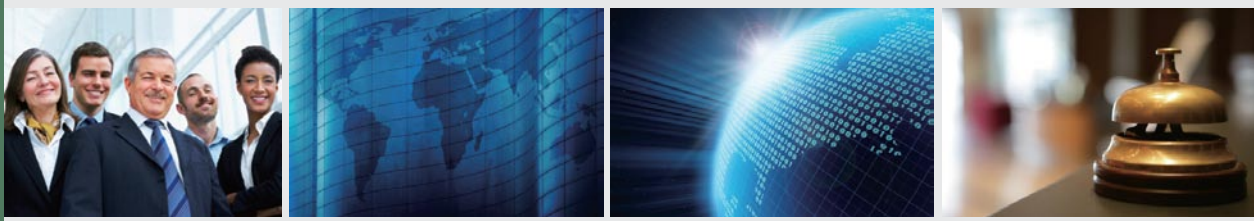# Lanner

IPMI User Guide

Version 1.0

Release Date: 2015/06/19

Overview

Icon Descriptions

The icons are used in the manual to serve as an indication of interest topics or important messages. Below is a description of these icons:

NOTE: This check mark indicates that there is a note of interest and is something that you should pay special attention to while using the product.

WARNING: This exclamation point indicates that there is a caution or warning and it is something that could damage your property or product.

Online Resources

The listed websites are links to the on-line product information and technical support.

Resource	Website
Lanner	http://www.lannerinc.com
Product Resources	http://www.lannerinc.com/download-center/
RMA	http://eRMA.lannerinc.com

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Acknowledgement

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Compliances

CE

This product has passed the CE test for environmental specifications. Test conditions for passing included the equipment being operated within an industrial enclosure. In order to protect the product from being damaged by ESD (Electrostatic Discharge) and EMI leakage, we strongly recommend the use of CE-compliant industrial enclosure products.

FCC Class A

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Safety Guidelines

Follow these guidelines to ensure general safety:

- Keep the chassis area clear and dust-free during and after installation.
- Do not wear loose clothing or jewelry that could get caught in the chassis. Fasten your tie or scarf and roll up your sleeves.
- Wear safety glasses if you are working under any conditions that might be hazardous to your eyes.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Disconnect all power by turning off the power and unplugging the power cord before installing or removing a chassis or working near power supplies
- Do not work alone if potentially hazardous conditions exist.
- Never assume that power is disconnected from a circuit; always check the circuit.

LITHIUM BATTERY CAUTION:

Risk of Explosion if Battery is replaced by an incorrect type. Dispose of used batteries according to the instructions

Operating Safety

Electrical equipment generates heat. Ambient air temperature may not be adequate to cool equipment to acceptable operating temperatures without adequate circulation. Be sure that the room in which you choose to operate your system has adequate air circulation.

Ensure that the chassis cover is secure. The chassis design allows cooling air to circulate effectively. An open chassis permits air leaks, which may interrupt and redirect the flow of cooling air from internal components.

Electrostatic discharge (ESD) can damage equipment and impair electrical circuitry. ESD damage occurs when electronic components are improperly handled and can result in complete or intermittent failures. Be sure to follow ESD-prevention procedures when removing and replacing components to avoid these problems.

Wear an ESD-preventive wrist strap, ensuring that it makes good skin contact. If no wrist strap is available, ground yourself by touching the metal part of the chassis.

Periodically check the resistance value of the antistatic strap, which should be between 1 and 10 megohms (Mohms).

EMC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

Consignes de sécurité

Suivez ces consignes pour assurer la sécurité générale :

- Laissez la zone du châssis propre et sans poussière pendant et après l'installation.

- Ne portez pas de vêtements amples ou de bijoux qui pourraient être pris dans le châssis. Attachez votre cravate ou écharpe et remontez vos manches.

- Portez des lunettes de sécurité pour protéger vos yeux.

- N'effectuez aucune action qui pourrait créer un danger pour d'autres ou rendre l'équipement dangereux.

- Coupez complètement l'alimentation en éteignant l'alimentation et en débranchant le cordon d'alimentation avant d'installer ou de retirer un châssis ou de travailler à proximité de sources d'alimentation.

- Ne travaillez pas seul si des conditions dangereuses sont présentes.

- Ne considérez jamais que l'alimentation est coupée d'un circuit, vérifiez toujours le circuit. Cet appareil génère, utilise et émet une énergie radiofréquence et, s'il n'est pas installé et utilisé conformément aux instructions des fournisseurs de composants sans fil, il risque de provoquer des interférences dans les communications radio.

Avertissement concernant la pile au lithium

- Risque d'explosion si la pile est remplacée par une autre d'un mauvais type.

- Jetez les piles usagées conformément aux instructions.

- L'installation doit être effectuée par un électricien formé ou une personne formée à l'électricité connaissant toutes les spécifications d'installation et d'appareil du produit.

- Ne transportez pas l'unité en la tenant par le câble d'alimentation lorsque vous déplacez l'appareil.

- La machine ne peut être utilisée qu'à un lieu fixe comme en laboratoire, salle d'ordinateurs ou salle de classe.

Sécurité de fonctionnement

- L'équipement électrique génère de la chaleur. La température ambiante peut ne pas être adéquate pour refroidir l'équipement à une température de fonctionnement acceptable sans circulation adaptée. Vérifiez que votre site propose une circulation d'air adéquate.

- Vérifiez que le couvercle du châssis est bien fixé. La conception du châssis permet à l'air de refroidissement de bien circuler. Un châssis ouvert laisse l'air s'échapper, ce qui peut interrompre et rediriger le flux d'air frais destiné aux composants internes.

- Les décharges électrostatiques (ESD) peuvent endommager l'équipement et gêner les circuits électriques. Des dégâts d'ESD surviennent lorsque des composants électroniques sont mal manipulés et peuvent causer des pannes totales ou intermittentes. Suivez les procédures de prévention d'ESD lors du retrait et du remplacement de composants.

   - Portez un bracelet anti-ESD et veillez à ce qu'il soit bien au contact de la peau. Si aucun bracelet n'est disponible, reliez votre corps à la terre en touchant la

partie métallique du châssis.

Vérifiez régulièrement la valeur de résistance du bracelet antistatique, qui doit être comprise entre 1 et 10 mégohms (Mohms).
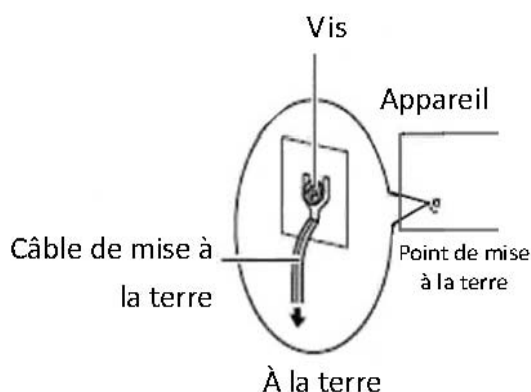
Consignes de sécurité électrique

- Avant d'allumer l'appareil, reliez le câble de mise à la terre de l'équipement à la terre.

- Une bonne mise à la terre (connexion à la terre) est très importante pour protéger l'équipement contre les effets néfastes du bruit externe et réduire les risques d'électrocution en cas de foudre.

