86456 VistaNET[®] 4.05 Release Notes

Version: Release Date: Type of Release: 4.05 July 2012 Production Release

Lentronics Multiplexers

JungleMUX SONET Multiplexers, TN1U and TN1Ue SDH Multiplexers, and JungleMUX T1 Multiplexers



Copyright © GE Multilin 2011, All Rights Reserved

The copyright of this document is the property of GE Multilin. This document must not be copied, reprinted or reproduced in any material form, either wholly or in part, without the written consent of GE Multilin.

GE Multilin reserves the right to make changes and modifications to any part of this document without notice.

GE Multilin is not responsible for any damages or losses incurred as a result of out-of-date or incorrect information contained in this document.



TABLE OF CONTENTS

able of Contents	. 2
Release Summary	. 3
Product/Component	. 3
Requirements	. 3
Release Details	. 4
New Features	. 4
IPSU UPGRADE (initially offered in version 4.04)	4
VistaNetService (Initially offered in version 4.04, modified for version 4.05)	. 5
Traffic Management (Initially offered in Version 4.04)	12
oftware Upgrade Procedure	13
Required software before upgrade	13
Upgrading from VistaNET version 2.25 or lower	13
Upgrading from VistaNET version 3.00 OR HIGHER	13
Steps to upgrade VistaNET	13
Upgrading IPSU from CE based firmware to Linux based firmware	18
imitations	32
Non-VistaNET issues	33
Known Deficiencies	34
Fixed Deficiencies (4.04)	40
Fixed Deficiencies (4.05)	45



RELEASE SUMMARY

PRODUCT/COMPONENT

• VistaNET version 4.05

REQUIREMENTS

VistaNET version 4.05 requires the following components to be installed:

- Microsoft .NET Framework 4
- Windows XP Service Pack 3 (for Windows XP OS)
- Windows Server 2008 and Windows Vista / Windows 7 OS are also supported¹

¹ For install procedure please contact Customer Support or refer to Windows Server 2008 or Windows Vista / Windows 7 OS installation sections in this document.



RELEASE DETAILS

NEW FEATURES

VistaNET 4.05 offers a number of incremental improvements over version 4.04. A description of the major features delivered in version 4.04 has been retained herein to help those customers upgrading from version 3.xx or 4.00 understand these. The system features present in these software release versions are:

IPSU UPGRADE (INITIALLY OFFERED IN VERSION 4.04)

The IP Service Unit can be upgraded to version 4.05 by placing the file IPSU0405.bin into the "%PROGRAMFILES%\GE\VistaNET\Firmware\Cerfboard" folder and clicking the Upgrade button followed by Configure. Note that you may need to create this folder manually.



UistaNET: IPSU at R132/N21		
	1 🖣 🗞 🛠 🥃 📑 🗗	
RB	Alarms View	Inventory Activity Log
	View Data Un IP Service (86434-03)	it Info
	Status Setup	
⊡… □ IPSU 	NMS Location TOH	Ring 132
E - ≪ Ring 151 ⊡ - ≪ T1MX ⊉ - ≪ Group 4	NMS Ordenwire IF DCC1 I I [E1] IF DCC2 2 [E2] IF DCC3 3 [DCC8] IF DCC9 4 [DCC7] DCC10 5 [DCC6] DCC11 6 [DCC5] DCC12 7 [DCC4]	Node 21 ÷ Max Node Hops 16 ÷ Optic Rate OC-3 ▼ Sentinel Mode - Equipped Units If JMUX Left If JMUX Right Sync Left Sync Right Date and Time Setup Date December, 21, 2011
	DHCP Enabled DNS Name IPSU_C14A	Time 07:51:00 Copy Date & Time from local PC
	Local IP	Sof ware Version and Licensing Ver ion IPSU0404 Upgrade to IPSU0404
	NTP Server	Copy from local PC
	Сору	Paste Undo Configure Cancel
	User se	ssion: 2 hr remaining User: administrator Company: R



VISTANETSERVICE (INITIALLY OFFERED IN VERSION 4.04, MODIFIED FOR VERSION 4.05)

VistaNET application has been split into two executable applications: VistaNetService.exe and VistaNET.exe.

• VistaNetService.exe is a Windows Service application managed from Services, as any other Windows Service, and it runs under the Local System account credentials. If required, the startup can be set to Automatic, which will start the service automatically upon system reboot.

Services						
<u>File Action View</u>	<u>H</u> elp					
	à 🗟 🛛 🖬 🕨 🔲 II II 🕨					
Services (Local)	Services (Local)	_				
	VistaNetService	Name	Description	Status	Startup Type	Log On As 🔺
		🔍 Themes	Provides us	Started	Automatic	Local Syste
	Stop the service	🔍 Thread Ordering S	Provides or		Manual	Local Service
	Restart the service	🌼 TPM Base Services	Enables acc		Manual	Local Service
		鵒 UPnP Device Host	Allows UPn		Manual	Local Service
		鵒 User Profile Service	This service	Started	Automatic	Local Syste
		🔍 Virtual Disk	Provides m		Manual	Local Syste
		🔅 VistaNetService		Started	Automatic	Local Syste
		🔍 Visual Studio 2008	Allows me		Disabled	Local Syste
		🌼 VMware Agent Ser	VMware Ag		Manual	Local Syste
		🌼 VMware Authoriza	Authorizati	Started	Automatic	Local Syste
		🌼 VMware DHCP Ser	DHCP servi	Started	Automatic	Local Syste
		🌼 VMware NAT Serv	Network ad	Started	Automatic	Local Syste
		🌼 Volume Shadow C	Manages an		Manual	Local Syste
		🎑 WebClient	Enables Win		Manual	Local Service
		鵒 Windows Activati	Performs W		Manual	Local Syste
		🌼 Windows Audio	Manages au		Manual	Local Service 🗮
		鵒 Windows Audio E	Manages au		Manual	Local Syste
		🎑 Windows Backup	Provides Wi		Manual	Local Syste
		🎑 Windows Biometri	The Windo		Manual	Local Syste
		🌼 Windows CardSpa	Securely en		Manual	Local Syste 🖕
		<				· · · · ·
	Extended Standard					

There are few ways to bring up the Services snap-in in Microsoft Management Console (MMC) interface above:

- Run Services.msc
- o Open Control Panel, Administrative Tools, Services
- o Run mmc and add Services snap-in from the File menu
- VistaNET.exe is Windows GUI application, which runs with user credentials as before. If you have not disabled automatic start up before upgrade, you can do it by running msconfig and unchecking the Startup item VistaNET.

Startup Item	Command	Location	
✓		HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗸 OdTray	"C:\Program Files\Fun	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗹 DefMgr	"C:\Program Files\Micr	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗸 sxpstub	"C:\Program Files\CA\	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗹 cfSysTray	"C:\Program Files\CA\	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗸 tcrea	"C:\Program Files\Aut	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗹 jusched	"C:\Program Files\Com	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
✓ Reader_sl	"C:\Program Files\Ado	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
AdobeARM	"C:\Program Files\Com	HKLM\SOFTWARE\Microsoft\Windows\Current	Ver.
🗸 ctfmon	C:\WINDOWS\system	HKCU\SOFTWARE\Microsoft\Windows\Current	Ver.
☑ GoogleUpdate	"C:\Documents and Se	HKCU\SOFTWARE\Microsoft\Windows\Current	Ver.
VistaNET	"C:\Program Files\GE\	HKCU\SOFTWARE\Microsoft\Windows\Current	Ver. 💌
			►

Important Remarks:

Decoupling the VistaNET_Service from the VistaNET_GUI is an extremely important improvement over previously released VistaNET versions. Instances of VistaNET 4.05 running 24/7 can now maintain much higher availability and accuracy as the service is running independent of the user session. VistaNET 4.05 users can now be assured of continued NMS Multiplexer coverage even after a user logs out of their windows session. This better protects 24/7 instances of VistaNET, where for security reasons, no generic user session is permitted. Users that want to access VistaNET through the 24/7 service must first log into their Windows environment (Single Sign-on, SSO), then start the VistaNET GUI. All actions performed by this user will be logged by VistaNET and the underlying operating system against this user. Upon conclusion of their VistaNET work, users should close the VistaNET GUI, and log off their Windows environment, preventing others from masquerading as another user or as a member of a generic windows profile.



