**NGC.Ready Multi-node system tuning for NGC v2.1**

|  |  |
| --- | --- |
| Item | Description |
| ConnectX-6 Firmware version | 20.28.4000 |
| ConnectX-6 Dx Firmware version | 22.28.4000 |
| BlueField-2 Firmware version | 24.28.4000 |
| MLNX\_OFED Version | MLNX\_OFED\_LINUX-5.1-2.5.8.0 |
| Eth Switch ports | Set MTU to 9216  Enable PFC and ECN using the single “Do ROCE” command |
| IB Switch OpenSM | Change MTU to 4K |
| BIOS (AMD Rome only) | CPU Power Management > Maximum Performance  Memory Frequency > Maximum Performance  Alg. Performance Boost Disable (ApbDis) > Enabled  ApbDis Fixed Socket P-State > P0  NUMA Nodes Per Socket > 2  L3 cache as NUMA Domain > Enabled  x2APIC Mode > Enabled  PCIe ACS > Disabled  Preferred IO > Disabled  Enhanced Preferred IO > Enabled |
| BOOT grub Settings | iommu=pt numa\_balancing=disable processor.max\_cstate=0 |
| NIC PCIe settings | For each NIC PCIe function:  Change PCI MaxReadReq to 4096B  Run "setpci -s $PCI\_FUNCTION 68.w", it will return 4 digits ABCD  --> Run "setpci -s $PCI\_FUNCTION 68.w=5BCD" |
| Test Repository | <https://github.com/Mellanox/ngc_multinode_perf> |