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

Screenshots

QOS System Class: Changing MTU value from 9000 to 9216



Create QOS Policy as below

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

Equipment Servers LAN SAN V	1 Admin		
Filter: All	Tilte	r 🖨 Export 😸 Print	
± =	E on	C Deliau	Name
LAN LAN Cloud E Eabric A Fabric B Definition B Definition Channels Uplink Eth Interfa VLAN Optimizatio ULANS VLANs	Create QoS Policy Create QoS Policy	5 POILY	× 0
LAN Pin Groups ULAN Groups ULAN Groups ULAN Groups ULAN Groups ULANS ULAN	Name: Egress Priority: Best Effort Burst(Bytes): 10240 Rate(Kbps): line-rate Host Control: None Full		
E S Default vNIC Ber			OK Cancel
Source of the second seco	nection Policies as Policies		

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

C:\.		Select Adr	ninistrator: C:\W	indows\system32\cmd.exe	. 🗆	x		
Micro	Microsoft Windows [Version 6.2.9200]							
(C) 2	(c) 2012 Microsoft Corporation. Hil rights reserved.							
C∶∖Us	ers∖tfo_win	tell2≻netsh	int ip show i	nt				
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	1500	connected	vEthernet (VM_Traffic_Vlan)				
14	5	9000	connected	Public-Hyper-v				
15	5	9000	connected	Private-Heartbeat				

```
C:\Users\tfo_wintell2>ping -f -1 8972 172.16.9.53

Pinging 172.16.9.53 with 8972 bytes of data:

Packet needs to be fragmented but DF set.

Packets needs to be fragmented but DF set.

Ping statistics for 172.16.9.53:

Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

Щ	Private-Heartbeat	Unidentifie	d network Cisco	VIC Ethernet Interface #4	No Internet access	Public network
Q	vEthernet (VM_Traffic_	Vlan) TFO.LOCAL	L <mark>Hype</mark>	er-V Virtual Ethernet Adapte	Internet access	Domain network
		Hyper-V Virtual Ethernet Ada	apter #2 Properties			
		General Advanced Driver Details Even	nts	1		
		The following properties are available for this the property you want to change on the left, on the right.	network adapter. Click and then select its value			
		Property:	Value:			
		IPSec Offload IPv4 Checksum Offload Jarubo Packet Large Send Offload Version 2 (IPv4) Large Send Offload Version 2 (IPv6) Network Address TCP Checksum Offload (IPv4) TCP Checksum Offload (IPv6) UDP Checksum Offload (IPv6)	Disabled v			

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

Hyper-V Virtual Ethernet	Adapter #2 Properties				
General Advanced Driver Details	Events				
The following properties are available for this network adapter. Click the property you want to change on the left, and then select its value on the right.					
Property:	Value:				
IPSec Offload IPv4 Checksum Offload Jumbo Packet	9014 Bytes 🗸 🗸				
Large Send Offload Version 2 (IPv4) Large Send Offload Version 2 (IPv6) Network Address TCP Checksum Offload (IPv4) TCP Checksum Offload (IPv6) UDP Checksum Offload (IPv4) UDP Checksum Offload (IPv6)					

Tested Ping

C:\.	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	Б	9000 1300	connected	VM Live Migration Local Amea Connection¥ 11		
19	5	9000	connected	vEthernet (VM_Traffic_Vlan)		
14	55	9000	connected	Public-Hyper-v Private-Heartbeat		
12	5	7000	connecteu	rrivate-neartheat		

C:\Users\tfo_wintell2>ping -f -1 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 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