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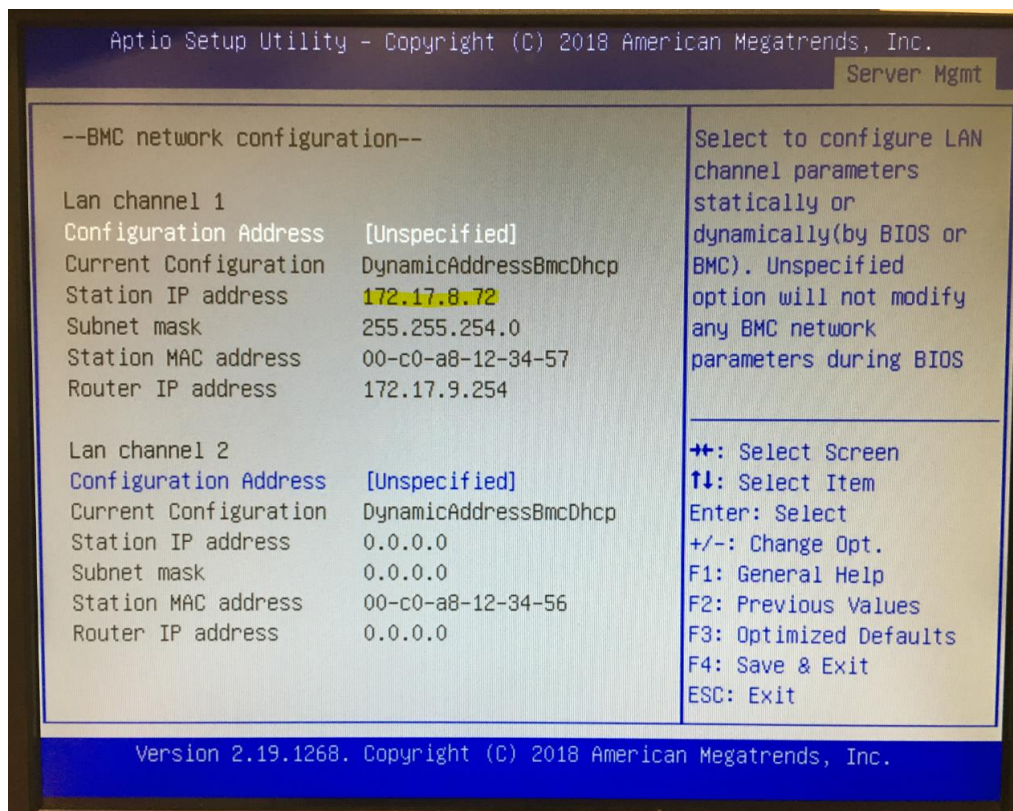
Date	2018 / 06 / 07	Release Note	<input type="checkbox"/> Internal <input checked="" type="checkbox"/> External
Category	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP	Related OS	Win7, Win10
Abstract	How to Access IPMI Console via Windows CMD (Command Line)		
Keyword	BMC, IPMI, CMD, Command Line		
Related Product	ASMB-815, ASMB-825, ASMB-925, ASMB-975		

This SOP is for user to Access IPMI Console via Windows CMD if customer is required. We still recommend using WebUI to manage IPMI console since it contains user friendly GUI.

■ **Step 1: Check IPMI F/W version:**

Establish network connection between IPMI server and client console. Use PING command from server console to communicate with client console and ensure the connection setup is ready.

IPMI Client Console IP Setup:



PING IPMI Client Console from Server Console.

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

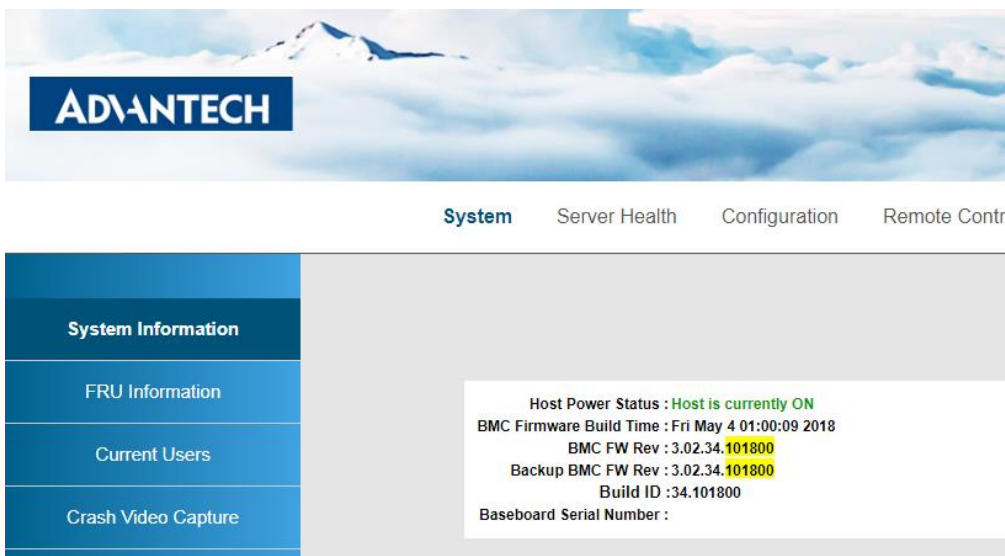
C:\Users\Dean.Kao>ping 172.17.8.72

Pinging 172.17.8.72 with 32 bytes of data:
Reply from 172.17.8.72: bytes=32 time=1ms TTL=63
Reply from 172.17.8.72: bytes=32 time=1ms TTL=63
Reply from 172.17.8.72: bytes=32 time=1ms TTL=63
Reply from 172.17.8.72: bytes=32 time=1ms TTL=63

Ping statistics for 172.17.8.72:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 1ms, Average = 1ms

C:\Users\Dean.Kao>
```

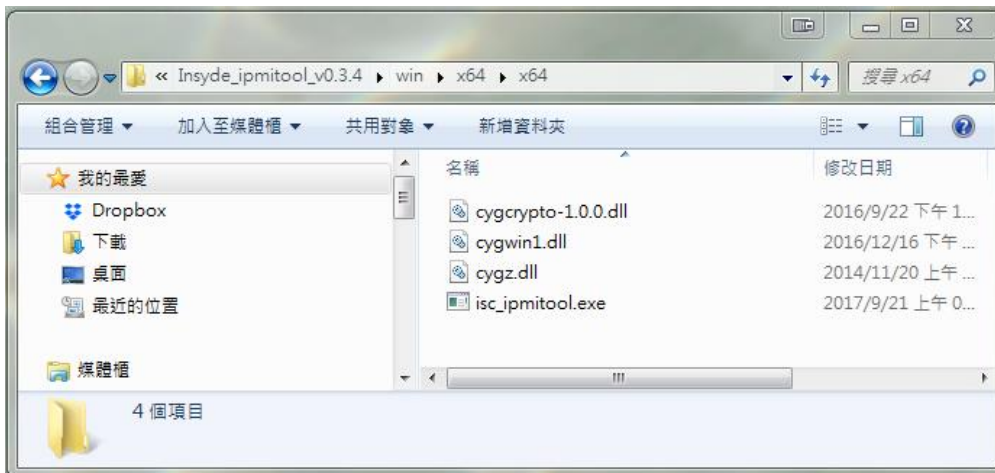
Log into IPMI client console by web browser and check if IPMI F/W version is 3.02.34.101800 or higher. The default login username and password is either **root/root** or **admin/admin**, depends your IPMI F/W version.



Please follow SOP [PS0053](#) to upgrade IPMI F/W if it doesn't meet the requirement.

■ Step 2: Download Windows IPMI Command Line Tool:

Unzip Insyde_ipmitool_v0.3.4.zip to server console and find correct IPMI tool which is relating to OS version of server console. For example, use isc_ipmitool.exe under win/x64 folder for Windows 7/10 64bit.



■ Step 3: Monitor the Temperature, Voltage, and Fan Sensors of IPMI Client Console:

Run isc_ipmitool.exe under CMD window with following command: `isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> sdr elist`

```
C:\Windows\system32\cmd.exe

C:\Insyde_ipmitool_v0.3.4\win\win64>isc_ipmitool -I lanplus -H 172.17.8.72 -U ad
min -P admin sdr elist
IPMI Watchdog      : 03h : ok   : 7.1 :
Physical Scrty     : 04h : ok   : 23.1 :
System Event Log   : 07h : ok   : 7.1 :
BMC FW Health      : 10h : ok   : 46.1 :
CPU0 Status        : 70h : ok   : 3.1 : Presence detected
PSU1 Status         : 50h : ns   : 10.1 : No Reading
PSU2 Status         : 51h : ns   : 10.1 : No Reading
SSB Therm Trip     : 0Dh : ok   : 7.1 :
Mem CPU0 T-Trip    : C0h : ok   : 32.1 :
PSU_TMP1            : 8Ch : ns   : 3.1 : No Reading
PSU_TMP2            : 8Dh : ns   : 3.1 : No Reading
PSU_TMP3            : 8Eh : ns   : 3.1 : No Reading
PSU_TMP4            : 8Fh : ns   : 3.1 : No Reading
SL4 GPU0 Temp       : 90h : ns   : 3.1 : No Reading
SL4 GPU1 Temp       : 91h : ns   : 3.1 : No Reading
SL4 GPU2 Temp       : 92h : ns   : 3.1 : No Reading
SL4 GPU3 Temp       : 93h : ns   : 3.1 : No Reading
SL6 GPU0 Temp       : 94h : ns   : 3.1 : No Reading
SL6 GPU1 Temp       : 95h : ns   : 3.1 : No Reading
SL6 GPU2 Temp       : 96h : ns   : 3.1 : No Reading
SL6 GPU3 Temp       : 97h : ns   : 3.1 : No Reading
System Temp        : 8Bh : ok   : 3.1 : 33 degrees C
CPU0 Temp          : A0h : ok   : 3.1 : 58 degrees C
CPU_FAN0           : A2h : ok   : 29.8 : 3840 RPM
SYS_FAN0           : A3h : lnr  : 29.8 : 0 RPM
SYS_FAN1           : A7h : lnr  : 29.8 : 0 RPM
SYS_FAN2           : A4h : lnr  : 29.8 : 0 RPM
SYS_FAN3           : A8h : lnr  : 29.8 : 0 RPM
SYS_FAN4           : A5h : lnr  : 29.8 : 0 RPM
PSU Fan Spd1       : AAh : ns   : 29.8 : No Reading
PSU Fan Spd2       : ABh : ns   : 29.8 : No Reading
PSU Fan Spd3       : ACh : ns   : 29.8 : No Reading
PSU Fan Spd4       : ADh : ns   : 29.8 : No Reading
CPU0_VCORE         : BEh : ok   : 7.1 : 1.76 Volts
VBat               : B4h : ok   : 7.1 : 2.82 Volts
+12V               : B5h : ok   : 7.1 : 11.98 Volts
+5V                : B6h : ok   : 7.1 : 5.03 Volts
+3.3V              : B7h : ok   : 7.1 : 3.27 Volts
PSU_+12V           : B8h : ns   : 7.1 : No Reading
PSU 12V IOut       : B9h : ns   : 7.1 : No Reading
PSU +5V            : BAh : ns   : 7.1 : No Reading
PSU 5V IOut        : BBh : ns   : 7.1 : No Reading
PSU +3.3V          : BCh : ns   : 7.1 : No Reading
PSU 3V IOut        : BDh : ns   : 7.1 : No Reading

C:\Insyde_ipmitool_v0.3.4\win\win64>
```

■ Step 4: View the ILOM SP System Event Log (SEL)

Run `isc_ipmitool.exe` under CMD window with following command: `isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> sel list`

```

C:\Windows\system32\cmd.exe
C:\IPMI>isc_ipmitool.exe -I lanplus -H 172.17.8.99 -U admin -P admin sel list
1 : 01/05/1987 : 18:48:42 : Power Supply #0x51 : Presence detected : Asserted
2 : 01/05/1987 : 18:48:42 : Fan #0xaa : Lower Critical going low : Asserted
3 : 01/05/1987 : 18:48:42 : Fan #0xaa : Lower Non-recoverable going low : As
serted
4 : 01/05/1987 : 18:48:42 : Fan #0xab : Lower Critical going low : Asserted
5 : 01/05/1987 : 18:48:42 : Fan #0xab : Lower Non-recoverable going low : As
serted
6 : 01/05/1987 : 18:48:42 : Fan #0xac : Lower Critical going low : Asserted
7 : 01/05/1987 : 18:48:42 : Fan #0xac : Lower Non-recoverable going low : As
serted
8 : 01/05/1987 : 18:48:42 : Fan #0xad : Lower Critical going low : Asserted
9 : 01/05/1987 : 18:48:42 : Fan #0xad : Lower Non-recoverable going low : As
serted
a : 01/05/1987 : 18:48:42 : Fan #0xa2 : Lower Critical going low : Asserted
b : 01/05/1987 : 18:48:42 : Fan #0xa2 : Lower Non-recoverable going low : As
serted
c : 01/05/1987 : 18:48:42 : Fan #0xa3 : Lower Critical going low : Asserted
d : 01/05/1987 : 18:48:42 : Fan #0xa3 : Lower Non-recoverable going low : As
serted
e : 01/05/1987 : 18:48:42 : Fan #0xa4 : Lower Critical going low : Asserted
f : 01/05/1987 : 18:48:42 : Fan #0xa4 : Lower Non-recoverable going low : As
serted
10 : 01/05/1987 : 18:48:42 : Fan #0xa5 : Lower Critical going low : Asserted
11 : 01/05/1987 : 18:48:42 : Fan #0xa5 : Lower Non-recoverable going low : As
serted
12 : 01/05/1987 : 18:48:42 : Fan #0xa7 : Lower Critical going low : Asserted
13 : 01/05/1987 : 18:48:42 : Fan #0xa7 : Lower Non-recoverable going low : As
