**Billion Electric Co., Ltd.** 

**BiGuard S5 VPN Starter Pack** 

**Remote Portal Guide** 

De	claration of Conformity
	Konformitätserklärung
and gemäß dem Gesetz über	dio and Telecommunications Terminal Equipment Act (FTEG) Directive 1999/5/EC (R&TTE Directive) Funkanlagen und Telekommunikationsendeinrichtungen (FTEG) und der Richtlinie 1999/5/EG (R&TTE)
The Manufacturer:	Billion Electric Co., Ltd.
Hersteller:	8F, No. 192, Sec. 2, Chung Hsing Rd., Hsin Tien City, Taipei Hsien Taiwan
declares that the product: erklärt, dass das Produkt:	BiGuard S5
	<b>Telecommunications terminal equipment</b> Telekommunikations(Tk-)endeinrichtung
Intended purpose:	SSL VPN Security Gateway
Verwendungszweck:	
(Article 3 of the R&TTE Dir bei bestimmungsgemäßer Verwe	requirements of §3 and the other relevant provisions of the FTEG rective), when used for its intended purpose. endung den grundlegenden Anforderungen des § 3 und den übrigen s FTEG (Artikel 3 der R&TTE) entspricht.
	lth and Safety requirements contained in §3 (1) 1. (Article 3 (1) a)) heit und Sicherheit gemäß §3 (1) 1. (Artikel 3 (1) a))
EN 60950-1: 2001+A11	
	tection requirements with respect to EMC §3 (1) 2, (Article 3 (1) b)) nforderungen in Bezug auf die EMV §3 (1) 2, Artikel 3 (1) b))
EN 55022: 1998+A1: 2000+A2: 20	003 Class B, EN 61000-3-2: 2000+A2: 2005
EN 61000-3-3: 1995+A1: 2001, EN	N 55024: 1998+A1: 2001+A2: 2003
IEC 61000-4-2: 1995+A1: 1998+A	2: 2000, IEC 61000-4-3: 1995+A1: 1998+A2: 2000
IEC 61000-4-4: 2004, IEC 61000-	4-5: 1995+A1: 2000,
IEC 61000-4-6: 1996+A1: 2000, II	EC 61000-4-8: 1993+A1: 2000, IEC 61000-4-11: 2004
This declaration is issued by Diese Erklärung wird verantword	
Mettmann 0	5. Dec. 2006 Power Papareship Grabit
(Place) (D	ate) Možartstraße 78 40822 Mettmann - Germany Tel +49 (2104) 801005 Fax 801005
	Gary Lin President
	Power Partnership GmbH

### **Copyright Information**

© 2006 Billion Electric Corporation, Ltd.

The contents of this publication may not be reproduced in whole or in part, transcribed, stored, translated, or transmitted in any form or any means, without the prior written consent of Billion Electric Corporation. Published by Billion Electric Corporation. All rights reserved.

Version 1.0, September 2006

#### Disclaimer

Billion does not assume any liability arising out of the application of use of any products or software described herein. Neither does it convey any license under its patent rights nor the patent rights of others. Billion reserves the right to make changes in any products described herein without notice. This publication is subject to change without notice.

### Trademarks

Mac OS is a registered trademark of Apple Computer, Inc.

UNIX is a registered trademark of The Open Group.

Windows 98, Windows NT, Windows 2000, Windows Me and Windows XP are registered trademarks of Microsoft Corporation.

All other trademarks are the property of their respective owners.

### **FCC Interference Statement**

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operations.

This equipment has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment.

If this equipment does cause harmful interference to radio/television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### Notice:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **Safety Information**

The BiGuard S5 is built for reliability and long service life. For your safety, be sure to read and follow these guidelines and safety warnings:

