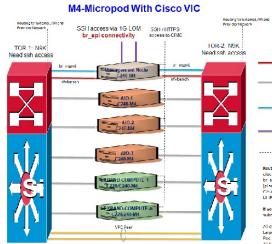


# Appendix

• Cisco VIM Wiring Diagrams, on page 1

## **Cisco VIM Wiring Diagrams**

Figure 1: M4-Micropod with Cisco VIC





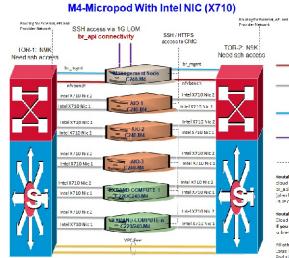
Rotable IP: Close w/line taking to Can Stack) to all foretaking to Will mannel [[Indin Earler Instein Annaes with several of all Class Earler Instein Annaes with several of all Class Earler Instein Annaes (Instein Annaes Instein Inter B i P Connectivity Seaven Server CIMCs and bruss of Manna. Node II you use provider networking, you will use tab address the server's with submitted Septemateria for an annaes

All other networks can be private Large MTU must be configured on the TORs. Possise: Max of 35 control compute nodes AICHAILIN Che (Control, compute, Ceph)

Appendix

#### M4-Micropod With Intel NIC (X710) Routingfor Externi Provider Network Routing for Peternal, A Provider Network ; SSH access via 1G LOM br\_api connectivity SSH / HTTPS access to CIVIC TOR-2: N9K Need ssh access LOR-1: N9K Need ssh access Optional: for NP/Bench Intel X/10 or 520 on Management Node 2 ports used br mem Monegement Node C240-M4 HackNIC on Cloud Hasts; sub-interfaces for: GAMK on part A scross the 2 carcs; Storage, API, management, & provision PFT on part B actus the 2 carcs. Norabler, scienced and lenses in return ks. SRICV: on port C across the 2 cards (for Provider Network) nfvbent Intel X/10 Nic 1 Intel X710 Nic 2 AIO 1 Intel X710 Nic 1 Intel X710 Nic 1 Cisco VICon management node br\_mgmt: management network auto-configured as part of buildnoce.iso install Intel X710 NIC 2 Intel X710 Nic 2 AIU-2 C240-M4 Intel X / 10 Nic 1 Intel X710 Nic 1 2x3GE Intel NIC (build in LAN on board) on management node br. opi:CVIM opi network auto configured as part of buildnode.iso install; has Cisco VIM deployment and management APIs Intel X710 NIC ntel X/10 Nic1 AIO-3 C240-M4 Intel X/10 Nic 1 ----- Decicated CIMC MGMT port 1G Intel X710 Nic 1 Routable IPC: cloud opi (for tolking to OpenStock) or\_position tolking to VIM ngm? [glanf and unit or IPC in Zmano, et also neurind] is IP connectivity between Server CIVCs and br\_apt of Mgmf. Node ntel X710 NIc 2 ntcl X710 Nic 2 COMPUTE 1 Intel X/10 Nic 1 ntel X710 Nic 1 220/C240-M ntel X/10 Nic 2 Intel X710 Nit 2 Routable Networks: Cloud external network for VMs: continuousset of min 101Ps if you use provide networking, you will wentbe address the networks with subrets appropriate to their musing C220/240-M4 Intel X/10 Nic 1 Intel X710 Nic 1 VPC.Pre All other networks can be private Large MTU must be configured on the TORs Pod size: Mex of 16 compute nodes AIO. All in One (Control, compute, Ceph)

#### Figure 3: M4-Micropod with Intel NIC (X710)



#### Figure 2: M4-Micropod with Intel NIC (X710)

Optional: for NP/Bench Intel X/10 or 520 on Management Node 2 ports used

Intel NIC on Cloud Hasts; sub-interfaces for: SAMX on part A across the 2 cards: Storage, API, management, & provision PFT or para B across the 2 cards: Traniler, external and lenger in releases. SRIGV: on port C across the 2 cards (for Provicer Network)

Gistio VIC on management made brungmt: management network auto-configured as part of buildnoce iso install

2x1GE Intel NIC (build in LAN on board) on management hode brigpi: CVIM gpinctwork auto configured as part of build node iso install; has Cisco VIM deployment and management APIs

Decicated CIMC MGMT port 1G

Koutable IPs: cloud opi(fortalking to OpenStock) for\_abi(fortalking to VIM next) [juln for utime IPS for Zeruss, et als nexterial] 13 IP connectivity between Server CIMCs and br\_api of Might Mode

Routable Networks: Cloud external network for VMs: continuous set of min 101Ps if you use provide networking, you will wantbaildress the networks with subrets appropriate to their moving

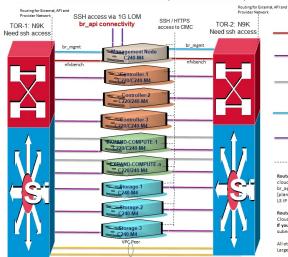
All other networks can be private Large MTU must be configured on the TORs Pod size: Mex of 16 compute nodes AIO. All in One (Control, compute, Ceph)