MANAGEMENT OF THE VISTANET SERVICES

The VistaNetService.exe has to be stopped / restarted whenever:

- A new passport/license file has been synchronized.
- There were changes in Administrative & Startup Options.
- Whenever prompted to restart VistaNET.
- When removing/upgrading VistaNET.

VistaNET.exe will start VistaNetService.exe but it will not stop it on exit. On the other hand VistaNetService.exe will close VistaNET.exe when stopped.

VistaNetService.exe has default startup option set to Manual. The PC administrators may choose to change this to Automatic (recommended for 24/7 PC used to manage the Lentronics Multiplexer system).

If a VistaNET service fails to start or if the service fails to install, reboot the computer and attempt the request again.

If VistaNetServices fails to stop from Services snap-in, at least one of the following two procedures should be able to stop it. Please use these as a last resort, since you may lose data when abruptly killing the service. A restart of the PC is then recommended.

lications Processes Se	rvices Perf	ormance Networking	Users							
Image Name	PID	User Name	CPU	CPU Time	Working Set (Memory)	Memory (Private Working Set)	Page Faults	Handles	Threads	USE
wmpnetwk.exe	3636	NETWORK SERVICE	00	0:00:09	5,444 K	2,640 K	41,919	272	9	
WmiPrvSE.exe	4424	LOCAL SERVICE	00	0:00:00	5,080 K	1,640 K	1,465	123	8	
winlogon.exe	572	SYSTEM	00	0:00:00	1,464 K	600 K	5,456	130	3	
wininit.exe	444	SYSTEM	00	0:00:00	160 K	112 K	1,280	79	3	
vmware-vmx.exe	5856	Roman	00	0:30:26	261,352 K	11, 108 K	873,928	440	9	
vmware-tray.exe	3148	Roman	00	0:00:01	1,016 K	516 K	39,829	286	6	
vmware-authd.exe	1980	SYSTEM	00	0:02:49	1,576 K	868 K	6,674	242	7	
vmware.exe	692	Roman	00	0:00:08	3,288 K	2,064 K	45,747	371	7	
vmnetdhcp.exe	2028	SYSTEM	00	0:00:00	564 K	192 K	1,489	45	3	
vmnat.exe	1948	SYSTEM	00	0:00:00	588 K	212 K	1,414	67	5	
VistaNetService.exe	4584	SYSTEM	00	0:11:55	68,396 K	45,284 K	63,702	503	44	
VistaNET.exe	1828	Roman	00	0:03:29	125,592 K	92,396 K	909,228	575	13	2
taskmgr.exe	5092	Roman	00	0:00:21	10,516 K	2,240 K	3,091	129	5	
taskhost.exe	2492	Roman	00	0:00:02	3,004 K	1,136 K	8,933	208	8	
•		III								•
Show processes from all	users								End Pr	ocess

1. End VistaNetService process, which runs as SYSTEM user, from the Task Manager (running as Administrator on W7, make sure to Show processes from all users).

2. Disable the service from Services MMC plug-in (change Manual or Automatic Startup Type option to Disabled), and reboot the computer.

VistaNetService Properties (Local Computer)
General Log On Recovery Dependencies
Service name: <u>MstaNetService</u>
Display name: VistaNetService
Description:
Path to executable: "E:\Projects\svn\VistaNET\branches\roman\project files\Win32\Debug\Vi
Startup type: Disabled
Help me configure service startup options.
Service status: Started
Start Stop Pause Resume
You can specify the start parameters that apply when you start the service from here.
Start parameters:
OK Cancel Apply



RELEASING COMM. PORTS AND DISABLING SYNCHRONIZATION UPON CLOSING VISTANET.EXE

Modifications made for VistaNET version 4.05 [Issue #871]

Users of VistaNET 4.04 asked GE to provide a method to automate certain functions performed after closing the VistaNET.exe GUI application. As mentioned above, closing this application does not close the VistaNET Services and consequently, VistaNET will continue to manage the JungleMUX/TN1U/Ue networks through the established comm. ports. This may be desired, for instance on a 24/7 instance of VistaNET. However, for individual users, closing the GUI is typically performed at the conclusion of their work, at which time, it's desired to release their local comm. ports and hibernate that VistaNET service, reducing the overall PC's resources required to support VistaNET.

Under the Administration and Startup options icon > Startup Tab, locate a check box associated with enabling this functionality, called "Disable Local Connections & Synchronization on VistaNET GUI Shutdown'. By default, this check box is unchecked, meaning that the comm. ports will remain tied to the VistaNET service and the service will continue to synchronize with remote VistaNET peers even after closing the VistaNET.exe GUI.

🚽 Administration & Startup Opti	ons	Σ
Startup System Users Grou	ps SNMP	
Enable audible alarms on s	start-up	
Disable Local Connections	& Synchronization on VistaN	T GUI Shutdow
Enable synchronization with	h active VistaNET services in	your network
Connect to (unicast)		
IP Address / DNS Name		Delete
3.94.212.238		
IP/DNS		Add
TCP/UDP Listening Ports		
Synchronization: 8644	(TCP/UDP, Default: 8644)	Set

MANUALLY ADDRESS SPECIFIC IP ADDRESS OF REMOTE VISTANET PEER(S)

Modifications made for VistaNET version 4.05 [Issue # None]

VistaNET will no longer support unsolicited connections with remote VistaNET peers. Users must explicitly specify the IP address of the remote VistaNET peer that their instance of VistaNET will attempt to connect with. As a general rule,

- 24/7 instances of VistaNET should be provisioned with the IP/DNS address of other 24/7 VistaNET instances.
- Remote (field) instances of VistaNET should be provisioned with the IP/DNS address of all 24/7 VistaNET instances (but minimally one of them).

No remote-to-remote VistaNET synchronization will be supported 'out-of –the-box', reducing the overall volume of synchronization data that each remote instance of VistaNET is subjected to. Performance improvements can be expected by customers that run multiple, concurrent VistaNET sessions. This is particularly important for users that connect in to their operational LAN while in the field over a low-bandwidth public/private network connection. Their VistaNET session will now connect only with the PC's specified in the Administration and Startup Options, and not the entire VistaNET user-base.

Enter the IP/DNS address of the desired remote VistaNET peers

Administration & Startup Options Startup System Users Groups SNMP Image: Enable audible alarms on start-up	23
Disable Local Connections & Synchronization on VistaN	ET GUI Shutdown
Enable synchronization with active VistaNET services in) your network
Connect to (unicast)	
IP Address / DNS Name	Delete
IP/DNS	Add
TCP/UDP Listening Ports	
Synchronization: 8644 (TCP/UDP, Default: 8644)	Set
Remote Data: 8633 (TCP, Default: 8633)	Set

ENABLING/DISABLING VSA PORTS DOES NOT REQUIRE A VISTANET RESTART

Modifications made for VistaNET version 4.05 [Issue # 410]

VistaNET now does NOT need to be restarted when

- A VSA port (if optionally equipped) is enabled or disabled (located from the Serial Connections icon, see image below)
- A new IP address is added to the Administration and Startup Options dialog box. A new IP address is added whenever a connection to a remote VistaNET peer is desired (ie to a 24/7 instance of VistaNET)

Enabled	Туре	Location		VSA	Connect	ion Stati	JS			
	Serial	COM4		~						
	Serial	COM5		~	Could not	t open d	evice			
	Serial over IP	3.94.212.87								
			v							
							D	- 1	line	



TRAFFIC MANAGEMENT (INITIALLY OFFERED IN VERSION 4.04)

The management of JungleMUX physical and logical assets is now available through a new VistaNET premium software component called the 86456-21 VistaNET Traffic Manager. **Corrections made in 4.05 fix integration issues of XML files into the traffic analyzer.** Similar to other VistaNET premium components (vSNMP, ATR, VSA), the Traffic Manager is a licensed add-on that enables advanced functionality above and beyond standard network management. Licensing of the Traffic Manager is performed on a JMUX nodal basis, allowing concurrent users to effectively manage the assets contained within licensed nodes. A node could be either a SONET or T1MX node.

