

# T/Mon LNX, MINI G2, SLIM G2

QUICK START





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June 14, 2019

D-QS-TMLNX-12001

### **Revision History**

June 14, 2019	Minor updates
August 27, 2015	Updated screen shots
February 27, 2014	Added browser compatability info
February 4, 2014	Initial Release

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## 1 T/Mon Overview



DPS is proud to announce the latest in alarm management technology - the T/Mon. It combines T/Mon NOC and EXP technology into one, blazing fast device. The T/Mon yields a cleaner configuration, especially for redundant systems. T/Mon features all the flexibility you expect from T/Mon, with a much faster processor and more RAM - just to name a few enhancements - as it lays the foundation for the future of T/Mon.

The T/Mon Remote Alarm Monitoring System is a multiprotocol, multifunction network alarm manager designed as a single-platform solution for all alarm monitoring applications. T/Mon collects alarm data from a wide variety of equipment, regardless of manufacturer or protocol, and displays the state of your entire network in one interface, eliminating the need for specialized terminals. T/Access is a thing of the past for the LNX, as it supports a fresh, new web interface offering more flexibility and visibility than ever.

### Immediate benefits of upgrading to the T/Mon platform:

- 6 10/100/1000 NICs versus a single 10/100 in the NOC. With multiple LAN configurations becoming increasingly popular for security reasons, your T/ Mon LNX can communicate on 6 networks while maintaining IP segregation. \*For LNX and G2 only. T/Mon MINI G2 has 2 10/100/1000 NICs.
- Processes more ASCII jobs, virtual polling loops,
   and more GFX connections faster
- 6 10/100/1000 NICs versus a single 10/100 in the Completely compatible with existing T/Mon EXP NOC. With multiple LAN configurations becoming increasingly popular for security reasons, your T/ Joice Dialer
  - On-board RAID 1 for true hard drive redundancy
  - Better multi-tasking environment to allow more, faster

## 2 Shipping List

While unpacking the T/Mon, 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.



T/Mon Quick Start D-QS-TMLNX-12001



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



D-CS-538-20A-01 19" Rack Ears



4-Pin Barrier (Shipped with DC powered units only) 1-820-00814-02



Standard Rack Screws 1-000-12500-06





T/Access Cable (DB9 to DB9) D-PR-1053-10A-10



D-CS-538-20A-02 23" Rack Ears



2-Pin Barrier (Shipped with DC powered units only) 1-820-00862-02





(Shipped with DC powered units only)



AC Power Cord (Shipped with AC powered units only)

# 3 Specifications

Processor	3.2 GHz Hexa-Core 8th generation I7
RAM	16 GB
<b>LAN Interfaces</b> MINI	Six 10/100/1000 BaseT ports (Gigabit) on T/Mon LNX/SLIM, 2 on TMon
<b>Serial Ports</b> None of T/Mon MINI G2	Support for 16 docking modules on T/Mon LNX, 8 on T/Mon SLIM G2,
Hard Drive	Dual 1TB SATA drives in RAID 1 Configuration
Standard Input Protocols	DCP, DCPf, DCPx, Ping
Standard Output Protocols	S DCP, DCPf, DCPx
<b>Optional Input Protocols</b>	SNMP, ASCII, Badger, Cordell, DCM, E2A, Granger, Larse, Modbus,
	NEC, NTP, Pulsecom, TABS, TBOS, Teltrac, TL1
<b>Optional Output Protocols</b>	ASCII, SNMP, TABS, TL1
Power Input	Dual -48VDC power feeds or 110 VAC (depending on ordering option)
Current Draw:	3.5 Amps peak at -48VDC, 2.0 Amps peak at 110VAC
Fuse	Two 5-Amp GMT fuses (DC version only)
Dimensions:	LNX: 8.75" H x 17" W x 14" D (6 RU)
	SLIM / MINI: 5.25" H x 17" W x 14" D (4RU)
Weight	28 lbs (30 lbs with slide rack)
Visual Display	Front panel LCD
Removable Storage only	CD/DVD burner drive (supports CD-R, CD-RW, DVD+/-R), T/Mon LNX
Printer Support	Via LPT printer port
Unit Controls	4 LCD menu control buttons
Mounting	19" or 23" rack
Fans	3 internal, 1 CPU
Operating Temperature	41° to 95° F (5° to 35° C)
Operating Humidity	0% to 90% (non-condensing)
Windows Compatibility	XP, Vista, 7, 8.1, 10 32/64 bit
MTBF	60 years
CE	EMC: Tested to EN55022/55024
עכ	Safety: Tested to EN60950-1 Both AC and DC variants have been certified for CE

## 4 Hardware Installation

## 4.1 Mounting

## Slide Rack Mounting - Optional Accessory (T/Mon LNX only)

The Slide Rack enables the T/Mon LNX to easily slide out of its rack position for installation and service access. Your T/Mon shipped with the Slide Rack already mounted to the unit and with the specified rack ears in the correct position for installation. Installing the T/Mon with Slide Rack takes three steps:

- 1. Removing the Slide Rack from the T/Mon
- 2. Mounting the Slide Rack on the equipment rack
- 3. Mounting the T/Mon on the Slide Rack.

**Note**: The T/Mon with Slide Rack occupies 6 rack units of space. At least 1 rack unit (1 3/4") should be allowed above the T/Mon for ventilation. The Slide Rack extends nearly 13" — be sure to provide adequate service loop in the connecting cables to allow the T/Mon LNX to extend to this distance. After installation and testing of the T/Mon is completed, the slide lock screws should be installed in the Slide Rack to prevent accidental migration of the unit into the aisle space. The slide lock screws go into the equipment rack when flush mounted.

