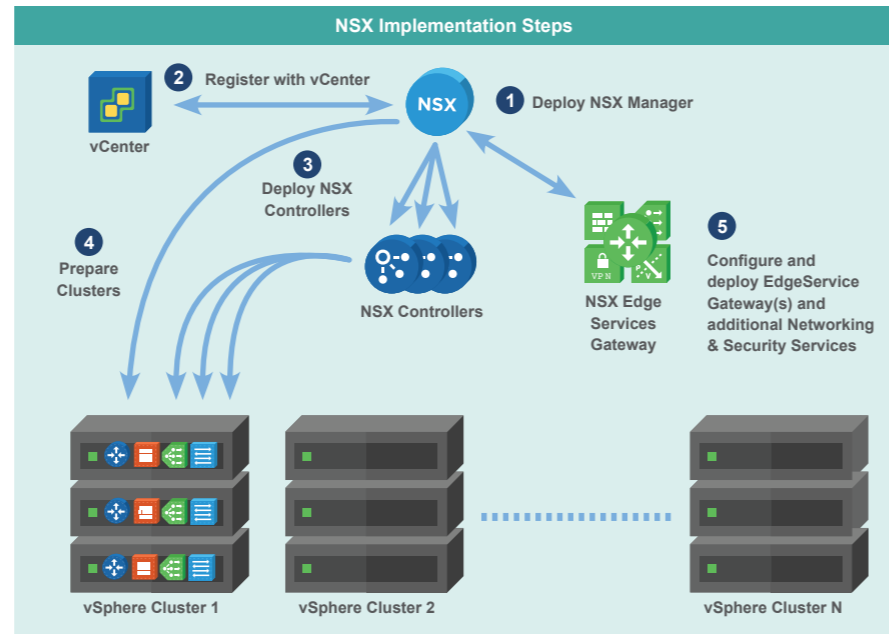
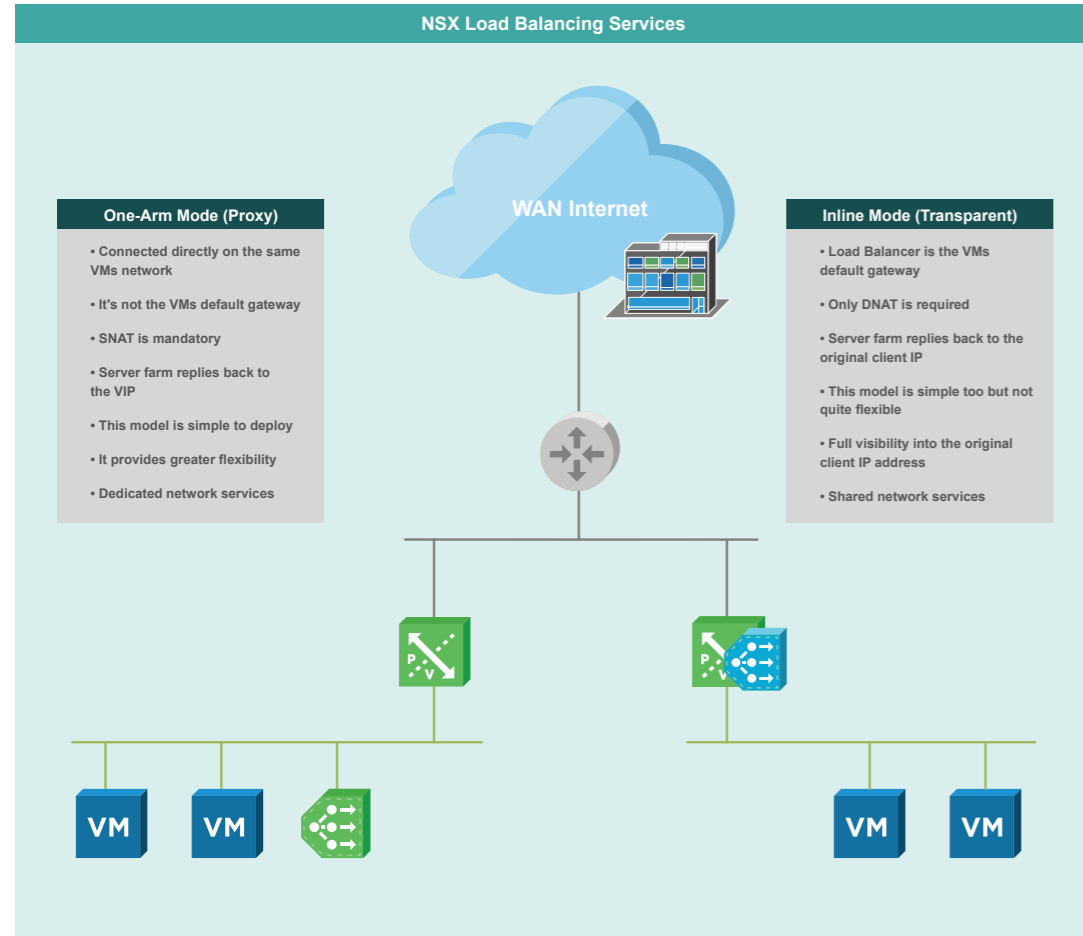


