System Remote Control
Quick Start Guide

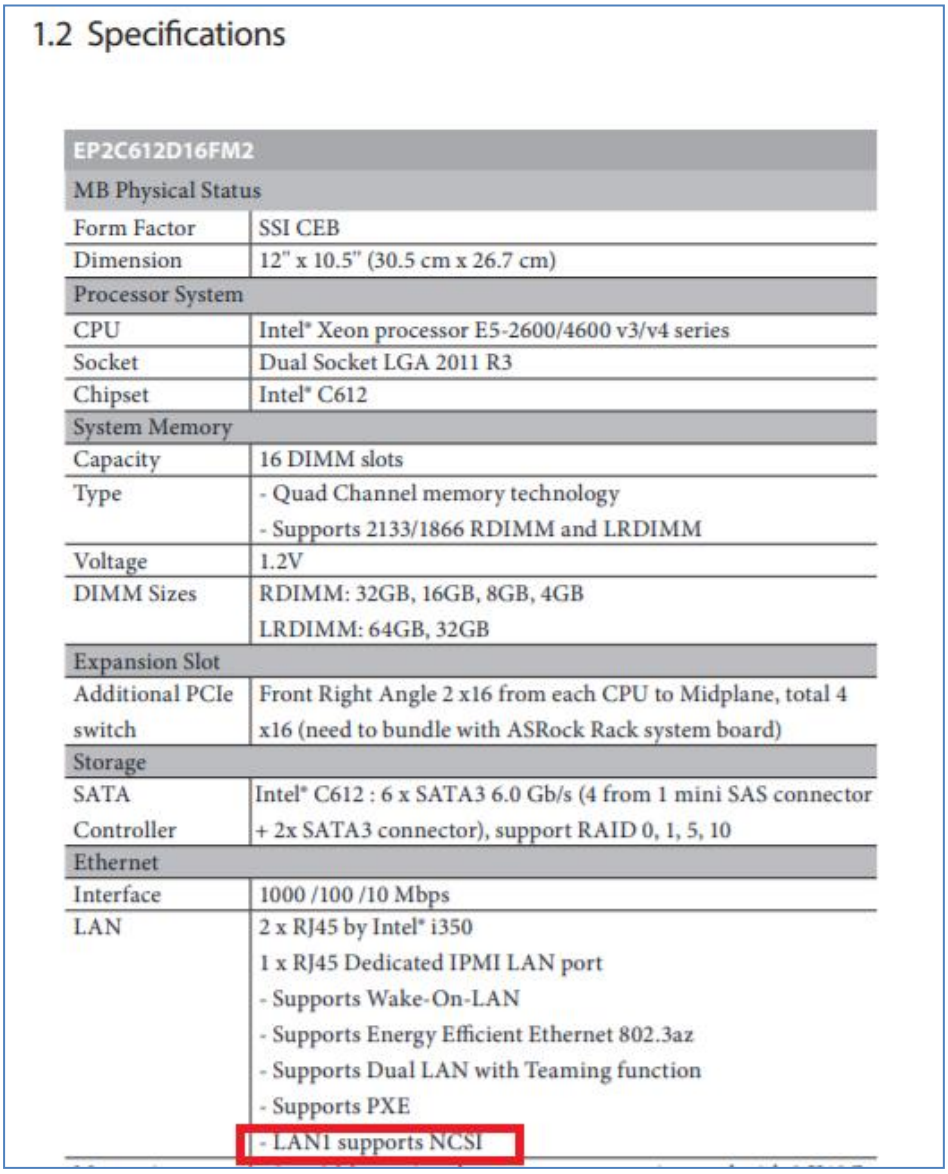
Contents

1. IPMI (Intelligent Platform Management Interface) LAN

a.) Connect your System to Local Area Network via System's MNG (dedicated IPMI LAN)port:

b.) For some ASRR Server Systems which support to NCSI function, you can also connect your System to Local Area Network via either System's MNG or LAN1(shared IPMI LAN) port:

To check if your System's LAN1 support NCSI function, please refer to MB's user manual.
For example, following is the MB's user manual of 3U10G-F System:



