

IPMI QUICK START GUIDE

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BMC Management Port

In order to be able to use ipmitool, the connector must be plugged into the BMC's NIC which varies on each board.

JBOD8281



Figure 1: 8281 (In Chassis) BMC PORT

The connector must be plugged into BMC Port "P6" on the JBOD8281 processor board as illustrated by the blue arrow on the above image.

Note: The default static IP configuration for JBOD is 192.168.1.10/24



SSP8268



Figure 1.5: 8268 BMC PORT

The connector must be plugged into BMC Port "P35" on the SSP8268 motherboard as illustrated by the red arrow on the above image.



SEP8253



Figure 2: 8253 BMC PORT

The connector must be plugged into BMC Port "P7" on the SEP8253 processor board as illustrated by the red arrow on the above image.



HEP8225



Figure 3: 8225 BMC PORT

The connector must be plugged into BMC Port "P6" on the HEP8225 processor board as illustrated by the red arrow on the above image.



MSL8256



Figure 4: 8256 BMC PORT

The connector must be plugged into BMC Port "P9" on the MSL8256 processor board as illustrated by the red arrows on the above image.



MBK8257



Figure 5: 8257 BMC PORT

The connector must be plugged into BMC Port "P1" on the MBK8257 processor board as illustrated by the red arrow on the above image.



MBC8272



Figure 6: 8272 BMC PORT

The connector must be plugged into BMC Port "P54" on the MBC8272 processor board as illustrated by the red arrow on the above image.



MBC8240



Figure 7: 8240 BMC PORT

The connector must be plugged into BMC Port "P26" on the MBC8240 processor board as illustrated by the red arrow on the above image.



ION MINI PC



Figure 8: ION BMC PORT

The connector must be plugged into BMC Port "A4" on the ION Mini PC as illustrated by the red arrow on the above image.



Installing and Enabling IPMITool in Linux

Out of the box, IPMItool needs to be installed and enabled for use on the system. Installation of ipmitool varies based on which distribution of Linux is on the system. Installation of ipmitool is achieved by executing the following commands in a terminal with root privilege:

- Enterprise Linux 5.x / CentOS 5.x: yum install OpenIPMI OpenIPMI-tools
- Enterprise Linux 6.x / CentOS 6.x or Fedora: yum install OpenIPMI ipmitool
- Enterprise Linux 7.x / CentOS 7.x or Fedora: yum install OpenIPMI ipmitool
- Ubuntu 14.04 LTS: apt-get install ipmitool

To enable IPMI access on Redhat/CentOS distributions, execute the following commands in a terminal with root privilege:

- /sbin/chkconfig ipmi on
- Service ipmi start

In order to know ipmitool is installed and ready to use, execute the command "*ipmitool mc info*" to check status of the BMC.

Trenton Systems have either an AMI IPMI solution (MEGARAC) or Insyde[®] IPMI solution (Supervyse). Both IPMI solutions also have a Web Interface to interact with.

Login credentials for the AMI Web Interface is one of the two options described below: USER:admin PASS:admin USER:admin PASS:[SHB board serial #]



Getting the BMC IP Address from BIOS

SYSTEMS IDENTIFICATION LIST

Systems with AMI BIOS:

-	SEP8253
-	MSL8256
-	MBK8257
-	SSP8269
-	MBC8240
-	HEP8225
-	SSP8268

Systems with Insyde[®] BIOS:

- MBC8272



GETTING THE BMC IP ADDRESS FROM AMI BIOS

1. When the custom Trenton splash screen appears, hit the DELETE button.



Figure 8: Trenton Splash Screen



2. AMI's Main page titled: Aptio Setup Utility will open – Copyright © 2018 American Megatrends, Inc

BIOS Information		Choose the system default
BIOS Vendor A	merican Megatrends	language
Core Version 5	.12	
Compliancy U	EFI 2.5; PI 1.4	
Project Version 0	ACFD 0.86 X64	
Access Level	1/21/2010 12.47.27 dministrator	
	ulli1115(1 a(U)	
Platform Information		
Platform T	ypeNeonCityEPRP	
Processor 5	0654 – SKX HO	
PCH L	BG QS/PRQ – 2 – S1	
RC Revision 1	53.R01	
Manager Tallana talan		++: Select Screen
Memory Information	FEAC ND	I+: Select Item
Tutar Melliorg 6	5536 MB	Enter: Select
Sustem Landuade	Englich]	F1: Ceneral Heln
		F2: Previous Values
System Date [Tue 07/23/2019]	F3: Optimized Defaults
System Time	08:47:06]	F4: Save & Exit
		F5: Load Fail-Safe Defaults
		ESC: Exit