- Pour désinstaller l'équipement, débranchez le câble de mise à la terre après avoir éteint l'appareil.

- Un câble de mise à la terre est requis et la zone reliant les sections du conducteur doit faire plus de 4 mm2 ou 10 AWG.

Procédure de mise à la terre pour source d'alimentation CC Procédure de mise à la terre pour source d'alimentation CC

- Desserrez la vis du terminal de mise à la terre.

- Branchez le câble de mise à la terre à la terre.

- L'appareil de protection pour la source d'alimentation CC doit fournir 30 A de courant.

    Cet appareil de protection doit être branché à la source d'alimentation avant l'alimentation CC.

- pour refroidir l'équipement à une température de fonctionnement acceptable sans circulation adaptée. Vérifiez que votre site propose une circulation d'air adéquate.

- Vérifiez que le couvercle du châssis est bien fixé. La conception du châssis permet à l'air de refroidissement de bien circuler. Un châssis ouvert laisse l'air s'échapper, ce qui peut interrompre et rediriger le flux d'air frais destiné aux composants internes.

- Les décharges électrostatiques (ESD) peuvent endommager l'équipement et gêner les circuits électriques. Des dégâts d'ESD surviennent lorsque des composants électroniques sont mal manipulés et peuvent causer des pannes totales ou intermittentes. Suivez les procédures de prévention d'ESD lors du retrait et du remplacement de composants.

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    Vérifiez régulièrement la valeur de résistance du bracelet antistatique, qui doit être comprise entre 1 et 10 mégohms (Mohms).

Revision History

Version	Date	Descriptions
V0.1	2014/12/09	Preliminary
V1.0	2015/06/19	Official release

IPMI

IPMI Navigations

IPMI Navigation

IPMI, abbreviation of Intelligent Platform Management Interface, offers system administrators to manage and monitor computing platforms with standardized interface and protocol. Due to its messaging and hardware-based nature, IPMI works independently from the operating system, so that system administrators are able to remotely manage and monitor computing platform status.

Lanner's IPMI provides rich management features that will enable users to remote monitor their host machines, while configuring control options. These include:

•	Remote control viewing options

•	DNS configuration options

•	SSL upload/generate/view options

•	Network setting

•	Firmware update

•	User information management

The following will provide a simple walkthrough of Lanner's IPMI interface.

Reminder

The images shown in the following section are based on the latest version available at the time of this writing. Therefore, the images may or may not look identical to the screens on your computing systems.

The following interface images are based on web browser operation.

Before You Start

•	Make sure the proper LAN connection to your system.

•	IPMI card has been properly installed.

•	Prepare a desktop or laptop that is connecting to the same network. Start the computer. (Preferrably a laptop).

•	Make sure JAVA is installed in the computer you are using.

IP Configuration

•	Configure the IP address on the computer you are using. Please input "192.168.0.100:80".

•	Go to "JAVA" program, then go to "Exception Site List" and add a new location "192.168.0.100:80".

Getting Started

Open a web browser and input "192.168.0.100:80" to launch IPMI interface.

You will be required to enter "Username" and "Password". The default username and password are "admin" for both.
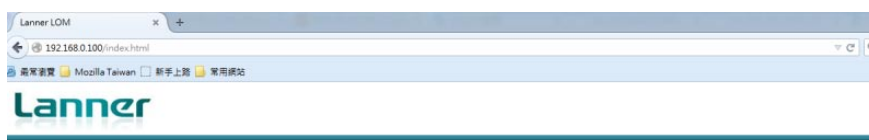
Dashboard

The "Dashboard" provides an overall information about the stauts of the device and remote server.

Device Information

Device Power Status: the power state of the monitored device

Firmware Revision: firmware revision information

Firmware Build Date: the date that the firmware was built

Network Information

MAC Address: displays MAC address information

V4 Network Mode: the status of V4 network

IPv4 Address: the IP address information

V6 Network Mode: the status of V6 network

Remote Control

Click the "Lanuch" bar to display the remote console, which is the host machine being monitored. The operating system running on the host machine can be viewed as well.
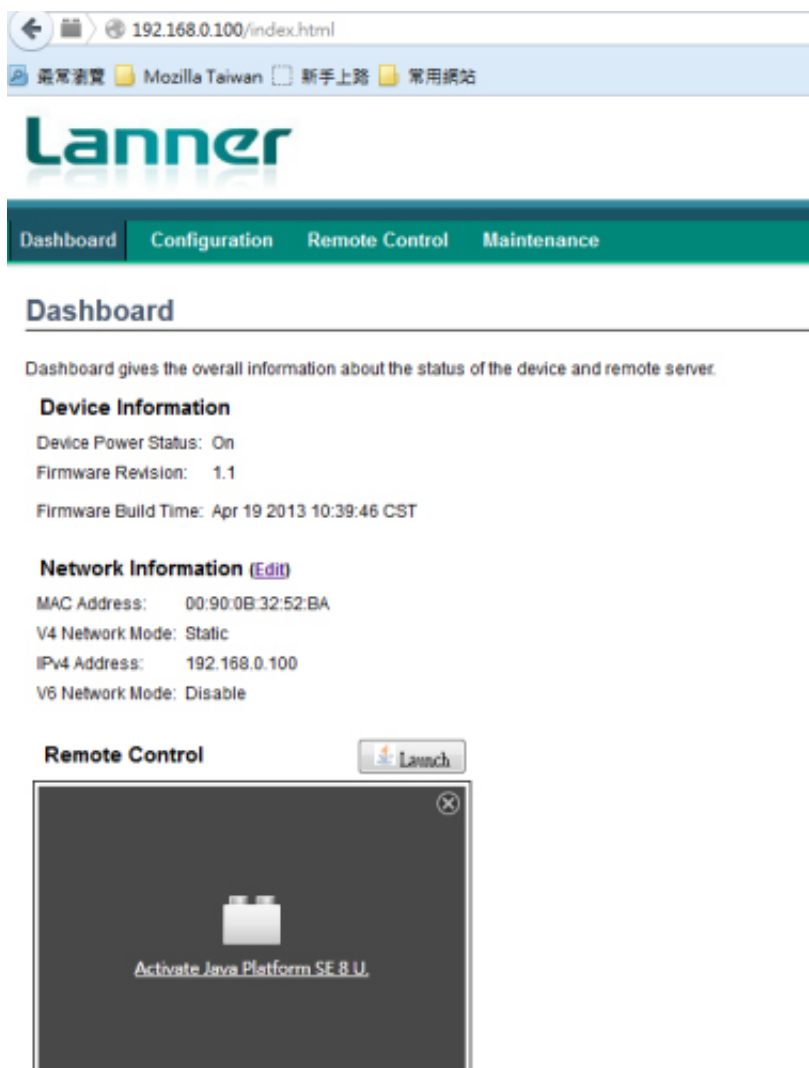
Remote Control -- Launched

Once you clicked the "Launch" bar, the remote control screen will be enlarged and the status of the remote console can be viewed.