- Read this installation guide thoroughly before attempting to set up the BiGuard S5.
- The BiGuard S5 is a complex electronic device. DO NOT open or attempt to repair it yourself. Opening
  or removing the covers can expose you to high voltage and other risks. In the case of malfunction, turn
  off the power immediately and have it repaired at a qualified service center. Contact your vendor for
  details.
- Connect the power cord to the correct supply voltage.
- Carefully place connecting cables to avoid people from stepping or tripping on them. DO NOT allow
  anything to rest on the power cord and DO NOT place the power cord in an area where it can be
  stepped on.
- DO NOT use the BiGuard S5 in environments with high humidity or high temperatures.
- DO NOT use the same power source for the BiGuard S5 as other equipment.
- · DO NOT use the BiGuard S5 and any accessories outdoors.
- If you wall mount the BiGuard S5, make sure that no electrical, water or gas pipes will be damaged during installation.
- Without surge protection, installation of the BiGuard S5 during a thunderstorm is not recommended.
- DO NOT expose the BiGuard S5 to dampness, dust, or corrosive liquids.
- DO NOT use the BiGuard S5 near water.
- · Be sure to connect the cables to the correct ports.
- DO NOT obstruct the ventilation slots on the BiGuard S5 or expose it to direct sunlight or other heat sources. Excessive temperatures may damage your device.
- · DO NOT store anything on top of the BiGuard S5.
- Only connect suitable accessories to the BiGuard S5.
- · Keep packaging out of the reach of children.
- If disposing of the device, please follow your local regulations for the safe disposal of electronic products to protect the environment.

# **Table of Contents**

Using SSL VPN Portal Access	1
Installing the Network Extender	3
Installing the Transport Extender	7
Accessing Network Place	10
Using Applications	10
Using FTP	11
Using Telnet/SSH	13
Using HTTP and HTTPS	16
Using RDP5	18
Using VNC	
Using CIFS	23
FAQ	17
SSL Knowledge	17

# **Remote Portal Guide**

The BiGuard S5 provides a secure and flexible enterprise-wide solution for data and application access anytime and anywhere. By using the BiGuard S5 SSL VPN portal services, organizations with a mobile workforce, a remote office and telecommuters gain available and reliable access to their company's network resources, centralized application control, and critical data management without the sacrifice of user-experience and performance.

# **Using SSL VPN Portal Access**

This chapter deals with the features that make the BiGuard S5 the ideal, secure gateway solution for the novice and the professional alike. From a standard web browser, remote users can access personalized portal pages quickly and easily. Tailored personalized access is managed with the simple click of a mouse.

BILLION.			Powering communications with Security	
			>> Lagou	
BiGuard S5 - SSL VPN Starte	r Pack			
Welcome to SSL VPN Starter Pack, admin.				
Due to inactivity, your connection will timeout in	n 5 minutes. RESET			
PNetwork Extender	Transport Extender		Letwork Place	
Click the above Network Extender title to connect to the remote network. Keep your browser open to maintain the connection. If you reload your browser, Network Extender will disconnect and reconnect.	the service. It creates	sport Extender title to use an encrypted tunnel to the d you can access pre- as if you were on the	Click the above Network Place title to use the service. It is similar in style to Microsofts familia Network: Neighborhood. It allows users to browse network shares, rename, delete, retrieve and upload files.	
Application Name	Host Address	Service	Connection	
There is no Application Proxy for use now.		0011100	Connection	
Telnet	192.168.1.102	Telnet	Connect	
SSH	192.168.1.102	SSH	Connect	
HTTP	192.168.1.102 HTTP		Connect	
HTTPS	192.168.1.102	HTTPS	Connect	
RDP	192.168.1.102	RDP5	Connect	
VNC	192.168.1.102	VNC	Connect	
CIES	192,168,1,102\\testfolder	CIFS	Connect	

Copyright © Billion Electric Co., Ltd. All rights reserved.

Application	Definition
Network Extender	Browser based plug-in that simplifies clientless remote access deploy- ments, while delivering full network connectivity for any IP-based applica- tion. See Installing the Network Extender on page 3. Click on the icon to the Network Extender to obtain full access to the company's network resources.
Transport Extender	Browser based plug-in that allows only specified Protocol and IP addresses with SSL encryption access to pre-defined applications on the network.Click on the icon to connect to the Transport Extender.
Network Place	Click on the icon to connect to the predefined applications in your office. This application allows users to access network files and transfer files between them.

Application	Definition
FTP	File Transfer Protocol between network locations. Click <b>Connect</b> to easily access the files on the FTP server.
Telnet	JAVA based plug-in protocol for accessing remote systems. Click <b>Connect</b> and follow the on-screen instructions to complete the connection.
SSH	JAVA based plug-in interface for the secure transfer of files. Click <b>Connect</b> and follow the on-screen instructions.
HTTP	Click <b>Connect</b> to connect to the HTTP server in the office.
HTTPS	Click <b>Connect</b> to connect to the HTTP server in the office.
RDP5	Multi-channel protocol that allows users terminal service connection to a computer. Click <b>Connect</b> and follow the on-screen instructions. ActiveX plug-in must be installed for client to be established.
VNC	JAVA based plug-in protocol (Virtual Network Computing) for the remote control of another computer. Click <b>Connect</b> and follow the on-screen instructions.