## Removing the Slide Rack From T/Mon LNX

Removing the Slide Rack makes mounting the T/Mon is an easy, one person, job. To remove the Slide Rack, follow these steps:

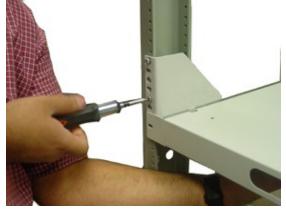
- 1. Make sure the T/Mon is off and disconnected from all network interfaces and power supplies.
- 2. Carefully place the T/Mon upside down on a clean, even surface. (This will not damage the unit.)
- 3. The T/Mon is secured to the Slide Rack by two screws see Figure 4a. Remove these screws and save them for reattaching the unit.
- 4. Gently lift the Slide Rack to remove it from the T/Mon.

#### Mounting the Slide Rack - Optional

The Slide Rack is light and can easily be mounted to the equipment rack by one person. The rack ears specified with your order (either 19" or 23") are already attached to the Slide Rack. (If the incorrect ears have been attached to the Slide Rack, look for the extra ears included with your shipment.) To mount the Slide Rack to the equipment rack, follow these steps:

1. Supporting the Slide Rack with one hand, align the mounting holes in the rack ears with the rack rails.

2. Secure both brackets with the rack screws provided in the hardware bag.



Slide Rack Mounting

#### Mounting the T/Mon LNX on the Slide Rack

To mount the T/Mon on the Slide Rack, follow these steps:

- 1. Extend the Slide Rack.
- 2. Lift the T/Mon and place it on the Slide Rack.



Place the T/Mon on the extended Slide Rack

- 3. Gently place the T/Mon onto the mounting tabs.
- 4. From below the T/Mon, insert the two screws that secure the T/Mon to the Slide Rack.
- 5. Slide the Slide Rack back into place.



Secure T/Mon to Slide Rack

### **Rack Mounting**

If you did not order the Slide Rack, your T/Mon is equipped with rack ears that can be positioned for either 5" projection or flush mounting in either 23" or 19" racks. To mount the T/Mon directly to the equipment rack, follow these steps:

- 1. Determine which mounting configuration is required. The T/Mon is supplied with the brackets in the 19" flush and 5" projection positions.
- 2. If a different configuration is required, remove the 8-32 screws, re-orient the brackets and re-install the screws.
- 3. Place the T/Mon in the rack and align the mounting holes in the brackets with the holes in the rack rails. Secure each bracket with two 12-24 screws (provided in hardware bag).

## 4.2 Power Connection: -48VDC

The T/Mon is powered by two screw terminal barrier plug power connectors.



Screw terminal barrier plugs

#### To connect the T/Mon to a power supply, follow these steps:

- 1. Always use safe power practices when making power connections. Be sure to remove fuses from the fuse distribution panel, as well as the back of the T/Mon, before making your power connections.
- 2. Use the grounding lug to connect the unit to earth ground. The grounding lug is next to the symbol . Insert the eyelet of the earth ground cable between the two bolts on the grounding lug (Ground cable not included).
- 3. Insert a battery ground into the power connector plug's right terminal and tighten the screw; then insert a battery line to the plug's left terminal and tighten its screw.
- 4. Insert a fuse into the fuse distribution panel and measure voltage. The voltmeter should read between -40 and -70VDC.
- 5. The power plug can be inserted into the power connector only one way to ensure the correct polarity. Note that the negative voltage terminal is on the left and the GND terminal is on the right.
- 6. Insert fuse into the Power A fuse slot. The power LED should be lit green. If the LED is red, the power connection is reversed.
- 7. Repeat steps 1 -6 for Power B connector.

## 4.3 Power Connection: 110VAC

These instructions apply only to T/Mon models with 110VAC power connection.



110VAC version of the T/Mon

- 1. Insert the power cord into the power inlet on the back of the T/Mon.
- 2. Connect the plug end to a 110VAC outlet.
- 3. Turn on the power switch on the back of the T/Mon to start the system.

## 5 Initial Setup

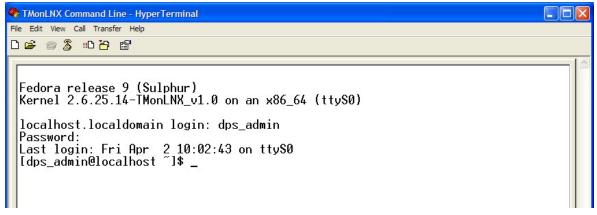
## 5.1 Changing T/Mon's IP Address via Serial Connection

The following script is used to configure **Eth0** (main network interface). Refer to the next section to to create and define additional interfaces.

- 1. Connect a null terminated serial cable (T/Access cable included with the unit) from a PC's COM port to the T/Mon craft port.
- 2. Start HyperTerminal on your PC, located in the Start Menu > Programs > Accessories > Communications. Configure a serial port with the following information:

	COM1 Properties		? 🗙
	Port Settings		
<ul><li>38400 bps</li><li>8 data bits</li></ul>	Bits per second:	38400	
<ul> <li>No parity</li> <li>1 stop bit</li> </ul>	Data bits:	8	
No flow control	Parity:	None 🗸	
	Stop bits:	1 🗸	
	Flow control:	None 🗸	
		Restore Defa	ults
		K Cancel	Apply