Figure 9: Aptio Setup Utility Main Page



3. Navigate to the Server Mgmt tab. Select BMC network configuration. Hit ENTER

Aptio Setup Utility Main Advanced Platform Configur	– Copyright (C) 2018 American ation Socket Configuration	n Megatrends, Inc. Server Mgmt Security Boot
BMC Self Test Status BMC Device ID BMC Device Revision BMC Firmware Revision IPMI Version BMC Support Wait For BMC FRB-2 Timer FRB-2 Timer timeout FRB-2 Timer Policy OS Watchdog Timer OS Wtd Timer Timeout OS Wtd Timer Timeout OS Wtd Timer Policy Serial Mux System Event Log Bmc self test log View FRU information BMC network configuration View System Event Log BMC User Settings BMC Warm Reset	PASSED 32 1 2.3 2.0 [Enabled] [Disabled] [Enabled] [6 minutes] [Do Nothing] [Disabled] [10 minutes] [Reset] [Disabled]	Configure BMC network parameters ++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit F5: Load Fail-Safe Defaults ESC: Exit
Version 2.20.1271.	Copyright (C) 2018 American M	Megatrends, Inc.

Figure 10: Server Mgmt Page



4. The IP address will be displayed.

Aptio Setup Utility –	Copyright (C) 2018 America	an Megatrends, Inc. Server Mgmt
BMC network configuration жжжжжжжжжжжжжж Configure IPV4 support жжжжжжжжжжжжж		 Select to configure LAN channel parameters statically or dynamically(by BIOS or BMC). Unspecified option will not modify any BMC network
Lan channel 1 Configuration Address source Current Configuration Address sour Station IP address Subnet mask Station MAC address Router IP address Bouter MAC address	[Unspecified] DynamicAddressBmcDhcp 10.200.30.76 255.255.255.0 00-10-6f-20-47-29 10.200.30.1	parameters during BIOS phase
Lan channel 2 Configuration Address source Current Configuration Address sour Station IP address Subnet mask Station MAC address Router IP address Router MAC address	[Unspecified] Unspecified 0.0.0.0 00-00-00-00-00-00 0.0.0.0 00-00-00-00-00-00	<pre>++: Select Screen fl: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit F5: Load Fail-Safe Defaults</pre>
жжжжжжжжжжжжжжж Configure IPV6 support		ESC: Exit
Version 2.20.1271. Co	opyright (C) 2018 American	Megatrends, Inc.

Figure 11: Server Mgmt Page – IP Address Location



GETTING THE BMC IP ADDRESS FROM INSYDE® BIOS

1. When the Insyde[®] splash screen is displayed, hit the ESC button. The message "ESC is pressed. Go to boot options," will be displayed (Figure 13).



Figure 12: Insyde® Screen



Figure 13: Insyde[®] Escape Screen



2. The Insyde[®] Front Page will open. Select Setup Utility. Hit ENTER

Front Page	
Front Page	
Front Page Continue PBoot Hanager PDevice Hanagement PBoot From File Administer Secure Boot PH20DST Tool PSetup Utility	This selection will direct the system to continue to booting process
FT Help Enter Select ► SubHe 1/4 Select Item	nu

Figure 14: BIOS Front Page



3. The InsydeH20 Setup Utility will open. The header bar will display Main, Advanced, Security, Power, Boot and Exit. Navigate to the Advanced tab.

	Insyd	eH20 Setup Utility	Rev. 5.
Main Advanced Security Powe	er Boot Exit		
		B	
Platform Variable Devision	96	U D	Isplays H20 IPHI and BhC Intormation
ME Satur Variable Devision	20		
CPU Setup Variable Devision	11		
SA Setup Variable Devision	9		
PCH Setup Variable Devision	10		
Boot Configuration	10		
Perinberal Configuration			
SATA Configuration			
Type C Support	chisabled>		
MISB Configuration	-DTSubTea-		
Chinset Configuration			
ACPI Settings			
CPIL Configuration			
Power & Performance			
▶OverClocking Performance Menu			
Memory Configuration			
System Agent (SA) Configuratio	m		
▶PCH-10 Configuration			
▶PCH-FW Configuration			
▶Thermal Configuration			
▶Platform Settings			
▶RTD3 settings			
▶Thunderbolt Device			
▶Server ME Configuration			
▶Intel ICC			
▶S10 AST2400			
▶Trenton Systems			
▶lpmi Sensor Control			
▶H20 IPMI Configuration			
▶Console Redirection			
▶H2oUve Configuration			
▶Diagnostics and System Tester			
F1 Help	1/↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	+/+ Select Item	Enter Select 🕨 SubMenu	F10 Save and Exit

Figure 15: InsydeH20 Setup Utility Screen



4. After scrolling to the Advanced tab, select H20 IPMI Configuration highlighted in white below. Hit ENTER on H20 IPMI Configuration.

	Insyde	eH20 Setup Utility	Rev. 5.1
Main Advanced Security Powe	er Boot Exit		
)isplays H20 IPMI and BMC information
Platform Variable Revision	26		
ME Setup Variable Revision	2		
CPU Setup Variable Revision	11		
SA Setup Variable Revision	9		
PCH Setup Variable Revision	10		
▶Boot Configuration			
▶Peripheral Configuration			
▶SATA Configuration			
Type C Support	<disabled></disabled>		
▶USB Configuration			
▶Chipset Configuration			
▶ACP1 Settings			
▶CPU Configuration			
▶Power & Performance			
▶OverClocking Performance Menu			
▶Memory Configuration			
▶System Agent (SA) Configuratio	on		
▶PCH-10 Configuration			
▶PCH-FW Configuration			
▶Thermal Configuration			
▶Platform Settings			
▶RTD3 settings			
▶Thunderbolt Device			
▶Server ME Configuration			
▶Intel ICC			
▶S10 AST2400			
▶Trenton Systems			
▶lpmi Sensor Control			
▶H20 IPMI Configuration			
▶Console Redirection			
▶H2oUve Configuration			
▶Diagnostics and System Tester			
F1 Help	↑/↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
For Fuit	4/+ Select Item	Enter Select 🕨 SubMenu	EID Save and Evit

Figure 16: InsydeH20 Setup Utility Screen



5. A new page will open under the Advanced tab. Select Execute H20 IPMI Utility and hit ENTER

Advanced		InsydeH20	Setup Utility	Rev. 5.
Huvanceu				
IPMI Support		€nabled>		Execute H20 IPMI Utility
System Interface Type IPMI Base Address for OS IPMI Base Address for POST IPMI Base Address for SMM	 ((KCS CA2/CA3 CA2/CA3 CA2/CA3		
BMC Status BMC Firmware Version IPMI Specification Version BMC MAC Address		0K 3. 03 2. 0 00 : 10 : 6F : 23 : D3 : D2		
BMC Warmup Time ACPI SPMI Table Boot Option Support Set BIOS version to BMC	 	[240] Enabled> Olisabled> Olisabled>		
▶BMC Configuration ▶SDR List				
Execute H20 IPMI Utility				
LOAD IPHI OPTIMAL DEFAULT				
F1 Help Esc Exit	1/↓ Select +/+ Select	l tem	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit

Figure 17: InsydeH20 Setup Utility- Advanced Screen



6. The H20 IPMI Utility page will open. Select Lan Commands and hit ENTER

		H20 IPMI Utility	Rev 14.33
Main Menu			
►IPHI Device Global Commands ►BHC Watchdog Timer Commands ►BHC Device and Messaging Comm ►Chassis Device Commands ►Event Commands ►Fru Area Commands ►SR Device Commands ►SEL Device Commands ►SEL Device Commands ►Serial/Hoden Device Commands ►Customized Commands	ands		
[Esc] Exit	↑↓ Select Item	[Enter] Select ▶ SubMenu	

Figure 18: H20 IPMI Utility Screen



7. Select LAN Configuration Parameters and hit ENTER

Han Sub-Menu	20 IPHI Utility Rev 14.33
► AN Configuration Parameters	
[Esc] Exit 1 \$elect Item	[Enter] Select 🕨 SubMenu