**NOTE:** Portal access authorization is only required if the user name and password do not match the network settings.

# Installing the Network Extender

The Network Extender is a web based plug-in that simplifies clientless remote access while delivering full network connectivity for IP-based applications. The Network Extender enables combined IPSec and SSL VPN in one solution, simplifying remote access deployments while providing maximum flexibility for diverse remote access requirements.

To use Web Portal Network Extender, first connect to the device by typing https://wanipaddress (where *wanipaddress* is the WAN IP address of the BiGuard SSL VPN appliance. After successfully connection and login to the device, the web portal screen appears.

1. Type the WAN IP Address or Domain Name in the Address bar of the browser and log into the BiGuard SSL VPN remote portal as previously configured.

BILLION TH	BiGuard SSL VPN Security Appliance
Username : Password : Domain :	Three Solutions in ONE

2. Click Network Extender in the remote portal window.

BILLION,			Powering communication with Security
			>> Logo
BiGuard S5 - SSL VPN Starte	r Pack		
Welcome to SSL VPN Starter Pack, username			
Due to inactivity, your connection will timeout i	n 2 minutes. RESET		
Network Extender	Transp	oort Extender	Leven Network Place
		Click the above Network Place title to use the service. It is similar in style to Illicrosoft's familit Network Neighborhood. It allows users to browse network shares, rename, delete, retriev	
reload your browser, Network Extender will disconnect and reconnect.		s as if you were on the	and upload files.
reload your browser, Network Extender will		s as if you were on the	

3. If the browser does not launch ActiveX automatically, a warning message appears. Click **OK** to continue. If the browser automatically installs ActiveX, the warning message does not display, then go to **Step 7**.



4. Click the Information bar on the top of the page and click Install ActiveX Control.



- 5. After the screen refreshes, click Network Extender again.
- 6. You are required to install the XTunnel.cab. Click Install to install the software.



Network Extender setup proceeds.



Network Extend	BILLION	
<b>i</b>	Dialing Network Extender	
	⊈ose	

- 7. You are prompted to install the SSLDrv Adapter.
- 8. Click **Continue Anyway** when prompted to accept the SSLDrv Adapter. Installation proceeds.

1	The software you are installing for this hardware:
<u> </u>	Network Extender SSLDrv Adapter
	has not passed Windows Logo testing to verify its compatibility with Windows XP. ( <u>Tell me why this testing is important.</u> )
	Continuing your installation of this software may impa or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.

Network Extender setup proceeds.

FIGURE 2	Installation proceeding
Network Extend	er Setup
	BILLION
<b>I</b>	Dialing Network Extender
	Close
	build: Sep 12 2005/15:39:44

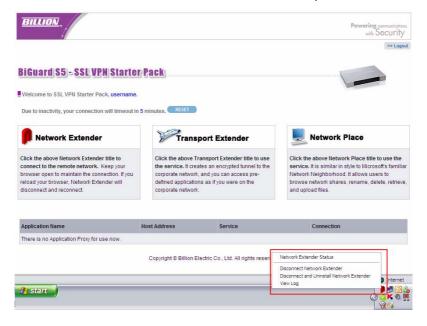
After installation is complete, the Network Extender Connection Status window displays.

<b>.</b>	Uninstall On Disconnect or Browser Exit		
Connection			
Status	Connected		
Duration	00:00:25		
Interfaces			
IP Address	192.168.1.211		
Server IP Address	192.168.17.126		
Activity			
Bytes Sent	4668		
Bytes Received	604		
Status Message			
•	Network Extender: Connected		
Disconnect	View Log Close		

#### FIGURE 3 Installation complete

- Check Uninstall On Disconnect or Browser Exit to have the system uninstall the driver every time you disconnect the Network Extender.
- Click **Disconnect** to disconnect the Network Extender.
- Click View Log to view a log of Network Extender processes.
- Click Close to close the status screen. Network Extender remains active in the status bar.

To view the Network Extender status, right-click the Network Extender icon **p** and select an option from the menu in order to view the status screen or perform one of the actions above.



# Installing the Transport Extender

The Transport Extender enables you to access an encrypted path to another distant network, and access applications that are on that network.

To use Transport Extender, connect to the web portal by first typing in the browser address bar https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance). After you successfully connect to the device and successfully log in to the device, the web portal screen appears. Please click Transport Extender in order to connect to the office network. Follow the procedures below to use the Remote Portal.

