

NetGuardian LT

USER MANUAL



Visit our website at www.dpstelecom.com for the latest PDF manual and FAQs.

September 21, 2012

D-UM-NGDLT

Firmware Version 2.0H

Revision History			
September 21, 2012	Added support for DCPe polling with NetGuardian 16 with substation firmware		
January 18, 2012	Added 24-hour clock detail		
January 04, 2011	Clarified instructions for Creating Custom Voice Alerts		
April 28, 2010	Added chapter on creating voice config with offline editor.		
January 19, 2010	Added chapter on online text-to-speech tool.		
April 10, 2009	Updated Specifications		
April 8, 2009	Added Form-C Contact		
March 11, 2009	Added optional accessories to Shipping List.		
March 10, 2009	Updated NetGuardian LT User Manual released (D-OC-UM093.10100)		
January 22, 2009	Preliminary NetGuardian LT User Manual released (D-OC-UM091.22100)		

This document contains proprietary information which is protected by copyright. All rights are reserved. No part of this document may be photocopied without prior written consent of DPS Telecom.

All software and manuals are copyrighted by DPS Telecom. Said software and manuals may not be reproduced, copied, transmitted or used to make a derivative work, by either mechanical, electronic or any other means in whole or in part, without prior written consent from DPS Telecom, except as required by United States copyright laws.

© 2012 DPS Telecom

Notice

The material in this manual is for information purposes and is subject to change without notice. DPS Telecom shall not be liable for errors contained herein or consequential damages in connection with the furnishing, performance, or use of this manual.

Contents

1	Net	Guardiar	n LT Overview	1
2	Spe	cificatio	ns	2
3	Shipping List			3
4	4 Tools Needed			4
5	Inst	allation		5
	5.1	Mounting	g	5
	5.2	NetGuar	rdian LT Back Panel	7
		5.2.1	Power Connection	7
		5.2.2	Power Out Jack	8
		5.2.3	Craft Port	8
		5.2.4	LAN Connection	8
		5.2.5	Telco Connection	8
	5.3	NetGuar	rdian LT Front Panel	9
		5.3.1	Discrete Alarms and Relay Connection	9
		5.3.2	Analog Temperature Sensors	11
6	ΤΤΥ	Interfac	e	12
	6.1	DCP Se	ttings	13
	6.2	Lockdow	vn Mode	13
7	Qui	ck Start:	How to Connect to the NetGuardian LT	14
	7.1	via Cra	aft Port	14
	7.2	via LA	N	17
8	Net	Guardiar	n LT Web Browser	18
	8.1	Introduct	tion	19
9	Log	ging on	to the NetGuardian LT	19
	9.1	Changin	g the Default Password	20
10	Net	Guardiar	n LT - Most Important How-Tos	21
	10.1	How to S	Send Email Notifications	21
	10.2	2 How to S	Send SNMP Traps	24
	10.3	B How to S	Send Call (Voice) Notifications	26
	10.4	How to C	Create Custom Voice Alerts	28
		10.4.1	Using the NetGuardianLTEdit Software	28
11	Mor	nitoring w	via the Web Browser	30
	11.1	Monitori	ng Base Alarms	30
	11.2	2 Monitorii	ng System Alarms	31
	11.3	3 Operatin	ng Controls	32
	11.4 Monitoring Analog Temperature Sensors			

Visit our website at www.dpstelecom.com for the latest PDF manual and FAQs

12	Edit	Menu Fie	eld Descriptions	33
	12.1	System		33
		12.1.1	Configure Serial Port	34
	12.2	Ethernet		35
	12.3	Notificatio	ons	36
		12.3.1	Notification Settings	37
		12.3.2	Schedule	39
	12.4	Base Ala	rms	39
		12.4.1	Basic Configuration	40
		12.4.2	Advanced Configuration	41
	12.5	Systerm /	Alarms	42
	12.6	Controls		43
	12.7	Analogs		44
		12.7.1	Basic Configuration	44
		12.7.2	Advanced Configuration	45
	12.8	Date and	Time	46
	12.9	Timers		47
	12.10	Reboot		47
13	Firm	ware Up	grade	48
14	Refe	rence Se	ction	49
	14.1	LED Funt	ionality	49
14.2 Display Mapping		lapping	50	
	14.3	SNMP M	anager Functions	51
	14.4	SNMP G	anular Trap Packets	52
15	Freq	uently A	sked Questions	53
	15.1	General F	AQs	53
	15.2	SNMP FA	AQs	54
16	Tech	nnical Su	pport	55
17	End	User Lise	nce Agreement	56

1 NetGuardian LT Overview



Compact, easy-to-install, right-size capacity - the NetGuardian LT ("Lite") offers a low-cost way of effectively monitoring smaller sites.

Effective, easy-to-install, light-capacity alarm monitoring

The NetGuardian LT is a compact, LAN-based, light-capacity remote telemetry unit. The NetGuardian LT is designed for easy installation at small remote sites, making it cost-effective to deploy alarm monitoring throughout your entire telecom network.

Powerful monitoring for smaller sites

The NetGuardian LT is based on the time-tested NetGuardian design used in high-capacity models. This telcograde remote is housed in a durable aluminum case that can be rack or wall-mounted. This SNMP remote is scaled to the needs of small sites, such as remote huts, collocation racks, and enclosed cabinets - perfect for any site where a large capacity RTU would be more than you need.

- Custom Voice Dial-Out with DTMF Acknowledge
- Up to 4 Discrete Alarm Inputs
- 1 Integrated Analog Temperature Sensor
- 1 External Analog Temperature Probe (Optional)
- 1 Control Relay (Optional)

Easy Alerts via Phone or SNMP

When alarms occur, custom voice alerts will be sent to your phone. SNMP traps will also be sent to your SNMP manager. Dial right into the NetGuardian LT and request a verbal report using custom Voice Dial-Out technology with DTMF acknowledge.

SNMP or T/Mon NOC

The NetGuardian LT can report alarms to any SNMP manager or to the DPS Telecom T/Mon NOC Remote Alarm Monitoring System. The NetGuardian LT can also report via SNMP and DCPx concurrently to the T/Mon NOC.

Easy installation and configuration

Since it's LAN-based, the NetGuardian LT installs quickly and easily, without the expense of laying dedicated lines. The unit mounts in any 19" or 23" rack and occupies only 1 RU. The unit has spring-clamp terminal connectors to make wiring alarms fast and easy. The front-panel LEDs show you the summary status.

2 Specifications

Discrete Alarm Inputs: Up to 4			
Temperature Sensors:	1 Integrated Analog Sensor		
	Support for 1 External Analog Sensor		
Temp. Thresholds:	4		
Control Relays:	1Form-C (-92 VDC to +92 VDC)		
Protocols:	SNMPv1, DCPx, TELNET, HTTP		
Dimensions:	1.720" H x 8.126" W x 7.146" D (4.369 cm x 20.641 cm x 18.152 cm)		
Weight:	1 lb. 5 oz.		
Mounting:	19" or 23" rack		
Power Input			
Voltage Options Include:	+24 VDC nominal via 110VAC wall transformer (18 to 36 VDC) -48VDC nominal (-36 to -72 VDC)		
Current Draw:	100 mA @ 24VDC		
	50 mA @ -48VDC		
Fuse:	Resettable Fuse (Internal)		
Interfaces:	1 RJ45 10BaseT half-duplex Ethernet port		
	1 DB9 rear-panel craft port		
	1 - 1/8 Stereo connector for external temperature probe		
	1 RJ11 telco jack		
	Up to 4 Alarm input connectors (2 inputs per alarm)		
	1 Relay output connector (NO, NC, CO)		
	1 Push button switch		
Visual Interface:	8 Firmware-controlled LEDs		
	1 Hardware-controlled LED		
	2 LAN Connector Hardware LEDs		
Operating Temperature:	32°–140° F (0°–60° C)		
Operating Humidity:	0%–95% non-condensing		
MTBF:	60 years		
Windows Compatibility:	XP, Vista, 7 32/64 bit		
RoHS:	5/6		

3 Shipping List

Please make sure all of the following items are included with your NetGuardian LT. If parts are missing, or if you ever need to order new parts, please refer to the part numbers listed and call DPS Telecom at **1-800-622-3314**.



