

# NetGuardian Q8

## USER MANUAL



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## Revision History

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February 25, 2011	Trademark/Branding changes
March 10, 2010	Updated graphics for G2 model.
January 22, 2010	Initial Release for NetGuardian-Q8 G2.

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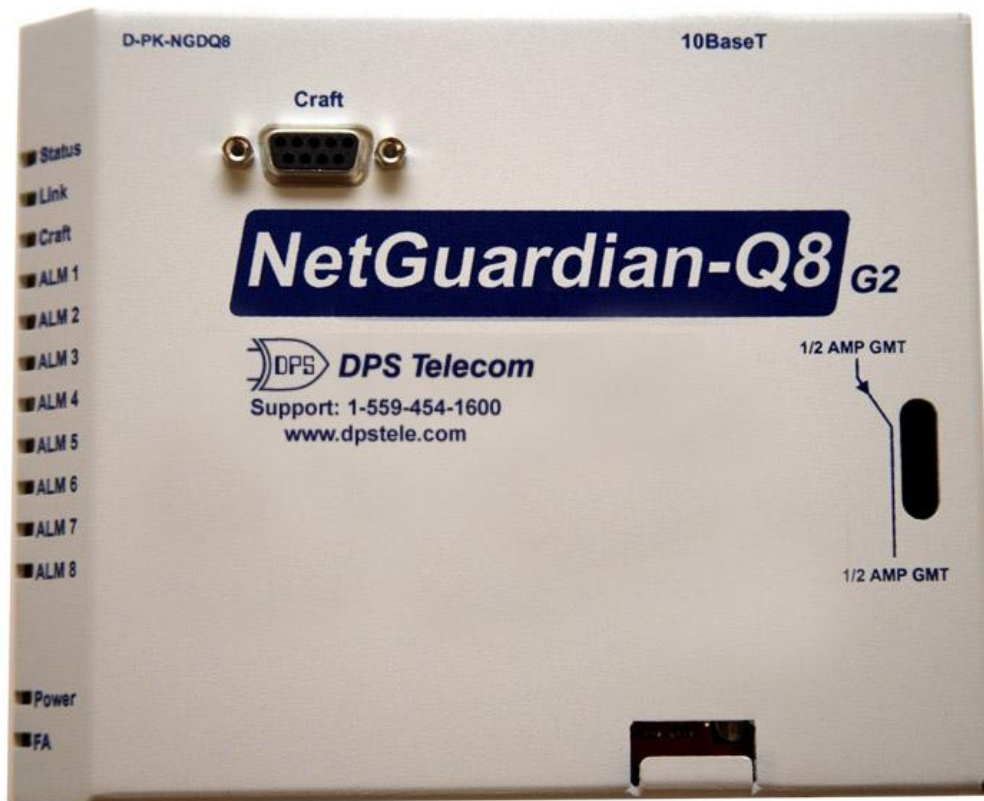
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# 1 Overview



*The NetGuardian-Q8 has all the tools you need to monitor your Quantar™*

## **The NetGuardian Q8 — Reliable Monitoring of your Quantar™ frame.**

The NetGuardian Q8 (NetGuardian-Q8) is a SNMP-based alarm collection device for the clean integration of monitoring for the Quantar™.

The NetGuardian-Q8 supports up to 8 alarms standard (10 alarms with available order option) that are brought in through the 50-pin connector on the rear of the unit. The primary function of the NetGuardian-Q8 is to collect these alarms and convert them to SNMP. Because the unit has individual LEDs for each alarm point as well, you get the added bonus of local alarm monitoring on the rear of the radio.

The voltage that powers the unit also comes through the 50-pin connector and is protected by its own fuse. This way you will have alarm monitoring as long as the radio is powered.

Match this with an Ethernet connection for Web and Telnet access and a craft port for quick and easy diagnostics and monitoring, and you've got huge monitoring power in a very small package.

## 2 Specifications

<b>Dimensions:</b>	5"H x 6.5"W x 1.5"D (Takes up zero rack space).
<b>Mounting:</b>	Mounts directly to the 50-pin connector on the rear panel of the Quantar™ Radio.
<b>Power Input:</b>	+13.8V
<b>Current Draw:</b>	200 mA
<b>Fuse:</b>	½ amp GMT
<b>Interfaces:</b>	1 DB9 RS-232 craft port 1 RJ45 10BaseT Ethernet port 1 50-pin connector
<b>Protocols:</b>	SNMP Web Browser Telnet
<b>Discrete Inputs:</b>	8 standard unit (10 with order option)
<b>Visual Interface:</b>	13 bicolor LEDs
<b>Operating Temp:</b>	32°–140° F (0°–60° C)
<b>Operating Humid.</b>	0%–95% non-condensing

### 3 Shipping List

While unpacking the NetGuardian Q8, please make sure that all of the following items are included. If some parts are missing, or if you ever need to order new parts, please refer to the part numbers listed and call DPS Telecom at **(800) 622-3314**.



**NetGuardian Q8**



**NetGuardian-Q8 User Manual**



**Ethernet Cable 14 ft.  
D-PR-923-10A-14**



**DB9M-DB9F Download Cable 6 ft.  
D-PR-045-10-A-04**



**x2  
1/2-Amp GMT Fuse  
2-741-00500-00**



**NetGuardian-Q8 Resource CD**



**Extender Lug  
1-020-13006-05**

## 4 Hardware Installation

Follow this order of steps when installing your NetGuardian Q8.

### 1. Unpack the NetGuardian and check parts.

Please see the shipping list to verify that all parts were included in your shipment.

### 2. Mount the NetGuardian.

The NetGuardian is mounted directly to the rear of the Quantar™ via mounting brackets and a 50-pin connector. Please refer to Section 4.3 for complete mounting instructions.

### 3. Connect communication lines to the NetGuardian.

The NetGuardian has two communication lines: a LAN connection (for Telnet and Web browser access) and a craft port for easy diagnostic or monitoring access.

### 4. Connect to the NetGuardian-Q8.

You can connect to the NetGuardian through the front panel craft port.

### 5. Monitor the NetGuardian-Q8.

You can monitor the NetGuardian-Q8 using the TTY interface, or the Web Browser interface. (See relevant software guides on the Resource CD).

### 6. Provision the NetGuardian-Q8.

You can provision the NetGuardian-Q8 with the NetGuardian-Q8 Editor. (See relevant guide on the Resource CD).

## 4.1 Tools Needed

To install the NetGuardian-Q8, you'll need the following tools:



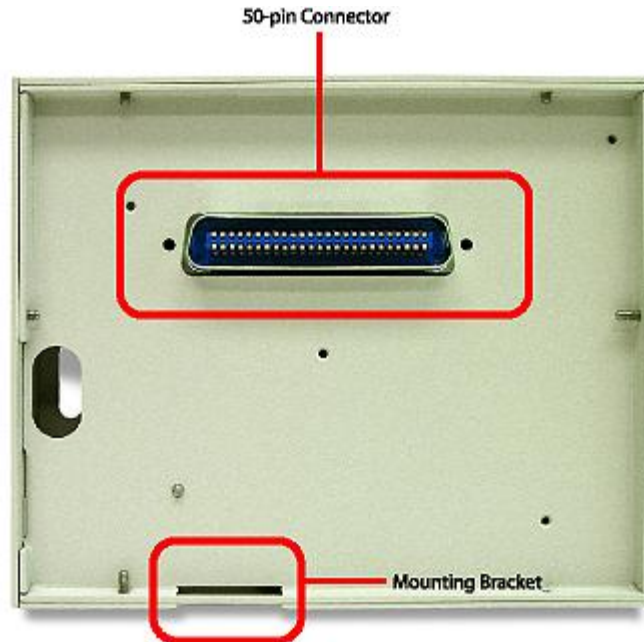
Pair of Pliers



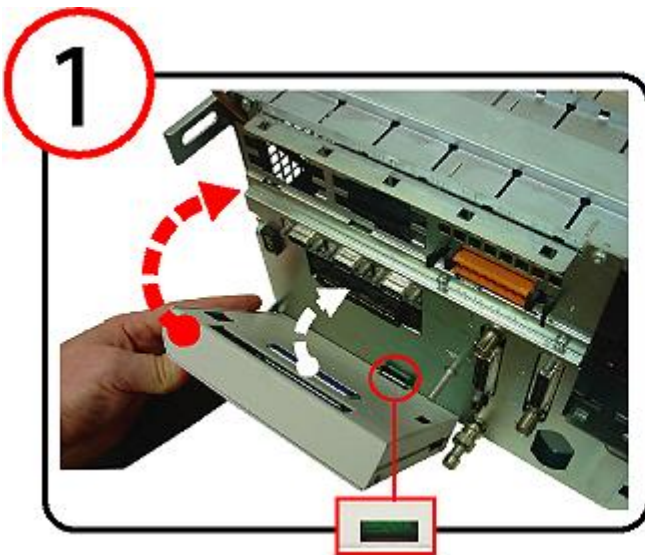
PC



## 4.2 Mounting/Back Panel Connections



*Back Panel of the NetGuardian-Q8.*



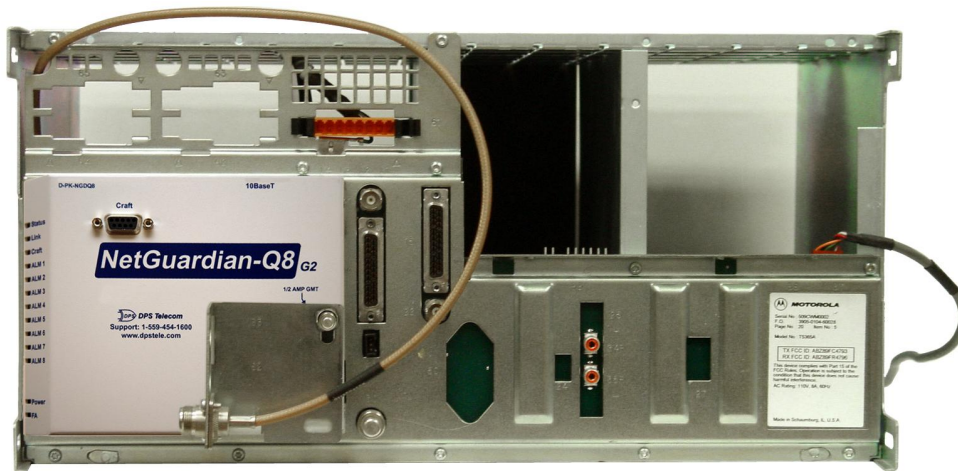
*Because of its unique mounting, the NetGuardian Q-8 takes up no rack space.*

The NetGuardian-Q8 mounts directly to the rear panel of the Quantar™ radio, and is secured by the bolt previously used to secure the small antenna on the rear of the unit. Connections for the ten alarm inputs and power supply are brought in through the 50-pin connector on the back panel of the NetGuardian-Q8. The key feature of this mounting system is that it uses no rack space at all.