1. Type the WAN IP Address or Domain Name in the Address bar of the browser and log into the BiGuard SSL VPN remote portal as previously configured.

<b>BILLION</b> <sub>TM</sub>		BiGuard SSL VPN Security Appliance
Username : Password :		Three Solutions in ONE
Domain :	BiGuard S5 M	True -

#### 2. Click Transport Extender

BILLION.			Powering commiscotor with Security
			PP Lopic
BiGuard S5 - SSL VPN Starte	r/Pack		
Welcome to SSL VPN Starter Pack, username			
Due to inactivity, your connection will timeout in	n 5 minutes. RISET		
Network Extender	Trans	port Extender	Letwork Place
Click the above Network Extender title to connect to the remote network. Keep your browser open to maintain the connection. If you reload your browser, Network Extender will disconnect and reconnect.	the service. It cre corporate network	ransport Extender title to use ates an encrypted tunnel to the , and you can access pre- ns as if you were on the	Click the above Network Place title to use the service, it is similar in style to Microsofts familia Network Neighborhood, it allows users to browse network shares, rename, delete, retrieve and upload files.
	Host Address	Service	Connection
Application Name			

 If the browser does not launch ActiveX automatically, a warning message appears. Click OK to continue. If the browser automatically installs ActiveX (the warning message does not display), then go to Step 7.

Í	Microso	ft Internet Explorer 🛛 🕅
	<u>.</u>	Transport Extender could not be installed. Verify if you are running Microsoft Internet Explorer and if ActiveX Control is enabled in your browser security settings. And you must have administrative rights.
		OK

4. Click the Information bar on the top of the page and click Install ActiveX Control.



- 5. After the screen refreshes, click Transport Extender again.
- 6. You are required to install the MenIoLSP.cab. Click Install to install the software.
- 7. The Transport Extender Setup proceeds. After the installation is complete, the Transport Extender window displays.

insport Extender			_
nsport Exten	der		
al Error			
Session Information			
Software:	Transport	Extender versio	n 1.4.1
Started:	2006/9/13	8 18:43:13	
Active Connections:	0		
Sent:	0		
Received:	0		
Status:	Activated		
Pending Connections:		Address	Port
<			>
Enable Logging			🗌 <u>U</u> ninstall

- Click the Error tab to view a list of session errors.
- Check Enable Logging to allow the system to log all activity for the session.
- Click View Log to view a session log.
- Check Uninstall if you want to uninstall the driver upon disconnecting. If this is left unchecked, ActiveX Control will not to be installed when you log on again. If the box is checked, ActiveX will uninstall when you log off to prevent unauthorized access, such as in the event that a public domain terminal was used to access Transport Extender.

- Click **Disconnect to disconnect** the Transport Extender.
- Click **Close** to close the Transport Extender screen. Transport Extender is still active in the status bar.

To view the Transport Extender screen again, or disconnect the Transport Extender, right-click the Transport Extender icon 🖾 and select an option from the menu.

BiGuard S5 - SSL VPN Starte	r/Pack			be Lag
Welcome to SSL VPN Starter Pack, usemane Due to inactivity, your connection will timeout is		i.		
Retwork Extender	Trans	sport Extender	Netwo	rk Place
Click the above Network Extender title to connect to the remote network. Keep your proviser open to maintain the connection. If you reload your browser, Network Extender will disconnect and reconnect.	the service. It cre corporate networ	Transport Extender title to use lates an encrypted tunnel to the k, and you can access pre- ons as if you were on the k.	service. It is simil Network Neighbor	etwork Place title to use the ar in style to Microsoft's famili ficod. It allows users to hares, rename, delete, retriev
Application Name	Host Address	Service	Connect	lon
There is no Application Proxy for use now.	110111001010	Contract Second		
	Copyright © Billion I	Electric Co., Ltd. All rights reserved.		
				🔒 🔮 Interne
start				Open Transport Extender

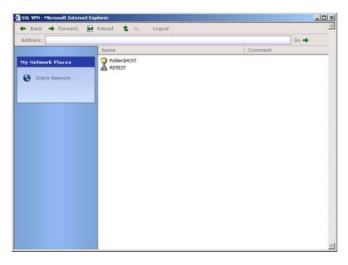
# **Accessing Network Place**

Network Place enables you to access locations on the network to perform typical file related tasks such as browsing shared files, deleting or adding files, and changing file names.

1. Click the Network Place icon.



2. The local intranet network opens.



Use this screen to perform common file management tasks.