VMware NSX

NSX Licensing			
Product Features	Standard	Advanced	Enterprise
Distributed switching and routing	•	•	•
NSX edge firewall	•	•	•
NAT	•	•	•
SW L2 bridging to physical environment	•	•	•
Dynamic routing with ECMP (active-active)	•	•	•
API-driven automation	•	•	•
Integration with vRealize and OpenStack	•	•	•
Log Management with vRealize Log Insight for NSX	•	•	•
Automation of security policies with vRealize	•	•	•
NSX edge load balancing	•	•	•
Distributed firewalling	•	•	•
Integration with Active Directory	•	•	•
Server activity monitoring	•	•	•
Service insertion (third-party integration)	•	•	•
Integration with AirWatch	•	•	•
Cross vCenter NSX			•
Multi-site NSX optimizations			•
VPN (IPSec and SSL)			•
Remote Gateway			•
Integration with hardware VTEPs			•

NSX Edge Sizes			
Flavours	vCPU	Memory	General Guideline
Compact	1	512MB	- Tests - POCs
Large	2	1GB	- Medium performance firewall - Single Services
Quad-Large	4	1GB	- High performance firewall
X-Large	6	8GB	- High performance Firewall - Load Balancing



Load Balancer commands

```

Shows load balancer configuration
# show configuration loadbalancer

Shows VIPs
# show configuration loadbalancer virtual "vipName"

Shows load balancer pool configuration
# show configuration loadbalancer pool "poolName"

Shows load balancer pool member state
# show service loadbalancer pool "poolName"
    
```

NSX Edge commands

FIREWALL

```

Shows the firewall configuration
# show configuration firewall

Shows specific firewall rule information
# show firewall rule-id "ruleID"

Show IP address group
# show configuration ipset

Show application set
# show configuration application-set
    
```

DYNAMIC ROUTING

```

Shows entries on table
# show ip [bgp/ospf]

Shows neighbors
# show ip [bgp/ospf] neighbors

Shows routes learned
# show ip route [bgp/ospf]

Shows configuration
# show configuration [bgp/ospf]
    
```

NSX Manager

CONTROLLERS

```

Shows controller nodes status
# show controller list all
    
```

EDGES

```

Shows information for all edges
# show edge all

Shows specific Edge information
# show edge "edgeID"
    
```

LOGICAL ROUTERS

```

List all logical router instance
# List all logical router instance

List which host received routing information
# show logical-router list dlr "dlrID" host

List routing table for a specific host
# show logical-router host "hostID" dlr "dlrID" route

Shows Logical router's statistics
# show logical-router controller master dlr "dlrID" statistics

Show the ARP table for a Logical router on a specific host
# show logical-router host "hostID" dlr "dlrID" arp
    
```