3. Connect HyperTerminal and Press Enter. A login prompt should appear.



- 4. Enter the default username "dps\_admin" and default password "dpstelecom" (without quotes)
- 5. Enter "./changelp" (case-sensitive; type without quotes, leads with a period) and press Enter. Enter in the new IP address, subnet, gateway, and DNS information.

```
TMonLNX Command Line - HyperTerminal
File Edit View Call Transfer Help
06 🗑 🕈 🗠 🖀
 Kernel 2.6.25.14-TMonLNX_v1.0 on an x86_64 (ttyS0)
  localhost.localdomain login: dps_admin
  Password:
Last login: Fri Apr 2 11:49:52 on ttyS0
[dps_admin@localhost ~]$ ./changeIp
  DPS Telecom
  TMonLNX IP Configurator
 Enter the IP address xxx.xxx.xxx: 192.168.1.1
Enter the subnet mask xxx.xxx.xxx: 255.255.255.0
Enter the gateway address xxx.xxx.xxx: 255.255.255.255.255
Enter DNS (1) xxx.xxx.xxx.xxx:
Enter DNS (2) xxx.xxx.xxx.xxx:
 Please confirm the your settings
IP Address: 192.168.1.1
Subnet Mask: 255.255.255.0
Gateway: 255.255.255.255
DNS 1: 0.0.0.0
                DNS 1:
DNS 2:
                                      0.0.0.0
192.168.1.0
192.168.1.255
                Network:
                Broadcast:
  Are the setting correct? Y/N [N]: _
Connected 0:01:43
                      Auto detect 38400 8-N-1
                                                                        NUM
```

6. Press Y to confirm the new IP address. The script will apply the new IP.

🎨 TMonLNX Command Line - HyperTerminal	
File Edit View Call Transfer Help	
Password: Last login: Fri Apr 2 11:49:52 on ttyS0 [dps_admin@localhost ~]\$ ./changeIp DPS Telecom TMonLNX IP Configurator Enter the IP address xxx.xxx.xxx: 192.168.1.1 Enter the subnet mask xxx.xxx.xxx: 255.255.255.0 Enter the gateway address xxx.xxx.xxx: 255.255.255.255.255 Enter DNS (1) xxx.xxx.xxx.xxx: Enter DNS (2) xxx.xxx.xxx.xxx:	
Please confirm the your settings IP Address: 192.168.1.1 Subnet Mask: 255.255.255.0 Gateway: 255.255.255.255 DNS 1: 0.0.00 DNS 2: 0.0.00 Network: 192.168.1.0 Broadcast: 192.168.1.255 Are the setting correct? Y/N [N]: y Waiting for config to be updated Waiting for new IP (192.168.1.1) to become active	
Connected 0:02:37 Auto detect 38400 8-N-1 SCROLL CAPS NUM Capture Print echo	

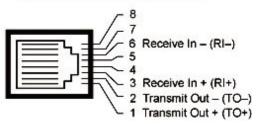
## 5.2 LAN Connection

Connect the T/Mon to your LAN by inserting a standard Ethernet cable into the "eth0" port, located on the rear of the unit.



Connecting the T/Mon to LAN



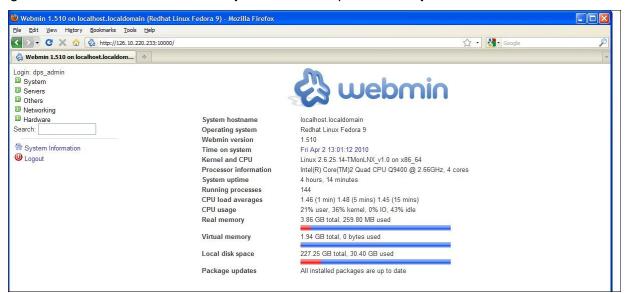


Ethernet port pinout

## 5.2.1 Configuring the NIC Interfaces

Your main network interface, Eth0, was created in the previous step. Use the following instructions for creating Eth1 through Eth5 (Network interfaces 2-6).

- 1. After giving the T/Mon an IP address, open an Internet browser and navigate to the IP at port 10000: http://xxx.xxx.xxx.10000 (where x's aressss T/Mon's IP address)
- 2. Login with the default username of "dps\_admin" and password "dpstelecom"



- 3. In the left frame, click on **Networking**, then click on **Network Configuration**.
- 4. In the right frame, click on Network Interfaces. Click on the Activated at Boot tab.



### 5. Click on Add a New Interface.

👋 Webmin 1.510 on localhost.l	localdomain (Redhat Linux Fe	dora 9) - Mozilla Firefox					
<u>File Edit View History Bookman</u>	rks <u>T</u> ools <u>H</u> elp						
🔇 🕗 - 🖸 🗙 🏠 🖓 http	o://126.10.220.233:10000/			<b>公</b> •	Google	s	
성 Webmin 1.510 on localhost.loc	caldom +						
Login: dps_admin IDSystem	Module Index		Network Interf	aces			
Servers Others	Active Now Activated at Boot						
Others Networking	Interfaces listed in this	able will be activated when the sy	vstem boots up, and will generally	be active now too.			
Network Configuration	Select all.   Invert selec	tion.   Add a new interface.   Add	a new address range.				
Hardware	Name	Туре	IP Address	Netmask	Activate at boot?		
Search:	eth0	Ethernet	126.10.220.233	255.255.192.0	Yes		
100	🗌 lo	Loopback	127.0.0.1	255.0.0.0	Yes		
System Information	Select all,   Invert selec	tion. Add a new interface. Add	a new address range.				
W Logout	Delete Selected Inte	rfaces Delete and Apply Sel	ected Interfaces Apply Sele	ected Interfaces			
	<b>4 B 1 1 1 1</b>						
	< Return to network o	ontiguration					

6. In the name field, enter the NIC label on the back of the T/Mon unit you want to use: eth1, eth2, eth3, eth4, or eth5. **NOTE:** If the network is not active, don't define.