The Traffic Manager is designed to achieve three main objectives

1. Usage

Provide users with information to understand their 'as-built' JungleMUX equipment inventory and provisioned logical circuits (or services). This enables improved equipment management through faster and more accurate information access.

2. Availability

Provide users with equipment and traffic availability information to help with network planning initiatives.

3. Performance

Provide additional troubleshooting tools that assist maintenance and support staff assess critical performance parameters and to enable trending of such information over extended durations.

	Start the Traffic Manager, Icon enabled once licensed
VistaNET: GE Multilin	Start the Traffic Manager, Icon enabled once licensed
	2/6/2012 1:30:53 PM: Starting Inventory Capit 2/6/2012 1:30:53 PM: Capturing inventory Capit Image: Start Capture



SOFTWARE UPGRADE PROCEDURE

This section focuses on upgrading your PC with the VistaNET 4.05 Software or Hardware, if applicable.

REQUIRED SOFTWARE BEFORE UPGRADE

VistaNET version 4.05 requires the following components to be installed:

- o Microsoft .NET Framework 4
- Windows XP or higher (not tested with any Windows released after 2011)
- Windows XP Service Pack 3 (for Windows XP OS)

UPGRADING FROM VISTANET VERSION 2.25 OR LOWER

- If you are upgrading from VistaNET versions 2.25 and below, you must uninstall the old version using *Add/Remove Programs* before installing VistaNET version 4.05.
- You must backup the H7Engine.dat file before VistaNET version 4.05 will be installed, since running it will update the H7Engine.dat file to a new format incompatible with previous versions of VistaNET. As a result of this new install, you will not be able to revert to any previous versions of VistaNET unless you also revert to the saved version of the H7Engine.dat file by manually copying it in the corresponding VistaNET file folder.

RECOMMENDATION: GE recommends that the old database files (H7engine.dat) be removed from the program files directory after a backup is securely saved.

- After installing VistaNET version 4.05, you must rediscover the existing network in order to
 populate the database with required data. This discovery is required for the nodes containing
 CDAX cards, to properly obtain and store CDAX Left/Right information. Also, the discovery is
 needed in order to obtain and store the units' Serial Number, and data used to properly refresh
 the tree view of your network.
- After installing VistaNET version 4.05 and connecting various VNI/VSA computers in your management network, you must let it run for at least one hour before performing any tasks. This approach will allow VistaNET to resynchronize all the JMUX/TN1U network data between the networked VistaNET computers.
- VistaNET 4.05 will not start properly if in earlier VistaNET versions you had the modem connection name or telephone number containing an ampersand (&). In this case please make sure that there are no '&' characters in the modem name(s) or numbers before installing.

UPGRADING FROM VISTANET VERSION 3.00 OR HIGHER

If you are upgrading from VistaNET versions 3.00+, proceed to installing VistaNET version 4.05. Uninstalling the previous version 3.00+ is not required.

STEPS TO UPGRADE VISTANET

For new installation of VistaNET version 4.05:

 Using Windows Explorer, go to the "C:\Program Files\GE\VistaNET\H7Engine" folder and make a backup copy of the H7Engine.dat/H7Engine.db3 file. If you are upgrading from version 4.00, the location of the database is in "%APPDATA%\GE\VistaNET\H7Engine".



- **Uninstall** previous versions of VistaNET (only 2.25 and lower) using *Add/Remove Programs* (Uninstall is required due to the change in the installer software used).
- o Using a Web-browser, open http://www.JMUX.com
- Click on the *Existing Customers Login* button. This is a protected site, a username and password is required
- o Select the 'Software' web link
- o Select 'VistaNET Software Download'
- o Download the VistaNETsetup_404.msi file to the PC's hard drive
- o Run the VistaNETsetup_404.msi file
- o Follow the Install Shield installation instructions
- Repeat on all PC's running VistaNET

RECOMMENDATION: GE recommends that the old database files (H7engine.dat and H7engine.db3) be removed (from "C:\Program Files\GE\VistaNET\H7Engine" and "APPDATA\GE\VistaNET\H7Engine" directory's respectively) after a backup is securely saved.

• Settings File Maintenance: No changes to the VistaNET license file are required.

If a license file has not been issued, please register for one through the Lentronics Multiplexer website <u>http://www.JMUX.com</u>.

- Click on the Existing Customers Login button. This is a protected site, a username and password is required
- o Select the 'Software' web link
- Select 'VistaNET Passport Registration Form'
- o Complete and submit the registration form

GE Lentronics will create the license file. A notification will be e-mail to all VistaNET administrators indicating passport location and integration instructions.

🔁 VistaNET (3.01.4240)	😼 VistaNET (3.01.4240)
Welcome to the VistaNET (3.01.4240) Setup	License Agreement
The installer will guide you through the steps required to install VistaNET (3.01.4240) on your computer.	Please take a moment to read the license agreement now. If you accept the terms below, click "I Agree", then "Next". Otherwise click "Cancel".
	VistaNET tm GENERAL ELECTRIC MULTILIN INC. (LICENSOR) SOFTWARE LICENSE AGREEMENT FOR VISTANET
WARNING: This computer program is protected by copyright law and international treaties. Unauthorized duplication or distribution of this program, or any portion of it, may result in severe civil or criminal penalties, and will be prosecuted to the maximum extent possible under the law.	"Licensed Software" shall mean the VistaNET "" Network Management Software which may be downloaded from a GE Multiin server, or which may be contained on a compact disc, and used by a licensee for the purpose of enhancing the licensee's Network Management system, pursuant to an appropriately executed license from GE Multiin granting the licensee a right to use such Software.
	I Do Not Agree I Agree
Cancel < Back Next >	Cancel Cancel Next >

Figure: Welcome Screen

Figure: License Agreement



- 1. If a Windows generate a User Account Control warning. Select 'Allow'. The installation will complete.
- 2. VistaNET will be installed in the C:\Program Files\GE\VistaNET folder (32-bit) or the C:\Program Files(x86)\GE\VistaNET folder (64-bit).

WINDOWS FIREWALL

If used, the first time that VistaNetService is started, a Windows Firewall message may be generated. Ensure that the 'Private Networks' checkbox is checked and press 'Allow Access'. Active Services will now be allowed through the Windows Firewall.

Windows Secu	rity Alert	×
Windo	ws Firewal	II has blocked some features of this program
\checkmark		
Windows Firewal h	as blocked som	e features of VistaNET on all public and prvate networks.
8881	Name:	VistaNET
	Publisher:	GE Multilim
	Path:	C:'program files (x86)'ge\vistanet\vistanet.exe
Allow VistaNET to c	ommunicate on	these networks:
Private netw	vorks, such as n	ny home or work network
Public netwo because the	orks, such as the se networks <mark>o</mark> f	ose in sirports and coffee shops (not recommended ten have little or no securi:y)
What are the risks	of allowing a pr	ogram through a firewall?
		Allow access Cancel

Figure: Windows Firewall

WINDOWS SERVER 2008 FIREWALL

Unlike the Windows 7 firewall setting, which prompts the user to allow VistaNetService through the firewall, in Windows Server 2008 an inbound firewall rule must explicitly be set. By default, all applications are blocked by the firewall. An inbound rule must be created to open the firewall for the specified application.

Open the Server Manager and navigate to the 'Configuration – Windows Firewall with Advanced Security – Inbound Rules.