Figure 19: H20 IPMI Utility Screen – Lan Sub-Menu



8. The IP address will be displayed.

LAN Configuration Parameters		H20 IPMI Utility	Rev 14.33
LAN Configuration Parameters LAN Channel Number IP Address IP Address Source MAC Address Subnet Mask Primary RHCP Port Default Gateway MAC Address Backup Gateway MAC Address Backup Gateway MAC Address 	: 1 : 010.200.030.054 : <0HCP> : 00:10:6F:23:03:02 : 255.255.255.000 : 623 : 010.200.030.001 : 00:00:00:00:00:00 : 000.000.000 : 00:00:00:00:00:00		
[Esc] Exit	↑↓Select Item	[Enter] Select 🕨 SubMenu	

Figure 20: H20 IPMI Utility Screen – LAN Configuration Parameters



Logging into Insyde® Web Interface

- **1.** Type the IP address into the search bar. If the message "Your connection is not private..." is displayed, proceed with the following steps. Skip the steps below if this message is not shown.
 - a. Select Advanced. A drop-down section will open.
 - b. Select Process to (user's IP address) (unsafe).
 - **c.** The Insyde[®] login page will open.
- 2. The Insyde[®] login will open. Default login username is root and password is root.

Your connection is not private
Attackers might be trying to steal your information from (your IP address)(for example, passwords, messages, or credit cards). <u>Learn more</u>
NET::ERR_CERT_AUTHORITY_INVALID
Help improve Safe Browsing by sending some <u>system information and page content</u> to Google. <u>Privacy policy</u>
Advanced Back to safety

Figure 21: "Your connection is not private," Warning Screen



Supervyse Web Interface

- 1. Open a web browser and input the IP address for the system to launch IPMI interface.
- 2. IP address can be found by executing the command "ipmitool Ian print"
- 3. Default login username is root and password is root.



Figure 22: Insyde® Login

4. The first screen after logging in is the dashboard which provides overall information about the system. There are 7 rows to interact with on the web interface namely System, Health, Configuration, Remote Control, Virtual Media, Diagnostics and Miscellaneous.

1	The states	A American Statements	
Ginsyde		and the same	
	and the second se	and the second s	
	System Health Configuration Remote Control	Virtual Media Diagnostics Miscellaneous	Supervijse
		Dashboard	
Dashboard	Power Status Chang	2019 / 7 / 17	Network Setting
System Information		Date/Time 19:48 Wed	Channel 3 Channel 3 (P Address 10.200.30.54
	Screen Preview	System Information	Brus Address II Gateway 10,290.30.1
	Front Paul Head Response Head	BMC Firmware Build Time Thu Jan 17 15:05:27 2019	Subnet Wask 255.255.20 MAC Address 06-16-64-23-43-42
DIMM Information	Difference Difference <thdifference< th=""> Difference Differen</thdifference<>		
	Host is currently ON	BMC PW Rev 03.03.15.0036	
Crash & Boot Video Capture		Backup BMC FW Rev 02.02.15.000	PSU Info
		Date 10 11 11 11 11 11 11 11 11 11 11 11 11	Subsystem + Current +
	Relation Proper City	Baseboard Serial Number	Virtual Media
	Temperature	Voltage FAN	Device 1 No disk emulation set.
			Device 2 No disk emulation set.
			Device 3 No disk emulation set.
	Normal	Normal	Device 4 No disk emulation set.

Figure 23: Insyde[®] Homepage



5. System Information, FRU Information, CPU Information, DIMM Information, Current Users, Crash & Boot Capture can all be found under the System tab.