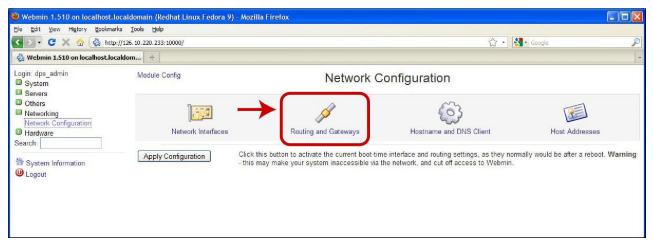
🕹 Webmin 1.510 on localhost.localo	iomain (Redhat Linux F	edora 9) - Mozilla Firefox				
<u>Eile Edit View History Bookmarks</u>	<u>T</u> ools <u>H</u> elp					
🔇 🔊 - 🕑 🗙 🏠 🚷 http://126	. 10. 220. 233: 10000/				☆ - Google	P
🚷 Webmin 1.510 on localhost.localdor	n +					
Login: dps_admin System Servers	Module Index		Create	Bootup Interf	ace	
Others	Boot Time Interface	Parameters				
<ul> <li>Networking Network Configuration</li> <li>Hardware</li> <li>Search:</li> <li>System Information</li> <li>Logout</li> </ul>	Name Address source MTU Create Create a Return to network	eth2 From DHCP From BOOTP Static configuration Default Ind Apply interfaces	IP Address 192.162 Netmask 255.255 Broadcast 💿 Aut	.255.0	<ul> <li>⊙ Yes ○ No</li> <li>O Default ○</li> </ul>	

## 7. Click on Create and Apply.

8. The new interface should now appear on the list.

	localdomain (Redhat Linux Fedora 9)	- Mozilla Firefox				
	rks <u>T</u> ools <u>H</u> elp					
🕓 🕗 📲 🕑 🗶 🏠 😫 http	://126.10.220.233:10000/			☆ ·	Soogle	\$
🗞 Webmin 1.510 on localhost.lo	caldom +					
Login: dps_admin Ø System	Module Index	Ne	twork Interf	aces		
Servers     Others     Networking     Network Configuration		oot be activated when the system boots d a new interface.   Add a new addre:		be active now too.		
I Hardware	Name		P Address	Netmask	Activate at boot?	
Search:	eth0	Ethernet 1	26.10.220.233	255.255.192.0	Yes	
A	eth2	Ethernet 1	92.162.3.1	255.255.255.0	Yes	
System Information	🔲 lo	Loopback 1	27.0.0.1	255.0.0.0	Yes	
W Logout	Select all.   Invert selection.   Ad	d a new interface.   Add a new addre	s range.			
	Delete Selected Interfaces	Delete and Apply Selected Interfa	ces Apply Sele	ected Interfaces		
	🖕 Return to network configurat	ion				

- 9. Adding gateways to new network interfaces:
  - Return to the **Network Configuration** page from Step 3. This time, click on the **Routing and Gateways** icon.

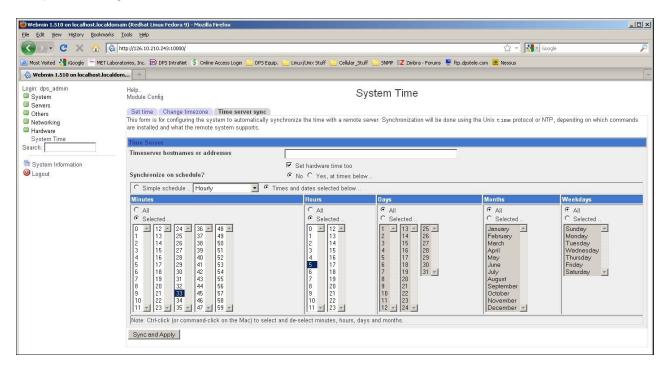


- Select the network interface you've just created from the drop-down menu (Eth2 in this example). Enter the gateway information.
- Select No for Act as router. Click Save to finish.

Login: dps_admin I System	Module Index		Routing and Gateways
<ul> <li>Servers</li> <li>Others</li> <li>Networking Network Configuration</li> </ul>	Boot time confi This section allows		configuration he routes that are activated when the system boots up, or when network settings are fully re-applied.
Hardware	Routing configu	ration activated at	t boot time
	Default routes	Interface	Gateway
Search:	Act as router? Static routes	eth4 V Any eth3 O No lo eth1 Networl eth0 eth4 eth2 2 Net	255.255.255       k       Netmask       Gateway       twork       Netmask

## 5.3 Network Time Protocol (NTP)

On T/Mon, time syncing is no longer handled as a job, as previously in the T/Mon NOC & IAM. If an NTP job is defined in your existing T/Mon database, you must set it to "Halted". Use the following instructions to setup NTP using the Webmin interface.



- 1. In the left navigation pane, click on Hardware, then System Time. Click on Time server sync tab.
- 2. Enter the **IP address or host name** of the NTP server you want to sync with. *NOTE*: If using the host name, verify that DNS servers are defined in the previous step.
- 3. Define the **synchronization schedule**. If you are unsure how often to sync, check with your server administrator.
- 4. Click the **Sync and Apply** button to finish. NOTE: If you are not using Network Time Protocol, but you do want the correct time, click on the Set Time tab to enter it in manually.

## 5.4 Create Shortcut to the Legacy T/Mon Administrative Console

**Important**: During this process you will be prompted to install a plugin for the browser you are using. Make sure you have the appropriate rights on that machine to install browser plugins. Use Internet Explorer 6, 7, 8 or Firefox 3.5 and lower. Chrome and browser versions not listed are not supported by this version of VMware.