Launch bar
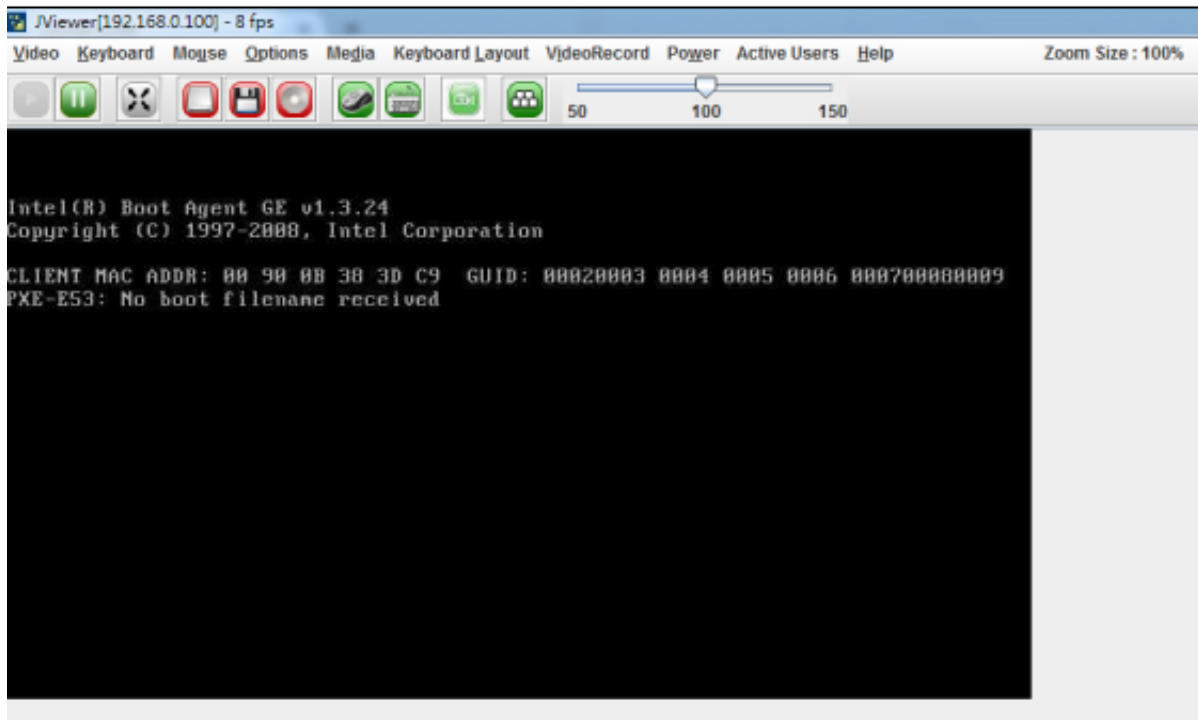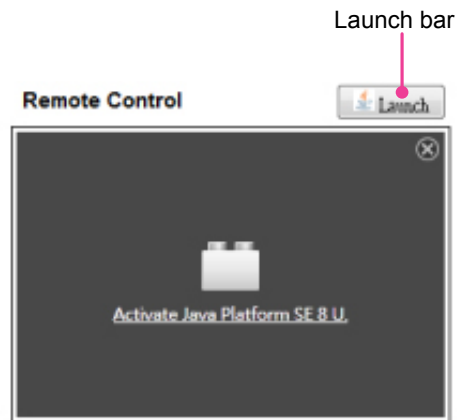
Introducing the Remote Control Functions

The Remote Control interface comes with many handy functions for you to navigate the remote console operating system.
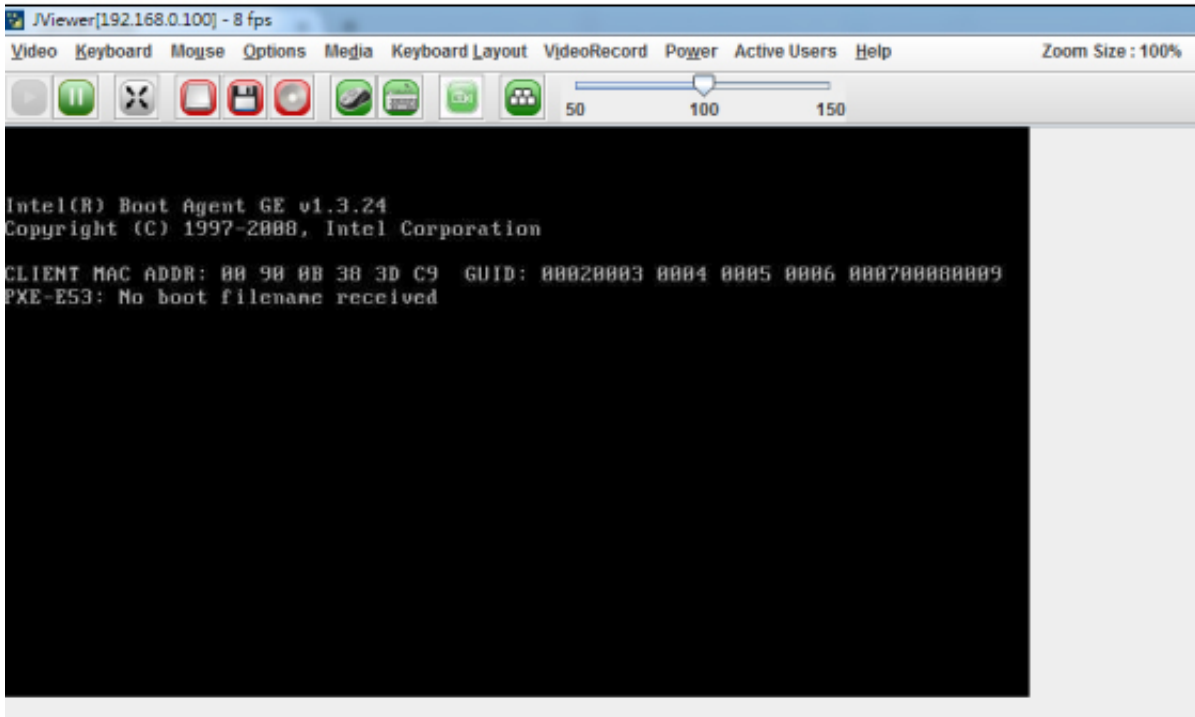
Video

Click "Video" on the task bar to open menu for video related options

Pause Redirection: pause the console redirection

Resume Redirection: resume the console redirection

Refresh Video: refresh the video image of remote console status

Compression Mode: select compression mode

DCT Quantization Table: view DCT Quantization Table

Host Video Output: host machine video output option

Full Screen: to enable full screen viewing option

Exit: to exit
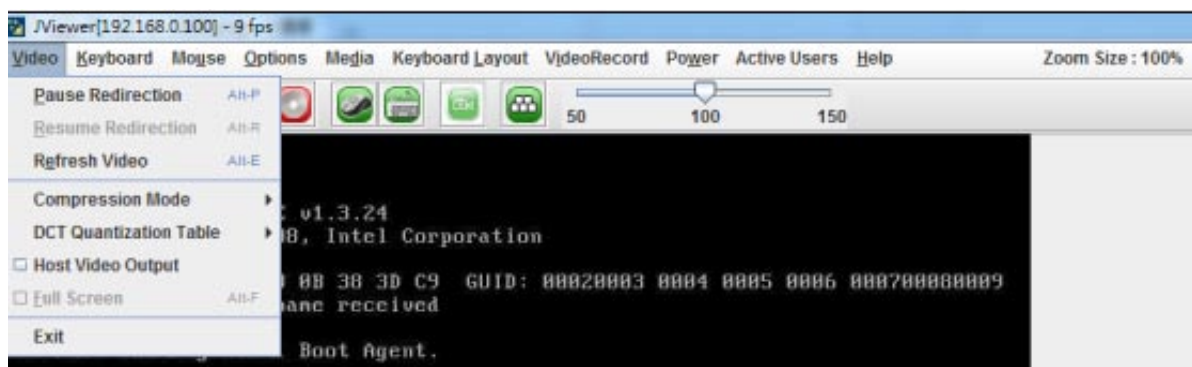
Keyboard

Click "Keyboard" on the task bar to view keyboard related options:

Hold Right Ctrl Key

Hold Right Alt Key

Hold Left Ctrl Key

Hold Left Alt Key

Left Windows Key

Right Windows Key

Ctrl+Alt+Del

context Menu
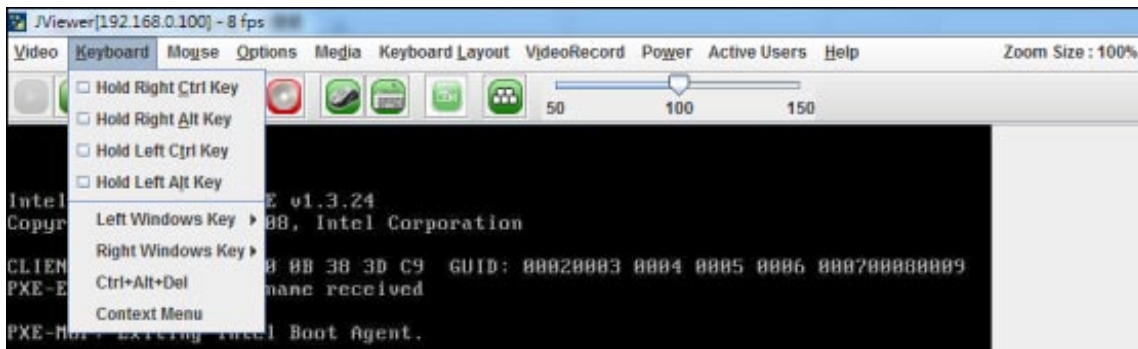
Mouse

Click "Mouse" on the task bar to open menu for mouse related options

Show Cursor: enable or disable mouse cursor

Mouse Calibration: set mouse calibration

Mouse Mode:select mouse modes
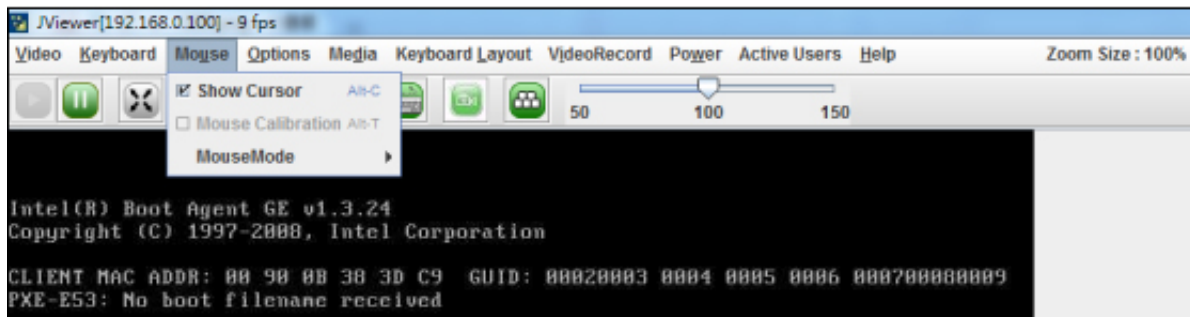
Options

Click "Options" on the task bar to view navigation options:

Bandwidth: set bandwidth

Keyboard/Mouse Encryption: enable or disable keyboard/mouse encryption

Zoom: set zooming options
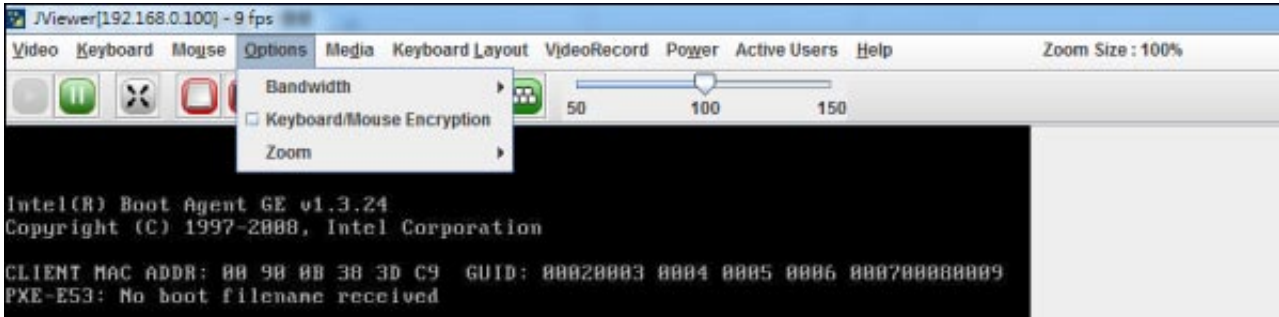
Media

Click "Media" and the "Virtual Media" window will pop up. This will allow you to select and open .iso files from Floppy, CD/DVD or Hard Disk/USB devices.
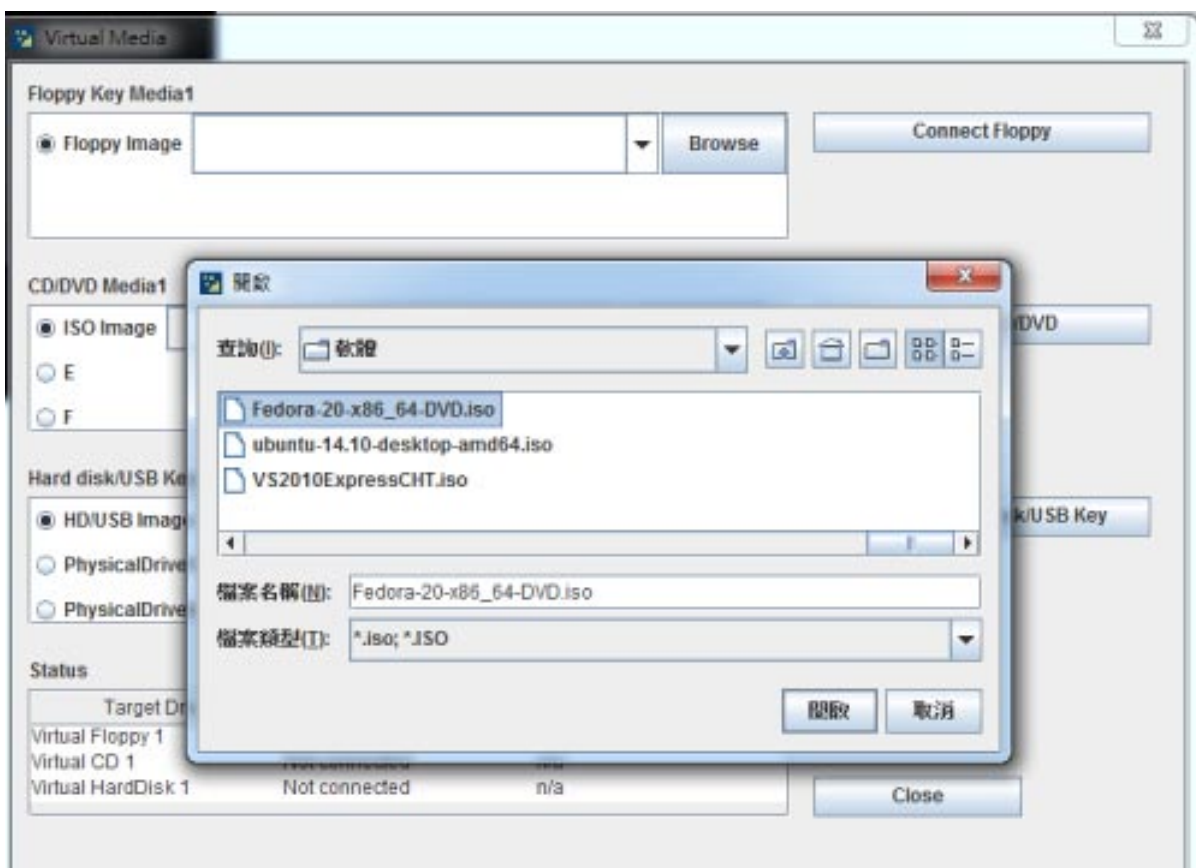
Keyboard Layout

Click "Keyboard Layout" on the task bar to view keyboard layout options:

Auto Detect: enable or disable "Auto Detect"

SoftKeyboard: select and open virtual soft keyboard
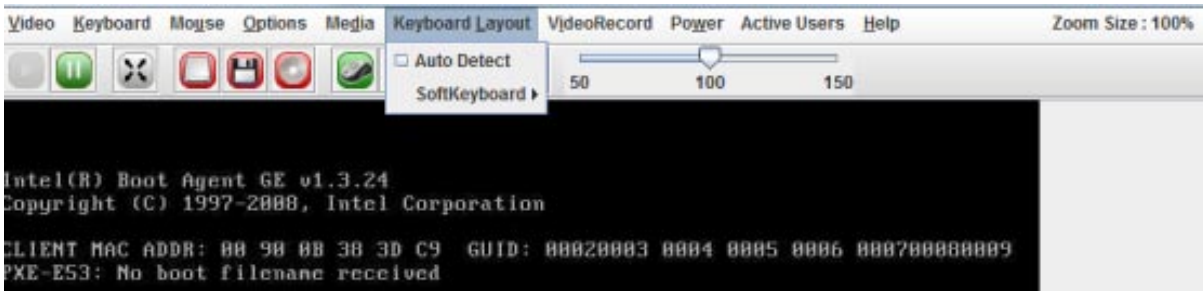
VideoRecord

Click "VideoRecord" on the task bar to view video recording options

Start Record: start recording the current conditions of the operating remote console

Stop Record: stop the recording process

Settings: view and select Setting options

Power

Click "Power" on the task bar to view power related options

Reset Server: reset the remote server

Immediate Shutdown: shut down the system immediately

Orderly Shutdown: set shutdown order

Power On Server: power on the remote server

Power Cycle Server: the server will go through a cold boot and reset
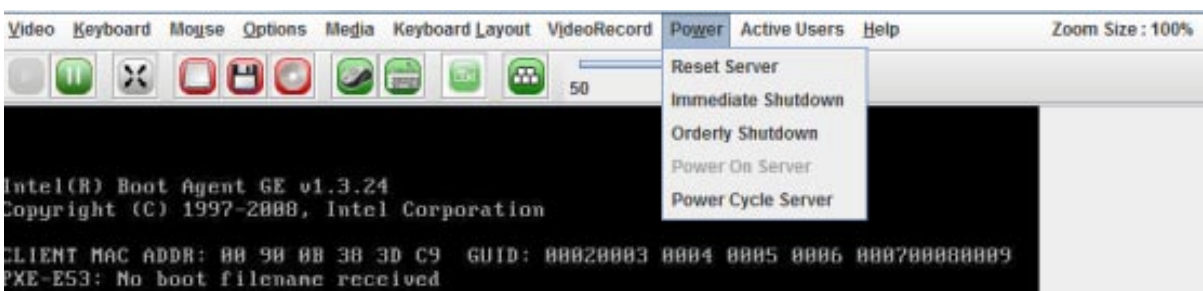
Active Users

Click "Active Users" on the task bar to view the number of active users. The information will be shown by user name and IP address.
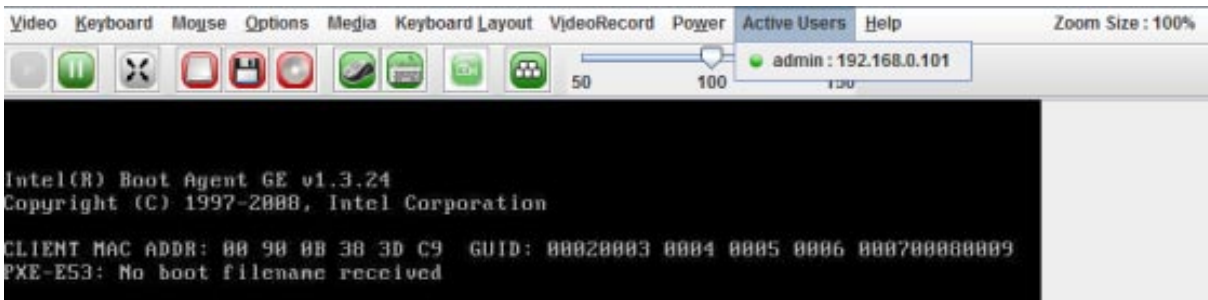
Help

Click "Help" on the task bar to view other options

About JViewer: displays information about the software program of this remote control
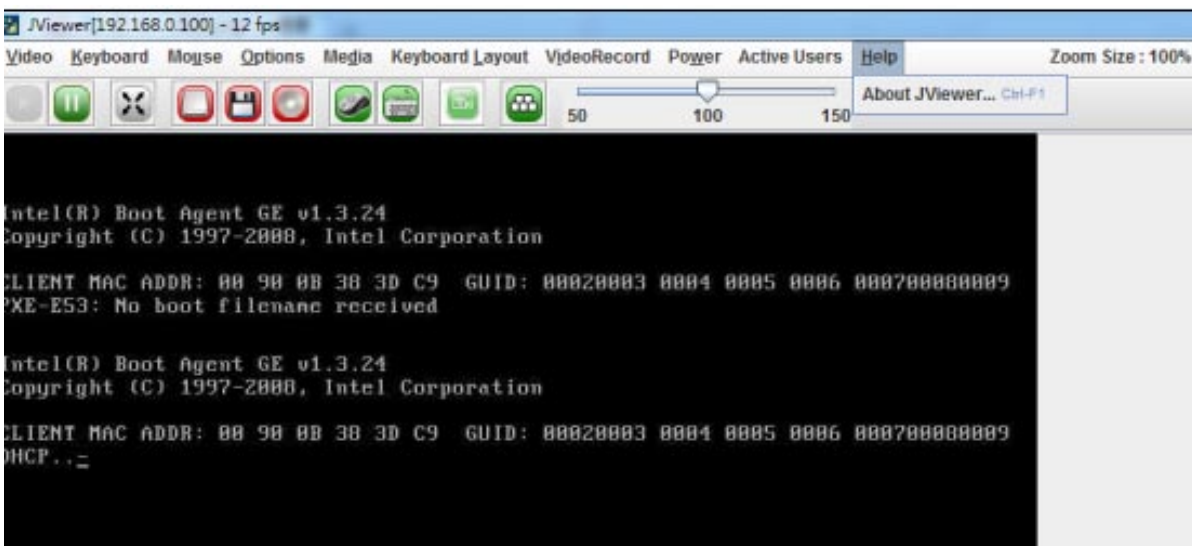
Icons on the Task Bar

There are useful icons on the task bar to activate certain functions.

Play/Pause

Mouse

USB/Floppy/CD-ROM

Keyboard

Stop

JViewer[192.168.0.100] - 12 fps

Video Keyboard Mouse Options Media Keyboard Layout VideoRecord Power Active Users Help   Zoom Size : 100%

About JViewer... Ctrl-F1

50   100   150

Hot keys

Video Record
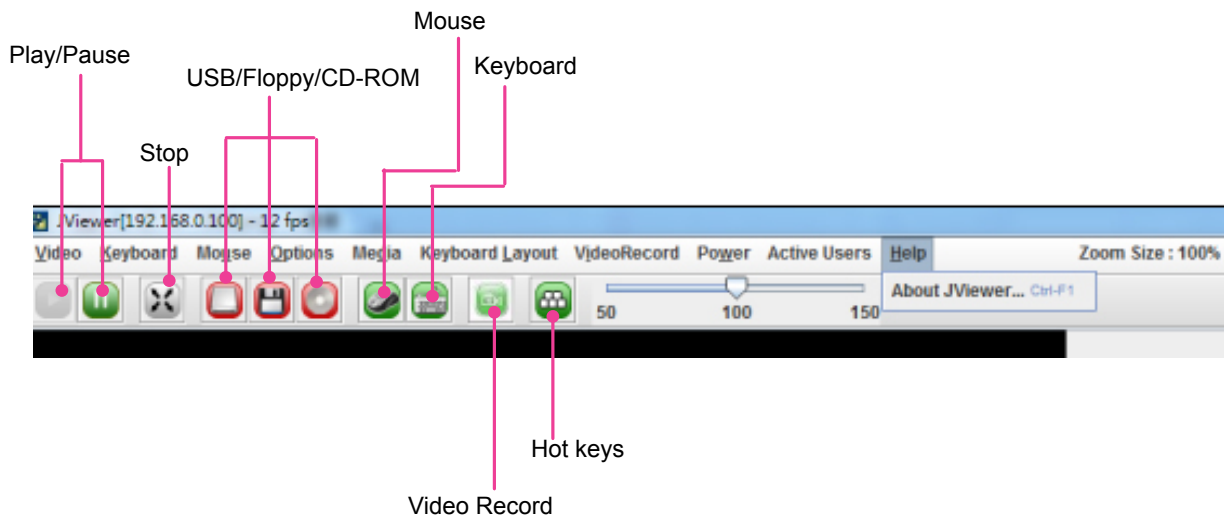
Configuration

The "Configuration" provides setting options for "DNS", "Mouse Mode", "Network", "Network Link", "NTP", "Services", "SSL", and "Users".
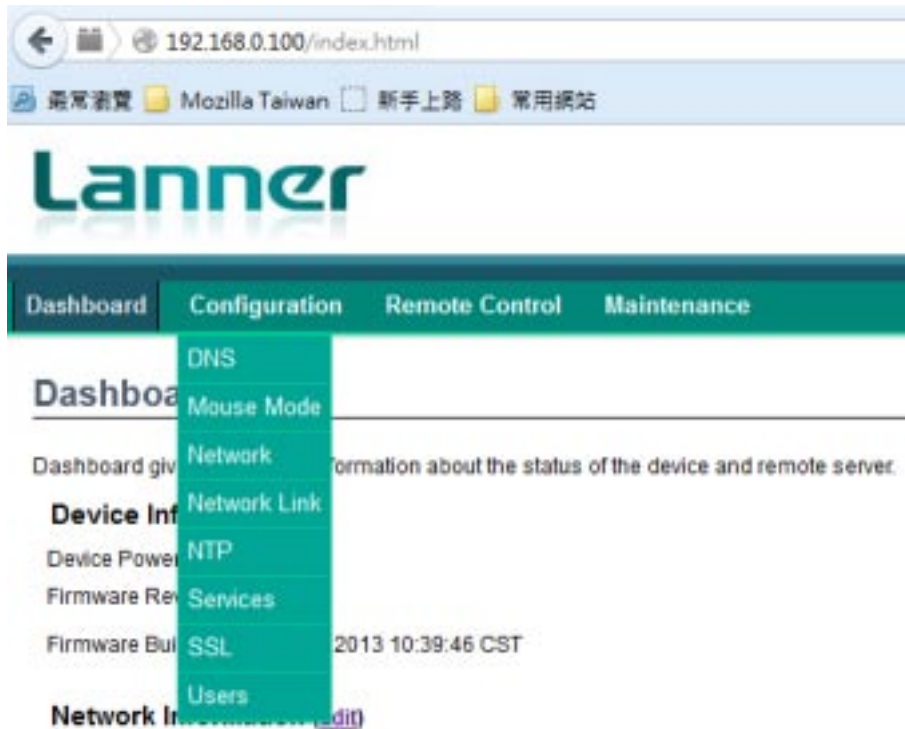
DNS Server Settings

Click "DNS" under "Configuration" to access DNS (Domain Name System) setting options

Manage DNS Setting of the device

Host Settings: select "Automatic" or "Manual"

Host Name: the host name is automatically displayed if you choose "Automatic" for Host Setting

Domain Name Configurations

Domain Settings: select domain setting mode

Domain Name: you may have to specify the domain name if "Manual" is chosen for DNS Server Settings

IPv4 Domain Name Server Configurations

DNS Server Settings: select "Automatic" or "Manual"

Preferred DNS Server: enter the IP address for the preferred DNS server, such as 192.168.0.100

Alternate DNS Server: enter the IP address for an alternative DNS server

IPv6 Domain Name Server Configurations

DNS Server Settings: select "Automatic" or "Manual"

Preferred DNS Server: enter the IP address for the preferred DNS server, such as 192.168.0.100

Alternate DNS Server: enter the IP address for an alternative DNS server

Save: Save configuration changes

Reset: Reset configurations

Mouse Mode Settings

Click on "Mouse Mode Settings" under "Configuration to access redirection console mouse mode setting options.