Ginsyde	
	System Health Configuration Remote Control Virtual Media Diagnostics Miscellaneous Superviye
Dashboard	Summary
System Information	Host Power Status : Host is currently ON BMC Fernance Ball Time : Thu An 17 5 dbs 27 2019 BMC FW Rev : 03.03.15.00.5
FRU Information	Backup BBC PM Rev (130.35.80)5 Build ID (15.80)360 Baseboard Savial Number :
CPU Information	Chassis Srini Number : Product Srini Number :
DIMM Information	Web Session Timeout
Current Users	30 Mm() •
Crash & Boot Video Capture	System Firmware Versions
	Not Available

Figure 24: System Page

6. Sensor Readings and Event Logs are found under the Health tab.

Sub		lia Diagnostics Miscellaneous	Configuration Remote Control	System Health	
		Sensor Readings			
			BMC .	Select a sensor owner:	or Readings
			All Sensors •	Select a sensor type category:	Event Log
Sensor Readings			60 v	Auto Refresh(sec):	
	Reading +	Status +	Name +	Healthy +	
	58 degree C	Normal	CPU TEMP	ок	
	35 degree C	Normal	INLET TEMP	ОК	
	30 degree C	Normal	EXH TEMP	OK	
	33 degree C	Normal	EXP SLOT TEMP	OK	
	40 degree C	Normal	PCH TEMP	ок	
	No Reading	Not Available	SYS FAN 1 FRNT	Unknown	
	No Reading	Not Available	SYS FAN 1 REAR	Unknown	
	0 R.P.M	At or below lower non-recoverable threshold	SYS FAN 2 FRNT	Critical	
	0 R.P.M	At or below lower non-recoverable threshold	SYS FAN 2 REAR	Critical	
	0 R.P.M	At or below lower non-recoverable threshold	SYS FAN 3 FRNT	Critical	
	0 R.P.M	At or below lower non-recoverable threshold	SYS FAN 3 REAR	Critical	
	0 R.P.M	At or below lower non-recoverable threshold	SYS FAN 4 FRNT	Critical	
			esholds	Refresh Show Thre	
				-	

Figure 25: Health Page



7. System Alerts, Networking Settings, Firmware Update, SDR Configuration etc. can be found under Configuration tab.

insyde		-	-					And a
	System	Health Confi	iguration Remote	Control Virtual Media	Diagnostics Miscellaneous		Sup	verivys
					List of Alerts			
Alerts								
Alort Email	To enable o	or disable the globa	al PEF configuration, ple	ease click <u>here</u>				
Profit Emon	- Log Even	CONTINUE ACOUNT						
Date & Time			20100000000				PEF Tab	,le16 en
	NO :	PEF Enable +	Severity +	Sensor Type +	Sensor Name =	Asserbon Condition :	PEF Actions =	
IPv4 Network	2	No	Disable	Voltane Sensors	Match All	state-0.2.4.7.9.11	Alert	
	3	No	Disable	Fan Sensors	Match All	state:0.2.4.7.9.11	Alert:	
IPv6 Network	4	No	Disable	Physical Security	#4	state:0.	Alert:	
	5	No	Disable	Power Supply	Match All	state:1.2.	Alert;	
VLAN	6	No	Disable	Memory	Match All	state:1,	Alert;	
	7	No	Disable	System Firmware Progres	ss Natch All	state:0,	Alert;	
LUAP	8	No	Disable	Watchdog 2	£3	state:0,	Alert;	
DADIUS	9	No	Disable	OEM Sensors	#24	state:8,	Alert;	
NADIUS	10	No	Disable	Watchdog 2	#3	state:1,2,3,	Alert;	
Active Directory	11	No	Disable	System Event	Match All	state:1,	Alert;	
	12	No	Disable	Drive Slot	Match All	state:1,2,	Alert;	
KVM & Media	Modify							
SSL Certification	Alert Des	tination #1	Alerte to ID: 0.0.0.0					
Users	© Email	Send Email	10:					
Security Settings	Alert Dest	tination #2 Send SNMP	Alerts to IP: 0.0.0.0					
SOL & SMASH	© Email	Send Email	to:					
	Save Ser	nd Test Alert						

Figure 26: Configuration Page

8. Launching iKVM over HTML5 and managing the server remotely, Server Power Control etc. can be found under Remote Control tab.

Ginsyde	-	and a	1000		(Com	g alm	
	System Health	Configuration R	emote Control	Virtual Media	Diagnostics	Miscellaneous	Supervyse
				iKV	M over HTM	L5	
iKVM/Console Redirection	Press the button	to launch the iKVM o	over HTML5 and	manage the se	rver remotely.		
iKVM over HTML5	Launch iKVM over HTM	AL6					
Server Power Control							
Launch SOL							





Questions

Please reach out to the Trenton Systems Support Team with any questions at 770-287-3100 or send an email to support@trentonsystems.com.