**Note:** Only necessary if upgrading from a T/Mon NOC, IAM or SLIM G1.

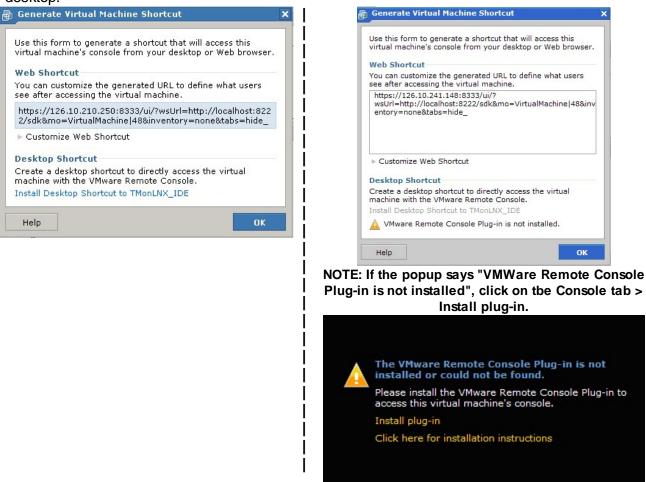
- 1. Open your web browser.
- Enter "<u>https://xxx.xxx.xxx.xxx.8333</u>", where the xxx is the IP address assigned to the T/Mon. (Make sure it's http<u>s</u> for the secure connection.)

VMware Infrastructure W	eb Access
Login Name: Password:	
	Log In

- 3. Log in with "dps\_admin" as the username and "dpstelecom" as the password
- 4. Click "Generate Virtual Machine Shortcut"

Inventory	Administration 🗧 🔢 🕨 🧐				Virtual Appliance Marketplace			
TMonLNX_IDE	Summary Console Tasks Events Permissions							
	Performance			📄 Status				
	Processors 1 × 1.953 GHz			Power State Powered On		•		
	Memory 64 NB			Guest OS DOS VMware Tools		-		
	Notes			Install VMware Tools Virtual Hardware Ver	sion	63		
				Version 7 DNS Name Not Available				
				IP Addresses - Not Available		- 11		
				Commands		E .		
				* Reset				
	Hardware			Generate Virtual Mar	shine Shortout	III		
	Processors 1			Relationships				
	📾 🕶 Memory 64 MB			Host Machine				
	- Hard Disk 1 (IDE 0:0) 2.00 GB			Datastores				_
	📟 🕶 Network Adapter 1 HostOnly			Networks + (unavailab)				
	CD/DVD Drive 1 (IDE 1:0) Using client media			VMware Tips Co	mmands			
					Reset			
				$\rightarrow$	Generate Virtua	l Machine Sh	ortcut	
				Nove up to production-r more cost-effective to g Learn Nore.	eady virtualization! It's never been et a scalable solution.	1		
Task	Target	Status	Triggered At v	Triggered by	Completed At			
Power On Virtual Machine	THORINX_IDE	Success	04/09/10 6:25:48 AM	root	04/09/10 6:25:52 AM			

5. Click "Install Desktop Shortcut to TMon IDE." This will create a shortcut to the main console on your desktop.



- 6. Double click this icon and log on (the username to login is "DPS" and the password is also "DPS").
- 7. To direct keyboard input to the console, click anywhere in the window
- 8. To return keyboard input to the local machine, press CTRL-ALT.

## 5.4.1 Alternative Method to Create Shortcut

#### You can use this alternative method to create a shortcut to T/Mon Administrative Console:

- 1. Open any internet browser
- 2. Enter "http://xxx.xxx.xxx:10000", where the xxx.is the IP address assigned to the T/Mon LNX.
- 3. Log in with "dps\_admin" as the username and "dpstelecom" as the password.
- 4. Click on "Others" on the left side of the page. Then click on "Custom Commands".

Login: dps_admin Ø System		
Servers		🖞 webmin
Others		
Custom Commands		
File Manager	System hostname	localhost localdomain
SSH Login	Operating system	Redhat Linux Fedora 9
Upload and Download	Webmin version	1 510
Networking	Time on system	Fri Jan 10 10:28:53 2014
Hardware	Kernel and CPU	Linux 2.6.25.14-TMonLNX v1.0 on x86 64
	Processor information	Intel(R) Core(TM)2 Quad CPU Q9400 @ 2.66GHz, 4 cores
Search:	System uptime	1 hours, 53 minutes
	Running processes	175
System Information	CPU load averages	2.77 (1 min) 2.55 (5 mins) 2.49 (15 mins)
Uogout	CPU usage	9% user. 51% kernel. 4% IO. 36% idle
	Real memory	3.86 GB total, 666.92 MB used
	Virtual memory	1.94 GB total, 0 bytes used
	Local disk space	227.25 GB total, 147.66 GB used
	Package updates	549 package updates are available

5. Scroll all the way to the bottom of the page and look for buttons that are labeled "Download VMWare Plugin" and "Install Desktop Shortcut".

Debus	
Debug Normal 🗸	Hard Drive SATA0 V
Reboot T/MonLNX	Shutdown T/MonLNX
T/Mon MUST be in monitor mode for this command to work.	T/Mon MUST be in monitor mode for this command to work. Please wait for power supply fan to stop before removing power.
C	1
Download VMWare Plugin	Enable/Disable VNC Server
Click to download the VMWare Plugin Installer.	Enables or disables the VNC server on port 5903 to allow VNC access to the TMon virtual machine. This will cause VMware to shut down and restart. MAKE SURE TMON IS AT THE COMMAND PROMPT BEFORE EXECUTING THIS COMMAND. Enable VNC O Yes O No Server?
Install Desktop Shortcut Click after installing the VMWare plugin to install a Desktop shortcut to the T/Mon LNX.	Boot LNX VM into BIOS Shuts down the TMonLNX VM and starts it into the BIOS. Must reconnect after running this command.
	Reboot T/MonLNX         T/Mon MUST be in monitor mode for this command to work.         Download VMWare Plugin         Click to download the VMWare Plugin Installer.         Install Desktop Shortcut         Click after installing the VMWare plugin to install a

6. Click on the "Download VMWare Plugin" button. Then click the link to the VMWare Plugin Installer.

Login: dps_admin System Servers	Module Index Help	Execute Command
Others     Custom Commands     File Manager     SSH Login     Upload and Download     Networking	Output from command . VM	
Hardware Search: Search: Control System Information Output		

- 7. Once the file has downloaded, run the installer.
- 8. Click on the link to "Return to commands".
- 9. Click on the "Install Desktop Shortcut" button. Then click the link to the Shortcut Installer.