1.2 Specifications

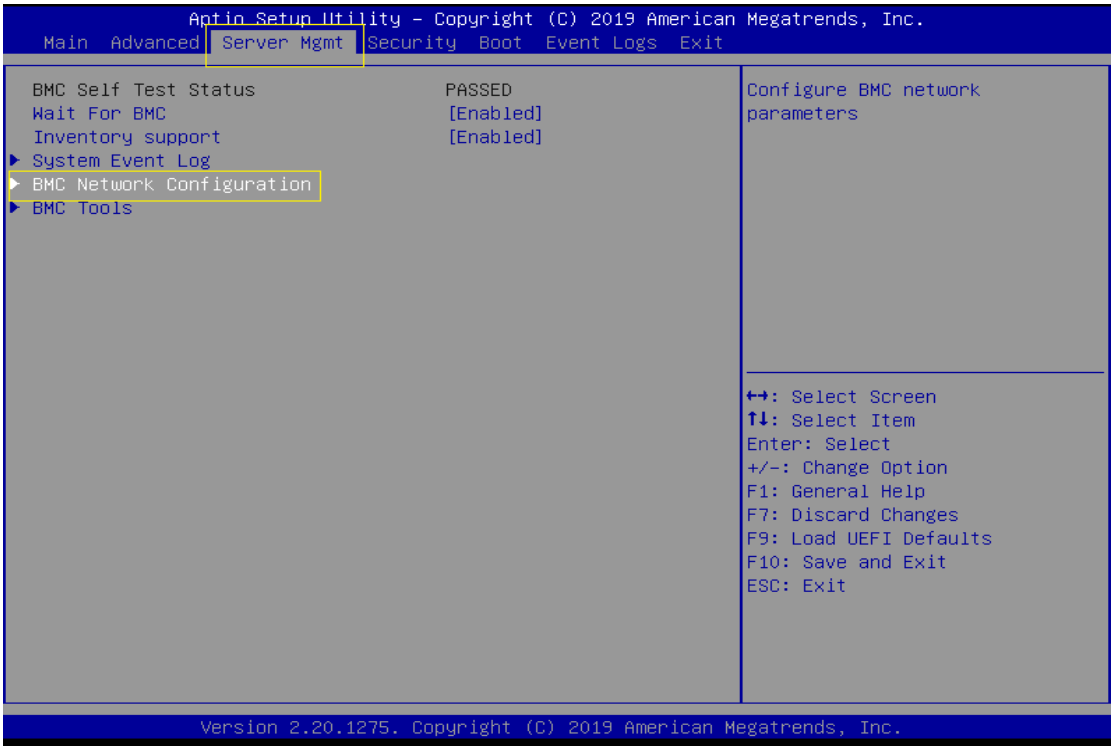
EP2C612D16FM2	
MB Physical Status	
Form Factor	SSI CEB
Dimension	12" x 10.5" (30.5 cm x 26.7 cm)
Processor System	
CPU	Intel® Xeon processor E5-2600/4600 v3/v4 series
Socket	Dual Socket LGA 2011 R3
Chipset	Intel® C612
System Memory	
Capacity	16 DIMM slots
Type	- Quad Channel memory technology - Supports 2133/1866 RDIMM and LRDIMM
Voltage	1.2V
DIMM Sizes	RDIMM: 32GB, 16GB, 8GB, 4GB LRDIMM: 64GB, 32GB
Expansion Slot	
Additional PCIe switch	Front Right Angle 2 x16 from each CPU to Midplane, total 4 x16 (need to bundle with ASRock Rack system board)
Storage	
SATA Controller	Intel® C612 : 6 x SATA3 6.0 Gb/s (4 from 1 mini SAS connector + 2x SATA3 connector), support RAID 0, 1, 5, 10
Ethernet	
Interface	1000 /100 /10 Mbps
LAN	2 x RJ45 by Intel® i350 1 x RJ45 Dedicated IPMI LAN port - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE - LAN1 supports NCSI

You can find if LAN1 support NCSI or not in Specifications page.