Set Mode to Absolute (Recommended when server OS is Windows)

Set Mode to Relative (Recommended when server OS is Linux)

Select the mode based on the operating system of the remote console.
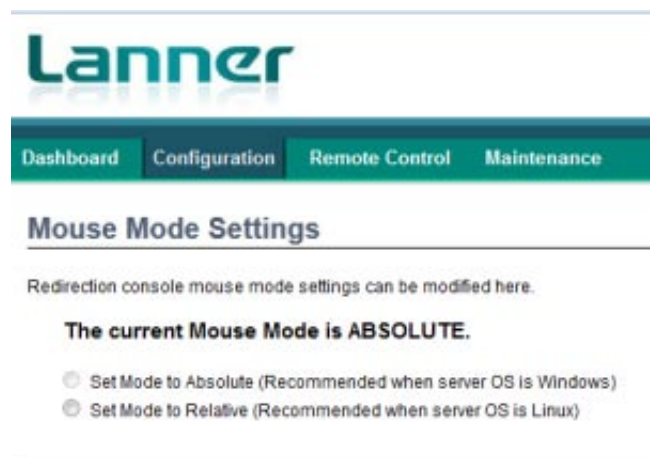
Save: Save configuration changes

Reset: Reset configurations

Network Settings

Click on "Network Settings" under "Configuration" to manage network settings of the remote device.

LAN Interface: configure the LAN interface

LAN Settings: click to enable the support of LAN settings

MAC Address: displays the MAC address of the device. This cannot be modified.

IPv4 Configuration

Obtain an IP address automatically: tick to enable the use of DHCP to automatically obtain an IP address

IPv4 Address: enter the IP address for IPv4 network if DHCP is not enabled

Subnet Mask: enter the "Subnet Mask" if DHCP is not enabled

Default Gateway: enter the "Default Gateway" address if DHCP is not enabled
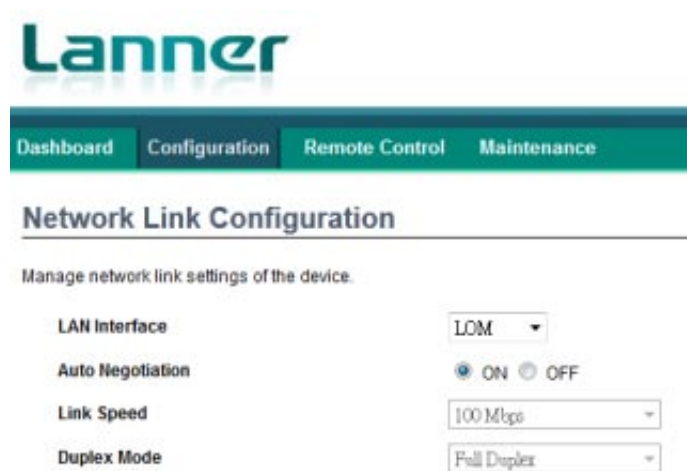
IPv6 Configuration

IPv6 Settings: tick to enable IPv6 setting in order to enter values for IPv6 address, subnet prefix length and default gateway. If IPv6 is not in use, simply skip this setting.

Obtain an IP address automatically: tick to enable the use of DHCP to automatically obtain an IP address

IPv4 Address: enter the IP address for IPv6 network if DHCP is not enabled

Subnet Mask: enter the "Subnet Mask" if DHCP is not enabled

Default Gateway: enter the "Default Gateway" address if DHCP is not enabled

Save: Save configuration changes

Reset: Reset configurations

Network Link Configuration

Click "Network Link Configuration" under "Configuration" to manage network link settings of the device.

LAN Interface: configure the LAN interface

Auto Negotiation: enable it to configure the service configurations automatically. If this is "OFF", you may have to manually configure "Link Speed" and "Duplex Mode".

Link Speed: configure the link speed if "Auto Negotiation" is OFF

Duplex Mode: configure the Duplex Mode if "Auto Negotiation" is OFF

Save: Save configuration changes

Reset: Reset configurations

NTP Settings

Click "NTP Settings" under "Configuration" to either configure the NTP server or view and modify the device's date and time.

Date: configure the device's date setting

Time: configure the device's time setting in hour/minute/second format

UTC Timezone: configure the device's current time zone

NTP Server: configure the NTP (Network Time Protocol) server

You may tick on "Automatically synchronize Data & Time with NTP Server" so that the time and data information will be automatically updated once a NTP server is configured.

Refresh: click it to refresh NTP information

Save: save the configuration changes

Reset: reset the NTP setting

Services
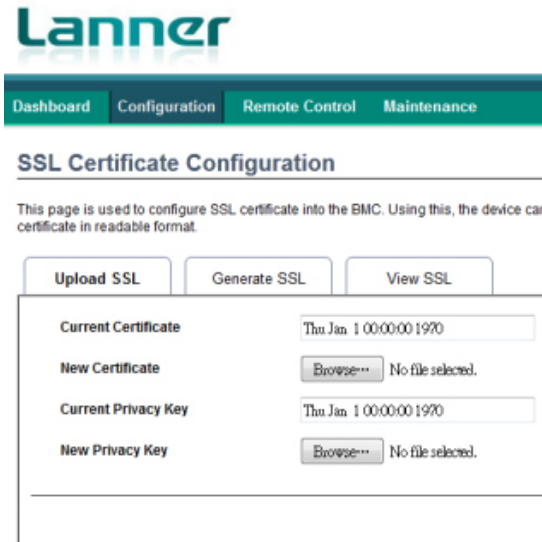
Click "Service" under "Configuration" to view and modify the list of services under BMC. The table presents current status of available services. You may click "Modify" at the bottom right to modify the information.

SSL Certificate Configuration

Click "SSL Certificate Configuration" under "Configuration" to configure SSL certificate into the BMC. With SSL, the device can be accessed in a secured mode.

Upload SSL: upload SSL certificate and provide key file into the BMC

Generate SSL: generate SSL certificate based on configuration details

View SSL: view the uploaded SSL

User Management

Click "User Management" under "Configuration" to access current list of available users. You may add, modify or delete users on the list.

Remote Control

Click "Remote Control" and you may choose "Console Redirection" or "Server Power Control" option.
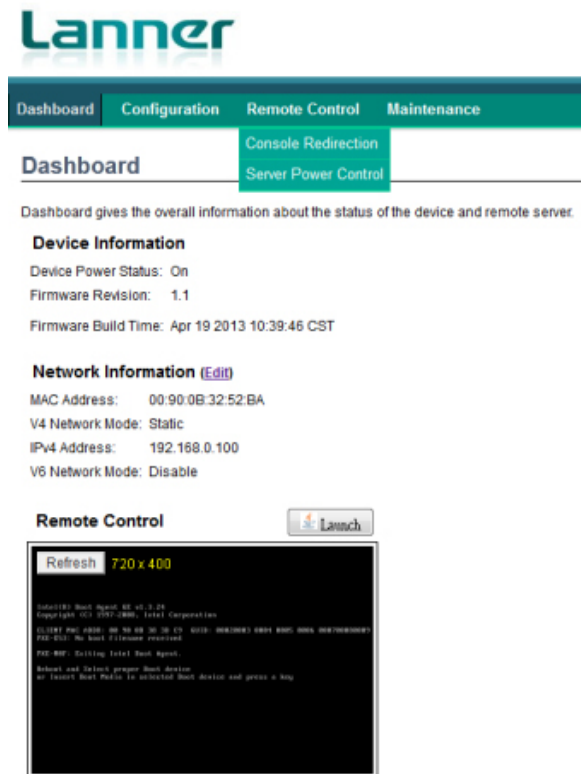
Console Redirection

Click "Console Redirection" under "Remote Control".