# **Using Applications**

The list of applications in the web portal screen makes them easy to access:

Host Address	Service	Connection
192.168.1.102	FTP	Connext
192.168.1.102	Teinet	Connect
192.168.1.102	SSH	Contract
192.168.1.102	HTTP	Connett
192.168.1.102	HTTPS	Connect
192.168.1.102	RDP5	Connect
192.168.1.102	VNC	Connect
Toppserverighost	CFS	Connect
	192 168 1.102 192 168 1.102	192.168.1.102 FTP 192.168.1.102 FTP 192.168.1.102 SSH 192.168.1.102 HTTP 192.168.1.102 HTTPS 192.168.1.102 RDP5 192.168.1.102 VNC

The following sections explain how to access each application.

# **Using FTP**

The following steps demonstrate how a user will log in to the FTP server from the remote web portal.

To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).

A Security Alert message appears.

1. Click Yes to proceed (to accept the certificate sent by the BiGuard system).

Securit	Security Alert					
£	Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.					
	The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.					
	The security certificate has expired or is not yet valid.					
	The name on the security certificate is invalid or does not match the name of the site					
	Do you want to proceed?					
	Yes No View Certificate					

The log in screen appears.

<b>BILLION</b> <sub>TM</sub>	BiGuard SSL VPN Security Appliance
Username : Password : Domain :	 Three Solutions in ONE

User Name: FTPUser (As previously added in Administrator FTP Configuration section) Domain: Select BiGuard from the drop-down menu.



2. Click Login to enter into the Remote Web Portal page.

BILLION			Powering communicatio with Security
			>> Logo
BiGuard S5 - SSL VPN Starte	r Pack		
Welcome to SSL VPN Starter Pack, FTPUser.			Land -
Due to inactivity, your connection will timeout i	n 5 minutes. RESET		
Network Extender	Transp	oort Extender	Untwork Place
Click the above Network Extender title to connect to the remote network. Keep your browser open to maintain the connection. If you reload your browser, Network Extender will	Please contact you using the service. T	sport Extender service now. r network administrator for Through the service, you can d applications as if on the	Click the above Network Place title to use the service. It is similar in style to Microsoft's familia Network Neighborhood. It allows users to browse network shares, rename, delete, retriev and upload files.
disconnect and reconnect.			
disconnect and reconnect.			
disconnect and reconnect. Application Name	Host Address	Service	Connection

3. Click **Connect** to connect to the TestFTP service.

If the user account is the same as the FTP server's account, you will not be asked to input the user name and password, and the FTP session screen appears (see Figure 44).

If your user name differs from the FTP server's account, the following message appears.



	/	
Download Page	FTP Session	- 3
<ul> <li>Upload Page</li> <li>Logout</li> </ul>	Add New FTP Session	
	Server Name/Address: 192.168.1.100:21	
	* Leave blank to use your SSL VPN User name and Password	
	Subm	iit

User name: **user** Password: Type in the password. (In this example, both user name and password are *user*)

FIGURE 5 FTP session

aps.//192.100.17.130 - 1	FP - SSL VPN - Microsoft Internet Exp	torer		(_)(c
	/			
	-			
	FTP Session			
r@192.168.1.100.21	FTP Session			
Download Page	Files and Folders			
Upload Page     Logout	Current directory: /d:/			
	Go to directory:		Submit	
	Create new folder:		Submit	
	Filename	Size	Date	
	😩 Up			
	🗖 🗀 .	0	Nov 30 17:19	
		0	Nov 30 17:19	
	Delete Rename			
	Delete Rename			

You are logged in to your account in the designated FTP server.

## **Using Telnet/SSH**

The following steps demonstrate how a user can log in to the Telnet server from the remote web portal.

- 1. To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).
- 2. When prompted, click **Yes** on the security alert message that appears to accept the certificate and proceed with the process.

Securit	Security Alert				
P	Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.				
	The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.				
	The security certificate has expired or is not yet valid.				
	The name on the security certificate is invalid or does not match the name of the site				
	Do you want to proceed?				
	Yes No Yew Certificate				

The log in screen appears

BILLION		BiGuard SSL VPN Security Appliance
Password :	TelnetUser	Three Solutions in ONE
	Login	Pres.

3. Type the user name and password (Added in the Administrator Telnet Configuration section)

In the illustration above, the User Name is TelnetUser (The User Name and Password are case sensitive)

- 4. Select BiGuard from the drop-down Domain menu.
- 5. Click Login to enter the Remote Web Portal page.
- 6. In the remote portal page, click **Connect** in the Connect in the applications frame to connect to the TestTelnet service.