LOGICAL SWITCHES

```

Shows Logical Switches
# show logical-switch list all

Shows connected logical switch on a host
# show logical-switch controller "controllerID" host "hostIP" joined-vnis

Shows MAC Address table for a logical switch
# show logical-switch controller master vni "vniID" mac

Shows VTEP table for a host
# show logical-switch controller "controllerID" host "hostIP" vtep

Shows the ARP table for a host
# show logical-switch controller "controllerID" host "hostIP" arp

Shows MAC address table for a host
# show logical-switch controller "controllerID" host "hostIP" mac

Shows logical switch statistics
# show logical-switch controller master vni "vniID" statistics

Shows all hosts on which a logical switch is available
# show logical-switch list vni "vniID" host
    
```

NSX Controller Commands

```

Restarts a controller. Restart only one controller at a time
# restart controller

Shows control-cluster status
# show control-cluster status

Shows controller, configuration, and status of the specified VNI
# show control-cluster logical-switches vni "vniID"

Shows the hosts that are connected to the specified VNI
# show control-cluster logical-switches connection-table "vniID"

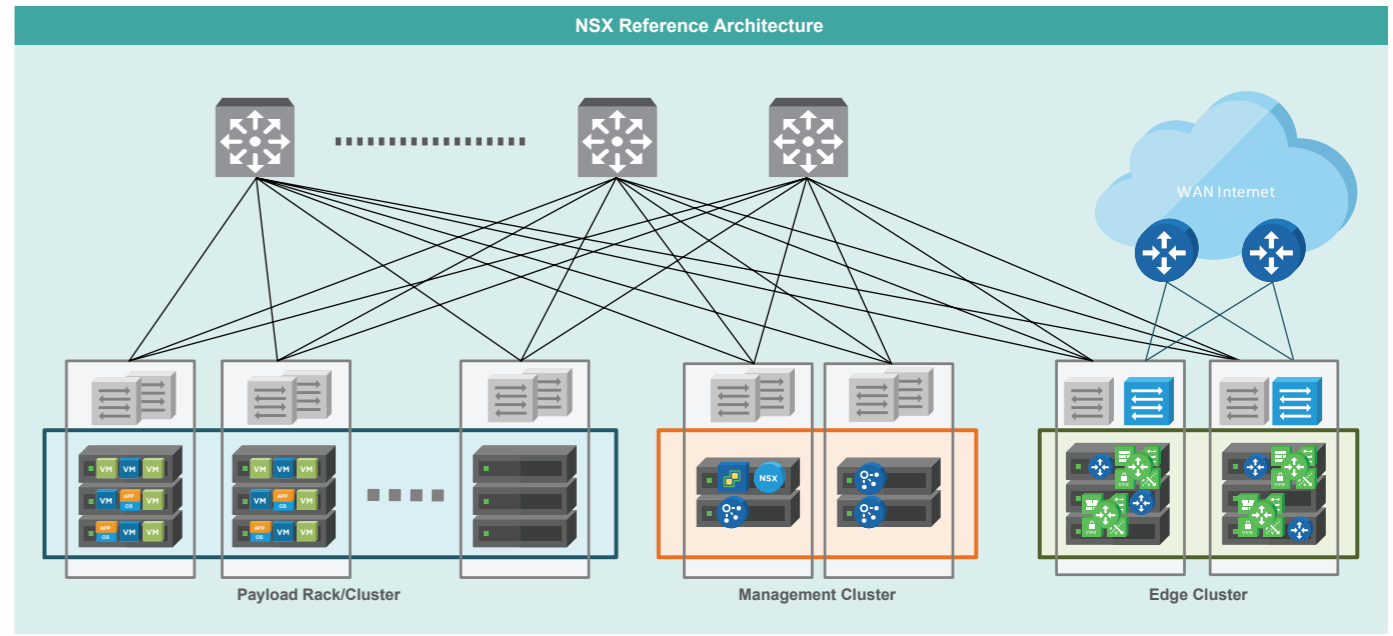
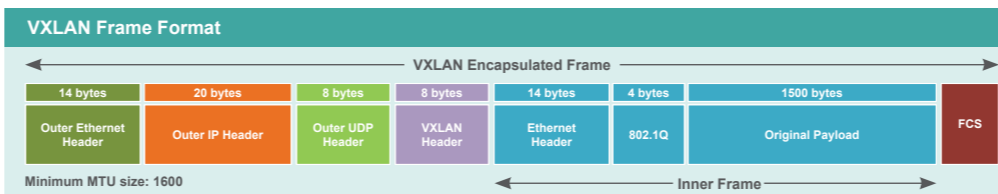
Shows MAC records of the specified VNI
# show control-cluster logical-switches mac-table "vniID"

Shows the ARP records updated from the specified connection.
# show control-cluster logical-switches arp-records "hostIP"

Shows the MAC records updated from the specified connection
# show control-cluster logical-switches mac-records "hostIP"

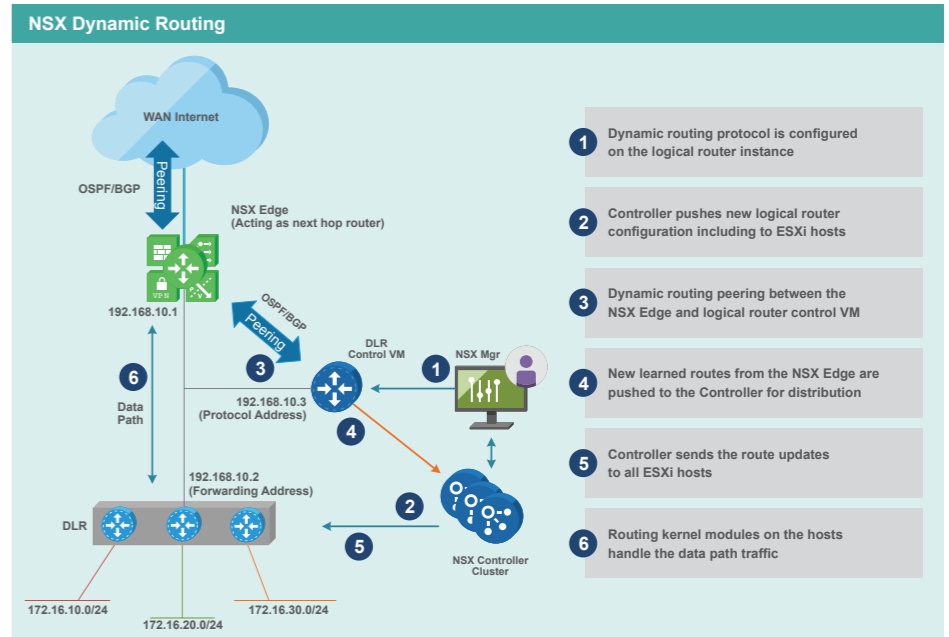
Shows the VTEP table for the specified VNI
# show control-cluster logical-switches vtep-table "vniID"

Shows the VTEP records updated from the specified host
# show control-cluster logical-switch vtep-records "hostIP"
    
```