NetGuardian LT D-PK-NGDLT



NetGuardian LT User Manual D-UM-NGDLT



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



Telephone Cable 6 ft D-PR-045-10A-01



Wall Mount Bracket D-CS-532-10A-05



Two Standard Rack Screws 1-000-12500-06



NetGuardian LT Resource CD



14 ft. Ethernet Cable D-PR-923-10B-14



19" Rack Ear D-CS-325-10A-00



Two wall mount bracket screws 2-000-6250-01



Four 3/8" Ear Screws 1-000-60375-05

Two Metric Rack Screws 2-000-80750-03

Optional Accessories



Power plug to open end D-PR-1047-10A-10



Long ear, 19" rack D-CS-325-10A-08



1/2 Amp GMT fuses 2-741-00500-00

4 Tools Needed



Pads 2-015-00030-00



+24V Wall Transformer D-PR-105-10A-02



Four 3/8" Ear Screws 1-000-60375-05



Small WAGO connector 2-802-01020-00

To install the NetGuardian, you'll need the following tools. **NOTE:** To install the NetGuardian LT in one of the wall-mount configurations, you will also require a wrench or driver capable of tightening 3/8" hex nuts.



Wire Strippers

Phillips No. 2 Screwdriver (For rack mounting)

5 Installation

5.1 Mounting



The NetGuardian LT can be flush or rear-mounted

The compact NetGuardian LT occupies only half the width of a standard rack unit. 19" rack ears are supplied with the NetGuardian LT. The NetGuardian LT mounts in a 19" or 23" rack, and can be mounted on the right or left, or rear mount locations, as shown below.



Use the included wall mount bracket to mount the NetGuardian LT vertically on the wall.

Wall-Mounting Instructions

The rack ears can be rotated 90° for wall mounting or 180° for other mounting options (not shown).

- 1. Depending on your order options, you will can attach wall-mount flanges to both sides of the unit in one of two ways:
 - a. Place the flange over the protruding screws and fasten it to the 3/8" hex nuts provided.
 - b. OR Fasten the flange to the NetGuardian LT with two of the 6/32 screws provided. (**NOTE**: Screws longer than those provided may contact the internal components of the unit, adversely affecting its normal operation.)
- 2. After flanges have been attached to the NetGuardian LT, mount the unit in the desired location with two

screws through each flange.



Fig. 5c The NetGuardian LT also mounts on your 19" or 23" equipment racks.

Rack-Mounting Instructions

The NetGuardian LT mounts onto one side of a 19" or 23" rack using the provided rack ear for either size. The ear can be rotated 180 degrees during installation to adjust the position of the unit relative to the rack. Attach the appropriate ear to the rack in the desired location.



Pinouts for the NetGuardian LT back panel connections

5.2.1 Power Connection

The NetGuardian LT is powered by a screw-on plug, located on the right side of the back panel. (See Fig. 5e)



Close-up view of NetGuardian's screw-on power connector.

To connect the NetGuardian Lt's power supply, follow these steps:

- 1. Plug in the power connector to the rear panel of the NetGuardian LT.
- 2. Twist the collar of the plug to lock in place.
- 3. Plug in the wall transformer to a power outlet.

5.2.2 Power Out Jack

The VDC power out jack on the back panel of the NetGuardian LT is used to power external analog sensors. See Fig. 5e for a detailed look at the screw on plug.

5.2.3 Craft Port

The back panel craft port is primarily used to give the NetGuardian LT an IP address so you can continue the rest of your database configuration over LAN. Use a terminal emulating software program like HyperTerminal to enter the NetGuardian LT's TTY interface. Please see the Quick Start in the next section for instructions.

To use the craft port, connect the included DB9 download cable from your PC's COM port to the craft port.

5.2.4 LAN Connection

LAN is used for web browsing to the NetGuardian LT. You can also do your databasing over LAN, as well as sending email notifications and SNMP traps. To connect the NetGuardian LT to the LAN, insert a standard RJ45 Ethernet cable into the 10BaseT Ethernet port on the back of the unit. (See Fig. 5d) If the LAN connection is OK, the LNK LED will light **SOLID GREEN**.

5.2.5 Telco Connection

The NetGuardian LT's telco connection is used for voice notifications. The rear panel telco jack (see Fig. 5d) connects the NetGuardian LT to a standard telephone line. This will allow you to dial in / dial out from the unit.

5.3 NetGuardian LT Front Panel

5.3.1 Discrete Alarms and Relay Connection



Discrete alarm inputs and control relay are wired using the spring-clamp terminal block connectors.

Convenient Latching Terminations - No Screwdriver Necessary

The spring-clamp terminal block connectors make wiring alarms fast and easy. The NetGuardian LT features up to 4 discrete alarm inputs (depending on your build option.) There are 2 inputs per alarm. The unit's relay connector has 3 outputs for Normally Open (NO), Normally Closed (NC), and Common (CO).

- 1. Strip a small piece off the end of the wire.
- 2. Flip open the connector for the desired alarm input. Lock it down over the wire.
- 3. Indicator LEDs on the front panel show you the summary status. Check for solid green light to see if power is connected.

Dry Contact



Contact to Ground



Note: Make sure that grounds have a common reference _ this is usually done by tying grounds together.

Form-C Contact



Discrete alarm points can connect as a dry contact, a contact to ground, or a Form-C contact

The discrete alarm inputs are also called digital inputs or contact closures. Discrete alarms are either activated or inactive, so they're typically used to monitor on/off conditions like power outages, equipment failures, door alarms and so on.

The unit's discrete alarm points are single-lead signals referenced to ground. The ground side of each alarm point is internally wired to ground, so alarm points can connect either as a dry contact or a contact to ground.

In a dry contact alarm, the alarm lead brings a contact to the ground lead, activating the alarm. In a contact to ground alarm, a single wire brings a contact to an external ground, activating the alarm.

5.3.2 Analog Temperature Sensors



Temperature sensor jack.

1 Integrated Temperature Sensor and Support for 1 External Sensor (Optional)

The NetGuardian LT features one internal temperature sensor, used to monitor the ambient temperature. Both the internal and external temperature sensors measures a range of 32° F to 140° F (0° C to 60° C) within an accuracy of $\pm 1^{\circ}$.

The external temperature sensor probe provides external temperature readings by plugging the sensor into the Temp port on the front panel. *This is an optional hardware configuration and is not included for all units*.

6 TTY Interface



The TTY interface initial configuration screen

The TTY interface is the NetGuardian's built-in interface for basic configuration. You can configure unit's DCP settings (including protocol, IP address, and port information), Ethernet port settings, view debug, and monitor alarms. For more advanced configuration tools, please use the Web Browser Interface.

Some initial software configuration must be performed before you can use a remote connection to the NetGuardian LT. For Telnet, connect to the IP address at port 2002 to access the configuration menus after initial LAN/WAN setup. The same TTY interface is available through the front craft port. **Telnet sessions are established at port 2002, not the standard Telnet port** as an added security measure.

If you're using Windows 7, then you'll need to install telnet before you can use the TTY interface. To install telnet, open up your command line (type "cmd" into the search bar in the **Start Menu**). Select **cmd.exe** to run the command line.



From the command line, type in "pkgmgr /iu:"TelnetServer" then press **enter**. When the command prompt appears again, the installation is complete.

NOTE: The default TTY username is "admin" and the password is "dpstelecom".

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.

6.1 DCP Settings

From the TTY interface, you can configure the DCPe settings for the NetGuardian 16 with substation firmware. You can configure the IP address, the port number, the timeout duration, and the number of retries.

To access the DCP settings:

- 1. Login to the TTY interface and press C)onfig.
- 2. Press D)CP.
- 3. Press D)CPe Settings.



The TTY interface DCP configuration options.

6.2 Lockdown Mode

- IP Lockdown mode can be enabled via the TTY interface:
- 1. Login to the TTY interface and press C)onfig
- 2. Press L)ockdown to enable IP Lockdown mode.
- 3. A warning will be displayed. If you wish to enter Lockdown mode, press E)nable Lockdown to continue. If you're trying disable Lockdown mode, press D)isable Lockdown.
- 4. Press <ESC> to exit of the IP Lockdown menu.

WARNING: When IP Lockdown mode is enabled, the web interface, telnet, dialup, and email notifications are all deactivated for the NetGuardian LT. This device can only be accessed via direct connection using the craft port. Once enabled, Lockdown mode can only be disabled by connecting to the physical unit through the craft port. Proceed with caution.



The TTY interface for IP Lockdown mode.

7 Quick Start: How to Connect to the NetGuardian LT

Most NetGuardian users find it easiest to give the unit an IP address, subnet and gateway through the 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. *Another option*: You can skip the TTY interface by using a LAN crossover cable directly from your PC to the NetGuardian LT and access its Web Browser. See Section 7.2.

7.1 ...via Craft Port

1. The simplest way to connect to the NetGuardian LT 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 LT to make a craft port connection.