BILLION.			Powering and security
BiGuard S5 - SSL VPN Starte	r/Pack		s» Logo
Welcome to SSL VPN Starter Pack, TelnetUse Due to inactivity, your connection will timeout i	-		
Network Extender	Transp	ort Extender	L Network Place
Click the above Network Extender title to connect to the remote network. Keep your browser open to maintain the connection. If you reload your browser, Network Extender will disconnect and reconnect.	Please contact you using the service. T	sport Extender service now. r network administrator for Through the service, you can applications as if on the	Click the above Network Place title to use the service. It is similar in style to Microsoff's familiar Network Neighborhood. It allows users to browse network shares, rename, delete, retrieve, and upload files.
			Connection
Application Name	Host Address	Service	CONNECTION

If a certificate has expired or is invalid, a warning message displays. If the Always trust content from this publisher is not selected, the warning message is not disabled.

Warning - Security	
The web site's certificate is invalid. Do you want to continue?	• 🔶
Name: Billion Electric Co., Ltd.	
Publisher: Billion Electric Co., Ltd.	
Always trust content from this publisher.	
	Yes No
The certificate cannot be verified by a trusted source. Only continue if you trust the origin of the application.	More Information

- 7. Click **Yes** to accept the certificate.
- 8. If the name of the site does not match the name of the certificate, the warning message below displays, click **Run** to continue and enter the service

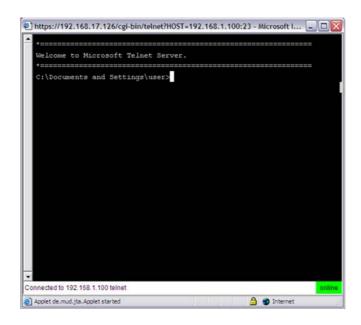
	e of the site does not match the name on the e. Do you want to run the application?
Name:	192.168.17.126
Publisher:	"Billion Electric Co.

#### The Telnet screen appears.

https://192.168.17.126/cgi-bin/telne	t?HOST=192.1	168.1.100:2	3 - Microso	oft I 🚍	
Welcome to Microsoft Telnet S	ervice				
login: user					
password:					
-					
Connected to 192.168.1.100 telnet					online
Applet de.mud.jta.Applet started			🔒 🌍 Inte	ernet	

9. Type the user name and password in the login screen. In the illustration above, the user name and password are designated as User.

The Welcome screen appears.



The above screen shows a successful log in on a Telnet server. You are prompted for a username and password to connect to the remote SSH server.

## **Using HTTP and HTTPS**

The following steps demonstrate how a user will log in to the HTTP(S) server from the remote web portal.

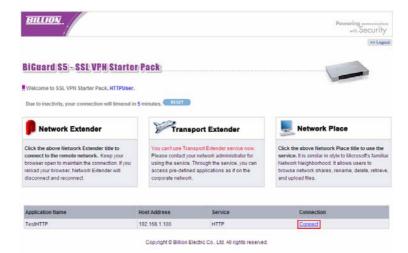
1. To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).



- 2. A Security Alert message appears, when prompted click **Yes** to proceed (to accept the certificate sent by the BiGuard system).
- 3. The log in screen appears.

<b>BILLION</b> <sub>TM</sub>	BiGuard SSL VPN Security Appliance
Username : Password : Domain :	Three Solutions in ONE

- Type the user name and password that were set under the Administrator HTTP Configuration section, then select the domain. In the illustration below, the user name is HTTPUser and the selected domain from the drop-down menu is **Biguard**.
- 5. Click **Login** to enter into the Remote Web Portal page.
- 6. Click Connect to connect to the TestHTTP service.



The screen below shows a successful access to the remote HTTP(S) server.

Search 👷 Favorite	s 🚱	🔊 · 🍃 🗷 ·	🗆 K 🛍	L	🔁 · 🛔
Last modified	Size	Description			
03-0ct-2006 14:43	-				
03-0ct-2006 14:42	-				
03-0ct-2006 14:42	-				
	03-0ct-2006 14:43 03-0ct-2006 14:42	03-Oct-2006 14:43 - 03-Oct-2006 14:42 -	03-0ct-2006 14:43 - 03-0ct-2006 14:42 -	03-Oct-2006 14:43 - 03-Oct-2006 14:42 -	03-Oct-2006 14:43 - 03-Oct-2006 14:42 -

## **Using RDP5**

The following steps demonstrate how a user will log in to the Terminal Service (RDP5) server from the remote web portal.

- 1. To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).
- 2. A security alert message appears, click **Yes** when prompted to proceed (accepts the certificate sent by the BiGuard system).

Securit	y Alert 🛛 🔀				
£	Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.				
	The security certificate was issued by a company you have not chosen to trust. View the certificate to determine whether you want to trust the certifying authority.				
	The security certificate has expired or is not yet valid.				
	The name on the security certificate is invalid or does not match the name of the site				
	Do you want to proceed?				
	Yes No Yew Certificate				

The log in screen appears.

<b>BILLION</b> <sub>IN</sub>		BiGuard SSL VPN Security Appliance
Password :	RDP5User	Three Solutions in ONE

- 3. Type in the user name and password as it was added in the steps under the Administrator RDP5 Configuration section (The User Name and Password are case sensitive).
- 4. Select the BiGuard domain from the drop-down menu.
- 5. Click **Login** to enter the Remote Web Portal page.

BILLION			Powering commissions with Security
			>> Logou
BiGuard S5 - SSL VPN Starte	r Pack		
Welcome to SSL VPN Starter Pack, RDP5User			
Due to inactivity, your connection will timeout in	n 5 minutes.		
Network Extender	Trans	port Extender	Letwork Place
Click the above Network Extender title to connect to the remote network. Keep your browser open to maintain the connection. If you reload your browser, Network Extender will disconnect and reconnect.	Please contact yo using the service	nsport Extender service now ur network administrator for Through the service, you can ed applications as if on the K.	Click the above Network Place title to use the service, it is similar in style to filtcrosoft's familia. Network Neighborhood, it allows users to browse network shares, rename, delete, retrieve and upload files.
Application Name	Host Address	Service ROP5	Connection

6. Click Connect to connect to the TestRDP5 service.

If the user account is the same as the Terminal Service's account, you will not be asked to input user name and password again. Proceed to step 5.

If your user name is different from the Terminal Service's account, the following message appears.

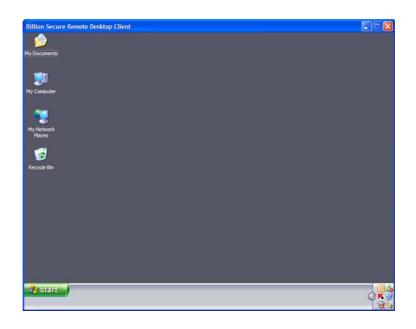
FIGURE 6 L	ogon message
------------	--------------

Logon M	essage 🛛 🔀
1	The system could not log you on. Make sure your User name and domain are correct, then type your password again. Letters in passwords must be typed using the correct case.
	ОК

- 7. Click **OK** and the Window's log on screen appears.
- 8. Type in the user name and password of the Terminal Service's account, and click **OK** to continue.

Log On to W	/indows	
Copyright © 1985 Microsoft Corpora		Microsoft
<u>U</u> ser name:	User	]
Password:	•••••	]
	OK Cancel Shut Down	Options <<

After establishing connection, the remote computer's screen (see below) is displayed through the Terminal Service (RDP5). You successfully configured the Terminal Service (RDP5).



# **Using VNC**

The following steps demonstrate how a user can log in to the VNC server from the remote web portal. To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).

A Security Alert message appears.

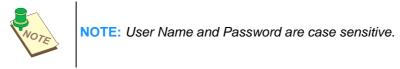
1. Click Yes to proceed (to accept the certificate sent by the BiGuard system).

Security Alert						
£	Information you exchange with this site cannot be viewed or changed by others. However, there is a problem with the site's security certificate.					
	The security certificate was issued by a company you have not chosen to trust. New the certificate to determine whether you want to trust the certifying authority.					
	The security certificate has expired or is not yet valid.					
	The name on the security certificate is invalid or does not match the name of the site					
	Do you want to proceed?					
	Yes No Yew Certificate					

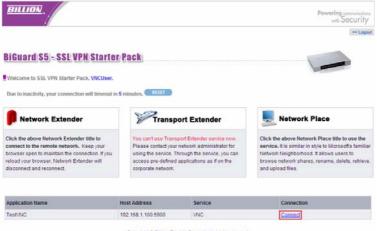
After Yes is clicked, the log in screen appears.

<b>BILLION</b> <sub>TM</sub>		BiGuard SSL VPN Security Appliance
Password :	VNCUser ****** BiGuard S5	Three Solutions in ONE
	Login	Trans.