1. Remove the fuse from the side panel of the NetGuardian-Q8 and make sure that the power supply to the radio unit is off.
2. Remove antenna module from the rear of the Quantar™. Do **NOT** discard mounting materials.

**Note:** The length of the carriage bolt may need to be extended in order to accommodate the mounting of the NetGuardian-Q8 and antenna.

3. Align the lower mounting bracket on the Quantar™ with the bracket opening on the bottom of the NetGuardian-Q8.
4. Pivot the NetGuardian-Q8 upwards so that the connectors of both units meet and the attachment bolt slides through the opening on the right-hand side of the NetGuardian-Q8. The connector plug is self-aligning because the NetGuardian-Q8 uses the same mounting tabs as the antenna relay module. Push the connector firmly into its socket.
5. Insert the antenna module into the mounting bracket on the front of the NetGuardian-Q8 and thread attachment bolt through opening on upper-right side of the antenna bracket.
6. Tighten nut over bolt to secure the units together.



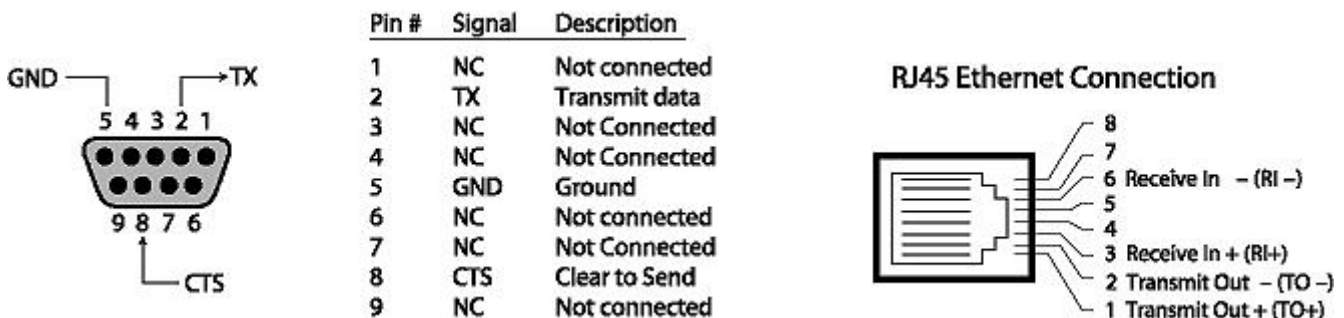
*Fig. 3. The antenna module re-mounts to the top side of the unit using the same bolt it was previously mounted to.*

7. With the NetGuardian-Q8 fuse still removed, turn on the power supply. **Note:** Do not power the unit until all connections have been made.
8. Insert the fuse to power the NetGuardian-Q8.

## 4.3 Communication Lines



DB9 Female Connector and 10BaseT Ethernet jacks are on the upper half of the NetGuardian-Q8's front panel. Pinouts for the communication line connectors are shown below.

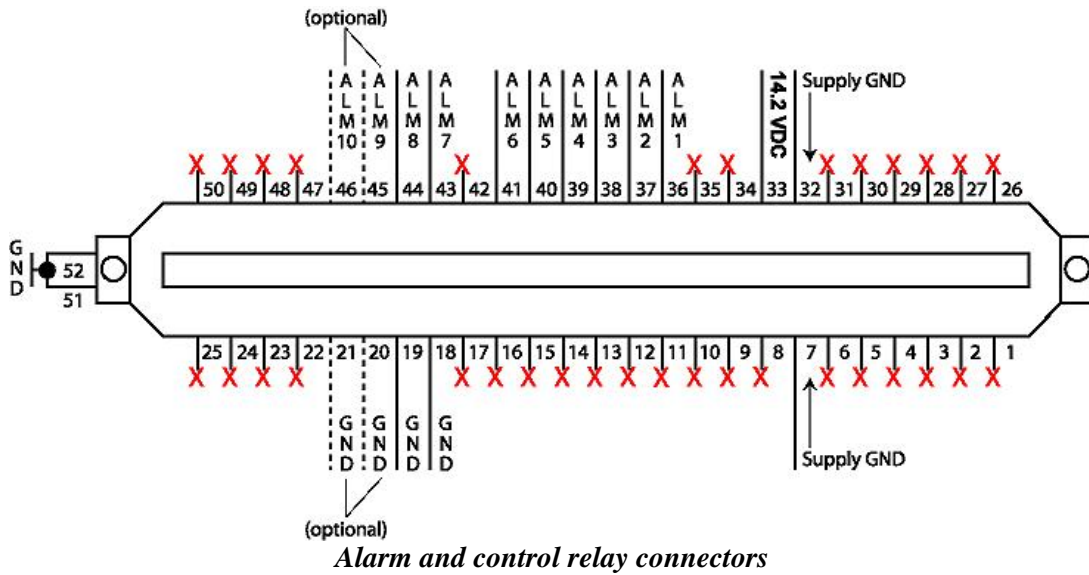


*Pinouts for the DB9 Female Connector and RJ45 10BaseT Ethernet connection*

The NetGuardian-Q8's LAN connection is used for many functions: Telnet or Web Browser access, firmware download, and reporting alarms.

Connect a standard RJ45 Ethernet cable from your local area network (LAN) to the 10BaseT jack on the NetGuardian-Q8 back panel.

## 4.4 Alarm Connections



Discrete alarms and power are connected to the NetGuardian-Q8 using the 50-pin connector on the back panel.

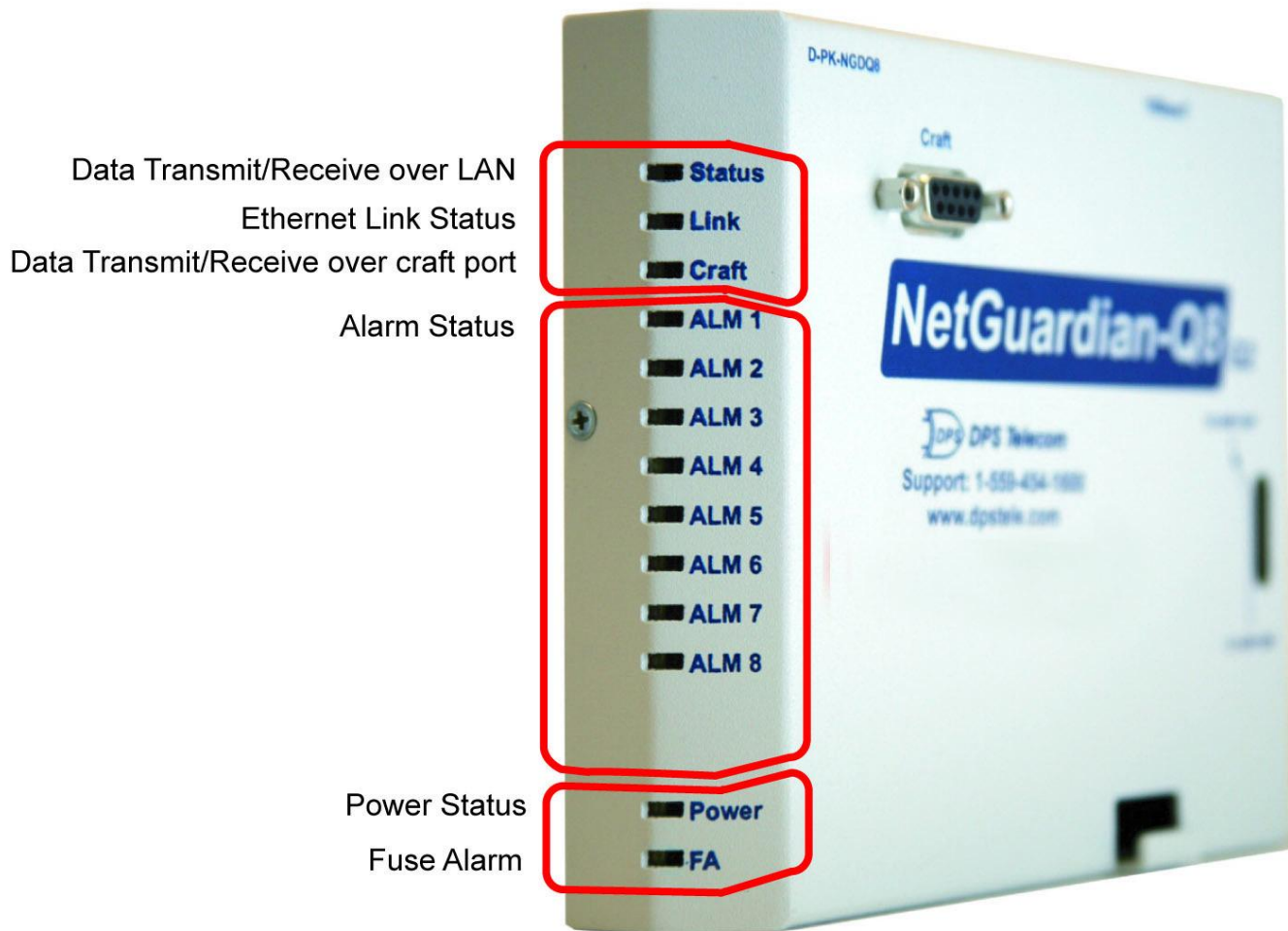
50-Pin Connector Pinouts			
PIN #	DESCRIPTION	PIN #	DESCRIPTION
1	Not Used	26	Not Used
2	Not Used	27	Not Used
3	Not Used	28	Not Used
4	Not Used	29	Not Used
5	Not Used	30	Not Used
6	Not Used	31	Not Used
7	Supply GND	32	Supply GND
8	Not Used	33	14.2 VDC
9	Not Used	34	Not Used
10	Not Used	35	Not Used
11	Not Used	36	ALARM 1
12	Not Used	37	ALARM 2
13	Not Used	38	ALARM 3
14	Not Used	39	ALARM 4
15	Not Used	40	ALARM 5
16	Not Used	41	ALARM 6
17	Not Used	42	Not Used
18	GROUND	43	ALARM 7
19	GROUND	44	ALARM 8
20	GROUND *	45	ALARM 9 *
21	GROUND *	46	ALARM 10 *
22	Not Used	47	Not Used
23	Not Used	48	Not Used
24	Not Used	49	Not Used
25	Not Used	50	Not Used

PIN #	ALARM	DESCRIPTION
36	1	Aux Out 1 (Failsoft Ind)
37	2	Aux Out 2 (RX Code Det)
38	3	Aux Out 3
39	4	Aux Out 4
40	5	Aux Out 5
41	6	Aux Out 6
43	7	Aux Out 7 (RD Stat)
44	8	Aux Out 8
45	9	Aux Out 9
46	10	Aux Out 10

\* Optional

*Alarm and power connection pinouts*

## 5 Front Panel Controls and Displays



*Side-panel LEDs and their functions.*

The side panel LEDs display alarm, power, and communication status. Table B explains the meanings of the LED display messages.