In the Actions panel, select 'New Rule'. This will walk the user through creating a new rule using a new rule wizard.

July 2012 Page 16

🗑 New Inbound Rule W	izard	
Rule Type		
Select the type of firewall ru	le to create.	
Steps:		
Rule Type	What type of rule would you like to create?	
Program		
Action	Program	
Profile	Rule that controls connections for a program.	
Name	O Port	
	Rule that controls connections for a TCP or UDP port.	
	O Predefined:	
	BITS Peercaching	7
	Rule that controls connections for a Windows experience.	
	O Custom	
	Custom rule.	
	Leam more about nile types	
		1
	< Back Next >	Cancel

Figure: 2008 Server New Inbound Rule Wizard – Step #1 – Rule Type

Select the 'Program' option. This will allow all IP ports that are used by VistaNetService to be passed through the firewall. Press the 'Next' button.

🍿 New Inbound Rule W	izard X
Program	
Specify the full program path	n and executable name of the program that this rule matches.
Steps:	
Rule Type	Does this rule apply to all programs or a specific program?
Program	
 Action 	O All programs
Profile	Rule applies to all connections on the computer that match other rule properties.
Name	This program path: "Program Files %\GE\VistaNET.witaNET.exe Example: c:\path\program.exe %\Program.Files %\Intermet Explorer\explore.exe
	Learn more about specifying programs
	< Back Next > Cancel

Figure: Program Path

Using the 'Browse' button navigate to the 'C:\Program Files\GE\VistaNET\VistaNetService.exe' application (32-bit) or 'C:\Program Files (x86)\GE\VistaNET\VistaNET.exe' (64-bit). Press the 'Next' button.

July 2012 Page 17

New Inbound Rule W	zard
Action	
pecify the action that is tak	ten when a connection matches the conditions specified in the rule.
teps:	
Rule Type	What action should be taken when a connection matches the specified conditions?
Program	
Action	Allow the connection
Profile	Allow connections that have been protected with IPsec as well as those that have not.
Name	O Allow the connection if it is secure
	of IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node. Require the connections to be encypted Require privacy in addition to integrity and authentication. Override block crules Useful for tools that must always be available, such as remote administration tools. If you useful first point, you must also specify an authorized computer or computer group. Block the connection
	Leam more about actions < Back Next > Cancel

Figure: Action

Select the 'Allow the connection' option to allow the VistaNetService ports through the firewall. Press the 'Next' button.

💮 New Inbound Rule Wizard	×
Profile	
Specify the profiles for which this ru	le applies.
Steps:	
Rule Type	When does this rule apply?
Program	
Action	✓ Domain
 Profile 	Applies when a computer is connected to its corporate domain.
Name	Private Apples when a computer is connected to a private network location. Public Apples when a computer is connected to a public network location.
	Leam more about profiles
	< Back Next > Cancel

Figure: Profile

Determine on which networks the rule will apply. This rule must be applied to allow connections to any VistaNetService session used on the network.

Press the 'Next' button. The user will be requested to give the rule a name (typically VistaNET).

Press the 'Next' button to complete the rule.

The firewall rule will now apply to all users of the Windows 2008 Server. There will not be a requirement to change rules for other users (such as Standard users).



UPGRADING IPSU FROM CE BASED FIRMWARE TO LINUX BASED FIRMWARE

This section describes the requirements and steps required to upgrade the 86434-03 IP Service Unit from a Windows CE based firmware to a Linux based firmware equipped with VistaNET 4.00.

REQUIREMENTS

- PC equipped with upgrade application (UpgradeIPSUfromCEtoLinux-1.0.9472.3.exe).
- Available COM port on PC
- DHCP enabled network connection
- Network connection to PC
- Network connection to IPSU paddleboard
- IPSU Debug cable assembly 087-78100-50 (Contact GE Technical Services)
- Craft interface cable assembly (RJ12 cable 84910-05, RJ12 to DB9 adapter 86410-06)

CONNECTIONS



Figure 1: Overall Connections

- 1. Connect the IP Service Unit paddleboard and PC to a common IP network. Ensure that the method of obtaining an IP address is from a DHCP server.
- 2. The serial connection from the PC to the IPSU is comprised of two assemblies:
 - a. The IPSU 087-78100-50 Debug Assembly is a six-wire silver satin cable equipped with a 3-pin Molex connector on one end and an RJ12 male connector on the other end. The RJ12 male connector connects to an in-line female/female RJ12 converter.
 - b. The standard JungleMUX Craft Interface assembly, a six-wire satin cable equipped with two male RJ12 connectors on either end (84910-05) connecting to an RJ12 to DB9 adapter (84910-06).





3. The 3-pin Molex connector is connected to the IP Service Unit via P8, pins 7,8,9.The GND pin on the Molex female connector is connected to Pin 9 (marked GND) on P8.



Figure 3: Molex Connection to IPSU

4. The JungleMUX Craft Interface assembly connects to the PC COM port via the DB9 connector; and to the IPSU Debug assembly via the RJ12 female to female converter.

RUNNING THE IPSU FIRMWARE LOADER

1. Execute the 'UpgradeIPSUfromCEtoLinux-1.0.9472.3.exe' application. This application will start with requirements mentioned in previous paragraphs along with a prompt to press the 'NEXT' button



Figure 4: Welcome Form

- Once the 'Next' button is pressed, the user will be instructed to connect the IPSU and PC to a common network (DHCP assigned IP addresses), and to connect the serial connection as discussed above. The desired COM port may be selected. The IPSU should not be inserted at this time.
- 3. Press the 'Next' button.

<u>Note</u>: A wireless connection from the PC to the network will not function correctly. All Ethernet connections should be copper.



Figure 5: Connections Instructions

4. Once the 'Next' button has been pressed, a blank 'Serial Log' screen will appear. At this time, insert the IPSU. Various messages will be displayed as the PC detects the IP address of the IPSU. Once an IPSU IP address has been detected, a 'Success' message will appear. The user is instructed to press the 'Next' button.

<u>Note:</u> If the IPSU cannot be detected, the log may be captured for analysis. Please capture the information shown in the log and send to GE Technical Services for analysis.

PSU Upgrade Wizard	
SU Detection Please insert/reinsert IPSU into the shelf now.	
Serial Log	
Current Server IP: 0.0.0.0 Current Gateway: 0.0.0.0 Current Subnet Mask: 0.0.0.0 MAC Address 0: 00D0CAF114BA FLASH config: 16 bit non-interleaved FLASH block size: 0x00020000 RAM size: 32 MB @ 0xC0000000 IBoot> set ip dhcp IP address: 192.168.1.101 Results:	
Bootloader: Iboot IPSU IP: 192.168.1.101 SUCCESS: Please click Next to continue	IIPSU

Figure 6: IPSU Detection Serial Log

5. Once the 'Next' button has been pressed, a new 'Serial Log' is presented. The Linux operating system is loaded into the IPSU along with VistaNET 4.00.

Note: This process will take several minutes. A progress bar on the bottom of the loader will indicate the progress of the load. Memory blocks (127) are first erased, the new flash is loaded via TFTP, the unit is rebooted and VistaNET started. Once complete, a 'System installed and running. 'Click Next' prompt is displayed.

Serial Log			-	
Ausr/share/udhcpc/default adding dns 3.0.105.200 adding dns 3.0.109.200 Getting initial time via ntp. Starting vistanet /	scipt: line 37: route: not found			
Results:				
System installed and runnin	ng Click Next	Successful insta	allation	

Figure 7: Bootloader and Linux Upload

- 6. Once the 'Next' button is pressed, the user is provided brief instructions on setting up VistaNET and how to verify that the IPSU is available.
- 7. Press 'Finish' to close the updater.