Press the button "Java Console" to launch the viewing of the remote console. This is the same as the "Launch" on the "Dashboard" page. Please refer to "Dashboard" section for details.
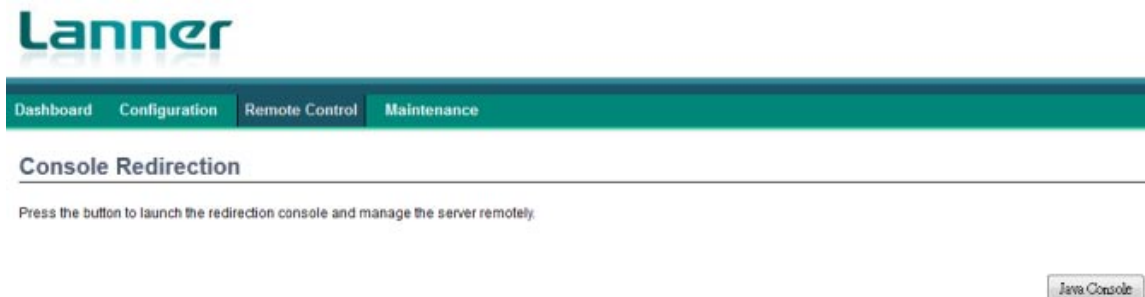
Server Power Control

Click "Server Power Control" under "Remote Control" to select power control options for the remote console.

You may choose the following actions to perform for the host machine.

Reset Server: reset the remote console server

Power Off Server-Immediate: this will power off the remote console server immediately

Power Off Server – Orderly Shutdown: this will power off the remote console server in an orderly way

Power On Server: this will power on the remote console server

Power Cycle Server: if this is activated, the remote console server will experience a cold boot, which will shut it down first and then boot it up.
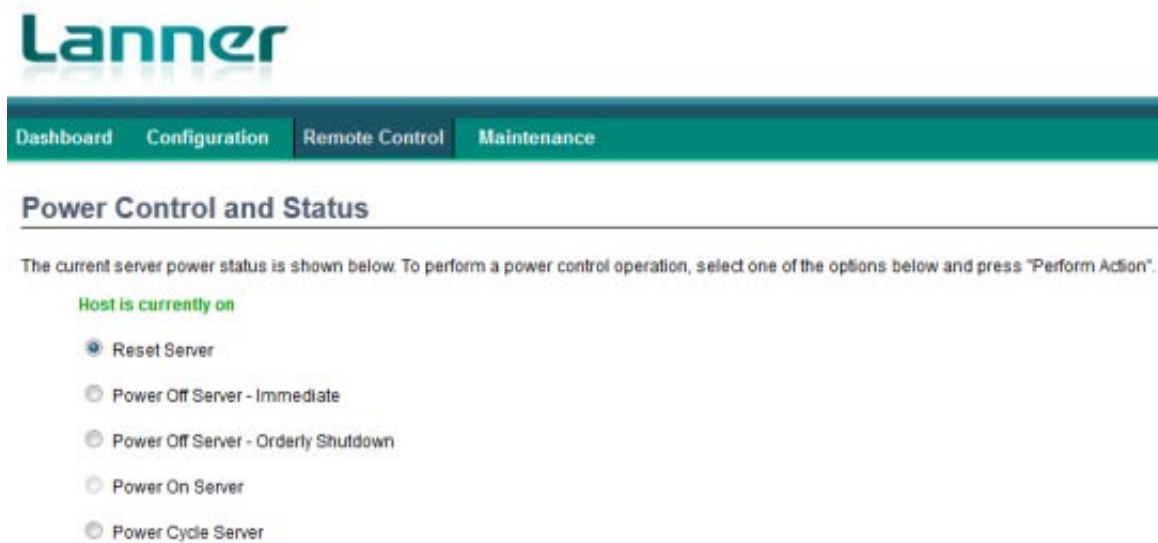
Maintenance

Click on "Maintenance" to view maintenance options, including "Firmware Update", "Preserve Configuration", "Restore Factory Defaults" and "System Administrator".

Firmware Update

Click "Firmware Update" under "Maintenance" to update firmware.

Enter Update Mode: this will enable the device in update mode

Enter Preserve Configuration: this will preserve all configurations during firmware update process

Restore Factory Defaults

Click "Restore Factory Defaults" under "Maintenance". This option will bring the device to original factory default setting. Please note that all the currently running services or web pages will not work once this function is enabled. All open widgets will close automatically. If the defautl restoring progress is cancelled during the process, the device will reset.

System Administrator

This page allows the user to enable or disable access and change the password for the system administrator account.

Appendix 6:
Terms and Conditions

Warranty Policy

1. All products are under warranty against defects in materials and workmanship for a period of one year from the date of purchase.

2. The buyer will bear the return freight charges for goods returned for repair within the warranty period; whereas the manufacturer will bear the after service freight charges for goods returned to the user.

3. The buyer will pay for repair (for replaced components plus service time) and transportation charges (both ways) for items after the expiration of the warranty period.

4. If the RMA Service Request Form does not meet the stated requirement as listed on "RMA Service," RMA goods will be returned at customer's expense.

5. The following conditions are excluded from this warranty:

Improper or inadequate maintenance by the customer Unauthorized modification, misuse, or reversed engineering of the product Operation outside of the environmental specifications for the product.

RMA Service

Requesting a RMA#

6. To obtain a RMA number, simply fill out and fax the "RMA Request Form" to your supplier.

7. The customer is required to fill out the problem code as listed. If your problem is not among the codes listed, please write the symptom description in the remarks box.

8. Ship the defective unit(s) on freight prepaid terms. Use the original packing materials when possible.

9. Mark the RMA# clearly on the box.

> **Note:** Customer is responsible for shipping damage(s) resulting from inadequate/loose packing of the defective unit(s). All RMA# are valid for 30 days only; RMA goods received after the effective RMA# period will be rejected.

RMA Service Request Form

When requesting RMA service, please fill out the following form. Without this form enclosed, your RMA cannot be processed.

RMA No:		Reasons to Return: □ Repair(Please include failure details) □ Testing Purpose		
Company:		Contact Person:		
Phone No.		Purchased Date:		
Fax No.:		Applied Date:		
Return Shipping Address: _____ Shipping by: □ Air Freight □ Sea □ Express_____ □ Others:_____				

Item	Model Name	Serial Number	Configuration

Item	Problem Code	Failure Status

*Problem Code:

01:D.O.A.	07: BIOS Problem	13: SCSI	19: DIO
02: Second Time R.M.A.	08: Keyboard Controller Fail	14: LPT Port	20: Buzzer
	09: Cache RMA Problem	15: PS2	21: Shut Down
03: CMOS Data Lost	10: Memory Socket Bad	16: LAN	22: Panel Fail
04: FDC Fail	11: Hang Up Software	17: COM Port	23: CRT Fail
05: HDC Fail	12: Out Look Damage	18: Watchdog Timer	24: Others (Pls specify)
06: Bad Slot			

Request Party

Confirmed By Supplier

_____

_____

Authorized Signature / Date

Authorized Signature / Date