Login: dps_admin System Servers	Module Index Help	Execute Command	
Others Custom Commands File Manager SSH Login	Output from command Downlo	Install Desktop Shortcut ad Shortcut Installer	
Upload and Download Networking Hardware Search:			
<ul> <li>System Information</li> <li>Logout</li> </ul>			

- 10. Run the file after it has downloaded.
- 11. Enter the IP address that was assigned to the T/MonLNX in the text box and click on the Start button to create the shortcut.

State VMShortcut Version 0.0.1	
Help	
1. T/Mon LNX IP Address	
192.168.1.100	
<u>✓ S</u> tart	

12. You should now have the VMWare console shortcut on your desktop.

## 5.5 Loading Existing T/Mon Database

Note: Only necessary if upgrading from a T/Mon NOC, IAM or SLIM G1.

- 1. Open the **T/Mon FTP server** by right clicking on the Start Menu of the PC and selecting Explore.
- Clear the address bar at the top and type <u>ftp://xxx.xxx.xxx</u>, where the x's are the IP address of T/Mon.
- 3. Login to the FTP server. The user name is "dps" and password is "DPS" (both are case-sensitive).

<u>.</u>		
G Back 🝷	🕑 🕤 🥬 Search 🔛 Folders 🛄 🔹	
Address 👰 ftp:	://126.10.210.250/	💌 🄁 Go
Folders	×	
	g On As	
	Either the server does not allow anonymous logins or the e-mail address was accepted. FTP server: 126.10.210.250	s not
± [	User name: dps 🗸 🗸	
	Password:	
Ξ (	After you log on, you can add this server to your Favorites and return to it o	aseily
Nove     Nove     Proc     WIN     DVD-RW     Vol1 on     Public or	FTP does not encrypt or encode passwords or data before sending them to server. To protect the security of your passwords and data, use Web Folder (WebDAV) instead.     Learn more about <u>using Web Folders</u> .	
Control I	Log On Cance	1
DPS Telecom's	's Documents	
My Network Place	85	
Recycle Bin Internet Explorer		
100 100 10 010 0		

4. Drag and drop your **saved T/Mon database (archive.cfg and ctrl.cfg)** into the root directory of the FTP server. You can also click anywhere on the screen and paste your .cfg files onto the system.

File Edit View Favorites Tools	Help				4
🔇 Back 🝷 🕥 - 🏂 🔎	Search 💫 Folders	•			
Address 👰 ftp://126.10.210.250/					💌 🛃 G
Folders     ×	htdocs  htdocs  notupdates  something  updates  updates   updates  updates  updates   updates  utils  buildpath  .htaccess  project   9001,TXT  AAD10966,MOD  ACX2.GIF  ALDEMO.REP  amd.dat  archive.cfg.bak  ascic.gl.dat  ascic.gl.dat  ascic.gl.dat  ascic.gl.dat  ascic.gl.dat  ascic.gl.dat  ascic.gl.dat  Basclogl.dat  BED.SCR	datacon.da DCM.SCR DCPF.SCR derved.dat devadd2.da devadd2.da devoff.dat DFP10959.f dik10.dat	PK.SCR DLE.TSK DLE.TSK DINSTALL.BAT INSTALL.COM larsecfg.dat icod.dat View Arrange Icons By Refresh Paste Shortcut Indo Move Ctrl4 cogin As Vew Properties PATCH.EXE P PATCH.EXE p pgsx2.dat p pgsx2.dat RAC.SCR RAS10960.MOD	REM.SCR REM.SCR REMOTE.TSK REMOTE.TSK resp.dat SOLA_TST.502 TUP.EXE SOLA_TST.502 TUP.EXE REN.WAV te.dat telog.dat at.dat SOS.SCR SST.TSK st1.tst ist2.tst st1.tst ist2.tst til.dat TSX10965.MOD III.dat TMN10967.MOD III.dat	TMONLINK.EXE TMONLINK.EXE TMONLINK2.EXE TMONLINK2.EXE TMONLINK2.EXE TMONLINK2.EXE TPET.EXE TPET.EXE TFb.jof2.dat Trb.jof2.dat Trb.jof2.

5. Once the files are pasted into the T/Mon, it will take T/Mon approximately **10 minutes** (depending on the size of your database) to convert it over to the T/Mon format.

- 6. Take T/Mon out of monitor mode by pressing ESC, R, Enter and go to Files > Utilities > Restore **Data Files**. Restore the C-Configuration files from the C drive.
- 7. Hit Enter when you see the message "Insert Disk #1 and press <Enter>"
- 8. Now that your database has been restored, there are a couple differences between the older T/Mon and the new T/Mon that you should be aware of. The main differences that affect us are knowing which TCP ports can **no longer be used**.