Appendix

Routing for Extern Provider Network	(API and M4-Full-On With Intel NIC (X710) SSH access via 1G LOM	ixternal, API and work
	br api connectivity	
TOR-1: N9K	SSH / HTTPS TOR-2: N9K	
Need ssh access	access to CIMC Need ssh access	
	br_mgmt br_mgm	Optional: for NFVBench Intel X710 or S200n Management Node 2 ports used 22.intel X710 NIC; sub-interfaces for: 54MK on port A across the 2 cards: Storage, API, management & provision PET on port & across the 2 cards: Storage, external and tenant networks
X	Intel X710 Nic 2 Intel X710 Nic 2	(for control and compute) SRIOV: on port C across the 2 cards (for Provider Network, on compute node only)
	Intel X710 Nic 1 -C220/240-M4 Intel X710 Nic 1 Intel X710 Nic 2 Intel X710 Nic 2	Cisco VIC on management node: br memt: management network auto-configured
	Intel X710 Nic 1	as part of buildnode.iso install
	Intel X710 Nic 2	2x1GE Intel NIC (build in LAN on board) on management node
	Intel X710 Nic 1 2200/240.M4 Intel X710 Nic 1	br_api: CVIM api network auto-configured as part of buildnode iso install;
	Intel X710 Nic 2	has Cisco VIM deployment and management APIs
	Intel X710 Nic 1 C220/240-M4	Dedicated CIMC MGMT port 1G
	Intel X710 Nic 2	Routable IPs:
	Intel X710 Nic 1	cloud_api (fortalking to OpenStack) br api (fortalking to VIM memt)
	Intel X710 Nic 2	[plan for other IPs for Zenoss, etc as needed]
	Intel V710 Nic 1	L3 IP connectivity between Server CIMCs and br_api of Mgmt. Node
	C240.M4	Routable Networks:
	Intel X710 Nic 2	Cloud external network for VMs: continuous set of min 10 IPs
	Intel X710 Nic 1	If you use provider networking, you will want to address the networks with subnets appropriate to their routing
<b>. *</b>	VPCPeer	All other networks can be private Large MTU must be configured on the TORs
		POD size: 64 nodes (max of 20 ceph nodes)

#### Figure 4: M4-FULL-On with Intel NIC (X710)





### M4-Full-On With Cisco VIC/NIC (2xXL710/2x520)

### Optional: for NFVBench Intel X710 or 520 on Management Node 2 ports used Cisco VIC on cloud hosts: carved into VNICs for: SAMX: Storage, Cloud API, management & provisioning PET: Provider, external and tenant VM networks 'n Intel NIC; 2x 2-port 520 or 2x2port 710XL Provider Network over SRIOV Computes that don't wish to have SRIOV, needn't put the NIC cards in them ode only) Cisco VIC on management node: br\_mgmt: management network auto-configured as part of buildnode.iso install 2x1GE Intel NIC (build in LAN on board) on management node br\_api: CVIM api network auto-configured as part of buildinode iso instali; has Cisco VIM deployment and management APIs ----- Dedicated CIMC MGMT port 1G

Routable IP:: cloud\_api (for talking to OpenStack) br\_api (for talking to VIM mgmt) [plan for other: IPS for Zenosz, et: as needed] L3 IP connectivity between Server CIMCs and br\_api of Mgmt. Node

Routable Networks: Cloud external network for VMs: continuous set of min 10 IPs if you use provider networking, you will want to address the networks with subnets appropriate to their routing

All other networks can be private Large MTU must be configured on the TORs

POD size: 64 nodes (max of 20 ceph nodes)

m

ode only)

#### Figure 6: M4 -Micropod with Cisco VIC/NIC (2xXL710/2x520)

#### M4-Micropod With Cisco VIC/NIC (2xXL710/2x520)

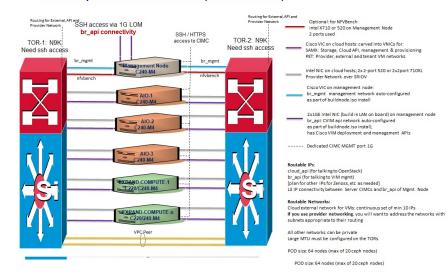
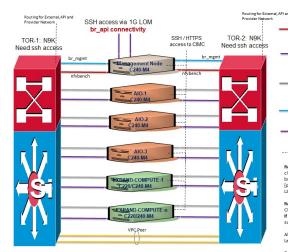


Figure 7: M5-Micropod with Intel NIC (X710)

#### M5-Micropod With Intel NIC (X710)



PI and	
Optional: for NFVBench	
Intel X710 or 520 on Management Node 2 ports used	
Intel X710 NIC on cloud hosts; sub-interfaces for:	
SAMX on port A, B: Storage, API, management & provision	
PET on port C, D: Provider, external and tenant networks	ID
on port C and D over virtIO	
Intel XL710 NIC on cloud hosts;	ode only)
SRIOV: on 2 port XL710 or 2 port X710 (for Provider Network)	Jue only)
Cisco VIC on MLOM;	
br mgmt: management network auto-configured	
as part of buildnode.iso install	
2x1GE Intel NIC	
br_api: CVIM api network auto-configured	
as part of buildnode.iso install	
Dedicated CIMC MGMT port 1G	
Routable IPs:	
cloud_api (for talking to OpenStack)	
br_api (for talking to VIM mgmt)	
[plan for other IPs for Zenoss, etc as needed]	
L3 IP connectivity between Server CIMCs and br_api of Mgmt. Node	
Routable Networks:	
Cloud external network for VMs: continuous set of min 10 IPs	

Routable Networks: Cloud external network for VMs: continuous set of min 10 IPs if you use produce networking, you will want to address the networks with subnets appropriate to their routing

All other networks can be private Large MTU must be configured on the TORs

Pod size: Max of 16 compute nodes