Figure 8: What to do on completion

8. Press the 'Finish' button to exit

VISTANET SETUP

The IP Service Unit provides the same functionality as a VSA equipped VistaNET. As with multiple VistaNET clients, in order for the IPSU to communicate with other VistaNET sessions on the network, the following conditions must be met:

- 1. All VistaNET clients (and IPSU's) must use the same VistaNET version.
- 2. All VistaNET clients and IPSU's must be visible on the network (one device must be capable of pinging all other devices).
- 3. All VistaNET clients and IPSU's must use a common company name.
- 4. All VistaNET clients and IPSU's must use the same TCP / UDP listening ports

Once these conditions have been met, devices should appear in the Active Services list and will begin synchronizing discovered data, licenses, security, logs, and alarm and configuration history.

IPSU VistaNET version 4.0 does not support private IP addressing (10.0.0.0 to 10.255.255.255; 172.16.0.0 to 172.31.255.255; 192.168.0.0 to 192.168.255.255). IPSU's must be assigned a non-private IP address in order for other VistaNET clients to synchronize data. IPSU VistaNET versions 4.04 and above do support private IP addresses.



IP SERVICE UNIT SETUP

In order for the IP Service Unit to communicate with other VistaNET clients, it must:

- 1. Be assigned an IP address (either static or dynamic). For version 4.00, the IP address must not be a private address. For version 4.04 and above, this restriction does not apply.
- 2. Settings normally applied to all Service Units (NMS location, NMS overhead bytes, Orderwire bytes, Ring number, Node number, Optic Rate, Equipped left/right JMUX, Equipped left/right External Sync units (if applicable)) must be applied.
- For accurate alarm time stamping, the unit should be provided with an IP address for an NTP server. It is recommended that all VistaNET clients also obtain time information from an NTP service.
- 4. The Company Name must be identical to all VistaNET clients.

Connect to the IP Service Unit using a Craft Interface connection, navigate to the 'Setup' tab and provision the unit for the above parameters.

Status Setup	TBOS Monitor	
Overhead Allo	cation	IP Service Unit
NMS Location	тон 🔻	Ring 60 🛨
<u>NMS</u>	<u>Orderwire</u>	Node 2
DCC1	🔽 1 [E1]	Optic Rate
DCC2	🗆 2 [E2]	Sentinel Mode
DCC3	🗆 3 [DCC8]	Equipped Units
DCC9	🗆 4 [DCC7]	JMUX Left JMUX Right
DCC10	5 [DCC6]	Sync Left Sync Right
DCC11	E 6 [DCC:] IP Ad	dress setup
DCC12	🗆 7 [DCC4]	Date and Time Setur
Network Setu	P	Date December 31, 1969
DHCP Enabled	▼	Time 15 11:00
DNS Name	IPSU_BA14	Company Name Setup
Local IP		Software Version and Licensing
Subnet Mask		Version Upg ade
Gateway IP		
DNS Server IP		Company Name Mark Dixon - GE ETAC
NTP Server	3.130.161.130	Copy from local PC

Figure 9: IPSU Setup

VISTANET CLIENT

Once the IP Service Unit has been assigned an IP address, VistaNET clients must be setup to use this address. VistaNET and the IPSU use multicast addresses to notify each other that the client / IPSU has been started. Often, routers will block multicast addresses. If this is the case, the IP address from the IP Service Unit may be entered directly into VistaNET using the 'Administration and Startup Options' toolbar button.

- 1. Ensure that 'Connect to Remote VistaNET Services in your network' has been checked.
- 2. Enter the IP address of the IP Service Unit in the text box
- 3. Press the 'Add' button.
- 4. Close the 'Administration and Startup Options' dialog box.
- 5. There is NO need to restart VistaNET after this operation is performed.

Administration & Startup Options	
Startup System Users Groups SNMP	
Enable audible alarms on start-up	
Disable Local Connections & Synchronization on VistaNET GUI Shutdown	Ensure this box
Enable synchronization with active VistaNET services in your network	Is checked
Connect to (unicast)	
IP Address / DNS Name Delete	
3.94.212.238	
Enter IP address of IPSU	
then press 'Add'	
IP/DNS 3.94.212.239 Add	
	T
Synchronization: 8644 (TCP/UDP, Default: 8644) Set	
Remote Data: 8633 (TCP, Default: 8633) Set	

Figure 10: Startup Options

On VistaNET, the IPSU should be detected by the VistaNET client. This may be verified by selecting the 'Active Services' toolbar button. All available VistaNET clients and the IPSU should be visible in the Active Services dialog box (it may take a few seconds for the IPSU to show in this box)

Active Services	→ ×
reers Synchronization Log	aliant and a
3.94.212.187	VistaNET (Windows) 4.00.9472 (localhost)
3.94.212.98	VistaNET (Linux-IPSU) 4.00.9472
	IF Service Unit
ring	noces

Figure 11: IPSU in Active Services

In order for the IPSU to show in the Active Services dialog box, all clients and the IPSU must:

- 1. Use the same VistaNET version or build number;
- 2. Use the same Company name
- 3. Be visible on the IP network.

Once the IP Service Unit and all clients have synchronized various data (Alarm History, Configuration History, Discovered Inventory, User and Group Security Settings, Logs and Licenses), the IPSU may now be used much like any other VSA enabled PC port.

If necessary, rediscover or discover new nodes to view interfaces on the JungleMUX network.

VistaNET: SERVICE at R60/N1				
		2		
器。Mark Dixon - GE ETAC	Alarms 🔀 View	v E Inventory	Activity Log	
COM1 Comections	View Data			
Modem Connections	TP Service (86434-03)			
	Status Satur			
	IP Service Unit	NMS		
OC-3	Local Status ACK OK	Packets XMT	1144	
⊡ ·· Node 2 ⊡ ·· - IPSU	Sentinel -	Packets RCV	178	
	Modem Lockout -	Receive Errors	50	
	Temperature 46 °C	Packet Rate	7	
	Power Bus Voltage 5.3 V	PBOC	0	
	Alarm Summary	-8	ni-ha	
	Sync	eπ -	- Kight	
	JMUX No	rmal	Normal	
	JIF/SPE/CBW No	rmal	Normal	
	Channel No.	rmal	Normal	
	Power Units OK			
	IPSU-Specific Info			
	Local IP 3.9	4.212.98 Date	December 31, 1969	
		Time	16:40:00	
		Сор	y Paste	Undo Configure Cancel
	Company: Mar	k Dixon - GE ETAC		1.

Figure 12: VistaNET using IP Service Unit NMS Pathway



VISTANET / IPSU VERSION 4.05 AND ABOVE

The IP Service Unit must first be loaded with VistaNET 4.00 version using the 'UpgradeIPSUfromCEtoLinux-1.0.9472.3.exe' application. Later VistaNET versions (version 4.05 and above) will use a different upgrade path.

Note: VistaNET /IPSU version 4.05 and above will allow private network addresses to be used with the IP Service Unit.

INSTALL VISTANET VERSION 4.04 (OR ABOVE) CLIENT

The VistaNET 4.04+ release is released with a companion IP Service Unit binary file (ie 'IPSU0405.xxxx.bin'). This file will need to be installed in a specific folder location once VistaNET Version 4.05 is installed (to one PC only).

- 1. Install VistaNET version 4.05.xxxx using the VistaNET installer.
 - a. VistaNET now runs a common service that is independent of the user. This service will run in the background independent of the user. The user does not necessarily have to be logged in for the service to run.
 - b. As a result of this change, the main data files (including the h7engine.db3 file) are now contained in the C:\Program Files\GE\VistaNET folder group.
- 2. Copy the 'IPSU0405.xxxx.bin' file to this folder.

Note: A folder located 'C:\Program Files\GE\VistaNET\Firmware\Cerfboard' is created automatically during the installation process unless this folder already exists.

INSTALL IPSU VERSION 4.05

- Once the folder / file combination has been created on the client, run VistaNET and connect to the Craft Interface of the IP Service Unit. Ensure that both the client and IPSU are connected to a common IP network.
- 4. Navigate to the IPSU 'Setup' tab and ensure that the 'Upgrade' button includes the 'Upgrade to IPSUxxxx' text where xxxx matches the version of the VistaNET client.
- 5. Press the Upgrade button. The version should be indicated in the 'Version' field.