The following is a list of Ports that cannot be used Most likely the only ports that this will affect are by T/Mon because now the is using them "behind the scenes":

the FTP jobs and the HTTP Web-browser. To work around this we must change these ports from – to<sup>.</sup>

10000	8333	20 to 8020
9801	8222	21 to 8021
9802	80	80 to 8080
9803	20	
9811	21	
9813		

To do this, escape back to the Master Menu and go to Parameters > Remote Ports. Hit F for find and go to Job 28. Hit F1 to view all of the TCP/UDP ports being used by the system. Make sure you enter thru the list and change the ftp ports and Web ports to the new port numbers. It is best to scan thru the rest of the ports being used to be sure no others are on the list above.

#### 5.6 Analog Groups

T/Mon Web 3.0 features a graphical gauge display of your analog values. The colored gauges offer a quick, visual representation of your battery levels, temperature, humidity, voltage readings, wind speed and much more.

The ability to create your own analog groups means you can view any assortment of these alarms and save your grouping. You might want to see all the analog alarms at one site, or maybe you want to see all of your temperature readings on one screen. After you have created your group, you'll choose whether to have it saved as your own personal config (only available under your login) or as a global group (available to all users).

1. To create an analog group, click on 'Analog' in the Top Menu then select 'Create Analog Group'.

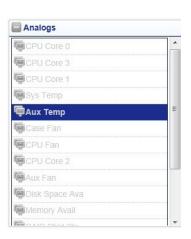
2. You will then need to enter a name and description for your new analog group. You can also select if you want this analog group to be a global analog group.

3. After creating your analog group, select your analog group from the accordian pane on the left. From here, you'll need to select 'Edit Group' to enable the gauge display of the analog values.

Intro Options Wind	lows Analog	g Statistics Logout
Standing/COS Alarm	S	Analog Group nal Analogs)
Ports/Jobs		e Analog Group Edit Group Edit Analog Delete Analog
Intro Options Windows	Analog Statis	stics Logout
Standing/COS Alarms	Analog Grou	up (Internal Analogs) Create Analog Group ×
Ports/Jobs	Create An	nalog Group
Control	Name	
Gilence (Win: 0, Alm: 7)	Descriptio	n
Analog Groups     NG	Global	Create
Edit Analog Group	g Group (Internal Analogs)	Search/Add Analog
Name Internal Analogs Description Global Update		▼         ▼           Ports 3&4 (202)         ▲           Ports 5&6 (232)         ₽           Ports 9&10 (232)         Zigbee Testing           Ports 11&12 (232)         ₽
Registered Analogs         CPU Core 0         CPU Core 1         CPU Core 2         CPU Core 3         CPU Temp         Sys Temp         Aux Temp         Case Fan         CPU Fan         CPU Fan         CPU Fan         Delete       Edit		Ports 138.14 (232) Ports 138.14 (232) Thon Environmentals NG Added from webedit CBH Rack G2 G4 CBH Rack RP5 DC A66 LAB NG Temp Issue #1 NG Temp Issue #1 NG Temp Issue #2 G5 CBH Rack BAS testing BAS testing Metal Shop (216G3) NG D-Wire NG216F Bridne (Head)
	2	NG216T Bridge (Head) NG216T Bridge (Tall) G5 (via 216T bridge)

23

4. Then, using the Analog window on the right side of the screen, you can select which analogs you would like displayed as gauges. Just double click on the analog value and it will be generated as a gauge display.



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45 C

TMon Environmental CPU Core 3 (54.1.4) \*\* 🗆 🗙

59 C

**5.** Once you have added the Analogs you want to display, you should see an interface resembling the one to the right.

You can change the gauge style by using the gauge type icon (located right next to the minimize and close icons for each of the analog displays).

**NOTE:** Gauges require that your browser supports Flash and has a Flash plugin installed.

## 5.6.1 Analog Trending Graphs

Monitor Mode in Web 3.0 now features the ability to view analog data with analog trending graphs. To view analog trending graphs, first select 'Analog Groups' from the 'Accordian Pane' and then select your 'Analog Group'. From your Analog Group interface, select 'Analog Trending'.

oup (Fresno Site

49 C

Edit Group Edit Analog Delete Analog

TMon Environmentals CPU Core 0 (54.1.1)

35 C

48 C

TMon Environmental CPU Core 2 (54.1.3)

415.2<sup>GB</sup>

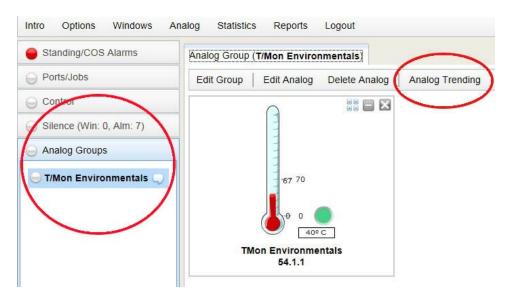
MnO: 2499

Ports/Jobs

G Control

Silence (Win: 0, Alm: 3)

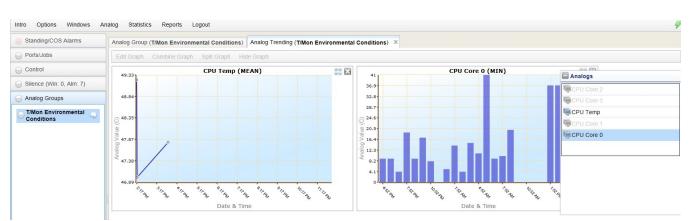
Analog Groups
 Visalia Site
 Fresno Site



Double click on the available analogs in the Analogs window on the right to populate the window with analog to display.

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TMon Environmentals CPU Temp (54.1.5)



Once you have populated the Analog Trending interface with analogs from the desired analog group, you will now see graphical displays of the analog data for the analogs you selected. The settings for the graph are saved by the user as they edit the settings.

You can edit your graphs by clicking on the graph you wish to edit then selecting 'Edit Graph'.

