

Enabling Jumbo Frames on CISCO UCS blades

Jumbo Frames setting can enable from UCS manager and no need to do from windows end..

You need to make 3 changes:

- Set the System Class MTU to 9216
- Create a QoS policy for the MTU
- Set the vNIC to have 9000 MTU and QoS policy you have created

To add, there is no need to configure MTU from inside of Windows only on the UCS.- No need to do any changes from windows end

To configure Jumbo Frames on UCS it is done as a QoS policy and the configuration guide is in the link below:

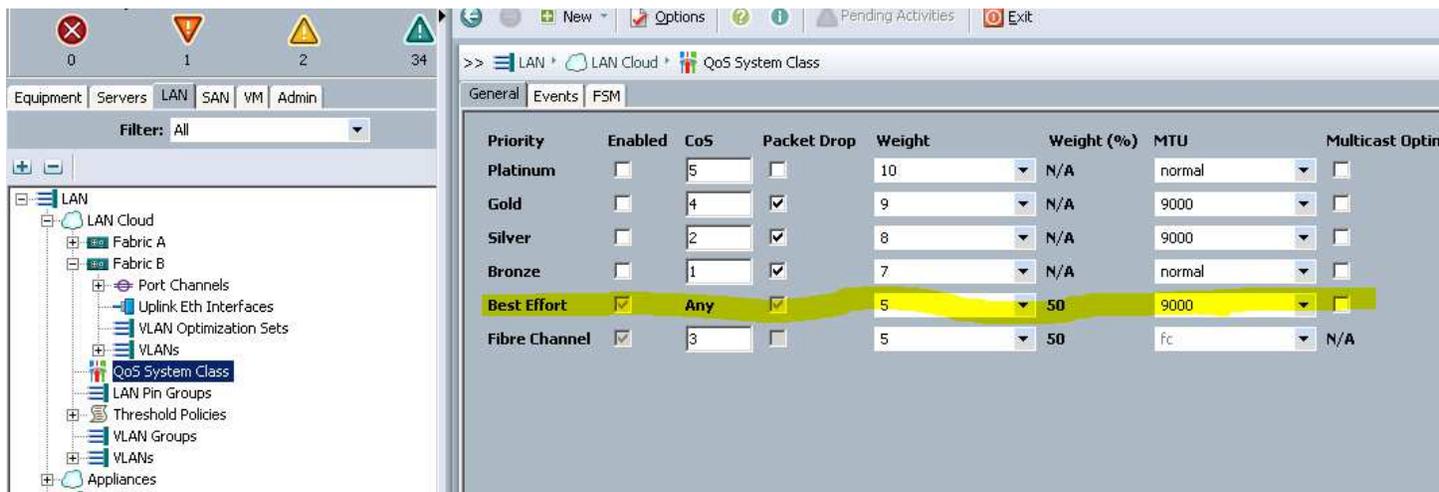
http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/sw/gui/config/guide/2-2/b_UCSM_GUI_Configuration_Guide_2_2/configuring_quality_of_service.html

Whilst you are planning to use Hyper-V as your OS, the following configuration guide is quite useful to understand which components on the UCS you need to configure to enable Jumbo Frames:

<http://www.cisco.com/c/en/us/support/docs/servers-unified-computing/ucs-b-series-blade-servers/117601-configure-UCS-00.html>