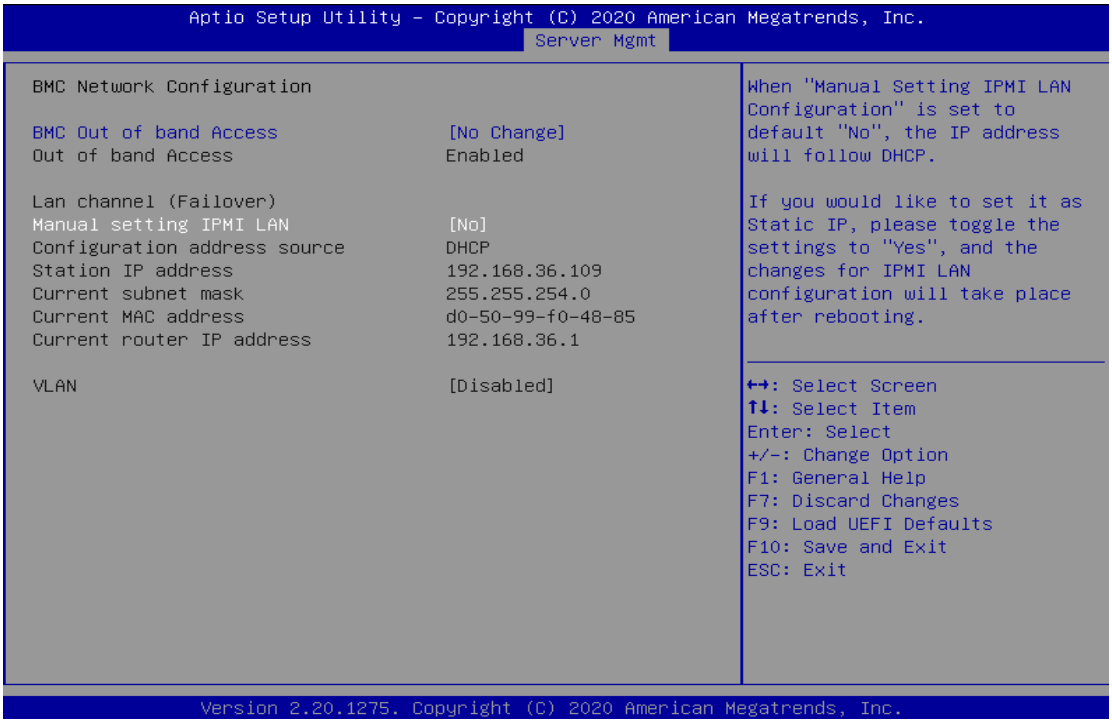
2. IPMI LAN IP address

a.) Power-on your System and press “F2” or “DEL” to enter BIOS Setup Menu during the POST:

b.) Switch to Server Mgmt page and enter BMC Network Configuration:



c.) Assign and check IPMI LAN's IP address. Figure's IP address is assigned by DHCP (UEFI default), you can also assign it manually.



d.)You can also find IPMI LAN IP address during POST stage after IPMI LAN IP address is assigned.


ASRock
Rack
BMC IP:192.168.36.109
Press <Tab> to Switch Screen
Press <F2> or <DEL> to run UEFI Setup
Press <F11> for Boot Menu
Press <F6> for Instant Flash
B4

3. Manage your System via IPMI over LAN (IOL)

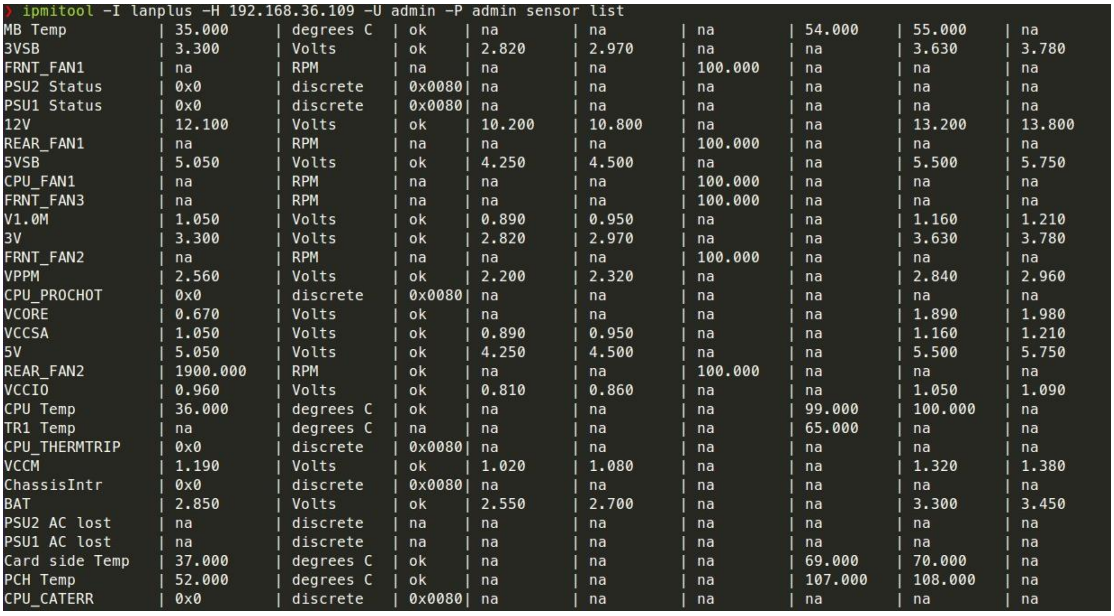
From remote site (Linux):