- To access HyperTerminal using Windows:
- 2. Click on the Start menu > select Programs > Accessories > Communications > HyperTerminal.

📷 Accessories	🕨 🛅 Accessibility	•
🛅 Games	• Entertainment	•
🛅 Startup	Communications	🕨 🤗 HyperTerminal 📡
🏉 Internet Explorer	💟 Address Book	Network Connections
🐋 MSN	Calculator	🛛 👲 Network Setup Wizard
🗐 Outlook Express	Command Prompt	New Connection Wizard
칠 Remote Assistance	📕 📕 Notepad	📲 💐 Wireless Network Setup Wizard

3. At the Connection Description screen, enter a name for this connection. You may also select an icon. The name and icon do <u>not</u> affect your ability to connect to the unit.

onnection Descriptio	n			?>
New Connection				
*				
Enter a name and choose a	in icon for	the conr	nection:	
NetGuar				
lcon:				
🕭 🗟 🗞	MCI	198	R	
	8		-134	>

- 5. Select the following COM port options:
 - Connect using COM1 or appropriate COM port
 - Bits per second: 9600
 - Data bits: 8
 - Parity: None
 - Stop bits: 1
 - Flow control: None

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

9600	~
8	~
None	~
1	~
None Xon / Xoff Hardware None Re	store Defaults
	9600 8 None 1 None Xon / Xoff Hardware None Re

4. At the Connect To screen, select COM1 (the most commonly used) from the drop down menu and click OK.

NetGuar	dian LT	
Enter details for	the phone number that you	want to dial:
<u>C</u> ountry/region:	United States (1)	×
Ar <u>e</u> a code:	559	
Phone number:		
Connect using:	COM1	~
	СОМ2 СОМ1	

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 port you are using on your PC and make sure you are using the cable provided.

🍫 - Hyper Terminal
File Edit View Call Transfer Help
D 🚅 🍘 🖧 📭 🎦
Login: admin Password: ********

7. The NetGuardian LT's main 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.

Fie Eak Yew Cal Transfer Help D 교환 응 \$ = D 관 표 Login: admin	
D ☞ 종종 心治 앱 Login: admin	
Login: admin	
Password: ******* Logged in successfully. NG-LT v1.0A.0287 (c)2008 DPS Telecom, Inc. C)onfig P)ing D)ebug e(X)it ? C E)thernet n(V)ram re(B)oot (ESC) ? E Unit IP : 192.168.1.100 (192.168.1.100) Subnet Mask : 255.255.255 (255.255.192.0) Bateway : 255.255.255 (255.255.255.255) Unit MMC : 00.10.61.00.2F.62 U)nit Addr S)ubnet G)ateway (ESC) ?	
Connected 0:01:07 ANSTW 115200 8-N-1 SCROLL CAPS NUM Capture Print echo	4

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

Now you're ready to do the rest of your configuration via LAN. Plug your LAN cable into the NetGuardian LT and see Section 9, "Logging On to the NetGuardian LT" to continue databasing using the Web Browser.

7.2 ...via LAN



Connection through Ethernet port

To connect to the NetGuardian LT 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 LT, 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 LT'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**.
- 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 LT 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 LT with the appropriate information, then change your computer's IP address and subnet mask back to their original settings

8 NetGuardian LT Web Browser



8.1 Introduction

The NetGuardian LT 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: You will see the following popup when making changes to the NetGuardian LT 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 Logging on to the NetGuardian LT

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 LT" for instructions on initial configuration setup.

- 1. To connect to the NetGuardian LT 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. Most of the software configuration will occur in the **Edit** menu. The following sections provide detailed information regarding these functions.

Connect to 12	6.10.220.118	? 🛛
R		
Protected User name:	2	~
Password:	<u>R</u> emember my pass	word
	ОК	Cancel

Enter your password to enter the NetGuardian LT Web Browser Interface



The max. # of users allowed to simultaneously access the NetGuardian LT via the Web is 4.

9.1 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.

Gl	Global System Settings			
	Name			
	Location			
	Contact	559-454-1600		
	"From" E-mail Address	nglt@dpstele.com		
	SNMP GET String	dps_public		
	SNMP SET String	dps_public		
	User	admin I		
	Password	•••••		

Global System Settings section of the Edit > System menu

10 NetGuardian LT - Most Important How-Tos

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

10.1 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.

DPS Telecom	NetGuardia	in-LT	Logout Upgrade Help
Monitor Menus: Base Alarms System Alarms	Clabal System Settings	System Settings	
Analogs	Name	NetGuardian-LT	
Edit Menus:	Location		
System In Ethernet	Contact	559-454-1600	
Notifications	"From" E-mail Address	nglt@dpstele.com	
Base Alarms System Alarms	SNMP GET String	dps_public	
Controls	SNMP SET String	dps_public	
Analogs Date and Time	User	admin	
Timers	Password	••••••	
Reboot	Global Call Settings		
	Call Unit ID	100	

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 2 to send emails.

					Notifications	
System Alarms	No.	Stat.	Туре	Server	Time Window 1	Time Window 2
Controls Analogs	1	OFF	Email		No days selected Any Time	No days selected Any Time
dit Menus:	2 dm	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
System Ethernet	3	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sai Any Time
lotifications Base Alarms	4	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sa Any Time
System Alarms	<u>5</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sa Any Time
nalogs	<u>6</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
imers	z	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
eboot	<u>8</u>	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 2. Now, select the **Send Email Notification** button and click Next.

	Notification 2	
tification Setting		
Enable Notification		
 Send Email Notification Send SNMP Notification Call Notification 		
	Next> Cancel	

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**.

SMTP Server IP or Host Name	123.456.789.00
Port No. (Usually Use 25)	25
"From" E-mail Address	nglt@dpstele.com
"To" E-mail Address	tmock@dpstele.com

5. At the **Schedule** screen, you'll select the exact days/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.)

								Notification 2 (Schedule)
No.	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Notification Time
1								Any Time O G vh O vmin AM v to 6 vh O vmin PM v
2	2							⊙ Any Time ○ 12 ♥h 0 ♥min AM ♥ to 11 ♥h 59 ♥min PM ♥
Defin Exa a) (b) (ie up imple: On sc On sc	to two To re hedule hedule	o sch eceive e 1 ur e 2 ur	edules alarm ncheck ncheck	per r ns froi c weel c all w	notifi m 6p kend eekc	catio m to s and lays,	on. 6 Gam on weekdays and anytime on weekends do the following. d set time from 6pm to 6am.
					l	< E	Back	Finish Test Cancel

6. If you chose to test the email notification you've just setup, you will see the popup above. 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.

Window	rs Internet Explorer 🛛 🛛 🔀
?	This Action will Reboot the Unit. Continue?
	OK Cancel

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,

mus: ns	_		Notifications	
orms	No. Stat.	Type Server	Time Window 1	Time Window 2
(1 00	Email	Sun,Mon,Tue,Wed,Thu,Fn, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
	2 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
	3 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
15	d OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
115	5 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
	0 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
	2 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri, Any Time	Sat, Sun,Mon,Tue,Wed,Thu,Fri,Sat Any Time
	0 OFF	Email	Sun,Mon,Tue,Wed,Thu,Fri,	Sat, Sun, Mon, Tue, Wed, Thu, Fri, Sat
			Web: v1.0A	©2009 DPS Telecom
PS Telecom		NetGu	Web: v1.0A	©2009 DPS Telecom
PS Telecon snus: ms arms	Go to Adv	NetGu anced Config	Web: v1.0A Iardian-LT Base Alarms (Basic)	©2009 DPS Telecom
S Telecom	Go to Adv	NetGu anced Config	Web: v1.0A Iardian-LT Base Alarms (Basic)	©2009 DPS Telecom
Telecom	Go to Adv	NetGu anced Config xiption	Web: v1.0A Jardian-LT Base Alarms (Basic)	C2009 DPS Telecom
Telecon	Go to Adv Pnt Desc 1 SER	NetGu anced Config ziption vER ROOM	Web: v1.0A	©2009 DPS Telecom Logout Upgrade He Notification devices N3 N4 N5 N6 N7 N8 I I I I I I I
Telecon 5:	Go to Adv Pnt Desc 1 SER 2 WES	NetGu anced Config ziption VER ROOM IT SIDE DOOR	Web: v1.0A Iardian-LT Base Alarms (Basic)	©2009 DPS Telecom Logouti Upgradei Ha Notification devices N3 N4 N5 N6 N7 N8 I I I I I I I
\$ Telecom	Go to Adv Pnt Desc 1 SER 2 WES 3 REC	NetGu anced Coofig ziption VER ROOM it SIDE DOOR TIFIER	Web: v1.0A	Openation Notification devices Notification 0
; Telecom	Go to Adv Pnt Dese 1 SER 2 WES 3 REC 4 MCF	NetGu anced Config ziption VER ROOM IT SIDE DOOR TIFIER ROWAVE	Web: v1.0A	Notification devices N3 N6 N7 N6

Web: v1.0A

©2009 DPS Telecom

10.2 How to Send SNMP Traps

1. Click on the **System** button in the **Edit** menu. Enter the **SNMP GET** and **SNMP SET** 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, we've made our default "dps_public".