Screenshots

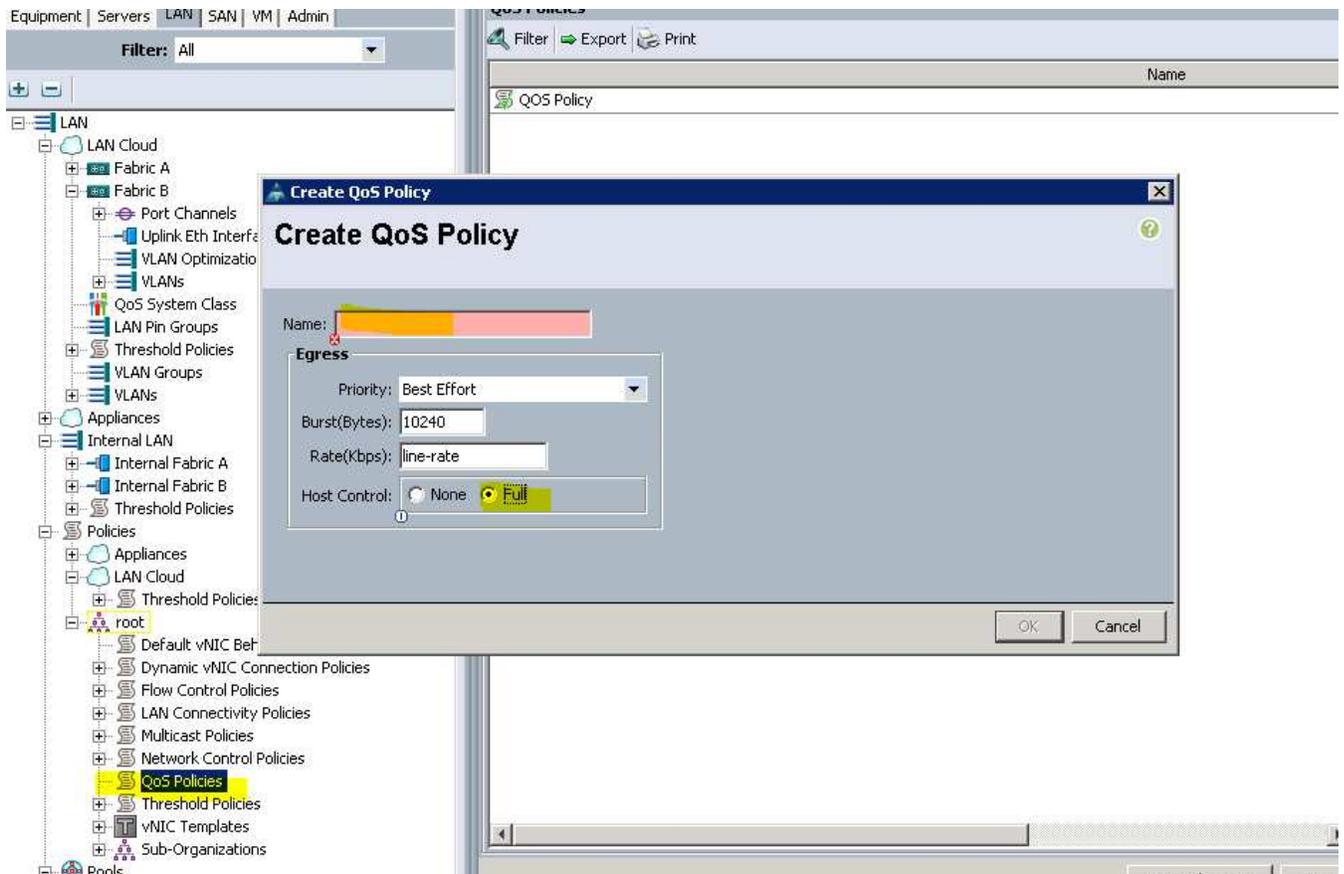
QOS System Class: Changing MTU value from 9000 to 9216



Priority	Enabled	CoS	Packet Drop	Weight	Weight (%)	MTU	Multicast Optin
Platinum	<input type="checkbox"/>	5	<input type="checkbox"/>	10	N/A	normal	<input type="checkbox"/>
Gold	<input type="checkbox"/>	4	<input checked="" type="checkbox"/>	9	N/A	9000	<input type="checkbox"/>
Silver	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	8	N/A	9000	<input type="checkbox"/>
Bronze	<input type="checkbox"/>	1	<input checked="" type="checkbox"/>	7	N/A	normal	<input type="checkbox"/>
Best Effort	<input checked="" type="checkbox"/>	Any	<input checked="" type="checkbox"/>	5	50	9000	<input type="checkbox"/>
Fibre Channel	<input checked="" type="checkbox"/>	3	<input type="checkbox"/>	5	50	fc	N/A

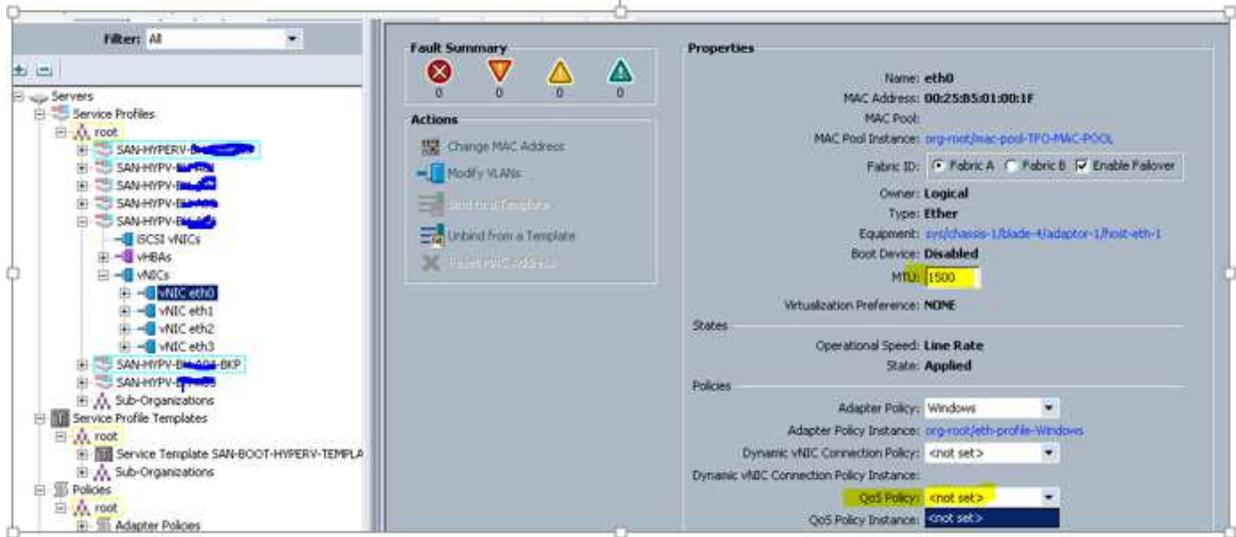
Create QOS Policy as below

Put name : " ..." and change Host control to "FULL" as highlighted



Go to Servers -> Select Server -> Select any vNIC

Change MTU Value from 1500 to 9000 and Select QOS Policy which you created in above screen shots(Highlighted)