a.) Please install **ipmitool** before IPMI function usage.

b.) After ipmitool installed, you can login IPMI (typically ASRR System's IPMI username/password for login is **admin**/**admin**) and manage your System via IPMI over LAN (IOL) in the console by the following:

For example, check System's sensor reading:

 # ipmitool -I lanplus -H <HOST IPMI LAN IP> -U admin -P admin sensor list



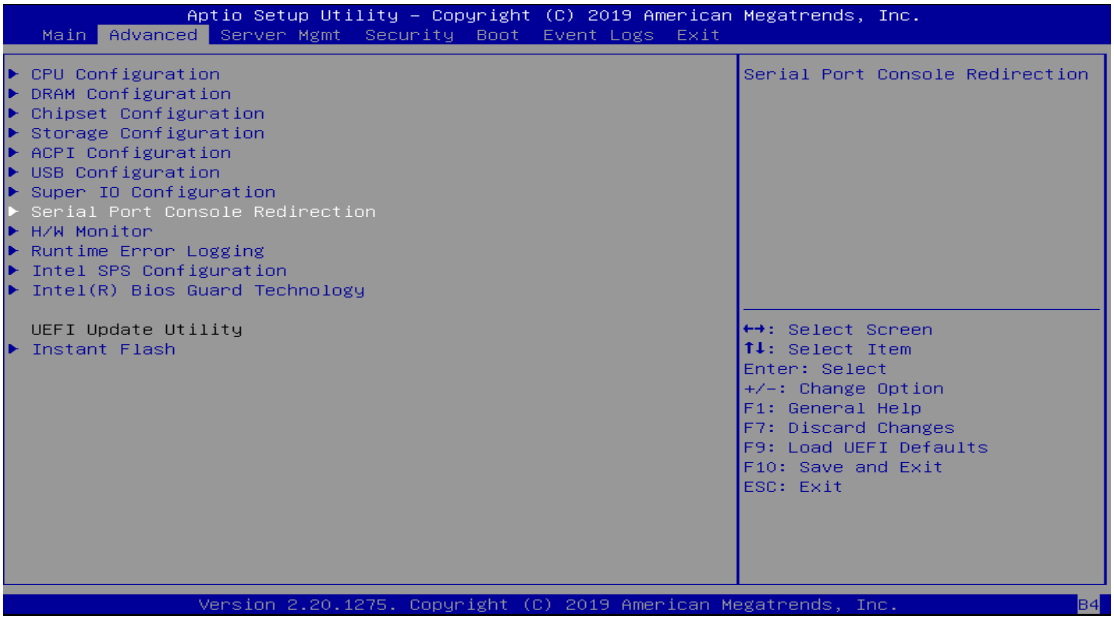
```
> ipmitool -I lanplus -H 192.168.36.109 -U admin -P admin sensor list
MB Temp          | 35.000     | degrees C  | ok    | na        | na        | na        | 54.000    | 55.000    | na
3VSB             | 3.300      | Volts      | ok    | 2.820     | 2.970     | na        | na        | 3.630     | 3.780
FRNT_FAN1        | na         | RPM        | na    | na        | na        | 100.000   | na        | na        | na
PSU2 Status      | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
PSU1 Status      | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
12V              | 12.100     | Volts      | ok    | 10.200    | 10.800    | na        | na        | 13.200    | 13.800
REAR_FAN1        | na         | RPM        | na    | na        | na        | 100.000   | na        | na        | na
5VSB             | 5.050      | Volts      | ok    | 4.250     | 4.500     | na        | na        | 5.500     | 5.750
CPU_FAN1         | na         | RPM        | na    | na        | na        | 100.000   | na        | na        | na
FRNT_FAN3        | na         | RPM        | na    | na        | na        | 100.000   | na        | na        | na
V1.0M            | 1.050      | Volts      | ok    | 0.890     | 0.950     | na        | na        | 1.160     | 1.210
3V               | 3.300      | Volts      | ok    | 2.820     | 2.970     | na        | na        | 3.630     | 3.780
FRNT_FAN2        | na         | RPM        | na    | na        | na        | 100.000   | na        | na        | na
VPPM             | 2.560      | Volts      | ok    | 2.200     | 2.320     | na        | na        | 2.840     | 2.960
CPU_PROCHOT      | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
VCORE            | 0.670      | Volts      | ok    | na        | na        | na        | na        | 1.890     | 1.980
VCCSA            | 1.050      | Volts      | ok    | 0.890     | 0.950     | na        | na        | 1.160     | 1.210
5V               | 5.050      | Volts      | ok    | 4.250     | 4.500     | na        | na        | 5.500     | 5.750
REAR_FAN2        | 1900.000   | RPM        | ok    | na        | na        | 100.000   | na        | na        | na
VCCIO            | 0.960      | Volts      | ok    | 0.810     | 0.860     | na        | na        | 1.050     | 1.090
CPU Temp         | 36.000     | degrees C  | ok    | na        | na        | na        | 99.000    | 100.000   | na
TR1 Temp         | na         | degrees C  | na    | na        | na        | na        | 65.000    | na        | na
CPU_THERMTRIP    | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
VCCM             | 1.190      | Volts      | ok    | 1.020     | 1.080     | na        | na        | 1.320     | 1.380
ChassisIntr      | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
BAT              | 2.850      | Volts      | ok    | 2.550     | 2.700     | na        | na        | 3.300     | 3.450
PSU2 AC lost     | na         | discrete   | na    | na        | na        | na        | na        | na        | na
PSU1 AC lost     | na         | discrete   | na    | na        | na        | na        | na        | na        | na
Card side Temp   | 37.000     | degrees C  | ok    | na        | na        | na        | 69.000    | 70.000    | na
PCH Temp         | 52.000     | degrees C  | ok    | na        | na        | na        | 107.000   | 108.000   | na
CPU_CATERR       | 0x0        | discrete   | 0x0080| na        | na        | na        | na        | na        | na
```