DPS Telecom	NetGuardia	Logout Upgrade Help	
Monitor Menus: Base Alarms System Alarms		System Settings	
Controls	Global System Settings		
Analogs	Name	NetGuardian-LT	
Edit Menus:	Location		
System	Combrad	EE0 454 1600	
Ethernet	Contact	559-454-1600	
Notifications	"From" E-mail Address	nglt@dpstele.com	
Base Alarms			
System Alarms	SNMP GET String	dps_public	
Controls	SNMP SET String	dps_public	
Analogs			
Date and Time	User	admin	
Timers	Password	•••••	
Reboot	Global Call Settings		
	Call Unit ID	100	

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.

				Notifications	
No.	Stat.	Туре	Server	Time Window 1	Time Window 2
1	OFF	Email		No days selected Any Time	No days selected Any Time
2	ON	Email	123.456.789.00	Mon,Tue,Wed,Thu,Fri, 06:00AM to 06:00PM	Sun,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
<u>6</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
z	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
<u>8</u>	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.

	Notification 4
Notification Setting	
Enable Notification	
O Send Email Notification Send SNMP Notification Call Notification	
· · · · · · · · · · · · · · · · · · ·	
	Next> Cancel

4. At the **SNMP Notification** screen, you'll enter your network's SNMP settings. Enter the **IP address** of your SNMP Trap Server. Enter the **Trap Port Number** (usually 162) and the **Trap Community** password. Click **Next**.

	Notification 4 (SNMP)	
IMP Notification		
SNMP Trap Server IP or Host Name	123.456.789.00	
Trap Port No. (Usually Use 162)	162	
Trap Community	public	

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.)

lo.	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Notification Time
ų								⊙ Any Time	0 12 vh 0 vmin AM v to 11 vh 59 vmin PM v
2								O Any Time	12 vh 0 vmin AM v to 11 vh 59 vmin PM v
efin Exa	e up mple: On sc	to two To re hedule	o sch eceive e 1 ur	edules alarn hcheck	per r ns froi wee	notifi m 6p kend	cation m to s and	n. 6am on wee I set time fr	skdays and anytime on weekends do the following. om 6pm to 6am.

6. If you chose to test the SNMP notification, you will see the popup above. 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.

Window	s Internet Explorer 🛛 🛛 🔀
?	This Action will send test notification.
C	OK Cancel

NOTE: This test only means that your notification settings are correct, but you still need to assign the notification to an alarm point. See Step 7 in "How to Send Email Notifications" for more detail.

10.3 How to Send Call (Voice) Notifications

1. Click on the **System** button in the **Edit** menu. Enter the a unit ID for this NetGuardian LT to call, as well as the global pass code. Click **Save**.

Global Call Settings	
Call Unit ID	100
Call Pass Code (digits only)	1234 <u>T</u>
Security Level	Medium 💌

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 6 to send call (voice) notifications.

				Notifications	
No.	Stat.	Туре	Server	Time Window 1	Time Window 2
1	OFF	Email		No days selected Any Time	No days selected Any Time
2	ON	Email	123.456.789.00	Mon,Tue,Wed,Thu,Fri, 06:00AM to 06:00PM	Sun,Sat, Any Time
<u>3</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
<u>4</u>	ON	SNMP	123.456.789.00	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
<u>5</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
5 Shy	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
Z	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time
<u>8</u>	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 6. Now, select the **Call Notification** button and click **Next**.

ification Setting	
Enable Notification	
 Send Email Notification Send SNMP Notification Call Notification 	

4. At the SNPP Notification screen, enter the phone number for this notification and the pass code. Click Next

Phone Number	
ass Code (digits only)	
Call attempts	3

5. At the **Schedule** screen, you'll select the exact days/times you want to receive call 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.)

	Notification 6 (Schedule)								
No.	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Notification Time
1								⊙ Any Time	0 12 vh 0 vmin AM v to 11 vh 59 vmin PM v
2								O Any Time	12 h 0 min AM to 11 h 59 min PM v
Defin Exa a) (b) (e up mple: On sci On sci	to two To re hedule hedule	o sch aceive a 1 ur a 2 ur	edules alarm acheck acheck	per r ns froi weel all w	notifi m 6p kend reeko	catio m to s and lays.	n. 6am on wee I set time fro	ekdays and anytime on weekends do the following. om 6pm to 6am.
					(< E	Back	Finish	Test Cancel

6. If you chose to test the email notification you've just setup, you will see the popup above. Click **OK** to send a test call alarm notification. Confirm all your settings by having your phone nearby to receive the test call.

Window	s Internet Explorer 🛛 🛛 🔀
?	This Action will send test notification.
C	OK Cancel

NOTE: This test only means that your notification settings are correct, but you still need to assign the notification to an alarm point. See Step 7 in "How to Send Email Notifications" for more detail.

10.4 How to Create Custom Voice Alerts

One feature that sets the NetGuardian LT apart from other DPS RTUs is the custom voice notifications. The NetGuardian LT can be setup to call your home or cell phone, informing you of exactly which points are in alarm. No matter where you are in the field, you'll have the ability to acknowledge alarms from your touch-tone phone.

10.4.1 Using the NetGuardianLTEdit Software

To generate voice config files from the offline editor:

1. Set your alarm and control descriptions, then click **Save** at the bottom of the LTEdit utility . For information on using the LTEdit software, see the LTEdit software manual.

🎍 Ne	tGuardianLTEdit - [NetGuardian LT]														
1 De	vice Edit Connect Help														_ 8 ×
	2 8 % 18 8 8 19														
Syste	em Info Global Options Serial Port Notification Devices	Alarms	Controls A	nalogs Date	and Time Tim	ers									
		_													
	Base Alarms System Base														
Pnt	Description	OnSet	OnClear	QualTime	QualUnit	Qua	IType	Rev	N1	N2	N3 1	14 N5	6 N6	N7 N8	
1	West Side Motion Detector	Alarm	Clear	0	MSECS 🔻	Both	Ŧ		×						
2		Alarm	Clear	0	MSECS 🔻	Both	•								
3		Alarm	Clear	0	MSECS 🔹	Both	•								
4		Alarm	Clear	0	MSECS 🔻	Both	.								
														1	
													S	ave	Close
Right-C	lick for more options														

- 2. Click on the Generate and Upload Voice button at the top of the screen.
- 3. When prompt appears, select start to send POST request. **Note:** This process requires your PC to reach the DPS Telecom website (<u>www.dpstele.com</u>). The DPS website converts your text ("West Side Motion Detector in the example above) into a voice file to be played when an alarm occurs.

Get New Web adn Firmware from MyDPS	Generate and Upload New Voice (Needs to connect to MyDPS server)
Status	Status / Start Point descriptions were successfully exported. XML file generated Connecting to www.dpatele.com Connected Sending POST Request (This may take several minutes)
DPS Telecom	DPS Telecom

4. To upload new web and firmware, type in NetGuardian LT IP address, user name and password. Select **Check** for new firmware to get the latest firmware version.

itatus -		
New Web ar later upload v Unit IP : User Name : Password :	d Firmware is ready. You can upload now or save for ia web browser. 192.168.1.100 admin pressesses	

- Click Upload to upload new web and firmware to the unit. Or click Cancel to keep current .bnd file in install directory
- 6. Click Save As... to save new web and firmware to your PC
- 7. Upload the new .bnd file to the NetGuardian LT via the NetGuardian LT web browser
- 8. Now the voice file and firmware have been upgraded, but the database created using NetGuardian LTEdit has not yet been sent to the unit. Click **Connect** at the top of the NetGuardian LTEdit software, then click **Write to Unit.**

Note: If you require custom text-to-speech notifications or need to use your own voice file for notifications, contact DPS Tech Support at (559)-454-1600.

11 Monitoring via the Web Browser

11.1 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.