Software Version	and Licensing	1	Lingrado VictaNET rupping
Version	04 Upgrade to IPSU0404) —	in the IPSU to 4.04 or higher
Company Name	Mark Dixon - GE ETAC		
	Copy from local PC		

Figure 13: Upgrade to IPSUxxxx

6. Once the 'Configure' button is pressed, the new firmware version will be uploaded to the IPSU via the network connection. The VistaNET status bar will inform the user that the firmware is currently being loaded and may take several minutes.



~			
WistaNET: IPSU at R60/N2		<mark>→</mark> -□	$\mathbf{\overline{X}}$
	* 4 9 9 9 9 1	2	
VisitaNET: IPSU at R60/N2 Mark Dixon - GE ETAC Local Connections COM1 - IPSU at R60/N2 Modem Connections Com1 - IPSU at R60/N2 Modem Connections Rig 60 TIMX	Alarms View View Data Unit IP Service (86434-03) Status Setup TBOS Monitor Overhead Allocation MMS Orderwire Orderwire Ø DCC1 I [E1] Ø DC2 2 [E2] Ø DC2 2 [E2] Ø DC3 3 [DCC8] Ø DC2 2 [E2] Ø DC61 5 [DCC6] Ø DC11 6 [DCC5] Ø DC12 7 [DCC4] Network Setup Ø DHCP Enabled Ø Ø DNS Name IPSU_BA14 Ø J Local IP J J Ø J Subnet Mask J J Ø J Ø DNS Server IP J J Ø J NTP Server 3.130.161.130 Indicates IPSU is	Inventory Activity Log Info Info Info Info Activity Log Info Info Info Output Control of the second sec	
	being upgraded		
		Copy Paste Undo Configure Cancel	
(Ingrading (may take up to 10 minutes). TPSU	at R60/N2	aining User: administrator Company: Mark Dixon - GE ETAC	

Figure 14: Upgrading IPSU is in progress

7. When the upgrade is complete, a VistaNET 'warning' message will be shown indicating the upgrade is complete and the IPSU will be restarted.



Figure 15: Upgrade Complete

8. Once the unit has restarted, the IP Service Unit is ready for service. Check the 'Active Services' to ensure the unit is detected. Disconnect any Craft Interface ports and ensure the IPSU information is accurate and is providing a networked VistaNET service to the client.

<u>Note</u>: IPSU versions 4.04 and later may be used with any IP address range and mode (static or dynamic).

LIMITATIONS

The following is a list of known limitations related to VistaNET 4.05. A workaround was provided where applicable. Please note that these items are listed in conjunction to our tracking system ticket number.

- In VNI/VSA networks, restart VistaNET anytime the IP address of the VSA machine changes (for example, from 127.0.0.1 to the external address). Failure to do so may cause some nodes to appear as if they are visible, even if they are not, due to the node controllers for the port not being updated properly in the database. *Workaround*: Restart VistaNET after the IP address changes [ticket #269].
- After upgrading to VistaNET 3.01 and newer, it can be observed that right button in the unit view does not get selected for the pair of units. *Workaround*: Rediscover the node containing the unit. The discovery will update unit side information in the database and resolve the issue [ticket #383].
- It is not allowed to have XPort connection and Craft Interface connection to the same Service unit. If attempted, VistaNET will become unresponsive and the results might be unpredictable [ticket #322]. Workaround: First, remove J10 and J11 jumpers on XPort paddleboard to open serial connection to XPort, before connecting to Craft Interface. Then, replace jumpers upon CI disconnect to resume Service Unit to XPort communications.
- When using the Craft Interface to connect to units, it may be observed that Serial Number is not updated properly in the Unit Info box. If serial connection from one unit is quickly switched to another unit with similar unit type and unit option (for example, CDAX option 01) the serial number of the first one will still be shown in the Unit Info box. *Workaround*: When working the units of the same type and option, wait for the COM connection to drop before connecting to another unit or connect to a different unit type first (for example, Service unit) [ticket #293].
- When Rack/Shelf/Slot information changes through local unit configuration, the unit configuration for this unit through NMS will fail if the unit is not rediscovered to apply local changes. *Workaround*: Rediscover the unit every time its Rack/Shelf/Slot information was changed through local configuration [ticket #381].
- In a JIFshare, after physically adding a new DS-0 unit or clearing the DS-0 channel table, allow a couple minutes before initiating discovery on the node this JIFshare belongs to. The JIFshare requires some time to obtain DS-0 unit information required for discovery. If discovery is performed too fast, JIFshare may return incorrect discovery results: presents non-existing units or misses existing units. *Workaround*: If first discovery is incorrect, do rediscover to correct the issue. Or, wait for up to 1 minute before initiating discovery after making changes to JIFshare DS-0 channel table [*ticket #23, #321, #345*].
- For Windows 2000 users, after upgrading to VistaNET 3.01 and newer, it may be observed that the tree is empty and all previously discovered inventory, by older version of VistaNET, is missing.
 Workaround: Rediscover the entire network. Note that all aliases will be preserved and rediscovery is needed only once after upgrade [ticket #386].
- Rebooting an IPSU without a LAN connection, allowing it to finish discovery and then applying the LAN connection causes the IPSU to not obtain an IP address in DCHP mode. *Workaround:* Reboot IPSU after applying LAN connection *[ticket #825]*.
- If ntp server time is changed abruptly, IPSU needs to be restarted [ticket #826].



NON-VISTANET ISSUES

On occasions, issues that appear to be VistaNET problems are in fact limitations associated with individual units. In some cases, the limitation may be solved with future unit firmware updates. To help users differentiate between unit firmware and VistaNET issues, the following is a list of known unit limitations that have been reported as VistaNET problems.

• 4W unit cannot copy/paste between unit firmware version 2.07 and 2.05. The paste option is reported to be not shown

Response: Copy/paste was removed by design. Significant unit firmware changes made to version 2.06 prevent copy/paste of data between units running these firmware versions

 VistaNET Map view is not clearing alarms and test indications after the L/R optics units are disabled (unchecked) from the Service Unit's GUI

Response: The Service Unit continues to respond to optical issues (alarms and tests) even after the optics units have been disabled.

- The CV count in the OC-3 Error tab does not clear the (section CV) count when Clear counter is selected to be "CV". [ticket#418]
- The VistaNET map (Ring view) shows unexpected alarms on the L/R optics units when AIS-L(T) and AIS-P(R) are enabled [*ticket#339*]
- Optics units that support SFP transceivers equipped with 'colored' xWDM options shall report their wavelength [*ticket#618*]



KNOWN DEFICIENCIES

The following is a list of known deficiencies related to this VistaNET 4.05 release. The [ticket number] reflected in the GE Lentronics deficiency tracking system precedes each deficiency. Note that these deficiencies are worked upon based on a schedule that permits the release of new and awaited features in parallel with improved and correct functionality of the VistaNET NMS system.