LED	STATUS	DESCRIPTION
LAN	Flashing Green	Data Transmit over LAN
LNK	Green	Ethernet Link OK
	Off	Ethernet Link Not Detected
CRF	Flashing Green	Data Transmit over Craft port
	Flashing Red	Data Receive over Craft port
ALM 1 – 8 (9 & 10 opt.)	Off	Alarm Clear
	Solid Red	Standing Alarm
PWR	Green	Power to Unit OK
FA	Red	Fuse Failure

*LED descriptions.*

## 6 Quick Start: How to Connect to the NetGuardian-Q8

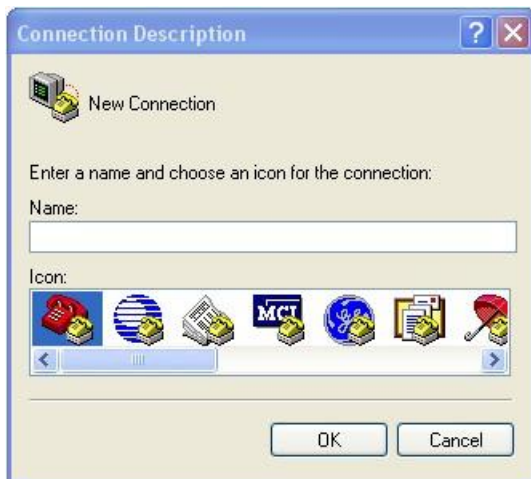
Most NetGuardian users find it easiest to give the unit an IP address, subnet and gateway through the front craft port (TTY interface) to start. Once these settings are saved and you reboot the unit, you can access it over LAN to do the rest of your databasing via the Web Browser interface.

### 6.1 ...via Craft Port (using TTY Interface)

1. The simplest way to connect to the NetGuardian-Q8 is over a physical cable connection between your PC's COM port and the unit's craft port. **Note:** You must be connected via craft port or Telnet to use the TTY interface. Make sure you are using the straight through (1 to 1) Male to Female DB9-DB9 download cable provided with your NetGuardian-Q8 to make a craft port connection. We'll be using HyperTerminal to connect to the unit in the following example - however, most terminal-emulating programs should work.
2. To access HyperTerminal using Windows: Click on the **Start** menu > select **Programs** > **Accessories** > **Communications** > **HyperTerminal**.



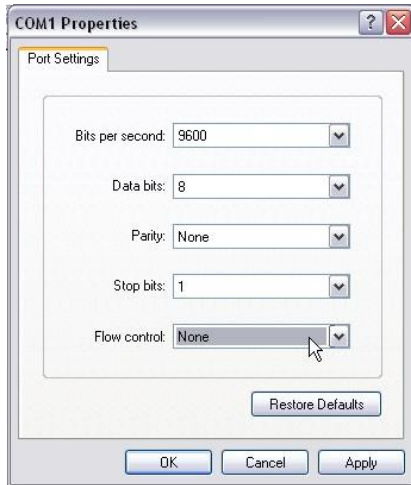
3. At the Connection Description screen, enter a name for this connection. You may also select an icon. The name and icon do not affect your ability to connect to the unit.
4. At the Connect To screen, select Com port you'll be using from the drop down and click OK. (COM1 is the most commonly used.)



5. Select the following COM port options:
  - Bits per second: 9600
  - Data bits: 8
  - Parity: None
6. When prompted, enter the default user name **admin** and password **dpstelecom**. **NOTE:** If you don't receive a prompt for your user name and password, check the Com port you are using on your PC and make sure you

- Stop bits: 1
- Flow control: **None**

Once connected, you will see a blank, white HyperTerminal screen. Press Enter to activate the configuration menu.

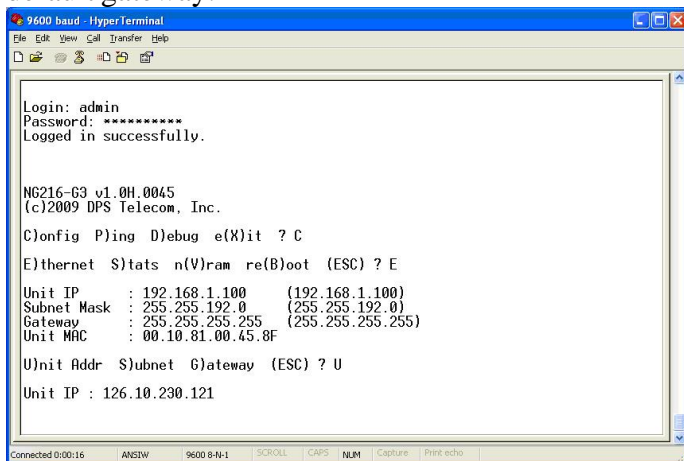


are using the cable provided.

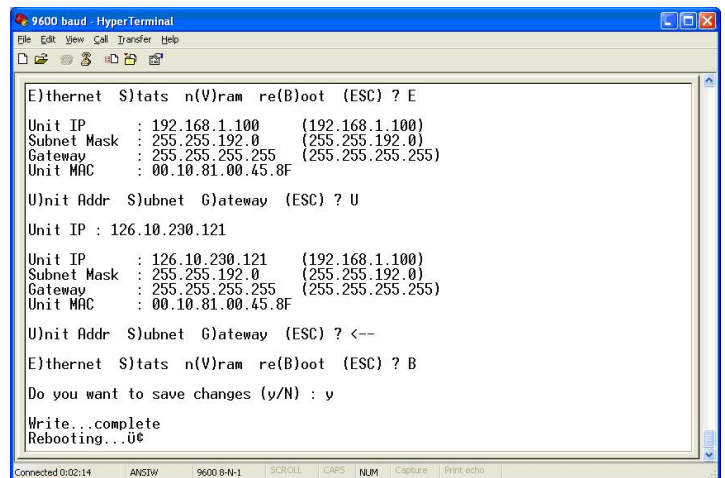
Additional cables can be ordered from DPS Telecom:  
*Part number D-PR-045-10A-04*



7. The NetGuardian-Q8's main menu will appear. Type C for C)onfig, then E for E)thernet. Configure the unit's IP address, subnet mask, and default gateway.



8. ESC to the main menu. When asked if you'd like to save your changes, type Y for Y)es. Reboot the NetGuardian-Q8 to save its new configuration.



Be sure to change the IP of your computer back to one that operates on your network. *Now you're ready* to do the rest of your configuration via LAN. Plug your LAN cable into the NetGuardian-Q8 and see Section 9, "Logging On to the NetGuardian-Q8" to continue databasing using the Web Browser.

## 6.2 ...via LAN

To connect to the NetGuardian-Q8 via LAN, all you need is the unit's IP address (Default IP address is 192.168.1.100).

If you **DON'T** have LAN, but **DO** have physical access to the NetGuardian-Q8, connect using a LAN crossover cable. **NOTE:** Newer PCs should be able to use a standard straight-through LAN cable and handle the crossover for you. To do this, you will temporarily change your PC's IP address and subnet mask to match the NetGuardian's factory default IP settings. Follow these steps:

1. Get a LAN crossover cable and plug it directly into the NetGuardian-Q8's LAN port.
2. Look up your PC's current IP address and subnet mask, and write this information down.
3. Reset your PC's IP address to **192.168.1.200**. Contact your IT department if you are unsure how to do this.
4. Reset your PC's subnet mask to **255.255.0.0**. You may have to reboot your PC to apply your changes.
5. Once the IP address and subnet mask of your computer coincide with the unit, you can access the NetGuardian-Q8 via a Telnet session or via Web browser by using the unit's default IP address of **192.168.1.100**.
6. Provision the NetGuardian-Q8 with the appropriate information, then **change your computer's IP address and subnet mask back to their original settings**.

*Now you're ready* to do the rest of your configuration via LAN. Plug your LAN cable into the NetGuardian-Q8 and see section "Logging On to the NetGuardian-Q8" to continue databasing using the Web Browser.

## 7 TTY Interface

The TTY interface is the NetGuardian's built-in interface for basic configuration. From the TTY interface, you can:

- Edit the IPA, subnet, and gateway
- Debug and troubleshoot
- Set unit back to factory defaults
- Set DCP info for T/Mon polling
- Ping other devices on the network

*For more advanced configuration tools, please use the Web Browser Interface.*

For Telnet, connect to the IP address at port 2002 to access the configuration menus after initial LAN/WAN setup. **Telnet sessions are established at port 2002, not the standard Telnet port** as an added security measure.

### Menu Shortcut Keys

The letters before or enclosed in parentheses () are menu shortcut keys. Press the shortcut key to access that option. Pressing the ESC key will always bring you back to the previous level. Entries are not case sensitive.



## 8 NetGuardian-Q8 Web Browser

### 8.1 Introduction

The NetGuardian-Q8 features a built-in Web Browser Interface that allows you to manage alarms and configure the unit through the Internet or your Intranet. You can quickly set up alarm point descriptions, view alarm status, issue controls, and configure paging information, and more using most commonly used browsers.

**NOTE:** Max # of users allowed to simultaneously access the NetGuardian-Q8 via the Web is 4.

### 8.2 Logging on to the NetGuardian-Q8

For Web Interface functionality, the unit must first be configured with some basic network information. If this step has not been done, refer to the section "Quick Start: How to Connect to the NetGuardian-Q8" for instructions on initial configuration setup.

1. To connect to the NetGuardian-Q8 from your Web browser, enter its IP address in the address bar of your web browser. It may be helpful to bookmark the logon page to avoid entering this each time.
2. After connecting to the unit's IP address, enter your login information and click OK. **NOTE:** The factory default username is "**admin**" and the password is "**dpstelecom**".
3. In the left frame you will see the **Monitor** menu (blue) and **Edit** menu (green) The Monitor menu links are used to view the current status of alarms. The Edit menu is used to change the unit's configuration settings. All the software configuration will occur in the **Edit** menu. The following sections provide detailed information regarding these functions.