DPS Telecom		NetGuardian-LT	Logout Upgrade Help
Monitor Menus: Base Alarms Ja		Base Alarms	
System Alarms	Pnt	Description	State
Controls	1	SERVER ROOM	Clear
Analogs	2	WEST SIDE DOOR	Alarm
Edit Menus:	3	RECTIFIER	Clear
System	4	MICROWAVE	Clear
Notifications Base Alarms System Alarms Controls Analogs Date and Time Timers Reboot			
06:05:47 PM Thu 0	3/05/0	09 Web: v1.0A	©2009 DPS Telecom

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

11.2 Monitoring System Alarms

System alarms are not-editable, housekeeping alarms that are programmed into NetGuardian LT. 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.

ase Alarms		System Alarms			
ystem Alarms 👆	Pnt	Description	State		
ontrols	25	Default configuration	Clear		
nalogs	26	Undefined	Clear		
lit Menus:	27	MAC address not set	Clear		
/stem	28	IP address not set	Clear		
hernet	29	LAN hardware error	Clear		
otifications	30	SNMP processing error	Clear		
ase Alarms	31	SNMP community error	Clear		
ystem Alarms	32	I AN TX packet drop	Clear		
ontrois	33	Notification 1 failed	Clear		
ate and Time	34	Notification 2 failed	Alarm		
mers	35	Notification 3 failed	Clear		
eboot	36	Notification 4 failed	Clear		
	37	Notification 5 failed	Clear		
	29	Notification 6 failed	Clear		
	20	Notification 7 failed	Clear		
	39	Notification 9 failed	Clean		
	40	NUTRication o failed	Clear		
	41		Clear		
	42		Clear		
	43		Clear		
	44	Dynamic memory full	Clear		
	45	Unit reset	Clear		

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

11.3 Operating Controls

Use the following rules to operate the NetGuardian LT's control:

- 1. Select **Controls** from the **Monitor** menu.
- 2. Under the **State** field, you can see the current condition of the control.
- 3. To issue the control, click on a command (**Opr** operate, **RIs** release, or **Mom** momentary)

DPS Telecom		NetGuardian-LT		Logout Upgrade
Ionitor Menus: Base Alarms		Controls		
System Alarms	No. Description		State	Commands
Controls	1 Control 1		Released	Opr Ris Mom
dit Menus: System				
Thernet				
Notifications				
Base Alarms				
System Alarms				
Controls				
Inalogs				
)ate and Time				
limers				
Reboot				
05:05:21 DM Thu 02	(05/00	Web: vt 04		DOOD DDC Telesem

Operate the control relay by clicking on one of the actions in the Commands field.

11.4 Monitoring Analog Temperature Sensors

This selection provides the status of the system's temperature sensors by indicating if an alarm has been triggered. The **Monitor** menu > **Analogs** screen provides a description of each analog channel, the current reading, the units being read, and alarm conditions (major under, minor under, major over, minor over) according to your temperature settings.

DPS Telecom		NetGuardian-LT				Logout Upgrade He			<u>Hel</u>	
onitor Menus: ase Alarms				Analogs						
ystem Alarms	No.	Enb	Description		Reading	Units	MjU	MnU	MnO	MjO
ontrols	1	Yes	Internal Temperature		79.9375	٥F				
nalogs _{da}	2	Yes	External Temperature		0.0000	۰F	x	x		
ase Alarms ystem Alarms ontrols										
ase Alarms ystem Alarms ontrols nalogs ato and Timo										
ase Alarms ystem Alarms ontrols nalogs ate and Time mers										
ase Alarms ystem Alarms ontrols nalogs iate and Time imers eboot										

Click on Analogs in the Monitor menu to view the current internal and external temperature readings.

12 Edit Menu Field Descriptions

12.1 System

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

DPS Telecom	NetGu	Iardian-LT Upload Logout MyDPS			
onitor Menus: ase Alarms		System Settings			
ystem Alarms	Global System Settings				
ontrols	Name	NetGuardian-LT			
nalogs	Location				
lit Menus: vstem	Contact	559-454-1600			
hernet	"From" E-mail Address	nglt@dpstele.com			
otifications	SNMP GET String	dps_public			
ase Alarms	SNMD SET String	dos public			
ystem Alarms	u stand set stand				
ontrols	User	admin			
nalogs	Password	•••••			
merc	Global Call Settings				
eboot	Call Pass Code (digits only)	1234			
	Max suppress minutes 9999				
	DCP Responder Settings				
	DCP Unit ID	1			
	Iisten DCP over LAN C Listen DCP over Serial C Disable Listening				
	DCP LAN	2001 UDP -			
	DCP Protocol	DCPe -			
	Autonomous Alert Settings	Message Timout: 30s Message Retries: 2			
	Autonomous Alert Receiver	IP: 10.0.8.100 Port: 3001			
	DCP Serial	Configure Serial Port			
	System Controls				
	Initialize Configuration	Initialize			
	Backup Configuration	config.bin Save			
	Restore Configuration	Upload			
1					
		Reset Save			

The Edit > System menu

	Global System Settings
Name	A name for this NetGuardian LT.
Location	The location of this NetGuardian LT.
Contact	Contact telephone number for the person responsible for this NetGuardian LT.
"From" Emoil Address	A valid email address used by the NetGuardian LT for sending email alarm
From Eman Autress	notifications.
SNMP GET String Community name for SNMP requests. (case-sensitive).	
SNMP SET String	Community name for SNMP SET requests. (case-sensitive).
User	Used to change the username for logging into the unit.
Password	Used to change the password for logging into the unit (case-sensitive).
	Global Call Settings
Call Pass Code	Pass code used for inbound and outbound voice/DTMF access. Enter digits only.
Max Suppress	Indicates the maximum number of minutes for which a user may suppress an alarm.
Minutes	

	Suppressing Alarms
	Via the DTMF menus, a user may choose to "suppress" an alarm. Suppressing an
	alarm prevents the NetGuardian from sending voice notifications for that alarm for a
	user-specified number of minutes. When the suppression period expires, the
	NetGuardian will send voice notification of the alarm's last recorded state.
	DCP Responder Settings (For use with T/Mon)
DCP Unit ID	User-definable ID number for this NetGuardian LT (DCP Address).
Listen DCP	Choose to listen DCP over LAN or serial. May also be disabled.
DCP LAN	Enter the DCP port for this NetGuardian LT (UDP/TCP port).
	Selects DCP protocol. Options include the standard DCPx communication protocol
DCP Protocol	or the DCPe protocol for polling applications. Selecting DCPe will display two new
	options.
Automore Alart	Input a duration for message timeouts (use 's' for seconds and 'm' for minutes) and
Autonomous Alert	the number of polling retries (maximum number of retires can be set to 20). Only
Settings (DCPe only)	used for polling application with NetGuardian 16 with substation firmware.
A	Enter the IP address and Autonomous Receiver Port number of the polling device
Autonomous Alert	that's going to receive the messages (IP address for the NetGuardian 16). Only
Receiver (DCPe only)	used for polling application with NetGuardian 16 with substation firmware.
DCP Serial	Clickable link to configure serial port settings.
	System Controls
	Used to restore all factory default settings to the NetGuardian LT. Do not initialize the
Initialize Configuration	non-volatile RAM (NVRAM) unless you want to re-enter all of your configuration
C	settings again.
TT. I. T'	Clickable link that takes you to the Firmware Load screen, where you'll browse to the
Upgrade Firmware	downloaded firmware update saved on your PC.

12.1.1 Configure Serial Port

Monitor Menus: Base Alarms	N	etGuardian-LT Primary Serial Port Configuration	Upload Logout MyDPS
Controls	Location	Port Configuration	Reach-Through
Analogs Edit Menus: System Ethernet Notifications Base Alarms	Primary port located in the back of the unit.	Port Type: 232Baud: 9600Parity: 8-bit data, no parityStop Bits: 1RTS head: 0RTS tail: 0Flow Control: NoneI	Enable Reach- Thrue Port: Type: 3000 TCP 💟
System Alarms Controls Analogs Date and Time		Reset	

Port Configuration			
Port Type	Select the serial port for your build of the NetGuardian.		
	Choose from 202, 232, 485		
Baud, Parity, Stop Bits, and	Select the appropriate settings from the drop-down menu.		
Flow Control			
RTS Head	Only used if your NetGuardian was built with a 202		
	modem. The most commonly used value is 30.		
RTS Tail	Only used if your NetGuardian was built with a 202		
	modem. The most commonly used value is 10.		

Flow Control		
Reach-Through		
Enable Reach-through	Checking this box enables the port to be used as a terminal	
	server. Most commonly used to Telnet through the port	
	over LAN to a hub, switch, or router. From a command	
	prompt, type the following (note the spaces between	
	each entry):	
	telnet [IP address] [port]	
	Example: telnet 192.168.1.100 3000	
Port	Port number used for reach-through to a serial device.	
Туре	Select TCP or UDP traffic to be passed through to a serial	
	device.	