<u>Ticket</u>	<u>Summary</u>
<u>#29</u>	Inconsistent units of measurements used in the GUI with old Ext Sync Unit [Workaround: None]
<u>#111</u>	VNET-871: OC-XX: JIF Port tabs->Multiple JIFshares in one JIFport/slot assignment
<u>#135</u>	In SYNC, when output port is disabled, the Payload field still shows 'All-ones' but grayed out [Workaround: None]
<u>#138</u>	VistaNET allows to configure when user logs in as a non-administrator on the first VistaNET use [Workaround: Restart VistaNET after logging in as administrator for the first time]
<u>#161</u>	Sometimes Configure and Cancel Buttons do not get enabled when a configuration is desired [Workaround: Restart or just close and re-open VistaNET and re-select the unit]
<u>#225</u>	VNET-65: Dead VT causes Dead Unit even the other VT(s) available
<u>#306</u>	Modem Lockout jumper is not functional [Workaround: None]
<u>#391</u>	<u>CBW Rate alarm is missing from the Alarm engine for OC-48, OC-12, and OC-3 units</u> [Workaround: None]
<u>#425</u>	J-Sync shows incorrect ssm information in some cases
<u>#426</u>	Occasionally an alarm status in the main tab of OC-3 is not properly refreshed
<u>#451</u>	Ext Sync Unit alarm messages in Alarm Engine
<u>#457</u>	VMapper40 path in the config log is not correctly defined
<u>#483</u>	STM-16: Discovered node not accurately shown when asymmetrical configurations exist on the node.
<u>#500</u>	When selecting a COM port item in local connections, the "open unit window" option opens an empty GUI
<u>#522</u>	In T1MX Spur, Multiple T1MX trees painted when the group value at L0 is changed
<u>#523</u>	CDAXs that have their group and node number changed are not accessible anymore
<u>#524</u>	Discovery fails Intermittently after one or more nodes deleted from the discovered ring



<u>Ticket</u>	<u>Summary</u>
<u>#526</u>	T1MX discovery incorrectly show L0 CDAX that doesn't support T1 Spur
<u>#533</u>	Audible alarm button is non functional
<u>#535</u>	The naming requirements for T1 Networks is not implemented
<u>#538</u>	Ring and node number for level 0 CDAX still shows on the unit after it is relocated
<u>#539</u>	The new setting of a moved CDAX from level 0 to a level N location still accessible from L0 icon
<u>#545</u>	In T1MX, the Data unit path identifier at Level 0 does not meet the requirement
<u>#549</u>	Aliases are not shown in the alarm engine "Unit path" field
<u>#557</u>	VSA enabled port not functioning as expected
<u>#573</u>	Tree does not correctly paint nodes on remote machines that do not have VSA
<u>#574</u>	Local alarms are displayed on VNI machines that do not have VSA enabled
<u>#578</u>	Inconsistent alarm information on tree view
<u>#579</u>	Tree does not paint correct information on JIF-Share under OC-12
<u>#583</u>	VistaNET freezes during configuration when unit changes rack shelf slot info
<u>#607</u>	VistaNET displays an exception when viewing alarm history on a VNI machine with deleted inventory
<u>#613</u>	Ring view shows missing fiber connection
<u>#640</u>	SRP - Alias for DS0 circuit in alarm history
<u>#642</u>	SRP - Tree should grey out if there is no valid connection
<u>#652</u>	Tree View - Alarm at optical level does not propagate to JIF Level
<u>#691</u>	Multiple unit user controls are displayed on top of each other when clicking around on the tree quickly
<u>#697</u>	Date drop down and "next" (>>) button are not updated when VistaNET is running for more than 1 day
<u>#699</u>	Database migration from 3.02 to 3.04 or 4.00 is inconsistent
<u>#705</u>	Order of units in Inventory XML file doesn't reflect the parent/child relationship of network
Copyrig	ht © GE Multilin Inc. 2012



<u>Ticket</u>	<u>Summary</u>
<u>#716</u>	Nodes controlled by IPSU are not released during firmware upgrade using the Craft Interface
<u>#717</u>	VistaNET Local IP display in Status Tab Does Not UPdate With A Change in IP address
<u>#719</u>	Changing IP address in static mode or changing to DHCP and vice versa doesn't restart networking/reboot the CERF.
<u>#725</u>	ALL Vista NET sessions appear in active services, however the two machines are not able to sync
<u>#726</u>	IPSU: minor alignment modifications in the IPSU GUI
<u>#729</u>	IPSU GUI: Company Name must not be manually configurable
<u>#730</u>	IPSU GUI: Disable fields associated with new IPSU when connected to old IPSU
<u>#734</u>	Ext-Sync: Incorrect fly-over help
<u>#736</u>	GigE: SDH terminology
<u>#737</u>	CDAX: incorrect slots enabled in ShowVT tab
<u>#738</u>	Add ring and node aliases to program title bar
<u>#739</u>	Change default system setting back to SONET
<u>#741</u>	Problems when deleting the last Group
<u>#746</u>	4W Bridging / Splitting does not change unit state
<u>#747</u>	E1: VistaNET 4.0 doesn't allow the changing of slot numbers (certain digits only)
<u>#755</u>	JMUX vSNMP stopping
<u>#761</u>	Quad-DS1 unit's LBO range not converted to feet properly
<u>#762</u>	Quad DS1 cannot be woken up by VistaNET
<u>#763</u>	Fibre View is not updating
<u>#764</u>	OC-48 button in the Fibre View is not operational
<u>#765</u>	Fibre View should display fibre loss in dB (not dBm)
<u>#766</u>	SetMaxHops is not working
Copyrig	ht © GE Multilin Inc. 2012



	1
110	VOT
	NCL.
_	

<u>Summary</u>

- <u>#767</u> <u>No pop-op info box for lower buttons in Network & Ring Views</u>
- #769 Show VT tab is not enabling radio buttons
- #776 Rename STM-1 label to Aggregate
- #778 Add Resistor ID values to VistaNET
- <u>#779</u> <u>VistaNET does not show correct option numbers for certain TN1U/TN1Ue units</u>
- #780 4W VF Unit Loopback field not coloured in blue
- #785 Dead JIF-DS1 causes bogus DS0 alarm and VT test
- #788 Ether-1000: Load Defaults buttons not working
- #791 A 4W single channel unit sometimes is displayed with left and right sides
- <u>#793</u> Configuration Tool Box in the ring view does not work
- <u>#796</u> <u>Terminal Window does not get displayed after Modem has connected</u>
- #799 CDAX T1 port LOS alarm is displayed when alarm is disabled and multiple alarms exist
- #803 Yellow text box on LO CDAX does not appear if the unit is set as GONO
- <u>#805</u> Interconnection buttons do not work under ring view
- #806 JIF-DS1/Quad-DS1: VistaNET would not let put JVT-S in service
- #813 IPSU sometimes does not reset correctly when issued RESET command from VistaNET
- #815 Simultaneous and differing configurations to the same JIFPort slot can corrupt optical units and hang VistaNET displays
- #819 Phantom IP addresses detected in Active Services upon Ethernet cable disconnect
- #820 Menu bar dialog box has inconsistent behavior
- #821 Passport file company name too long for IPSU "Company Name" field
- #822 IPSU synchronization is not reliable.
- #823 <u>VistaNET allows users to remove the last SPE from Line Setup tab of the Ether-1000 unit</u> and causes VistaNET to lose visibility and control of Ether-1000 unit
- #827 VistaNET sometimes displays an exception when selecting the unit of an alarm



<u>Ticket</u>	<u>Summary</u>
<u>#828</u>	Aliases set for LO CDAX and all DSO units under that CDAX aren't shown in the T1MX group.
<u>#832</u>	Wrong error message for Serial-over-IP link to NMX unit
<u>#833</u>	VSA license checkbox is N/A to Serial-over-IP links to NMX unit
<u>#834</u>	Peer information accuracy in Active Services Window versus reliable synchronization
<u>#835</u>	The port number of an IP connection is not fully shown in the dump terminal
<u>#839</u>	Strong Arm IPSU shows wrong Processor Info
<u>#842</u>	VistaNET PC services may not get populated in the Active Services Window until restarted multiple times
<u>#843</u>	Reset Service Unit Database does not reset Gateway Service Unit
<u>#844</u>	Cannot change NMS Comm slot for TIE unit
<u>#846</u>	Unknown publisher, VistaNET code is not signed
<u>#847</u>	Incorrect wavelength value shown for OC-48 JMUX firmware version 1.04a
<u>#848</u>	T1/E1 Unit: Undo button cannot undo Operation Mode change
<u>#850</u>	Traffic Manager does not display E100 under OC-3
<u>#851</u>	T1/E1 Unit: Paddleboard field displays improper code numbers
<u>#852</u>	VistaNET 4.00 Performance
<u>#853</u>	T1/E1 Unit: Test result field displays phantom Lock status
<u>#870</u>	OC48 Sometimes displays "VT" in the CBW cross connect
<u>#872</u>	VistaNET show invalid argument during discovery
<u>#873</u>	Save Unit Data to File feature of VistaNET 4.xx Problem
<u>#877</u>	OC48 Sometimes displays "VT" in the CBW cross connect
<u>#878</u>	Unable to Add Static MAC Address
<u>#880</u>	DS3 Mapper GUI problems