DON'T DO ANY CHANGES from windows end

Tested like below

```

Select Administrator: C:\Windows\system32\cmd.exe

Microsoft Windows [Version 6.2.9200]
(c) 2012 Microsoft Corporation. All rights reserved.

C:\Users\tfo_wintell12>netsh int ip show int

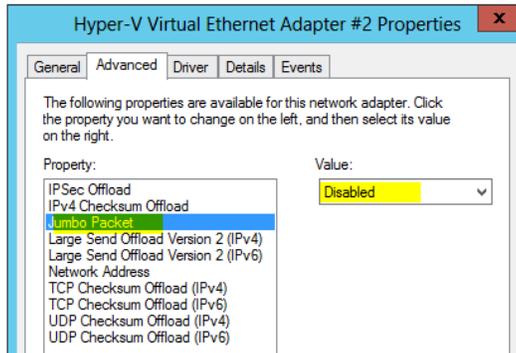
Idx      Met      MTU      State      Name
-----
1        50      4294967295  connected  Loopback Pseudo-Interface 1
12       5        9000     connected  UM Live Migration
16       5        1300     connected  Local Area Connection* 11
19       5        1500     connected  vEthernet {UM_Traffic_Ulan}
14       5        9000     connected  Public-Hyper-v
15       5        9000     connected  Private-Heartbeat
  
```

```

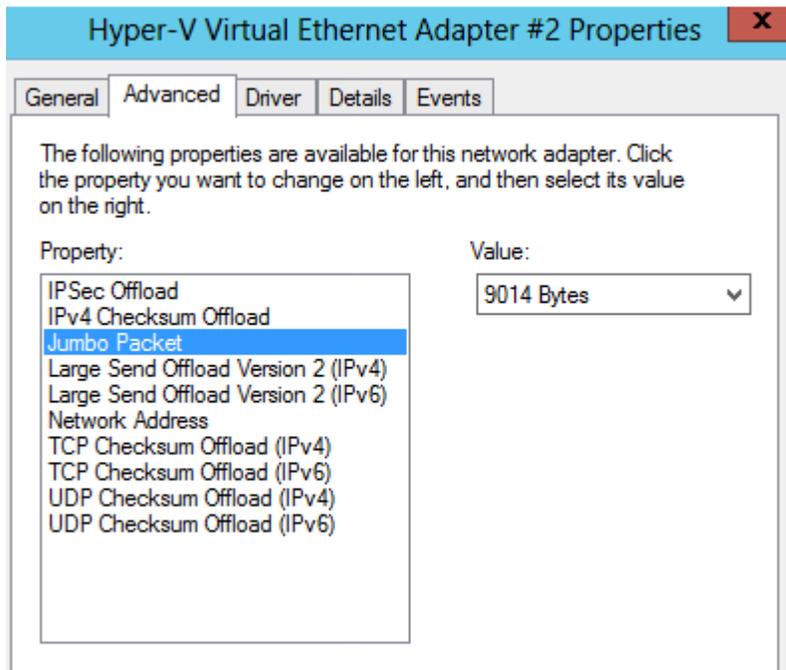
C:\Users\tfo_wintell12>ping -f -l 8972 172.16.9.53

Pinging 172.16.9.53 with 8972 bytes of data:
Packet needs to be fragmented but DF set.

Ping statistics for 172.16.9.53:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
  
```



So ,now Enabled Jumbo Frames on Hyper-v Adapter
After enabling



Tested Ping

```
Administrator: C:\Windows\system32\cmd.exe
C:\Users\tfo_wintell2>netsh int ip show int
```

Idx	Met	MTU	State	Name
1	50	4294967295	connected	Loopback Pseudo-Interface 1
12	5	9000	connected	VM Live Migration
16	5	1300	connected	Local Area Connection* 11
19	5	9000	connected	vEthernet (VM_Traffic_Ulan)
14	5	9000	connected	Public-Hyper-v
15	5	9000	connected	Private-Heartbeat

```
C:\Users\tfo_wintell2>ping -f -l 8972 172.16.9.53
```

Pinging 172.16.9.53 with 8972 bytes of data:
Reply from 172.16.9.53: bytes=8972 time<1ms TTL=128
Reply from 172.16.9.53: bytes=8972 time<1ms TTL=128
Reply from 172.16.9.53: bytes=8972 time<1ms TTL=128
Reply from 172.16.9.53: bytes=8972 time<1ms TTL=128

Ping statistics for 172.16.9.53:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms