

1. Overview

SOL – Serial Over Lan is a mechanism that enables the input and output of the serial port of a managed system to be redirected via an IPMI session over IP. (IPMIcommand)

--kernel-args=kernel parameter

Append the kernel parameter to boot loader configuration file (imgla.cfg, imglc.cfg, pxelinux.cfg, etc). Note: The kernel parameter is "additive" (add to the other parameters that are already specified in the bootable media itself)

2. SOL Precondition

BMC Network configuration is ready on the remote x server, and network connection is OK.

Remote x server support and enabled SOL.

SMBridge telnet server is ready (In this solution, we install SMBridge server on the Laptop with telnet client).

Laptop/PC that running telnet client.

3. Enable SOL on xServer

Configure the Serial Port Operation Mode via BIOS->Device and I/O Ports

Serial Port A=Auto Configure

Remote Console Redirection

Remote Console COM Port=COM 1/Remote Console Serial Port= Serial Port 1 (BMC)

Baud Rate=19200

Consol Type= VT100/VT220

Remote Console Active After Boot=Enable/On

Enable SOL via BIOS->Advanced Setup->BMC

System-BMC Serial Port Sharing [Enabled]

BMC Serial Port Access Mode [Dedicated]

BMC User Account/Network Config

4. Install SMBridge Telnet on Laptop/PC

SMBridge SW Pack (Setup.exe)

Type `telnet localhost 623` at Start->Run->CMD (SMBridge service/daemon)

Type `connect -ip remot_eserver_ip -u userid -p password`(SMBridge>)

Type `sol config -baud 19200`

Type `console`

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5. Test Case/Procedure

Setup and Config SOL environment on xServer and Console (Laptop/PC), refer to the above topic 3&4

Using BoMC.exe to create bootable media

BoMC CLI, Tools (Uxlite/DSA...) TUI, disable autorun
Support by --kernel-args option (--kernel-args="console=ttyS0,19200
console=tty1")

Insert created BoMC bootable media (cd/dvd/usbkey/pxe) to xServer
On Console (Laptop/PC), type reboot on SMBridge>

Expected Result:

xServer boot-up from BoMC bootable media (cd/dvd/usbkey/pxe) successfully.

Tools (Uxlite/DSA...) TUI is loaded successfully

'Menu' program TUI pops up; The selected tool pops up and runs. 'Menu' program
can be exit and xServer will be reboot

6. Reference of SOL setup

<http://w3-03.ibm.com/support/techdocs/atmsastr.nsf/WebIndex/TD104559> (SSPD
by Jim, Ji Le Wei/China/IBM)

Screen shot

```
*****
*                               *
*           Devices and I/O Ports           *
*                               *
* Serial Port A      [ Auto*configure ] *
* Serial Port B      [ Disabled   ] *
* Remote Console Redirection *
*                               *
* Mouse              [ Installed   ] *
*                               *
* Planar Ethernet 1 [ Disabled ] *
* Planar Ethernet 2 [ Disabled ] *
* Planar SAS         [ Enabled   ] *
* PCI Slot 1         [ Enabled   ] *
* PCI Slot 2         [ Enabled   ] *
* PCI Slot 3         [ Enabled   ] *
* PCI Slot 4         [ Enabled   ] *
*                               *
*                               *
* Video *
* IDE Configuration Menu *
*****
```

```
*****
*                               *
*           Remote Console Redirection           *
*                               *
* Remote Console Active      [ Enabled ] *
* Remote Console COM Port    [ COM 1 ] *
* Remote Console Baud Rate   [ 19200 ] *
* Remote Console Data Bits   [ 8 ] *
* Remote Console Parity      [ None ] *
* Remote Console Stop Bits   [ 1 ] *
* Remote Console Text Emulation [ UT100/UT220 ] *
* Remote Console Keyboard Emulation [ UT100/UT220 ] *
* Remote Console Active After Boot [ Enabled ] *
* Remote Console Flow Control [ Disabled ] *
*                               *
*****
```

```

*****
*****
*   Baseboard Management Controller (BMC) Settings   *
*****
*   BMC Firmware Version           01.29           *
*   BMC Build Level                 GGBT41C         *
*   BMC Build Date                  06*29*07        *
*   *                               *              *
*   BMC POST Watchdog              [ Disabled ]    *
*   BMC POST Watchdog Timeout      [ 5 Minutes ]   *
*   System*BMC Serial Port Sharing [ Enabled ]     *
*   BMC Serial Port Access Mode    [ Dedicated ]   *
*   Reboot System on NMI           [ Enabled ]     *
*   BMC Network Configuration      *              *
*   BMC System Event Log           *              *
*   User Account Settings          *              *
*****

```

```

*   BMC Network Configuration   *
*****
*   BMC MAC Address 00*1A*64*27*9B*72 *
*   Host Name      [          ] *
*   DHCP Control  [ Use Static IP ] *
*   *              *              *
*   IP Settings   *              *
*   IP Address    [ 009.186.166.20 ] *
*   Subnet Mask   [ 255.255.255.000 ] *
*   Gateway       [ 009.186.166.007 ] *
*   *              *              *
*   *              *              *
*   Save Network Settings in BMC *
*****

```

```

*****
*   User Account Settings   *
*****
*   UserID# Username      Enabled/Disabled *
*   UserID 1 NULL        Disabled          *
*   UserID 2 USERID     Enabled          *
*   UserID 3 UNUSED      Disabled          *
*   UserID 4 UNUSED      Disabled          *
*****

```

```

*****
*   UserID 2 Account Settings *
*****
*   UserID 2      [ Enabled ] *
*   Username      [ USERID ] *
*   Password      [          ] *
*   Confirm Password [          ] *
*   Privileged Limit [ Administrator ] *
*   *              *              *
*   *              *              *
*   <<Save User Account Settings to BMC>> *
*****

```