12.2 Ethernet

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

ase Alarms <u>ystem</u> Alarms		Eth	ernet Settings	
ontrols	Ethernet Settings			
nalogs	Unit MAC	00.10.81.00.2	F.62	
lit Menus:	Host Name		()	
ystem	Enable DHCP			
otifications	Unit IP	126.10.220.118	(126.10.220.118)	
ase Alarms	Subnet Mask	255.255.192.0	(255.255.192.0)	
ystem Alarms	Gateway	126.10.220.254	(126.10.220.254)	
nalogs	Ethernet Settings			
ate and Time	DNS Server 1	206.13.31.12	(206.13.31.12)	
mers eboot	DNS Server 2	206.13.28.12	(206.13.28.12)	
		F	Reset	

The Edit > Ethernet menu

	Ethernet Settings			
Unit MAC	Hardware address of the NetGuardian LT. (Not editable - For reference only.)			
Host Name	Used for local subnet access.			
Enable DHCP	Used to turn on Dynamic Host Connection Protocol.			
Unit IP	IP address of the NetGuardian LT.			
Subnet Mask	A road sign to the NetGuardian LT, telling it whether your packets should stay on your			
	local network or be forwarded somewhere else on a wide-area network.			
Gateway	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 if not using.			
	Ethernet Settings			
DNS Server 1	Primary IP address of the domain name server. Set to 255.255.255.255 if not using.			

DNS Server 2 Secondary IP address of the domain name server. Set to 255.255.255.255 is not using.

12.3 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 for one of the notifications to begin configuration.

	Notifications					
No.	Stat.	Туре	Server	Time Window 1	Time Window 2	
1	OFF	Email		No days selected Any Time	No days selected Any Time	
2	ON	Email	123.456.789.00	Mon,Tue,Wed,Thu,Fri, 06:00AM to 06:00PM	Sun,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	
<u>6</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	
Z	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	
<u>8</u>	OFF	Email		Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	Sun,Mon,Tue,Wed,Thu,Fri,Sat, Any Time	

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, SNMP or call (voice).

	Notification 2
lotification Setting	
Enable Notification	
 Send Email Notification Send SNMP Notification Call Notification 	
	Next > Cancel

The Notification Setting menu

12.3.1 Notification Settings

Email Notification Fields

	Notification 2 (Email)	
Email Notification		
SMTP Server IP or Host Name	123.456.789.00	
Port No. (Usually Use 25)	25	
"From" E-mail Address	nglt@dpstele.com	
"To" E-mail Address	tmock@dpstele.com	
	< Back Next > Cancel	

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

SNMP Notification Fields

Notification	
MP Trap Server IP Host Name	123.456.789.00
np Port No. sually Use 162)	162
p Community	public

Fig. 12f - Editing SNMP notification settings

	SNMP Notification
SNMP Trap Server IP or	The SNIMP tran manager's IP address
Host Name	The siving managers if address.
Trop Dort No	The SNMP port (UDP port) set by the SNMP trap manager to receive
Trap Fort No.	traps, usually set to 162.
Trap Community	Community name for SNMP TRAP requests.

Call Notification Fields

1.1.1.1.1.1.1.1		
	Notification 1 (Call)	
ll Notification		
Phone Number	204	
Pass Code (digits only)		
Call attempts	1	
24-hour clock format		

Editing Call notification settings

	Call Notification
Dhona Numbar	The phone number the NetGuardian LT should call when sending call (voice)
	notifications.
Pass Code	Pass code for inbound and outbound voice/DTMF access. Enter digits only.
Call Attompts	Number of tries the NetGuardian LT will attempt to call a phone number before
Call Attempts	moving on to the next one.
24-hour clock	Changes the notification time stamp to 24-hour format
format	

12.3.2 Schedule

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

DPS Telecom		NetGuardian-LT								Logout Upgrade Help
Monitor Menus:									Natifiant	ian 1 (Sebadula)
Base Alarms									Notificat	ion I (Schedule)
System Alarms Controls	No.	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Notification Time
Analogs	1								⊙ Any Time	0 12 v h 0 v min AM v to 11 v h 59 v min PM v
dit Menus: System	2								⊙ Any Time	0 6 wh 0 wmin AM v to 11 wh 59 wmin PM v
Ethernet									Any time	
Notifications	Defir	ne un	to tw	o sch	odulos	ner i	otifi	catio		
Base Alarms	Exa	ample	: To re	aceive	alarn	ns fro	m 6p	m to	6am on we	ekdays and anytime on weekends do the following.
System Alarms	a)	On sc	hedul	e 1 un	Icheck	wee	kend	s and	set time fi	rom 6pm to 6am.
	0)	onsc	nequi	e z ur	ICHECK	Call W	eekc	lays.		
Controls	-									
Controls Analogs						1.12				
Controls Analogs Date and Time						ſ	< E	Back	Finis	n Test Cancel
Controls Analogs Date and Time							< E	Back	Finisl	n Test Cancel
Controls Analogs Date and Time Timers Reboot							< E	Back	Finisl	n Test Cancel

The Schedule creation screen

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

12.4 Base Alarms

The NetGuardian LT's 4 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 the the following 2 sections.

DPS Teleco	om	Net	Guardian-LT					1	Logou	iti Up	grade
Base Alarms System Alarms	Got	o Advanced Config	Base Alar	ms (Bas	sic)						
Analogs							Not	ificati	on de	vices	
	Pot	Description		Rev	NI	N2	N3	N4	NS	NG	N7
Edit Menus:					-				-		
Ethernet	1	SERVER ROOM									
Notifications	2	WEST SIDE DOOR									
Base Alarms 👍	3	RECTIFIER									
System Alarms	-			-						-	
Controls	4	MICROWAVE									
Analogs											
Date and Time			Reset	Save							
Timers											

The Advanced Config button on the Edit > Base Alarms screen

12.4.1 Basic Configuration

DPS Telecom		NetGuardian-LT							Logout Upgrade Hel						
Aonitor Menus: Base Alarms	6 • •		Base Alar	ms <mark>(</mark> Bas	ic)										
System Alarms	Gott	o Advanced Config													
Controls							Not	Notification devices							
analogs dit Menus:	Pnt	Description		Rev	N1	N2	N3	N4	N5	N6	N7	N8			
System	1	SERVER ROOM													
thernet lotifications	2	WEST SIDE DOOR													
ase Alarms	3	RECTIFIER													
Controls	4	MICROWAVE													
nalogs															
ate and Time			<u></u>		i i										
īmers 🛛			Reset	Save											
Reboot															
			Webs up 04					@ `	000 0						

The Edit > Base Alarms menu

Pnt (Point)	Alarm point number.
Description	User-definable description for the discrete alarm input.
Rev (Reverse)	Reverse: Check this box to reverse the polarity of the alarm point. Left un-checked,
	this means a normally-open contact closure is an alarm. When polarity is reversed, a
	normally-closed alarm point is clear when closed.
Notification devices	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 a notification
	device send an alarm for all 4 alarm points.

DPS Telecom		NetGuard		Logout Upgrade !						
Monitor Menus: Base Alarms System Alarms	<u>Go to</u>	Basic Config	Base Alarms (Advanced)							
Controls	Pnt	Description	On Set	On Clear	Qual. Time	Qual. Typ				
Analogs	1	SERVER ROOM	Alarm	Clear	0	Set 🗸				
dit Menus:						Z				
System	2	WEST SIDE DOOR	Alarm	Clear	0	Set 🛩				
Ethernet	3	RECTIFIER	Alarm	Clear	0	Set 💌				
Notifications										
Base Alarms	4	MICROWAVE	Alarm	Clear	0	Set 💌				
System Alarms										
Controls										
Analogs			Reset Save							
Date and Time										
limers										
Reboot										

The Advanced Base Alarms Config screen

Pnt (Point)	Point: Alarm point number.
Description	User-definable description for the discrete alarm input.
On Set	User-definable description (condition) that will appear for the discrete alarm input on Set.
	Example: "Alarm"
On Clear	User-definable description (condition) that will appear for the discrete alarm input on
	Clear. Example: "Clear"
Qual. Time	The length of time that must pass, without interruption, in order for the condition to be
(Qualification Time)	considered an Alarm or a Clear.
Qual. Type	Allows you to choose whether you want to apply the Qualification Time to the alarm Set,
(Qualification Type)	Clear, or Both.