serted
14 : 01/05/1987 : 18:48:42 : Fan #0xa8 : Lower Critical going low : Asserted
15 : 01/05/1987 : 18:48:42 : Fan #0xa8 : Lower Non-recoverable going low : As
serted
16 : 01/05/1987 : 18:48:42 : Fan #0xa9 : Lower Critical going low : Asserted
17 : 01/05/1987 : 18:48:44 : System Event : Timestamp Clock Sync : Asserted
18 : 01/05/1987 : 18:48:42 : Fan #0xa9 : Lower Non-recoverable going low : As
serted
19 : 01/05/1987 : 18:48:43 : Power Supply #0x50 : Presence detected : Asserted
1a : 06/07/2018 : 09:29:49 : System Event : Timestamp Clock Sync : Asserted
1b : 06/07/2018 : 09:30:08 : Processor #0x70 : IERR : Deasserted
1c : 06/07/2018 : 09:30:08 : Processor #0x70 : Presence detected : Asserted
1d : 06/07/2018 : 09:30:08 : Voltage #0xbe : Lower Critical going low : Asser
ted
1e : 06/07/2018 : 09:30:09 : Voltage #0xbe : Lower Critical going low : Deass
erted
1f : 06/07/2018 : 09:30:24 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
20 : 06/07/2018 : 09:30:25 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
21 : 06/07/2018 : 09:30:25 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
22 : 06/07/2018 : 09:30:25 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
23 : 06/07/2018 : 09:30:26 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
24 : 06/07/2018 : 09:30:26 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
25 : 06/07/2018 : 09:30:27 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
26 : 06/07/2018 : 09:30:27 : Management Subsystem Health #0x10 : Sensor failur
e : Asserted
27 : 06/07/2018 : 09:32:45 : Power Supply #0x50 : : Asserted
28 : 06/07/2018 : 09:32:48 : Power Supply #0x50 : : Deasserted
29 : 06/07/2018 : 09:33:15 : Management Subsystem Health #0xff : State Deasser
ted : Asserted
2a : 01/05/1987 : 18:48:38 : Power Supply #0x51 : Presence detected : Asserted
2b : 01/05/1987 : 18:48:38 : Fan #0xaa : Lower Critical going low : Asserted
2c : 01/05/1987 : 18:48:38 : Fan #0xaa : Lower Non-recoverable going low : As
serted
2d : 01/05/1987 : 18:48:38 : Fan #0xab : Lower Critical going low : Asserted
2e : 01/05/1987 : 18:48:38 : Fan #0xab : Lower Non-recoverable going low : As
serted
2f : 01/05/1987 : 18:48:38 : Fan #0xac : Lower Critical going low : Asserted
30 : 01/05/1987 : 18:48:38 : Fan #0xac : Lower Non-recoverable going low : As
serted
31 : 01/05/1987 : 18:48:38 : Fan #0xad : Lower Critical going low : Asserted
32 : 01/05/1987 : 18:48:38 : Fan #0xad : Lower Non-recoverable going low : As
serted
33 : 01/05/1987 : 18:48:38 : Fan #0xa2 : Lower Critical going low : Asserted
34 : 01/05/1987 : 18:48:38 : Fan #0xa2 : Lower Non-recoverable going low : As
serted
35 : 01/05/1987 : 18:48:38 : Fan #0xa3 : Lower Critical going low : Asserted
36 : 01/05/1987 : 18:48:38 : Fan #0xa3 : Lower Non-recoverable going low : As
serted
37 : 01/05/1987 : 18:48:38 : Fan #0xa4 : Lower Critical going low : Asserted
38 : 01/05/1987 : 18:48:38 : Fan #0xa4 : Lower Non-recoverable going low : As
serted
39 : 01/05/1987 : 18:48:38 : Fan #0xa5 : Lower Critical going low : Asserted
3a : 01/05/1987 : 18:48:38 : Fan #0xa5 : Lower Non-recoverable going low : As
serted
  
```

■ **Step 5: Remote Control – Server Power Control:**

Initiate a soft-shutdown via acpi:

isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> power soft

issue a hard power off, wait 1s, power on:

isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> power cycle

issue a hard power off:

isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> power off

issue a hard power on:

isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> power on

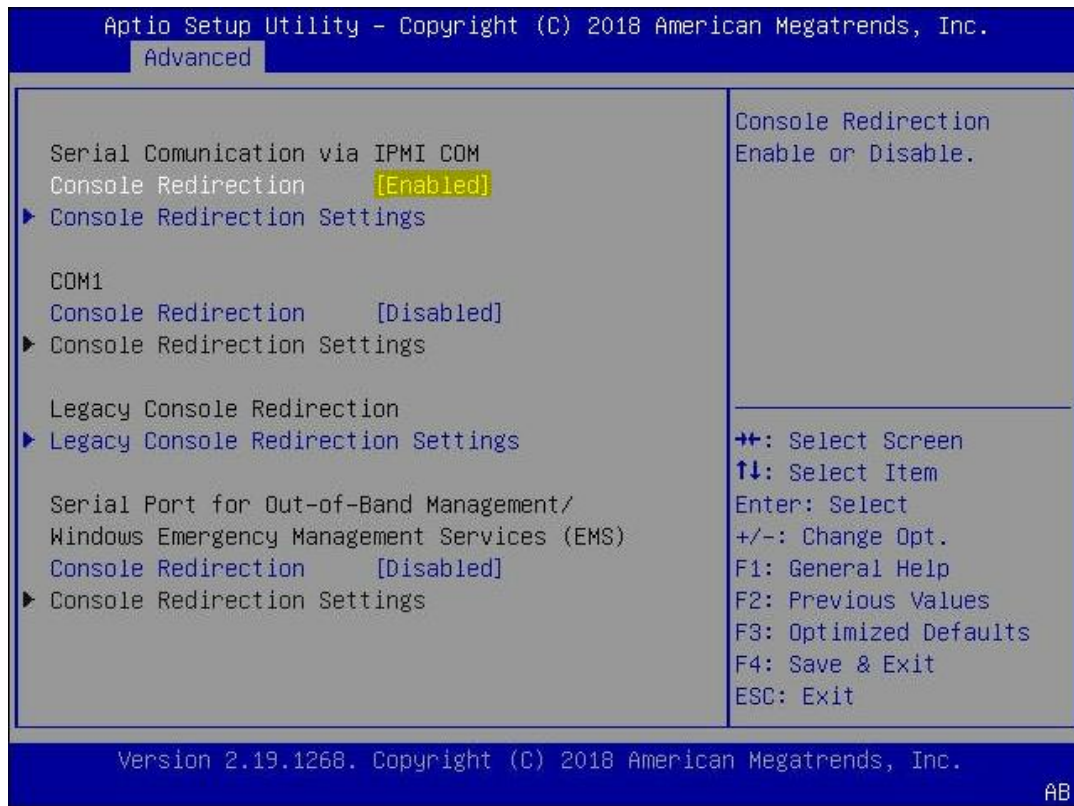
issue a hard reset:

isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> power reset

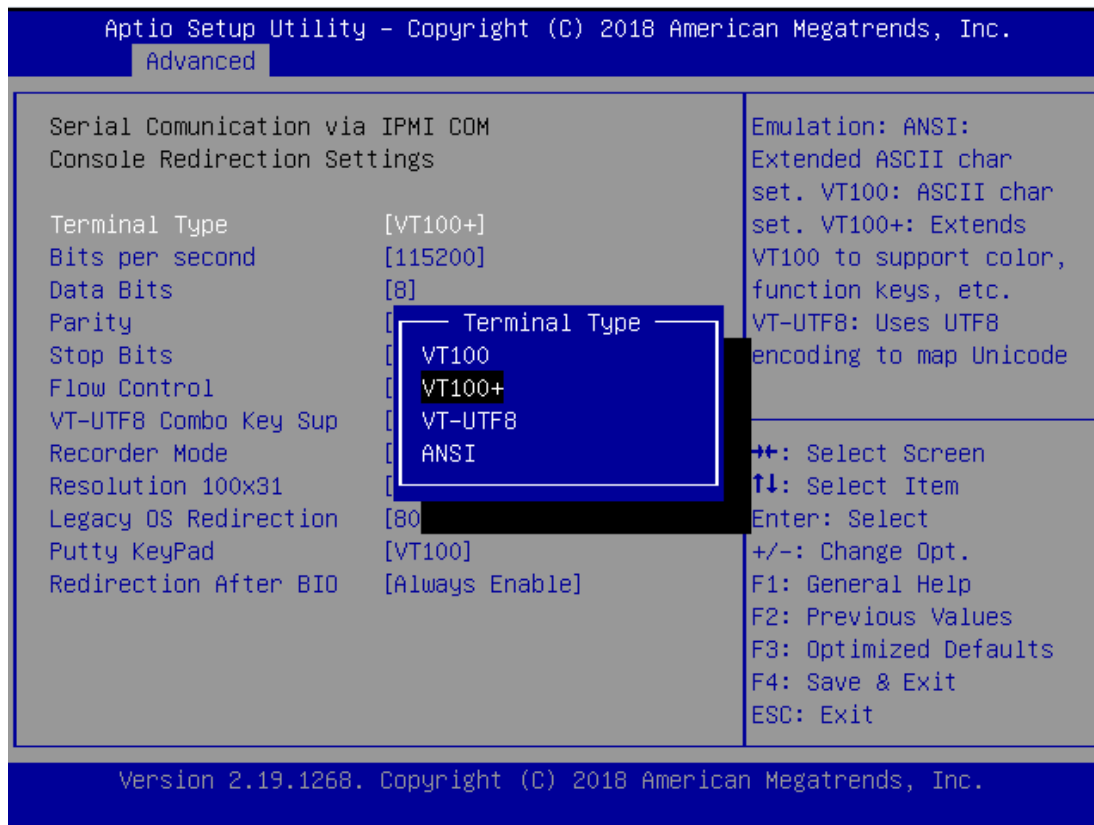
■ **Step 6: Remote Control – iKVM BIOS Access:**

Follow followings steps to set necessary options under BIOS.

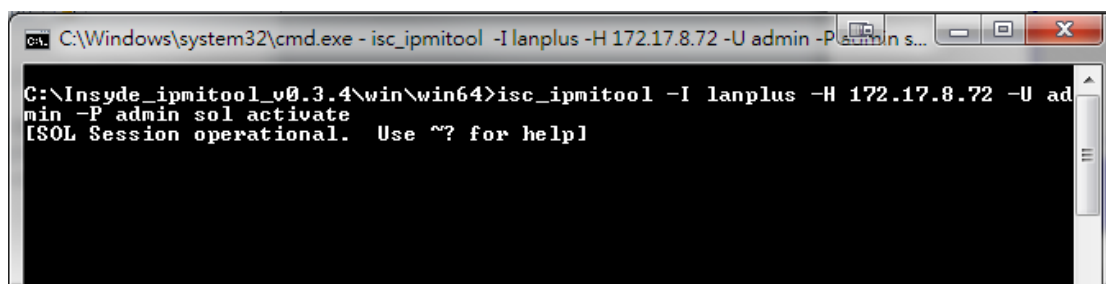
1. BIOS => Advanced => Serial Port Console Redirection => Serial Communication via IPMI COM => Console Redirection => Enable



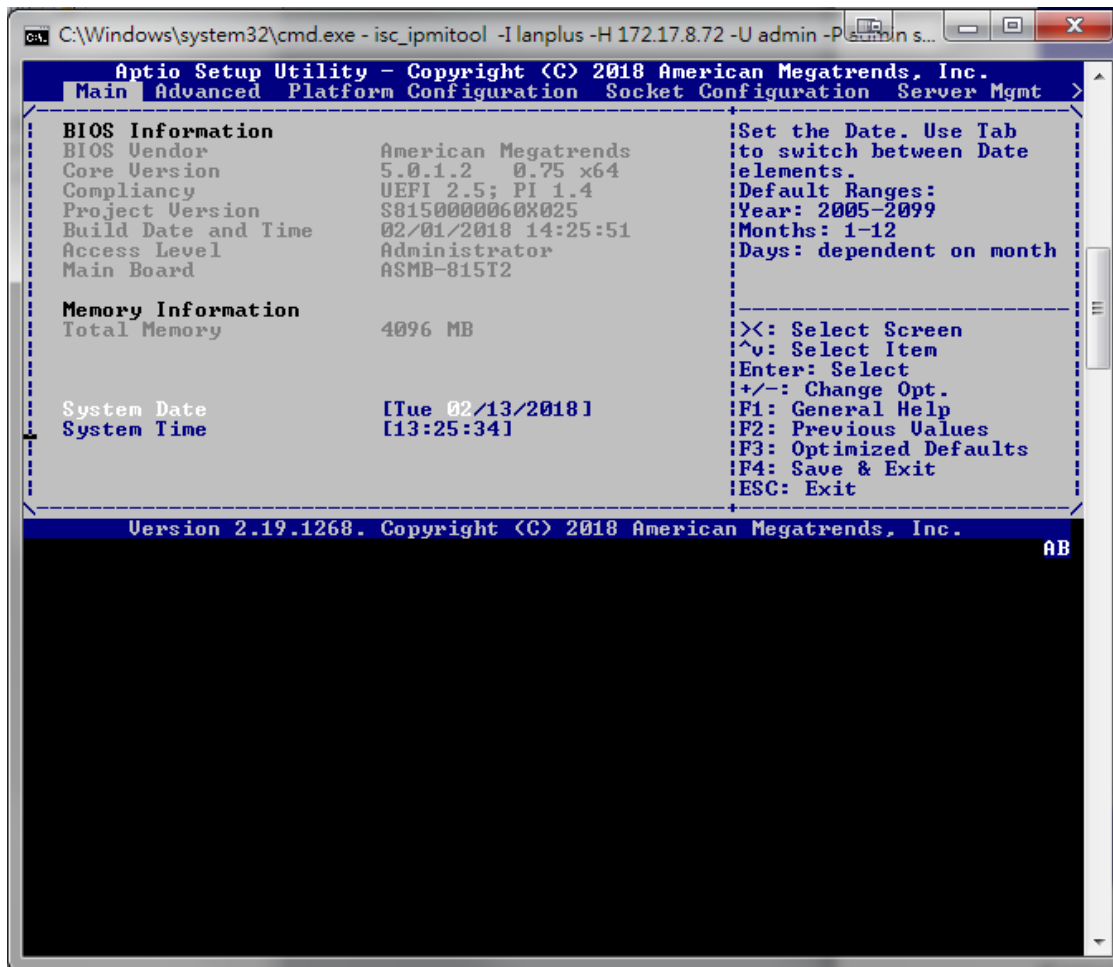
2. BIOS => Advanced => Serial Port Console Redirection => Serial Communication via IPMI COM => Console Redirection Settings => Terminal Type => VT100+



3. Save Changes and Reset and enter BIOS setup page again. Run following command on IPMI Server Console: `isc_ipmitool -I lanplus -H <IPADDR> -U <USERNAME> -P <PASSWORD> sol activate`



4. Now try to press Arrow Keys on keyboard, the BIOS page will be displayed in CMD window. It's allowed to full access and control BIOS setup.



■ Reference:

1. IPMI tools download (Insyde_ipmitool_v0.3.4.zip):
http://downloadt.advantech.com/download/downloads.aspx?File_Id=1-1LDVATD
2. IPMI Command reference Link:
https://docs.oracle.com/cd/E19464-01/820-6850-11/IPMItool.html#50602039_81422