For more IPMI usage in Linux, please refer to the following link: https://linux.die.net/man/1/ipmitool

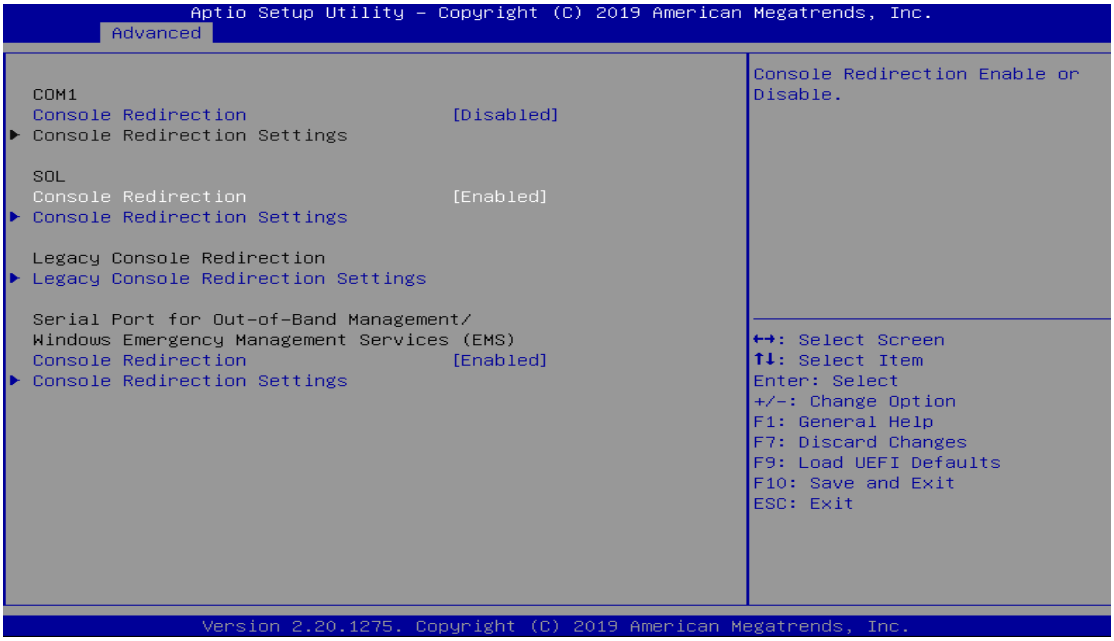
4. BIOS Setup for Serial over LAN

a.) Power-on your System and then press “F2” or “DEL” to enter BIOS Setup Menu during the POST.

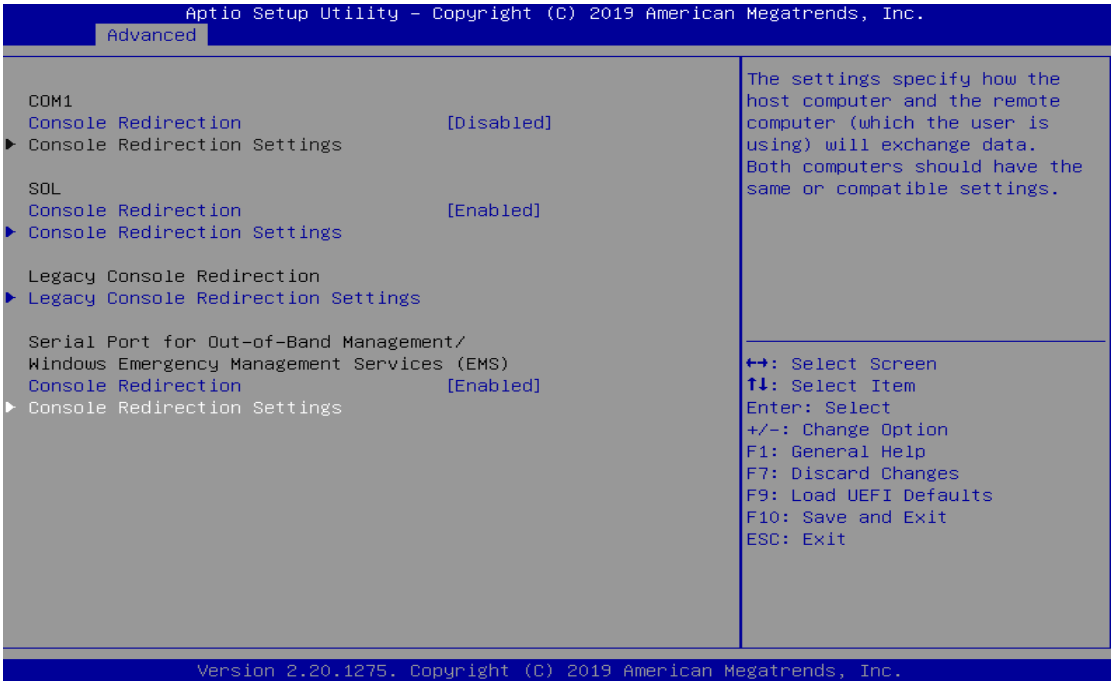
b.) Switch to **Advanced→Serial Port Console Redirection**