12.5 Systerm Alarms

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

DPS Telecom		NetGuardian-LT	6				1	Logou	it Up	<u>grade</u>	<u>Hel</u>
tenus: rms Alarms		Sys	tem Alarms								
	Notification devices										
	Pnt	Description	Rpt	N1	N2	N3	N4	N5	N6	N7	N8
15:	25	Default configuration									
	26	Undefined									
	27	MAC address not set									
	28	IP address not set									
	29	LAN hardware error									
	30	SNMP processing error									
1	31	SNMP community error									
	32	LAN TX packet drop									
1	33	Notification 1 failed									
Ē	34	Notification 2 failed									
Ŧ	35	Notification 3 failed									
	36	Notification 4 failed									
1	37	Notification 5 failed									
	38	Notification 6 failed									
	39	Notification 7 failed									
1	40	Notification 8 failed									
1	41	NTP failed									
1	42	Timed tick									
- 1	43	Serial 1 RcvQ full									
1	44	Dynamic memory full									
1	45	Unit reset									

The Edit > System Alarms menu

Pnt (Point)	Alarm point number
Description	Non-editable description for this System (housekeeping) Alarm.
Rpt (Report)	Check this box to choose to report this alarm. Check the box in the green bar
	(top) to have all System Alarms reported.
Notification devices	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.

12.6 Controls

The NetGuardian LT's relay can be configured in the **Edit** > **Controls** menu. You can enter your own description for this relay and designate it to a notification device(s).

DPS Telecom		Net	Guardian-LT						Logo	<u>ut</u> <u>l</u>	Jpgra	ade	Hel
Ionitor Menus: Base Alarms			Controls	i									
System Alarms												35	
Controls							1	Notif	icatio	on de	vice	5	1
analogs	No.	Description	N	lom.	Time	N1	N2	N3	N4	N5	NG	N7	N8
dit Menus:													
ystem	1	Control 1		500									
thernet													
lotifications													
ase Alarms			Reset	ve									
System Alarms													
Controls (Im													
Inalogs													
ate and Time													
îmers													
leboot													
leboot													

The Edit > Controls menu

Description	User-definable description for the NetGuardian LT's control.
Mom. Time	Control on time (in milli-seconds) when you execute the MOM command.
Notification devices	Check which notification device(s), 1 through 8, you want to send alarm notifications for the control

12.7 Analogs

The NetGuardian LT's internal and external temperature sensors monitor the ambient temperature. Both sensors measure a range of 32° F to 140° F (0° C to 60° C) within an accuracy of $\pm 1^{\circ}$. The external temperature sensor provides external temperature readings by plugging the optional probe into the ttemperature port on the NetGuardian LT's front panel.

You also have the option to use a Basic or Advanced configuration methods, explained the the following 2 sections.

12.7.1 Basic Configuration

Basic configuration for the NetGuardian LT's analog temperature sensors can be accomplished from the **Edit** > **Analogs** menu. From this screen, you enable or disable the analog channels, select notification devices, and set thresholds.

DPS Telecom		NetGuardian-LT							Logout Upgrade H						
Ionitor Menus: Base Alarms System Alarms	Go to A	Analogs (Basic) dvanced Config)												
Controls Analogs Edit Menus: System	Chan		Re	/ N1	Na N2	ntific N3	ation N4 I	i devi N5 Ni	ces 5 N7	N8					
Ethernet Notifications Base Alarms System Alarms	1 🗹	Description: Internal Temperature Units: °F MjU: 32.0000 MnU: 42.0000	Re D MnO:	N1	N2	NЗ	N4 I MjO:	N5 N	5 N7	N8					
Controls Analogs du Date and Time Timers	2 🗹	Description: External Temperature Units: °F MjU: 32.0000 MnU: 42.0000	Re D MnO:	N1	N2	N3	N4 1 D MjO:	N 5 N (5 N7	N8					
ebbot		Reset													
		Web: v1.0A				ත20(09 DP	S Tele	com						

The basic Edit > Analogs menu

Chan (Channel)	Check which analog temperature channel you want to use.
Description	User-definable description for the analog channel.
Rev (Reverse)	Check this box to reverse the polarity.
Notification devices	Check which notification device(s), 1 through 8, you want to send alarm notifications for that analog alarm. Check the box in the green bar (top) to have a notification device send an alarm for both analog channels.
MjU (Major Under)	
MnU (Minor Under)	Threshold settings. These user-defined value are used to indicate the severity of
MnO (Minor Over)	the alarm by indicating when the temperature has passed the values you've set.
MjO (Major Over)	

12.7.2 Advanced Configuration

To access the **Advanced** configuration screen, click the **Go to Advanced Config** link near the top of the screen.

Monitor Menus:	com			NetGua	rdian-L	.т				ы	ogout	l Upg	rade	He
Base Alarms System Alarms Controls	Go to	Advanced C	onfig		А	nalogs (Basi	c)							
Analogs Edit Menus:	Chan							Rev NI	N2	N3	N4	ndevi NS N	ces 6 N7	NB
System Ethernet Notifications	1 🗹	Descriptio	on: nperatu	re				Rev NJ	N2	N3	N4 I	NS N	6 N7	NS
System Alarms		Units: °F	MjU:	32 0000	MnU:	42.0000	MnO:	110.00	00		мјо:	158.0	0000	
Controls Analogs	2 🖻	Description External Te	on: mperat	<i>.</i> re				Rev NI	N2	N3	N4 I	NS N	6 N7	NE
Timers Reboot		Units: °F	MjU:	32.0000	MnU:	42.0000	MnO:	110.00	00		мјо:	158.0	0000	1
					0	Dagat) Caus	-							

The Advanced Config button on the Edit > Analogs screen

From the **Advanced** configuration screen, you can now select which temperature units you want to use, define alarm "set" and "clear" descriptions, and define Qualification settings.

DPS Telecom		Logout Upgrade He						
Monitor Menus: Base Alarms System Alarms Controls	<u>Go to E</u> Chan	Analogs (A Basic Config	dvanced)					
androgs		Description:	On set:	On clear:	QTime:	QType:		
dit Menus:	1	Internal Temperature	Alarm	Clear	0S	Set 💙		
thernet		Display units: 💿 °F 🔍 °C						
otifications		hr						
ase Alarms		Description:	On set:	On clear:	QTime:	QType:		
ystem Alarms	2	External remperature	Alam	Clear	05	Set		
ontrols		Display units: 💿 °F 🔿 °C						
nalogs								
ate and Time	-							
mers		Reset	Save					
eboot								
		Web: v1.0A		©200	9 DPS Telec	om		

The Advanced Edit > Analogs menu

Description	User-definable description for the analog alarm.
On set	User-definable description (condition) that will appear for the temperature
Oll set	alarm on Set. Example: "Alarm"
On alaar	User-definable description (condition) that will appear for the temperature
Oli clear	alarm Clear. Example: "Clear"
QTime	The length of time that must pass, without interruption, in order for the
(Qualification Time)	condition to be considered an Alarm or a Clear.
QType	Allows you to choose whether you want to apply the Qualification Time to
(Qualification Type)	the alarm Set, Clear, or Both.

Choose to display temperature readings in degrees Fahrenheit or Celsius.

Display UnitsCl12.8Date and Time

DPS Telecom	NetGuardia	n-LT	<u>Logout Upgrade Hel</u>
onitor Menus: ase Alarms		Date and Time	
ontrols	Time Settings		
nalogs	Date	Month Mar 🝸 🛛	Day 6 Y Year 2009 Y
lit Menus:	Time	Hour 1 M	linute 28 V PM V
ystem	Automatic Time Adjuctment (NTD)		
hernet	Automatic Time Aujustment (MTP)		
otifications	🗹 Enable NTP		
se Alarms	NTP Server Address or Host Name	north-america.pool.ntp.org	Sync
stem Alarms	Time Zone	GMT-08:00 Pacific Time	
ontrols	Time zone		
alogs	Adjust Clock for Daylight Saving Time (DS	D)	
ite and Time	Enable DST		
mers Boot	Start Day	Month Weekday Mar V Second Sunday	Hour 2 ♥ AM ♥
	End Day	Month Weekday Nov First Sunday	Hour 2 M AM M
Ī		Reset	
	Web: v1.	0A	©2009 DPS Telecom

The Edit > Date and Time menu

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

12.9 Timers

The **Web Refresh** timer is user-definable, and allows to choose the intervals to automatically refreshing the NetGuardian LT Web Browser. Enter the amount of time (in milli-seconds) in the **Value** field and click **Save**.

DPS Telecom	NetGuardian-LT		Logout Upgrade Hel	
Monitor Menus: Base Alarms		Timers		
System Alarms Controls	Description	Value	Units	
Analogs	Web Refresh	1000	ms	
dit Menus: System		Reset Save		
thernet lotifications				
Base Alarms System Alarms				
ontrois Analogs				
ate and Time				
Reboot				
		Webs up 04	@2000 DDC Talacam	

The Edit > Timers menu

12.10 Reboot

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



The Edit > Reboot confirmation popup

13 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.

System Controls		
Initialize Configuration	Initialize	
Upgrade Firmware	NG-LT v1.0A.0287	
	<u>ت</u>	
Reset Save		

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 <u>www.dpstele.</u> <u>com</u> and click **Load**.

onitor Menus: ase Alarms		Firmware Load	t	
ystem Alarms				
Controls	Current Firmware: NG	-LI v1.0A.0287		where there is a second of
unalogs	Load Firmware	Brow	/se Load	Use "Browse" button to select ".mpb" file and then press
dit Menus:			N	Load Ducton.
ystem				
thernet				
otifications				
ase Alarms				
stem Alarms				
ontrols				
nalogs				
ate and Time				
mers				
eboot				
eboot				

Browse for downloaded firmware upgrade

14 Reference Section

14.1 LED Funtionality

Front Panel LEDs LED Description **Status** Solid Red Alarm active Alarms 1 - 4 No alarm Off Status Shows the unit is running Slow Green Blink Red Voice file is playing Voice Blink Green Dialing Relay Relay latched Solid Red Relay unlatched Green

Back Panel LEDs

LED	Status	Description
Graft Dart	Blink Green	Transmit over craft.
Craft Port	Blink Red	Receive over craft.
LAN	Blink Yellow	Transmit and receive activity over Ethernet port.
LNK	Solid Green	Ethernet link OK.
Power	Solid Green	Power is connected to the NetGuardian LT.
	Off	Power is disconnected from the NetGuardian LT.

14.2 Display Mapping

	Description	Port	Address	Point
Display 1	Discrete Alarms	99	1	1-4
	Unused	99	1	5-16
	Control Relays	99	1	17
	Unused	99	1	18-32
	System Alarms	99	1	25-45
Display 2	Analog 1 Minor Under	99	1	1
	Analog 1 Minor Over	99	1	2
	Analog 1 Major Under	99	1	3
	Analog 1 Major Over	99	1	4
	Internal Temp Value	99	1	5-64
Display 3	Analog 2 Minor Under	99	1	1
	Analog 2 Minor Over	99	1	2
	Analog 2 Major Under	99	1	3
	Analog 2 Major Over	99	1	4
	External Temp Value	99	1	5-64

14.3 SNMP Manager Functions

The SNMP Manager allows the user to view alarm status, set date/time, issue controls, and perform a resync. The display and tables below outline the MIB object identifiers. Table B.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 1.3.6.1.4.1.2682.1.4. Each level beyond dpsRTU adds another object identifying number. For example, the object identifier of the Display portion of the Control Grid is 1.3.6.1.4.1.2682.1.4.3.3 because the object identifier of dpsRTU is 1.3.6.1.4.1.2682.1.4 + the Control Grid (.3) + the Display (.3).



The NetGuardian LT 82IP G2 OID has changed from 1.3.6.1.4.1.2682.1.2 to **Hot Tip!** 1.3.6.1.4.1.2682.1.4 Updated MIB files are available on the Resource CD or upon request.

14.4 SNMP Granular Trap Packets

Tables 14.3.A and 14.3.B provide a list of the information contained in the SNMP Trap packets sent by the NetGuardian LT

SNMP Trap managers can use one of two methods to get alarm information:

1. Granular traps (not necessary to define point descriptions for the NetGuardian LT) **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 11.3.A UDP Headers and descriptions

SNMP Header	Description
0	Version
Public	Request
Тгар	Request
1.3.6.1.4.1.2682.1.4	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
NetGuardian v1.0K	Value
1.3.6.1.2.1.1.6.0	Object
1-800-622-3314	Value
1.3.6.1.4.1.2682.1.4.4.1.0	Object
01-02-1995 05:08:27.760	Value
1.3.6.1.4.1.2682.1.4.5.1.1.99.1.1.1	Object
99	Value
1.3.6.1.4.1.2682.1.4.5.1.2.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.4.5.1.3.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.4.5.1.4.99.1.1.1	Object
1	Value
1.3.6.1.4.1.2682.1.4.5.1.5.99.1.1.1	Object
Rectifier Failure	Value
1.3.6.1.4.1.2682.1.4.5.1.6.99.1.1.1	Object
Alarm	Value

 Table 11.3.B.
 SNMP Headers and descriptions

15 Frequently Asked Questions

Here are answers to some common questions from NetGuardian LT users. The latest FAQs can be found on the NetGuardian LT support web page, **http://www.dpstelecom.com.**

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

15.1 General FAQs

Q. How do I telnet to the NetGuardian LT?

A. You must use Port 2002 to connect to the NetGuardian LT. 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 LT and Port 2002. For example, to connect to the NetGuardian LT using the standard Windows Telnet client, click Start, click Run, and type "telnet <NetGuardian LT IP address> 2002."

Q. How do I connect my NetGuardian LT to the LAN?

A. To connect your NetGuardian LT 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 Gate way: 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 LT 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 LT.

Q. The LAN link LED is green on my NetGuardian LT, 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 LT. Ordering TTL points for your NetGuardian LT 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 LT 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 LT 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.

15.2 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 LT to send traps to an SNMP manager? Is there a separate MIB for the NetGuardian LT? 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 LT begins sending traps as soon as the SNMP managers are defined. The NetGuardian LT MIB is included on the NetGuardian LT 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 LT support MIB-2 and/or any other standard MIBs?
- A. The NetGuardian LT supports the bulk of MIB-2.
- Q. Does the NetGuardian LT SNMP agent support both NetGuardian LT and T/MonXM variables?
- **A.** The NetGuardian LT SNMP agent manages an embedded MIB that supports only the NetGuardian LT'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 LT 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 LT 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 LT and the SNMP manager are both on the network. Use the unit's ping command to ping the SNMP manager.

16 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.dpstelecom. 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.

17 End User Lisence Agreement

All Software and firmware used in, for, or in connection with the Product, parts, subsystems, or derivatives thereof, in whatever form, including, without limitation, source code, object code and microcode, including any computer programs and any documentation relating to or describing such Software is furnished to the End User only under a non-exclusive perpetual license solely for End User's use with the Product.

The Software may not be copied or modified, in whole or in part, for any purpose whatsoever. The Software may not be reverse engineered, compiled, or disassembled. No title to or ownership of the Software or any of its parts is transferred to the End User. Title to all patents, copyrights, trade secrets, and any other applicable rights shall remain with the DPS Telecom.

DPS Telecom's warranty and limitation on its liability for the Software is as described in the warranty information provided to End User in the Product Manual.

End User shall indemnify DPS Telecom and hold it harmless for and against any and all claims, damages, losses, costs, expenses, obligations, liabilities, fees and costs and all amounts paid in settlement of any claim, action or suit which may be asserted against DPS Telecom which arise out of or are related to the non-fulfillment of any covenant or obligation of End User in connection with this Agreement.

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

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 promply 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.

THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

In no event will DPS be liable for any special, incidental, or consequential damages based on breach of warranty, breach of contract, negligence, strict tort, or any other legal theory. Damages that DPS will not be responsible for include but are not limited to, loss of profits; loss of savings or revenue; loss of use of the product or any associated equipment; cost of capital; cost of any substitute equipment, facilities or services; downtime; claims of third parties including customers; and injury to property.

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.

www.DpsTelecom.com/register

Free Tech Support is Only a Click Away

Need help with your alarm monitoring? DPS Information Services are ready to serve you ... in your email or over the Web!

www.DpsTelecom.com

Free Tech Support in Your Email: The Protocol Alarm Monitoring Ezine

The Protocol Alarm Monitoring Ezine is your free email tech support alert, delivered directly to your in-box every two weeks. Every issue has news you can use right away:

- Expert tips on using your alarm monitoring equipment - advanced techniques that will save you hours of work
- Educational White Papers deliver fast informal tutorials on SNMP, ASCII processing, TL1 and other alarm monitoring technologies
- New product and upgrade announcements keep you up to date with the latest technology
- Exclusive access to special offers for DPS Telecom Factory Training, product upgrade offers and discounts

To get your free subscription to The Protocol register online at www.TheProtocol.com/register

Free Tech Support on the Web: MyDPS

Register for MyDPS online at

MyDPS is your personalized, members-only online resource. Registering for MyDPS is fast, free, and gives you exclusive access to:

- Firmware and software downloads and upgrades
- Product manuals
- Product datasheets
- Exclusive user forms