Teaming and Failover Mode

Policy	NSX Support	Multi vTEP Support	Uplink Behavior
Route Based on Originating Port	✓	✓	Both NICs Active
Route Based on Source MAC Hash	✓	✓	Both NICs Active
Route Based on IP Hash	✓	✗	Flow Based
Route Based on NIC Load	✗	✗	✗
LACP	✓	✗	Flow Based
Explicit Failover Order	✓	✗	Only one NIC active



ESXi Commands

```

Check NSX VIBs Installed
# esxcli software vib list | grep esx

Uninstalling NSX VIBs
# esxcli software vib remove --vibname=esx-vxlan
# esxcli software vib remove --vibname=esx-vsip

Display VXLAN Details
# esxcli network vswitch dvs vmware vxlan list

Test VTEP Connectivity
# vmkping --netstack=vxlan -d -s "MTU_SIZE" "VTEP_IP_DEST"
    
```

NSX Resource Links

- Documentation Center: https://www.vmware.com/support/pubs/nsx_pubs.html
- Official Blog: <http://blogs.vmware.com/networkvirtualization>
- VMware Hands-on Labs: <http://hol.vmware.com/>
- Design Guide: <http://bit.ly/2cHPGJ>
- Trending support issues: <http://kb.vmware.com/kb/2131154>
- Troubleshooting: <https://kb.vmware.com/kb/2122691>