version)

Virtual Network

Bind openstack management and storage network to a physical interface.
Two virtual networks will be created on the NIC based on the configurations.
Just choose network interface. Use the default values for the remaining configurations.

Internal Network Interface

Network	NIC	CIDR	Start IP	End IP	Vlan Configuration
Mgmt	<input type="text" value=""/>	<input type="text" value="172.16.1.0/24"/>	<input type="text" value="172.16.1.1"/>	<input type="text" value="172.16.1.254"/>	Vlan Tag <input type="text" value="101"/>
Storage	<input type="text" value=""/>	<input type="text" value="172.16.2.0/24"/>	<input type="text" value="172.16.2.1"/>	<input type="text" value="172.16.2.254"/>	Vlan Tag <input type="text" value="102"/>

Management Network Virtual IP

The external network interface need to connect to Internet.
Set external virtual ip for HA mode

External Network Interface

Network	NIC	CIDR	Start IP	End IP	Gateway IP
External	<input type="text" value=""/>	<input type="text" value="10.145.250.0/24"/>	<input type="text" value="10.145.250.210"/>	<input type="text" value="10.145.250.220"/>	<input type="text" value="10.145.250.1"/>

Virtual Network page

Compass Web (New version)

Internal Network Interface

Network	NIC	CIDR	Reserved Range	Start IP	End IP	Vlan Configuration	Gateway IP.	
Mgmt	eth0	1.2.3.4	1.3.4.5-1.3.4.9	1.2.3.4	1.2.3.7	Vlan Tag 101	gateway	Enable Auto

Management Network Virtual IP

External Network Virtual IP

Host MAC Addr	Hostname	Clusters	State	mgmt
eth0- AA:AA:AA:AA:AA:AA	host0			1.2.3.4
eth0- BB:BB:BB:BB:BB:BB	host1			1.2.3.5
eth0- 11:12:33:33:55:55	host2			1.2.3.6

Virtual Network page

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- › Recommendations for future work
 - › Error handling to be improved.
 - › Discover servers functionality can be improved.
 - › Detailed documentation to be written for compass-web.

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› Questions?