) Ports/Jobs ) Control ) Silence (Win: 0, Alm: 7)	Analog Informa Name Port	CPU Temp		Combined Graphs	
Silence (Win: 0, Alm: 7)		CPU Temp			
	Port			CPU Core 2	
		54		CPU Core 3	
	Address	1		CPU Temp	
Analog Groups	Channel	5		CPU Core 1	
T/Mon Environmental				CPU Core 0	
	Start Date	MINUTE   7/24/2012  7/24/2012	2:00 PM 💌 11:59 PM 💌		

From this window, you can configure your analog graphs using the various options found under Graph Settings. You can also select one of two graph types: Line Graph or Bar Graph. You can also use the "Combined Graphs" box on the right to combine analog data onto a single graph.

Graph Setting	IS		Graph Setting	IS	
Active			Active		
Grouping		All	Grouping	MEAN	- All
Interval	MEAN		Interval	1	* *
Interval Unit	MAX		Interval Unit	MINUTE	-
Start Date	MIN	2:00 PM 👻	Start Date	MINUTE	2:00 PM 🔍
End Date	MEDIAN	11:59 PM 👻	End Date	HOUR	11:59 PM 👻
Continuous			Continuous	DAY	
Update			Update	WEEK	
Graph Type			Graph Type		
	, III				
Save Res	et		Save	et	

Active									
Grouping	MEA	MEAN						All	
Interval	1	1							
Interval Unit	MIN	JTE					*		
Start Date	7/24	201	2				-	2:00 PM	-
End Date	4		,	July		•	•	11:59 PM	-
Continuous Update	s	М	т	w	Т	F	S		
	1	2	3	4	5	6	7		
Graph Type	8	9	10	11	12	13	14		
15.000 h T	15	16	17	18	19	20	21		
	22	23	24	25	26	27	28		
	29	30	31	1	2	3	4		
Save Rese	5	6	7	8	9	10	11		



The current graph settings will generate around  ${\bf 599}$  data points. The maximum data point allowed is  ${\bf 1000}$ 

## 6 Reference Section

## 6.1 Powering Down or Rebooting

- 1. Login to Webmin with user dps\_admin and password dpstelecom
- 2. Select Others->Custom Commands
- 3. To power down click the button for Shutdown T/MonLNX (Same for Mini/SLIM G2)

Shutdown T/MonLNX

T/Mon MUST be in monitor mode for this command to work. Please wait for power supply fan to stop before removing power.

4. To reboot click the button for Reboot T/MonLNX.

Reboot T/MonLNX T/Mon MUST be in monitor mode for this command to work.

## 7 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.

## 8 T/Mon Gold and Platinum Plans

#### T/Mon Gold & Platinum Plan Support Escalation Policy

#### (559) 454-1600 Phone (559) 454-1688 Fax support@dpstele.com Email

## When you call DPS for T/Mon support under your T/Mon maintenance agreement, you'll receive the following benefits:

- 1. If you call during normal DPS operating hours (7:00am to 6:00pm Pacific Standard Time), you will receive priority tech support in front of all calls from users without a T/Mon Gold Plan. If you have an emergency situation, your call will be prioritized to the top of the list (at uncommon times when there is a list).
- If you call outside normal DPS operating hours with an emergency (ex. "System is Down"), you have access to 24x7x365 Tech Support. Follow the recorded voice instructions to alert the on-call technician. The on-call technician will typically return your call within 15 minutes.
- 3. With your permission, DPS technicians can remotely access your T/Mon from DPS Headquarters (typically via dialup) to facilitate diagnostics and instructions. You can follow along on your T/Mon screen as technicians control your T/Mon.
- 4. If it is determined that DPS hardware is at fault, one of the following will occur at DPS' discretion:
  - With client consent, DPS will, on a priority basis, expedite a replacement component for the client's qualified staff to install.
  - The client will ship the unit back to DPS for priority repair and return on a priority basis. When units are received by DPS before 12:00pm, they are repaired, tested, and shipped back to the client within one business day, provided there are no extenuating circumstances.
  - DPS will advance-replace the entire T/Mon unit. After receiving the new T/Mon, the client will ship the failed unit to DPS. The unit will be repaired and shipped back to the client. Upon receiving the repaired unit, the client will return the advance-replacement unit to DPS.

#### **Extended Maintenance Agreement Benefits:**

#### • Half-Price or Free Hardware Upgrades

T/Mon operates 24x7x365. That's stressful for any hardware. Plus, the DPS engineers are constantly improving the platform. That's **2 big reasons** why you should update your T/Mon hardware regularly. T/Mon Maintenance Agreements make it easy to get the equivalent of a brand new monitoring system every 3-5 years. You'll stay well ahead of the mortality curve, and you'll never get stuck using ancient technology.

Participate in our **50%-off upgrade program** at the end of your third consecutive year as a <u>Gold Plan</u> <u>member</u>, **OR** Participate in our **free upgrade program** at the end of your fifth consecutive year as a <u>Platinum Plan member</u>. We'll send you a **brand new** T/Mon. Just send us back the old one.

#### • Software upgrades

Includes major release(s), plus updates throughout the life of your Gold/Platinum Plan. These major releases are not small. They incorporate user feedback, industry best practices evolution, entirely new capabilities, as well as the occasional code correction.

#### • 4-Day Factory Training course

Hosted at our corporate headquarters (up to 3 members from your team can attend per session - multiple sessions per year).

#### • Spares and standby purchase discount

Backup units are essential for disaster recovery. With a Gold/Platinum Plan, you'll get discount prices on purchasing spare parts and standby units.

## 9 End User License 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.

"Dependable, Powerful Solutions that allow users to monitor larger, more complicated networks with a smaller, less trained staff"



559-454-1600 • 800-622-3314 • 559-454-1688 fax