*Enter your password to enter the NetGuardian-Q8 Web Browser Interface*

## 8.2.1 Changing the Default Password

The password can be configured from the **Edit > System** screen. The minimum password length is four characters; however, DPS recommends setting the minimum password length to at least five characters. Use the following steps to change the logon password:

1. From the **Edit** menu select **System**.
2. Enter the new user name in the **User** field.
3. Enter the new password in the **Password** field.
4. Click the **Save** button.

*Global System Settings section of the Edit > System menu*

**NOTE:** You will see the following popup when making changes to the NetGuardian-Q8 from the **Edit** menu. It will appear when confirming your changes to the database, either by clicking **Next** in the setup wizards or the **Save** button.



*Commit to NVRAM popup*

## 9 NetGuardian-Q8: Most Important How To's

The next 3 sections of this manual will walk you through some of the most common tasks for using the NetGuardian-Q8. You will learn how to send email notifications, and send SNMP traps to your alarm master- all using the Web browser. For details on entering your settings into each Web browser menu, the section "Edit Menu Field Descriptions."

### 9.1 How to Send Email Notifications

1. Click on the **System** button in the **Edit** menu and enter a valid email address in the "**From**" **Email Address** field. (You may need to check with your IT department to have one created for the unit.) This is the address that will appear in your email as the sender.

The screenshot shows the 'System Settings' page for 'NGDQ8 G2'. The 'Global System Settings' section includes fields for Name, Location, Contact, 'From' E-mail Address, SNMP GET String, SNMP SET String, User, and Password. The 'DCP Responder Settings' section includes DCP Unit ID, Listen DCP over LAN, and DCP LAN. The 'System Controls' section includes Initialize Configuration, Backup Configuration, and Restore Configuration. The 'From' E-mail Address field is highlighted in green.

2. Click on the **Notifications** button in the **Edit** menu. You can setup as many as 8 different notifications. Begin the setup "wizard" by clicking on a notification number. In this example, we'll setup Notification 1 to send emails.

The screenshot shows the 'Notifications' page for 'NGDQ8 G2'. The page displays a table with 8 notifications. The 'From' E-mail Address field is highlighted in green.

No.	Stat.	Type	Server	Time Window 1	Time Window 2
1	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
2	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
3	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
4	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
5	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
6	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
7	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time
8	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat,Any Time

3. At the **Notification Setting** screen, check the **Enable Notification** box to turn "on" Notification 1. Now, select the **Send Email Notification** button and click Next.

The screenshot shows the 'Notification Setting' screen for 'Notification 1'. The interface includes a top header with the DPS Telecom logo, the device name 'NGDQ8 G2', and links for 'Upload', 'Logout', and 'MyDPS'. On the left, there are two menu sections: 'Monitor Menus' (Base Alarms, Ping Targets, System Alarms, Event Log) and 'Edit Menus' (System, Ethernet, Notifications, Base Alarms, Ping Targets, System Alarms, Date and Time, Timers, Reboot). The main content area is titled 'Notification 1' and contains a 'Notification Setting' section with the following options:

- Enable Notification
- Send Email Notification
- Send SNMP Notification

At the bottom of the settings area, there are 'Next >' and 'Cancel' buttons. The footer of the page reads '©2010 DPS Telecom'.

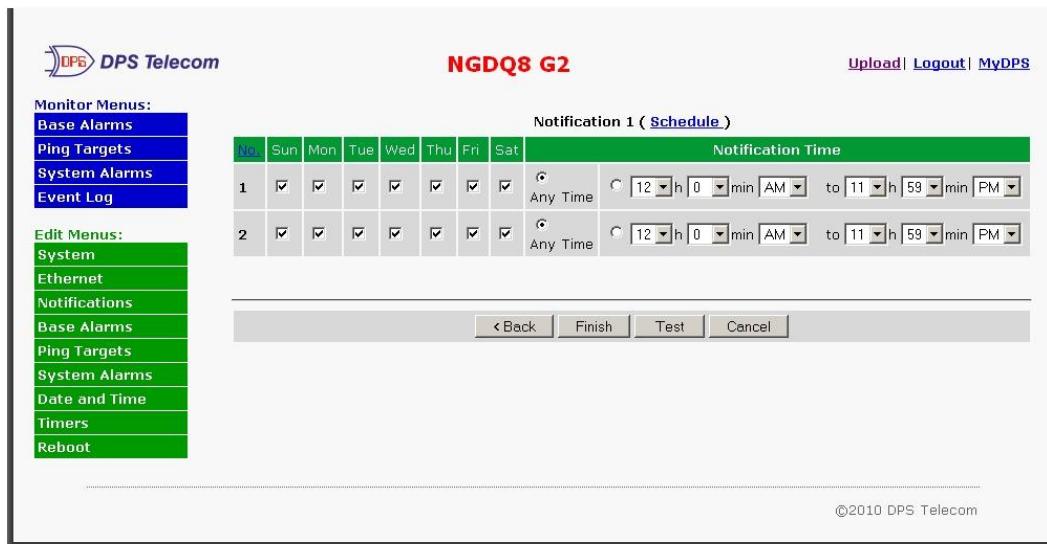
4. At the **Email Notification** screen, you'll enter your email server settings. Enter the **IP address** or **Host Name** of your email server. Enter the **Port Number** (usually 25) and the **"To" Email Address** of the technician that will receive these emails. Click **Next**.

The screenshot shows the 'Email Notification' screen for 'Notification 1 (Email)'. The interface is similar to the previous screen, with the same top header and left-side menus. The main content area is titled 'Notification 1 (Email)' and contains an 'Email Notification' section with the following fields:

- SMTP Server IP or Host Name:
- Port No. (Usually Use 25):
- "From" E-mail Address:
- "To" E-mail Address:

At the bottom of the settings area, there are '< Back', 'Next >', and 'Cancel' buttons. The footer of the page reads '©2010 DPS Telecom'.

5. At the **Schedule** screen, you'll select the exact days and times you want to receive email notifications. You can set 2 schedules per notification. For example, you may want to receive notifications at certain times during the week, and at different hours on the weekend. Use the check boxes to select the days of the week, and select the time from the drop down menus. Click **Finish**. To try a test notification, click the **Test** button (See next step.)



6. If you chose to test the email notification you've just setup, you will see a popup. Click **OK** to send a test email alarm notification. Confirm all your settings by checking your email to see if you've received it. **NOTE:** This test only means that your notification settings are correct, but you still need to assign the notification to an alarm point. See the next step.



7. Now you will associate this notification to an alarm (system, base, analog, etc.) You have 8 notification devices available to use. In the image below, you might assign **Notification Device 1** to **Base Alarm 1**. This means that you would receive an email notification when an alarm for SERVER ROOM occurs. Remember that Notification #1 in the Notifications menu is the same as N1 on the alarms page.

**NetGuardian-216 G3** Logout | Upgrade | Help

**Monitor Menus:**  
[Base Alarms](#)  
[System Alarms](#)  
[Controls](#)  
[Analog](#)

**Edit Menus:**  
[System](#)  
[Ethernet](#)  
[Notifications](#)  
[Base Alarms](#)  
[System Alarms](#)  
[Controls](#)  
[Analog](#)  
[Date and Time](#)  
[Timers](#)  
[Reboot](#)

**Notifications**

No.	Stat.	Type	Server	Time Window 1	Time Window 2
1	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
2	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
3	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
4	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
5	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
6	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
7	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
8	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time

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**NetGuardian-216 G3** Logout | Upgrade | Help

**Monitor Menus:**  
[Base Alarms](#)  
[System Alarms](#)  
[Controls](#)  
[Analog](#)

**Edit Menus:**  
[System](#)  
[Ethernet](#)  
[Notifications](#)  
[Base Alarms](#)  
[System Alarms](#)  
[Controls](#)  
[Analog](#)  
[Date and Time](#)  
[Timers](#)  
[Reboot](#)

**Base Alarms (Basic)**

[Go to Advanced Config](#)

Pnt	Description	Rm	Notification devices							
			N1	N2	N3	N4	N5	N6	N7	N8
1	SERVER ROOM	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	WEST SIDE DOOR	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	RECTIFIER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	MICROWAVE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reset Save

Web: v1.0A ©2009 DPS Telecom

## 9.2 How to Send SNMP Traps

1. Click on the **System** button in the **Edit** menu. Enter the **SNMP GET** and **SNMP SET** community strings for your network, then click **Save**. The typical SNMP SET and GET community strings for network devices is "public". As an added security measure, our default is "dps\_public".

The screenshot shows the 'System Settings' page for the 'NGDQ8 G2' device. The interface includes a left-hand menu with 'System' selected under the 'Edit Menus' section. The main content area is divided into three sections:

- Global System Settings:** Fields for Name (NGDQ8 G2), Location (Fresno, CA), Contact (559-454-1600), "From" E-mail Address (NGDQ8@dpstele.com), SNMP GET String (dps\_public), SNMP SET String (dps\_private), User (admin), and Password (masked).
- DCP Responder Settings:** DCP Unit ID (1), Listen DCP over LAN (unchecked), DCP LAN (2001), and DCP Protocol (UDP).
- System Controls:** Buttons for Initialize Configuration (Initialize), Backup Configuration (config.bin, Save), and Restore Configuration (Upload). At the bottom are Reset and Save buttons.

2. Click on the **Notifications** button in the **Edit** menu. You can setup as many as 8 different notifications. Begin the setup "wizard" by clicking on a notification number. In this example, we'll setup Notification 4 to send SNMP traps to your alarm master.

The screenshot shows the 'Notifications' page for the 'NGDQ8 G2' device. The left-hand menu has 'Notifications' selected under the 'Edit Menus' section. The main content area displays a table of 8 notifications:

No.	Stat.	Type	Server	Time Window 1	Time Window 2
1	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
2	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
3	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
4	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
5	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
6	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
7	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
8	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time

3. At the **Notification Setting** screen, check the **Enable Notification** box to turn "on" Notification 4.

Now, select the **Send SNMP Notification** button and click Next.

The screenshot shows the 'Notification 2' configuration page. On the left, there are two menu sections: 'Monitor Menus' (Base Alarms, Ping Targets, System Alarms, Event Log) and 'Edit Menus' (System, Ethernet, Notifications, Base Alarms, Ping Targets, System Alarms, Date and Time, Timers, Reboot). The main content area is titled 'Notification 2' and contains a 'Notification Setting' section with three radio buttons: 'Enable Notification' (checked), 'Send Email Notification', and 'Send SNMP Notification'. Below this are 'Next >' and 'Cancel' buttons. The footer shows '©2010 DPS Telecom'.

4. At the **SNMP Notification** screen, you'll enter your network's SNMP settings. Enter the **IP address** of your SNMP Trap Server, the **Trap Port Number** (usually 162) and the **Trap Community** password. Choose from SNMPv1 or v2c traps, then click **Next**.

The screenshot shows the 'SNMP Notification' configuration page. The left menu is identical to the previous screen. The main content area is titled 'Notification 2 (SNMP)' and contains an 'SNMP Notification' section with four input fields: 'SNMP Trap Server IP' (192.168.1.1), 'Trap Port No. (Usually Use 162)' (162), 'Trap Community' (trap\_public), and 'SNMP Trap Version' (radio buttons for v1 and v2c, with v1 selected). Below these fields are '< Back', 'Next >', and 'Cancel' buttons. The footer shows '©2010 DPS Telecom'.

5. At the **Schedule** screen, you'll select the exact days/times you want to receive SNMP notifications. You can set 2 schedules per notification. For example, you may want to receive notifications at certain times during the week, and at different hours on the weekend. Use the check boxes to select the days of the week, and select the time from the drop down menus. Click **Finish**. To try a test notification, click the **Test** button (See next step.)

The screenshot shows the 'Schedule' configuration page. The left menu is identical to the previous screens. The main content area is titled 'Notification 1 (Schedule)' and contains a table for defining notification schedules. The table has columns for 'No.', 'Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat', and 'Notification Time'. Two schedules are defined:

No.	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Notification Time
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Any Time   12 h 0 min AM to 11 h 59 min PM
2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Any Time   12 h 0 min AM to 11 h 59 min PM

Below the table are '< Back', 'Finish', 'Test', and 'Cancel' buttons. The footer shows '©2010 DPS Telecom'.



6. If you chose to test the SNMP notification, you will see the popup below. Click **OK** to send a test SNMP alarm notification. Confirm your settings by checking your alarm master to see if the SNMP trap was received.



**NOTE:** This test only means that your notification settings are correct, but you still need to assign the notification to an alarm point. See section "How to Send Email Notifications" for more detail.

# 10 Edit Menu Field Descriptions

## 10.1 System

From the **Edit > System** menu, you will configure and edit the global system, T/Mon and control settings for the NetGuardian-Q8.

*The Edit > System menu*

Global System Settings	
<b>Name</b>	A name for this NetGuardian-Q8. (Optional field)
<b>Location</b>	The location of this NetGuardian-Q8. (Optional field)
<b>Contact</b>	Contact telephone number for the person responsible for this NetGuardian-Q8. (Optional field)
<b>"From" Email Address</b>	A valid email address used by the NetGuardian-Q8 for sending email alarm notifications.
<b>SNMP GET String</b>	Community name for SNMP requests. (case-sensitive).
<b>SNMP SET String</b>	Community name for SNMP SET requests. (case-sensitive).
<b>User</b>	Used to change the username for logging into the unit.
<b>Password</b>	Used to change the password for logging into the unit (case-sensitive).
DCP Responder Settings (For use with T/Mon NOC)	
<b>DCP Unit ID</b>	User-definable ID number for this NetGuardian-Q8 (DCP Address).
<b>Listen DCP</b>	Choose to listen DCP over LAN or serial. May also be disabled.
<b>DCP LAN</b>	Enter the DCP port for this NetGuardian-Q8 (UDP/TCP port).
<b>DCP Serial</b>	Clickable link to configure serial port settings.
System Controls	
<b>Initialize Configuration</b>	Used to restore all factory default settings to the NetGuardian-Q8. Do not initialize the non-volatile RAM (NVRAM) unless you want to re-enter all of your configuration settings again.
<b>Upgrade Firmware</b>	Clickable link that takes you to the Firmware Load screen, where you'll browse to

	the downloaded firmware update saved on your PC.
<b>Backup Config</b>	Allows you to save the running configuration to your PC
<b>Restore Config</b>	Allows you to restore a previously backed up configuration

## 10.2 Ethernet

The **Edit > Ethernet** menu allows you to define and configure Ethernet settings.

*The Edit > Ethernet menu*

Ethernet Settings	
<b>Unit MAC</b>	Hardware address of the NetGuardian-Q8. (Not editable - For reference only.)
<b>Host Name</b>	Used only for web browsing. Example: If you don't want to remember this NetGuardian's IP address, you can type in a name in this field, such as NG216G3. Once you save and reboot the unit, you can now browse to it locally by simply typing in "NG216G3" in the address bar. (no "http://" needed).
<b>Enable DHCP</b>	Used to turn on Dynamic Host Connection Protocol. NOT recommended, because the unit is assigned an IP address from your DHCP server. The IP you've already assigned to the unit becomes inactive. Using DHCP means the unit will NOT operate in a T/Mon environment.
<b>Unit IP</b>	IP address of the NetGuardian-Q8.
<b>Subnet Mask</b>	A road sign to the NetGuardian-Q8, telling it whether your packets should stay on your local network or be forwarded somewhere else on a wide-area network.
<b>Gateway</b>	An important parameter if you are connected to a wide-area network. It tells the NetGuardian which machine is the gateway out of your local network. Set to 255.255.255.255 if not using. Contact your network administrator for this info.
Ethernet Settings	
<b>DNS Server 1</b>	Primary IP address of the domain name server. Set to 255.255.255.255 if not using.
<b>DNS Server 2</b>	Secondary IP address of the domain name server. Set to 255.255.255.255 if not using.

## 10.3 Notifications

From the initial **Edit > Notifications** menu, you will see which of the 8 notifications are enabled, their server, and schedule. Click on the number link for one of the notifications to begin configuration.

**Monitor Menus:**  
[Base Alarms](#)  
[Ping Targets](#)  
[System Alarms](#)  
[Event Log](#)

**Edit Menus:**  
[System](#)  
[Ethernet](#)  
[Notifications](#)  
[Base Alarms](#)  
[Ping Targets](#)  
[System Alarms](#)  
[Date and Time](#)  
[Timers](#)  
[Reboot](#)

No.	Stat.	Type	Server	Time Window 1	Time Window 2
1	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
2	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
3	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
4	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
5	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
6	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
7	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time
8	OFF	Email		Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time	Sun, Mon, Tue, Wed, Thu, Fri, Sat, Any Time

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*The Edit > Notifications menu*

Once you've chosen which notification you want to setup, check the **Enable Notification** to turn it "on." Then choose a notification method, either email or SNMP.

**Notification 1**

**Notification Setting**

Enable Notification

Send Email Notification

Send SNMP Notification

Next > Cancel

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## 10.3.1 Notification Settings

### Email Notification Fields

*Editing Email Notification Settings*

<b>Email Notification</b>	
<b>SMTP Server IP or Host Name</b>	The IP address of your email server.
<b>Port Number</b>	The port used by your email server to receive emails, usually set to 25.
<b>"From" E-mail Address</b>	Displays the email address (defined in the Edit menu > System) that the NetGuardian-Q8 will send email from. Not editable from this screen.
<b>"To" E-mail Address</b>	The email address of the person responsible for this NetGuardian-Q8, who will receive email alarm notifications.

### SNMP Notification Fields

*Editing SNMP notification settings*

<b>SNMP Notification</b>	
<b>SNMP Trap Server IP</b>	The SNMP trap manager's IP address.
<b>Trap Port No.</b>	The SNMP port (UDP port) set by the SNMP trap manager to receive traps, usually set to 162.
<b>Trap Community</b>	Community name for SNMP TRAP requests.
<b>SNMP Trap Version</b>	Send SNMPv1 traps or SNMPv2c traps

## 10.3.2 Schedule

The **Edit > Schedule** menu is where you will tell the NetGuardian-Q8 exactly which days and times you want to receive alarm notifications. You set 2 different schedules for each discrete base alarm.

*The Schedule creation screen*

Notification Scheduling	
<b>Days of the week</b>	From either Schedule 1 or 2, check which days you want to receive notifications.
<b>Any Time</b>	Select to tell the NetGuardian-Q8 you want to receive alarm notifications at any time for the day(s) you've selected.
<b>Notification Time</b>	Used to tell the NetGuardian to only send alarm notifications during certain hours on the day(s) you've selected.

## 10.4 Base Alarms

The NetGuardian-Q8's discrete base alarms are configured from the **Edit > Base Alarms** menu. Descriptions for the alarm points, polarity (normal or reversed) and notification type(s) are defined from this menu. You also have the option to use a **Basic** or **Advanced** configuration methods, explained in the following 2 sections.

*The Advanced Config button on the Edit > Base Alarms screen*

### 10.4.1 Basic Configuration

Editing Base Alarms - Basic	
<b>Pnt (Point)</b>	Alarm point number.
<b>Description</b>	User-definable description for the discrete alarm input.
<b>Rev (Reverse)</b>	Reverse: Check this box to reverse the polarity of the alarm point. Left unchecked, this means a normally-open contact closure is a clear condition. When polarity is reversed, a normally-closed alarm point is clear when closed.  <i>Example:</i> Door with a magnetic door sensor. When the door is closed, the magnetic sensor acts like a closed relay. However, you know this should not trigger an alarm condition. This means you'd want the door alarm reversed in the NetGuardian because we are looking for a normally closed condition.
<b>Notification devices</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for that alarm point. These notification devices correlate to one of the 8 devices you setup for notification (email, SNMP trap, etc.) Check the box in the green bar (top) to have a notification device send an alarm for all alarm points.

## 10.4.2 Advanced Configuration

Monitor Menus:  
 Base Alarms  
 Ping Targets  
 System Alarms  
 Event Log

Edit Menus:  
 System  
 Ethernet  
 Notifications  
 Base Alarms  
 Ping Targets  
 System Alarms  
 Date and Time  
 Timers  
 Reboot

Base Alarms (Advanced)

Go to Basic Config

Pnt	Description	On Set	On Clear	Qual. Time	Qual. Type
1	<input type="text"/>	Alarm	Clear	0s	Set
2	<input type="text"/>	Alarm	Clear	0s	Set
3	<input type="text"/>	Alarm	Clear	0s	Set
4	<input type="text"/>	Alarm	Clear	0s	Set
5	<input type="text"/>	Alarm	Clear	0s	Set
6	<input type="text"/>	Alarm	Clear	0s	Set
7	<input type="text"/>	Alarm	Clear	0s	Set
8	<input type="text"/>	Alarm	Clear	0s	Set

Reset Save

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*The Advanced Base Alarms Config screen*

Editing Base Alarms - Advanced	
<b>Pnt (Point)</b>	Point: Alarm point number.
<b>Description</b>	User-definable description for the discrete alarm input.
<b>On Set</b>	User-definable description (condition) that will appear for the discrete alarm input on Set. Example: "Alarm"
<b>On Clear</b>	User-definable description (condition) that will appear for the discrete alarm input on Clear. Example: "Clear"
<b>Qual. Time (Qualification Time)</b>	The length of time that must pass, without interruption, in order for the condition to be considered an Alarm or a Clear.  <i>Example:</i> If you have a loose door contact and you receive a false alarm every time the wind blows, you might want to set a 3-second qualification time. This means the door would have to be in the Alarm state for at least 3 seconds before the alarm is triggered and a notification is sent.
<b>Qual. Type (Qualification Type)</b>	Allows you to choose whether you want to apply the Qualification Time to the alarm Set, Clear, or Both. (Most people use only Set.)



## 10.5 System Alarms

The screenshot shows the 'System Alarms' configuration page for NGDQ8 G2. The page includes a sidebar with 'Monitor Menus' and 'Edit Menus'. The 'System Alarms' menu item is highlighted in blue. The main content area displays a table of system alarms with columns for Pnt, Description, Rpt, and Notification devices (N1-N8). The table contains the following data:

Pnt	Description	Rpt	N1	N2	N3	N4	N5	N6	N7	N8
17	Timed Tick	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Network Time Server	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Unit Reset	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36	Lost Provisioning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	DCP Poller Inactive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	LAN not Active	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	SNMP Trap not Sent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46	Craft RcvQ Full	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

At the bottom of the table, there are 'Reset' and 'Save' buttons. The footer of the page indicates '©2010 DPS Telecom'.

*The Edit > System Alarms menu*

Editing System Alarms	
<b>Pnt (Point)</b>	Alarm point number
<b>Description</b>	Non-editable description for this System (housekeeping) Alarm.
<b>Rpt (Report)</b>	Check this box to choose to report this alarm. Check the box in the green bar (top) to have <u>all</u> System Alarms reported. Leave unchecked to ignore.
<b>Notification devices</b>	Check which notification device(s), 1 through 8, you want to send alarm notifications for that alarm point. Check the box in the green bar (top) to have that notification device send a notification for <u>all</u> the System Alarms.

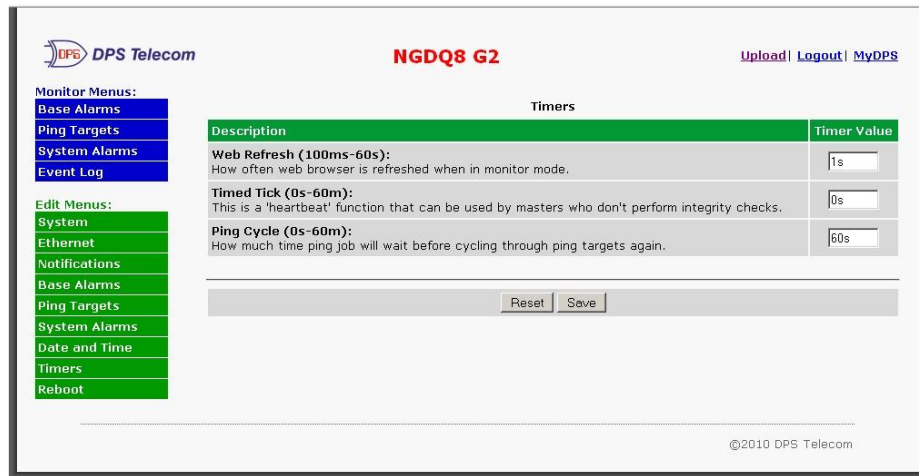
## 10.6 Date and Time

The screenshot shows the 'Date and Time' configuration page in the NetGuardian-Q8 web interface. The page is titled 'Date and Time' and is part of the 'Edit' menu. The interface includes a sidebar with navigation options like 'Base Alarms', 'System Alarms', and 'Event Log'. The main content area is divided into three sections: 'Time Settings', 'Automatic Time Adjustment (NTP)', and 'Adjust Clock for Daylight Saving Time (DST)'. The 'Time Settings' section has dropdown menus for Date (Month, Day, Year) and Time (Hour, Minute, PM). The 'Automatic Time Adjustment (NTP)' section has a checkbox for 'Enable NTP', a text input for 'NTP Server Address or Host Name', and a dropdown for 'Time Zone'. The 'Adjust Clock for Daylight Saving Time (DST)' section has a checkbox for 'Enable DST' and two rows of dropdown menus for 'Start Day' and 'End Day', each with fields for Month, Weekday, and Hour. At the bottom, there are 'Reset' and 'Save' buttons.

*The Edit > Date and Time menu*

Time Settings	
<b>Date</b>	Select the current month, day, and year from the drop-down menus.
<b>Time</b>	Select the current hour, minutes, and time of day from the drop-down menus.
Automatic Time Adjustment (NTP)	
<b>Enable NTP</b>	Check this box to enable Network Time Protocol.
<b>NTP Server Address or Host Name</b>	Enter the NTP server's IP address or host name, then click Sync. Example: north-america.pool.ntp.org
<b>Time Zone</b>	Select your time zone from the drop-down menu.
Adjust Clock for Daylight Savings Time (DST)	
<b>Enable DST</b>	Check this box to have the NetGuardian-Q8 observe Daylight Savings.
<b>Start Day</b>	Select the month, weekday, and time when Daylight Savings will begin.
<b>End Day</b>	Select the month, weekday, and time when Daylight Savings will end.

## 10.7 Timers



*The Edit > Timers menu*

## 10.8 Reboot

Click on the **Reboot** link from the **Edit** menu will reboot the NetGuardian-Q8 after writing all changes to NVRAM.



*The Edit > Reboot confirmation popup*

## 10.9 Monitoring via the Web Browser

### 10.9.1 Monitoring Base Alarms

This selection provides the status of the base alarms by indicating if an alarm has been triggered. Under the **State** column, the status will appear in red if an alarm has been activated. The status will be displayed in green when the alarm condition is not present.

Pnt	Description	State
1		Alarm
2		Alarm
3		Alarm
4		Alarm
5		Alarm
6		Alarm
7		Alarm
8		Alarm

*Click on Base Alarms in the Monitor menu to see if any base alarms have been triggered.*

### 10.9.2 Monitoring System Alarms

System alarms are not-editable, housekeeping alarms that are programmed into NetGuardian-Q8. The **Monitor** > **System Alarms** screen provides the status of the system alarms by indicating if an alarm has been triggered. Under the **State** column, the status will appear in red if an alarm has been activated. The status will be displayed in green when the alarm condition is not present.

See "Display Mapping" in the Reference Section for a complete description of system alarms.

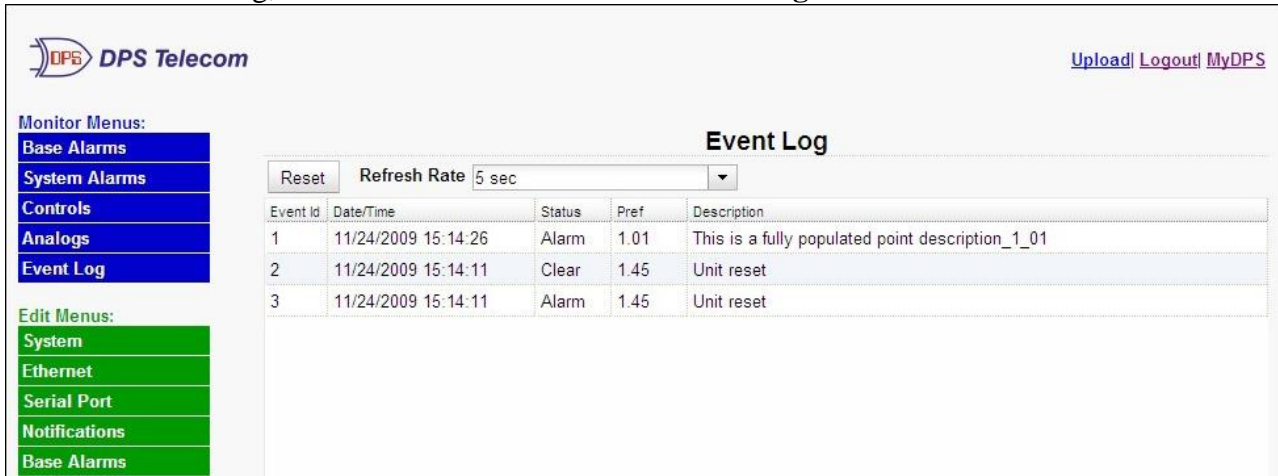
Pnt	Description	State
17	Timed Tick	Clear
19	Network Time Server	Clear
33	Unit Reset	Clear
36	Lost Provisioning	Clear
37	DCP Poller Inactive	Clear
38	LAN not Active	Clear
43	SNMP Trap not Sent	Clear
46	Craft RcvQ Full	Clear

*View the status of System Alarms from the Monitor > System Alarms menu.*

## 10.9.3 Viewing the Event Log

The NetGuardian-Q8 now features an internal Event Log, which displays the last 100 even since the unit was powered up. **NOTE:** This information is stored in "first in, first out" order in the NetGuardian's volatile memory. Events will reset when the unit has been rebooted.

To view the Event Log, click on the **Monitor** menu > **Event Log**.