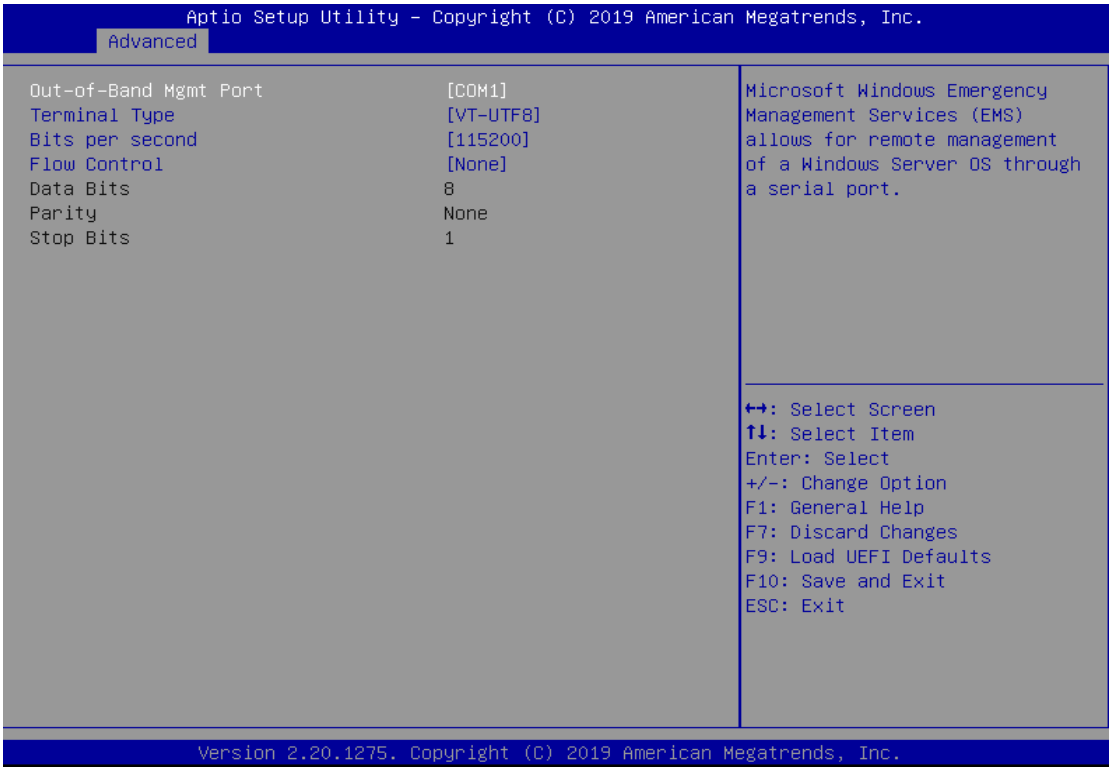


c.) Modify SOL Console Redirection to “Enabled”
(UEFI default=Disabled)



d.)Check Console Redirection Settings (required for remote control)





5. Operating System Setup for Serial over LAN (SOL)

a.) In Host site (Linux), follow Console Redirection setting to add the following boot parameter in **grub.cfg**

“console=tty1 console=ttyS1,115200n8”

For example:

for CentOS,

- with UEFI boot(ASRR Server System default), please edit:

  /boot/efi/EFI/centos/grub.cfg

- with Legacy boot, please edit:

  /boot/grub2/grub.cfg

b.) In Remote site (Linux), please install **ipmitool** to realize remote control via SOL as well.

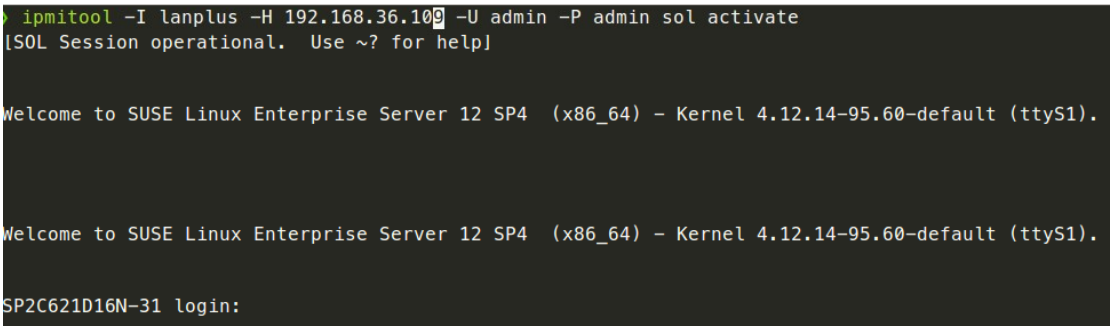
6. Control your System from remote site via Serial over LAN (SOL)

From remote site (Linux) :

a.) open a console and input the following command to realize remote control via Serial over LAN:

 # ipmitool -I lanplus -H <HOST IPMI LAN IP> -U admin -P admin sol activate

b.) and you can login System as System OS's username/password to realize remote control via SOL



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