User Name: VNCUser (As previously added in Administrator VNC Configuration section) Domain: Select BiGuard from the drop-down menu.

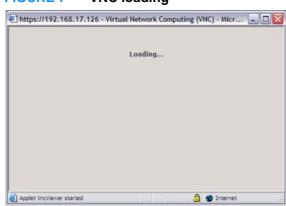


Click Login to enter into the Remote Web Portal page.



- $\mathsf{Copyright} \oplus \mathsf{Billion}$  Electric Co., Ltd. All rights reserved.
- 2. Click **Connect** to connect to the TestVNC service.

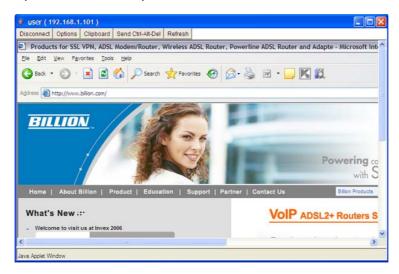
The following page appears when loading the VNC client program into your computer.



Next, the VNC Authentication log on screen appears.

b Virtual N	etwork C	onnection	-	. 🗆 🗙
Disconnect	Options	Clipboard	Send Ctri-Alt-Del	Refresh
	VNC	Authen	tication	
Pas	sword: 🗍		ок	
Java Applet Wi	ndow			

3. Input the VNC server password, and click OK.



The above screen shot represents the remote computer as accessed through the VNC server.

### FIGURE 7 VNC loading

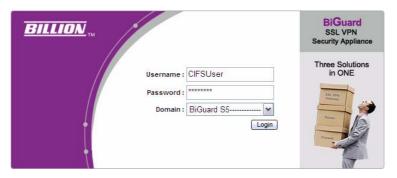
# **Using CIFS**

The following steps demonstrate how a user will log in to the FTP server from the remote web portal.

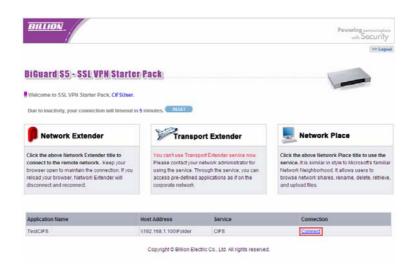
1. To access the remote web portal, please connect to the https://wanipaddress (where wanipaddress is the WAN IP address of the BiGuard SSL VPN appliance).



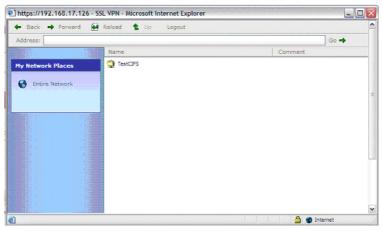
- A Security Alert message appears, click Yes when prompted to proceed (to accept the certificate sent by the BiGuard system). The log in screen appears.
- Type in the user name and password as created in the previous steps under the Administrator CIFS Configuration section and select the BiGuard domain from the drop-down menu.



- 4. Click Login to enter into the Remote Web Portal page.
- 5. In the Remote Web Portal, click **Connect** on the TestCIFS application to connect to the service.



In the Figure 8 below, you can see a successful connection to the CIFS application.



#### FIGURE 8 CIFS application log in

# FAQ

# SSL Knowledge

# **QUESTION:** What browser and version do I need to successfully connect to the BiGuard S Series?

- **ANSWER:** It is strongly recommended that the following browsers be used for successful connection:
  - Internet Explorer 6.0SP1 (supports Microsoft Internet Explorer 5.01 or newer)
  - Mozilla 1.7.1 and newer
  - Firefox 1.0.6 and newer
  - Opera 8.02 and newer
  - Safari 1.3.1 and newer

# **QUESTION:** What needs to be activated on the browser for me to successfully connect to the BiGuard S Series?

- **ANSWER:** The following options on the browser need to be enabled for successful connection:
  - SSLv2, SSLv3, or TLS
  - Cookies
  - Pop-ups for the site
  - Java
  - Javascript
  - ActiveX



**NOTE:** Although SSLv2 is supported, it is recommended to use SSLv3 or TLS for optimum compatibility.

#### **QUESTION:** What version of Java do I need?

ANSWER: You will need to install Sun's JRE 1.3.1 or newer (available for download at http://www.java.com) to use some of the features on the BiGuard S Series, but we recommend using version 1.5 or newer (Note: the Sun designation is version 5.0).

If you are experiencing issues with the RDP5 Java component, upgrade to the newest Java version.