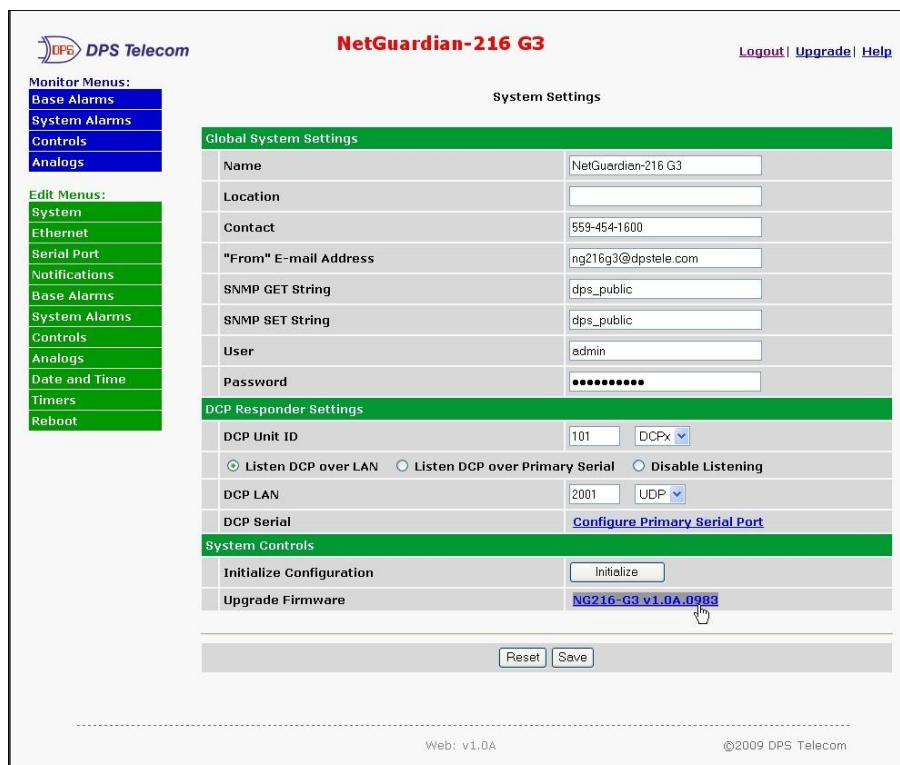
The screenshot shows the NetGuardian web interface. On the left, there are two menu sections: 'Monitor Menus' (Base Alarms, System Alarms, Controls, Analogs, Event Log) and 'Edit Menus' (System, Ethernet, Serial Port, Notifications, Base Alarms). The main content area is titled 'Event Log' and features a 'Reset' button, a 'Refresh Rate' dropdown set to '5 sec', and a table with the following data:

Event Id	Date/Time	Status	Pref	Description
1	11/24/2009 15:14:26	Alarm	1.01	This is a fully populated point description_1_01
2	11/24/2009 15:14:11	Clear	1.45	Unit reset
3	11/24/2009 15:14:11	Alarm	1.45	Unit reset

*Viewing the Event Log from the web browser.*

## 11 Firmware Upgrade

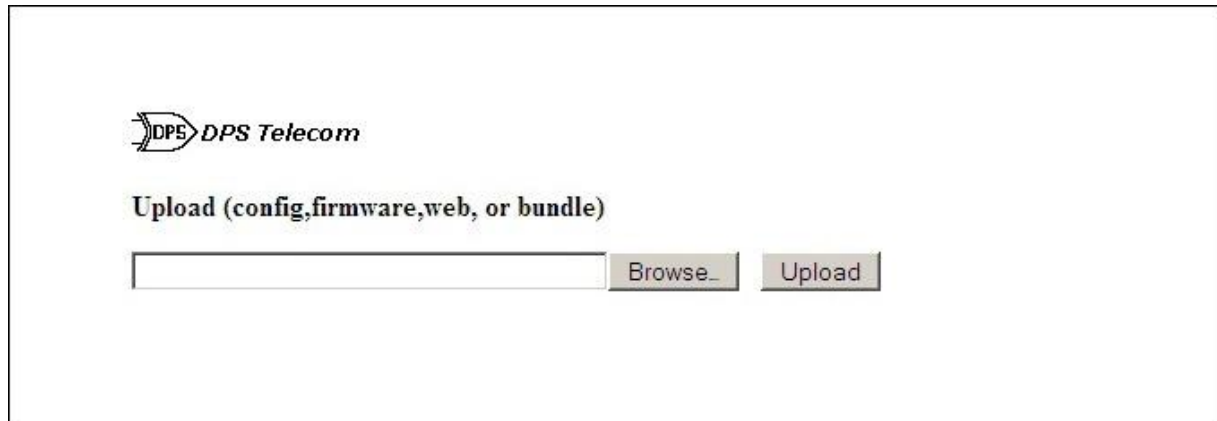
To access the **Firmware Load** screen, click on the **Edit** > **System** menu. At the bottom of this screen, click the firmware link located in the **System Controls** section.



The screenshot shows the 'System Settings' page for a NetGuardian-216 G3 unit. The page is divided into three main sections: 'Global System Settings', 'DCP Responder Settings', and 'System Controls'. The 'System Controls' section contains an 'Upgrade Firmware' link with the text 'NG216-G3 v1.0A\_0983' next to it, which is highlighted by a mouse cursor. Other settings include 'Name', 'Location', 'Contact', 'SNMP GET String', 'SNMP SET String', 'User', 'Password', 'DCP Unit ID', 'DCP LAN', and 'DCP Serial'.

*The clickable link to upgrade firmware from the Edit > System menu*

At the **Firmware Load** screen, simply browse for the firmware update you've downloaded from [www.dpstele.com](http://www.dpstele.com) and click **Load**.



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Upload (config, firmware, web, or bundle)

Browse... Upload

*Browse for downloaded firmware upgrade*

## 12 Reference Section

### 12.1 Display Mapping

Port	Address	Display	Description	Set	Clear
99	1	1	Discrete Alarms 1-10	8001-8010	9001-9010
99	1	2	Ping Table	8065-8096	9065-9096
99	1	11	System Alarms	8641-8674	9641-9674

*Table A1. Display descriptions and SNMP Trap numbers for the NetGuardian-Q8*

\* The TRAP number ranges shown correspond to the point range of each display. For example, the SNMP Trap "Set" number for alarm 1 (in Display 1) is 8001, "Set" for alarm 2 is 8002, "Set" for alarm 3 is 8003, etc.

Points	Description	SNMP Trap #s	
		Set	Clear
17	Timed Tick	8657	9657
33	Unit Reset	8673	9673
36	Lost Provisioning	8676	9676
37	DCP Poller Inactive	8677	9677
38	LAN not active	8678	9678
46	Craft RcvQ full	8686	9686
47	Modem RcvQ full	8687	9687

*Table A2. Display 11 System Alarms point descriptions*

### 12.2 System Alarms Display Map

Display	Points	Alarm Point	Description	Solution
11	43	SNMP processing error	SNMP trap address is not defined and an SNMP trap event occurred.	Define the IP Address where you would like to send SNMP trap events, or configure the event not to trap.
	19	NTP failed	Communication with Network Time Server has failed.	Try pinging the Network Time Server's IP Address as it is configured. If the ping test is successful, then check the port setting and verify the port is not being blocked on your network.
	17	Timed Tick	Toggles state at constant rate as configured by the Timed Tick timer variable. Useful in testing integrity of SNMP trap alarm reporting.	To turn the feature off, set the Timed Tick timer to 0.
	33	Unit reset	Unit has rebooted.	If unintentional, call DPS Tech Support: (559) 454-1600.

*System Alarms Descriptions*

## 12.3 SNMP Manager Functions

The SNMP Manager allows the user to view alarm status, set date/time, and perform a resync. The display and tables below outline the MIB object identifiers. Figure 1 begins with dpsRTU, however, the MIB object identifier tree has several levels above it. The full English name is as follows: root.iso.org.dod.internet.private.enterprises.dps-Inc.dpsAlarmControl.dpsRTU. Therefore, dpsRTU's full object identifier is 1.3.6.1.4.1.2682.1.2. Each level beyond dpsRTU adds another object identifying number. For example, the object identifier of the Display portion of the ControlGrid is 1.3.6.1.4.1.2682.1.2.3.3 because the object identifier of dpsRTU is 1.3.6.1.4.1.2682.1.2 + the ControlGrid (.3) + the Display (.3).

**Tbl. B1 - \_OV\_vTraps points.**

<b>OV vTraps (1.3.6.1.4.1.2682.1.2.0)</b>
PointSet (.20)
PointClr (.21)
SumPSet (.101)
SumPClr (.102)
ComFailed (.103)
ComRestored (.014)
P0001Clr (.20001) through P0064Set (.10064)
P0001Clr (.20001) through P0064Clr (.20064)

**Tbl. B2 - Identity points.**

<b>Ident (1.3.6.1.4.1.2682.1.2.1)</b>
Manufacturer (.1)
Model (.2)
Firmware Version (.3)
Date/Time (.4)
ResyncReq (.5)*

**Tbl. B3 - DisplayGrid points.**

<b>DisplayEntry (1.3.6.1.4.1.2682.1.2.2.1)</b>
Port (.1)
Address (.2)
Display (.3)
DispDesc (.4)*
PntMap (.5)*

\* Must be set to "1" to perform the resync request which will resend traps for any standing alarm.

\* For specific Display and PntMap descriptions see table A1.

**Tbl. B4 - NVRamSection points.**

<b>ControlGrid (1.3.6.1.4.1.2682.1.2.3)</b>
Port (.1)
Address (.2)
Display (.3)
Point (.4)
Action (.5)

**Tbl. B4 - NVRamSection points.**

<b>NVRamSection (1.3.6.1.4.2682.1.2.4.1)</b>
NVsNmbr (.1)
NvsData (.2)
NvsStatus (.3)

**Tbl. B5 - AlarmEntry points.**

<b>AlarmEntry (1.3.6.1.4.2682.1.2.5.1)</b>
APort (.1)
AAddress (.2)
ADisplay (.3)
APoint (.4)
APntDesc (.5)*
AState (.6)

\* For specific point descriptions, see table B7.

Table B7. Alarm Point Descriptions

	<b>Description</b>	<b>Port</b>	<b>Address</b>	<b>Display</b>	<b>Points</b>
Disp 1	No data*	99	1	1	1-10
	Undefined**	99	1	1	33-64
Disp 2	No data*	99	1	2	1-32
	Undefined**	99	1	2	33-64
Disp 11	No data*	99	1	11	1-8
	Undefined**	99	1	11	9-32
	Unit Reset	99	1	11	33
	Undefined**	99	1	11	34-35
	Lost	99	1	11	36
	DCP pol inactive	99	1	11	37
	LAN not active	99	1	11	38
	Undefined**	99	1	11	39-40
	SNMP trap not	99	1	11	43
	Craft RCVQ full	99	1	11	46



## 12.4 SNMP Granular Trap Packets

Below is a list of the information contained in the SNMP Trap packets sent by the NGD-Q8. SNMP Trap managers can use 1 of 2 methods to get alarm information: 1. - Granular traps (not necessary to define point descriptions for the NGD-Q8) or 2. - The SNMP manager reads the description from the Trap.

UDP Header	Description
1238	Source port
162	Destination port
303	Length
0xBAB0	Checksum

*Table C1. UDP Headers and descriptions*

SNMP Header	Description
0	Version
public	Request
Trap	Request
1.3.6.1.4.1.2682.1.2	Enterprise
126.10.230.181	Agent address
Enterprise Specific	Generic Trap
8001	Specific Trap
617077	Time stamp
1.3.7.1.2.1.1.1.0	Object
NGD-Q8 v.1.0D	Value
1.3.6.1.2.1.1.6.0	Object
1-800-622-3314	Value
1.3.6.1.4.1.2682.1.2.4.1.0	Object
01-02-1995 05:08:27.760	Value
1.3.6.1.4.1.2682.1.2.5.1.1.99.1.1.1	Object
99	Value
1.3.6.1.4.1.2682.1.2.5.1.2.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.2.5.1.3.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.2.5.1.4.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.2.5.1.5.99.1.1.1	Object
Rectifier Failure	Value
1.3.6.1.4.1.2682.1.2.5.1.6.99.1.1.1	Object
Alarm	Value

*SNMP Headers and descriptions*

## 13 Frequently Asked Questions

Here are answers to some common questions from NetGuardian-Q8 users. The latest FAQs can be found on the NetGuardian-Q8 support web page, <http://www.dpstele.com>.

If you have a question about the NetGuardian-Q8, please call us at (559) 454-1600 or e-mail us at [support@dpstele.com](mailto:support@dpstele.com)

## 13.1 General FAQs

### Q. How do I telnet to the NetGuardian-Q8?

A. You must use **Port 2002** to connect to the NetGuardian-Q8. Configure your Telnet client to connect using TCP/IP (**not** "Telnet," or any other port options). For connection information, enter the IP address of the NetGuardian-Q8 and Port 2002. For example, to connect to the NetGuardian-Q8 using the standard Windows Telnet client, click Start, click Run, and type "telnet <NetGuardian-Q8 IP address> 2002."

### Q. How do I connect my NetGuardian-Q8 to the LAN?

A. To connect your NetGuardian-Q8 to your LAN, you need to configure the unit IP address, the subnet mask and the default gateway. A sample configuration could look like this:

**Unit Address:** 192.168.1.100

**subnet mask:** 255.255.255.0

**Default Gateway:** 192.168.1.1

Save your changes by writing to NVRAM and reboot. Any change to the unit's IP configuration requires a reboot.

### Q. When I connect to the NetGuardian-Q8 through the craft port on the front panel it either doesn't work right or it doesn't work at all. What's going on?

A. Make sure your using the right COM port settings. Your COM port settings should read:

**Bits per second:** 9600 (9600 baud)

**Data bits:** 8

**Parity:** None

**Stop bits:** 1

**Flow control:** None

**Important!** Flow control **must** be set to **none**. Flow control normally defaults to hardware in most terminal programs, and this will not work correctly with the NetGuardian-Q8.

### Q. The LAN link LED is green on my NetGuardian-Q8, but I can't poll it from my T/Mon.

A. Some routers will not forward packets to an IP address until the MAC address of the destination device has been registered on the router's Address Resolution Protocol (ARP) table. Enter the IP address of your gateway and your T/Mon system to the ARP table.

### Q. What characteristics of an alarm point can be configured through software? For instance, can point 4 be used to sense an active-low signal, or point 5 to sense a level or an edge?

A. The unit's standard configuration is for all alarm points to be level-sensed. You **cannot** use configuration software to convert alarm points to TTL (edge-sensed) operation. TTL alarm points are a hardware option that must be specified when you order your NetGuardian-Q8. Ordering TTL points for your NetGuardian-Q8 does not add to the cost of the unit What you can do with the configuration software is change any alarm point from "Normal" to "Reversed" operation. Switching to Reversed operation has different effects, depending on the kind of input connected to the alarm point:

- **If the alarm input generates an active-high signal**, switching to Reversed operation means the NetGuardian-Q8 will declare an alarm in the absence of the active-high signal, creating the practical equivalent of an active-low alarm.

- **If the alarm input generates an active-low signal**, switching to Reversed operation means the NetGuardian-Q8 will declare an alarm in the absence of the active-low signal, creating the practical equivalent of an active-high alarm.

- **If the alarm input is normally open**, switching to Reversed operation converts it to a normally closed alarm point.

- **If the alarm input is normally closed**, switching to Reversed operation converts it to a normally open alarm point.

**Q. I'm unsure if the voltage of my power supply is within the specified range. How to I test the voltage?**

A. Connect the black common lead of a voltmeter to the ground terminal of the battery. Connect the red lead of the voltmeter to the batter's VCD terminal. The voltmeter should read between +12 and +30VDC.

## 13.2 SNMP FAQs

**Q. Which version of SNMP is supported by the SNMP agent on the NetGuardian?**

A. SNMP v1.

**Q. How do I configure the NetGuardian-Q8 to send traps to an SNMP manager? Is there a separate MIB for the NetGuardian-Q8? How many SNMP managers can the agent send traps to? And how do I set the IP address of the SNMP manager and the community string to be used when sending traps?**

A. The NetGuardian-Q8 begins sending traps as soon as the SNMP managers are defined. The NetGuardian-Q8 MIB is included on the NetGuardian-Q8 Resource CD. The MIB should be compiled on your SNMP manager. (**Note:** MIB versions may change in the future.) The unit supports 2 SNMP managers, which are configured by entering its IP address in the Trap Address field of Ethernet Port Setup. To configure the community strings, choose SNMP from the Edit menu, and enter appropriate values in the Get, Set, and Trap fields.

**Q. Does the NetGuardian-Q8 support MIB-2 and/or any other standard MIBs?**

A. The NetGuardian-Q8 supports the bulk of MIB-2.

**Q. Does the NetGuardian-Q8 SNMP agent support both NetGuardian-Q8 and T/MonXM variables?**

A. The NetGuardian-Q8 SNMP agent manages an embedded MIB that supports only the NetGuardian-Q8's RTU variables. The T/MonXM variables are included in the distributed MIB only to provide SNMP managers with a single MIB for all DPS Telecom products.

**Q. How many traps are triggered when a single point is set or cleared? The MIB defines traps like "major alarm set/cleared," "RTU point set," and a lot of granular traps, which could imply that more than one trap is sent when a change of state occurs on one point.**

A. Generally, a single change of state generates a single trap.

**Q. What does "point map" mean?**

A. A point map is a single MIB leaf that presents the current status of a 64-alarm-point display in an ASCII-readable form, where a "." represents a clear and an "x" represents an alarm.

**Q. The NetGuardian-Q8 manual talks about control relay outputs. How do I control these from my SNMP manager?**

A. The control relays are operated by issuing the appropriate set commands, which are contained in the DPS Telecom MIB.

**Q. How can I associate descriptive information with a point for the RTU granular traps?**

A. The NetGuardian-Q8 alarm point descriptions are individually defined using the Web Browser.

**Q. My SNMP traps aren't getting through. What should I try?**

A. Try these three steps:

1. Make sure that the Trap Address (IP address of the SNMP manager) is defined. (If you changed the Trap Address, make sure you saved the change to NVRAM and rebooted.)
2. Make sure all alarm points are configured to send SNMP traps.
3. Make sure the NetGuardian-Q8 and the SNMP manager are both on the network. Use the unit's ping command to ping the SNMP manager.

## 14 Technical Support

DPS Telecom products are backed by our courteous, friendly Technical Support representatives, who will give you the best in fast and accurate customer service. To help us help you better, please take the following steps before calling Technical Support:

**1. Check the DPS Telecom website.**

You will find answers to many common questions on the DPS Telecom website, at <http://www.dpstele.com/support/>. Look here first for a fast solution to your problem.

**2. Prepare relevant information.**

Having important information about your DPS Telecom product in hand when you call will greatly reduce the time it takes to answer your questions. If you do not have all of the information when you call, our Technical Support representatives can assist you in gathering it. Please write the information down for easy access. Please have your user manual and hardware serial number ready.

**3. Have access to troubled equipment.**

Please be at or near your equipment when you call DPS Telecom Technical Support. This will help us solve your problem more efficiently.

**4. Call during Customer Support hours.**

Customer support hours are Monday through Friday, from 7 A.M. to 6 P.M., Pacific time. The DPS Telecom Technical Support phone number is **(559) 454-1600**.

**Emergency Assistance:** *Emergency assistance is available 24 hours a day, 7 days a week. For emergency assistance after hours, allow the phone to ring until it is answered with a paging message. You will be asked to enter your phone number. An on-call technical support representative will return your call as soon as possible.*

## 15 End User License Agreement

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This Agreement shall be construed and enforced in accordance with the laws of the State of California, without regard to choice of law principles and excluding the provisions of the UN Convention on Contracts for the International Sale of Goods. Any dispute arising out of the Agreement shall be commenced and maintained only in Fresno County, California. In the event suit is brought or an attorney is retained by any party to this Agreement to seek interpretation or construction of any term or provision of this Agreement, to enforce the terms of this Agreement, to collect any money due, or to obtain any money damages or equitable relief for breach, the prevailing party shall be entitled to recover, in addition to any other available remedy, reimbursement for reasonable attorneys' fees, court costs, costs of investigation, and other related expenses.



# Warranty

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DPS Telecom warrants, to the original purchaser only, that its products a) substantially conform to DPS' published specifications and b) are substantially free from defects in material and workmanship. This warranty expires two years from the date of product delivery with respect to hardware and ninety days from the date of product delivery with respect to software. If the purchaser discovers within these periods a failure of the product to substantially conform to the specifications or that the product is not substantially free from defects in material and workmanship, the purchaser must promptly notify DPS. Within reasonable time after notification, DPS will endeavor to correct any substantial non-conformance with the specifications or substantial defects in material and workmanship, with new or used replacement parts. All warranty service will be performed at the company's office in Fresno, California, at no charge to the purchaser, other than the cost of shipping to and from DPS, which shall be the responsibility of the purchaser. If DPS is unable to repair the product to conform to the warranty, DPS will provide at its option one of the following: a replacement product or a refund of the purchase price for the non-conforming product. These remedies are the purchaser's only remedies for breach of warranty. Prior to initial use the purchaser shall have determined the suitability of the product for its intended use. DPS does not warrant a) any product, components or parts not manufactured by DPS, b) defects caused by the purchaser's failure to provide a suitable installation environment for the product, c) damage caused by use of the product for purposes other than those for which it was designed, d) damage caused by disasters such as fire, flood, wind or lightning unless and to the extent that the product specification provides for resistance to a defined disaster, e) damage caused by unauthorized attachments or modifications, f) damage during shipment from the purchaser to DPS, or g) any abuse or misuse by the purchaser.

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The purchaser shall fill out the requested information on the Product Warranty Card and mail the card to DPS. This card provides information that helps DPS make product improvements and develop new products.

For an additional fee DPS may, at its option, make available by written agreement only an extended warranty providing an additional period of time for the applicability of the standard warranty.

## **Technical Support**

If a purchaser believes that a product is not operating in substantial conformance with DPS' published specifications or there appear to be defects in material and workmanship, the purchaser should contact our technical support representatives. If the problem cannot be corrected over the telephone and the product and problem are covered by the warranty, the technical support representative will authorize the return of the product for service and provide shipping information. If the product is out of warranty, repair charges will be quoted. All non-warranty repairs receive a 90-day warranty.

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