- #881 CDAX Bulk Drop shows first channel (only) of CDR unit in DS0 Tab
- #882 <u>OC-48 firmware tab</u>



Ticket

Summary

- #883 If GUI is closed during discovery the server crashes
- #884 E1000 MAC address GUI entry does not work
- #885 CDAX reset returns (expected?) exception with hresult = 0x80591099
- #886 JIF-Share order of VTs in the tree should correspond to the port order
- #887 Can't wake legacy OC-3 units



FIXED DEFICIENCIES (4.04)

The following deficiencies were identified corrected and validated prior to this release at GE Lentronics. They are listed here as a reference to your reported earlier problems and also as a record of the shared knowledge base with the VistaNET user base:

<u>Ticket</u>	<u>Summary</u>
#15	Changing the serial connection from the service unit to Local CDAX can take a long time [Workaround: Restart VistaNET or Disable and Enable the port.] (1.17)
#32	VNET-912: Node Summary Screen - print icon does not work
<u>#35</u>	Close Port on Network connection (1.34)
#85	Any new alarms are not audible after 'Acknowledge All' pressed [Workaround: Restart VistaNET]
<u>#88</u>	VNET-347: Remote services should sync the 'System Fibre data format'
#89	After adding second DTT circuit in the same bus, the first discovery displays wrong channel number in the network tree [Workaround: Rediscover the node with incorrect DTT channels]
<u>#105</u>	VNET-492: Network View: Acknowledge Ring from Network View
<u>#108</u>	Configuration restrictions for NMS resets to 'All Unit Types' [Workaround: None]
#144	VistaNET fails to run with reduced user permission in Windows XP [Workaround: Login to PC as an administrator]
#146	NMS Backup Application for IPSU [Workaround: None]
<u>#151</u>	VNET-903: AE: Allow to navigate to Node/Unit from the Alarms History view
<u>#167</u>	VNET-510: IPSUs does not work in NMS Backup Application [Workaround: None]
#187	VNET-78: VSP installation check
<u>#219</u>	Alignment is off when assigning configuration restrictions for NMS
<u>#222</u>	Service Unit does not work with TU-12 NMS unless R6,R7,R8 bytes selected [Workaround: Select R6, R7, R8 bytes]
<u>#237</u>	VNET-241: Unit NMS restrictions
<u>#261</u>	In CDAX spurs, unit alarms sometimes take up to one minute or more to display in the tree [Workaround: Restart VistaNET]
#289	A slow memory leak exists in the latest release. [Workaround: Restart VistaNET if it



Ticke	<u>Summary</u>
	becomes unresponsive].
<u>#351</u>	In Russian Language mode, configuration of fields with decimal values fails due to conversion of decimal point [Workaround: Customize Regional Options to use. (dot) instead of , (comma) as a decimal symbol]
#355	Nodes with CDAX spurs may get painted dead even if there is no alarms [Workaround: Restart VistaNET]
#367	Alarms clear slower with T1MX Optical Paddleboard than with Electrical paddleboard [Workaround: Use electrical paddleboard when possible]
<u>#378</u>	One of two Alarms might not clear from the system tree if one of them happens on LO CDAX
#388	Dropped rings are still painted on the VNI machines in peer to peer setup [Workaround: Restart VSA machine]
#390	CDAX spurs in the tree sometimes incorrectly colored dead and then green again [Workaround: Restart VistaNET]
#392	In a CDAX spur when OOF and AIS keep toggling, the spurs tree becomes green instead of showing up dead [Workaround: Restart VistaNET]
#393	CDAX Optical/Electrical top half off paddle board missing doesn't paint tree dead [Workaround: None]
#394	Alarm history misses some of the CDAX spurs alarms when Tree Filter for Ring/Node is used [Workaround: Set Tree/Node filter to Off]
#396	CDAX Spurs discovery and alarm information sometimes does not get updated on the VNI machines [Workaround: Restart VistaNET on the VSA machine]
#397	Short lived alarms may not be displayed in "New Alarms" tab on VNI connected machines [Workaround: Check Alarms History periodically]
<u>#417</u>	Copy/Paste function does not paste properly when connected locally when invalid serial numbers are used in the units
<u>#418</u>	CV section counter is not cleared when the Clear counter option is "CV"
<u>#419</u>	Audible alarm gets stuck when the last network alarm is cleared
<u>#440</u>	New Alarms tab: Acknowledge All button problem
<u>#443</u>	No orange coloring for alerts in left/right JIF level Status box (10 &12)
<u>#454</u>	Vmapper-40 AIS alarm shown neither in system tree nor the Alarm engine
#458	Alarm on DS0 is shown in CDAX icon if port P,Q or R used for share drop



<u>Ticket</u>	<u>Summary</u>
<u>#468</u>	Missing Modems when Upgrading from 2.24 to 3.0x
#476	Jif level units: ClearPathElement is not implemented
#496	The system tree does not show dead tree when Com port is removed
<u>#499</u>	For a local connection, the complete unit path does not exist anymore in the title bar
<u>#504</u>	Unable to Exit Gracefully
#516	The Force field in a Contact In tab of Contact I/O units does not show the dropdown list
<u>#518</u>	Clicking on Dead COM port followed by live COM disables the GUI of the live COM
<u>#534</u>	The requirement to have a yellow text box on LO CDAX G#/N# is not met
<u>#544</u>	Copy and Paste into level N CDAX that used to be level 0 does not work properly
<u>#547</u>	In T1MX Spur, aliases assigned to some data units are shown at the CDAX
#550	The Path column in the Activity Log is empty
#554	IPSU GUI
#556	Unit view tab remains accessible (not grayed out) after connection is lost
#564	Tree view showing [Left] for sync units
#595	Nx64E Can't Configure Control Lines

- #604 Serial over IP (X-Port) limitation
- #631 The 4W VF and 4W E&M both allow digital loopback in network mode
- #635 Ambiguous database paths as possible security risk
- #639 SRP VistaNET not functional without SP1 update from Microsoft
- #653 <u>VistaNET crashes if you double click on the tray icon before GUI is displayed at startup</u> [Workaround: wait for GUI to be displayed]
- #673 Node View
- #678 VistaNET displays an extraneous field with a "#" symbol in VMapper-40 paths
- #683 CDAX Cross Connect Tab is blank the first time it is clicked on



<u>Ticket</u>	<u>Summary</u>
#684	Set/Clear view in Alarm History keeps Group Repeating Alarms value when selected
<u>#688</u>	VistaNET Fly over help showing wrong msg for OC-48 PLL Voltage
<u>#690</u>	IPSU firmware upgrade does not finish using serial port
<u>#692</u>	Window title bar is not updated when local unit changes
#704	VistaNET discovers and paints T1MX nodes incorrectly when there is a node with a single CDAX in the right position
#712	Unassigning the VT or Channel slot used for NMS communications causes loss of NMS unit access when there are multiple slots assigned [Workaround: Rediscover the node that the unit resides on]
<u>#721</u>	Cleared alarms do not get displayed in the "New Alarms" tab
#724	Deleting a connected serial port from the Serial Connections window sometimes does not remove the port from the local tree
<u>#731</u>	Develop GUI control and provide VistaNET support for T1/E1 unit
<u>#742</u>	NO access to T1MX spur through Service unit
<u>#744</u>	Alarm Engine is not working in 4.02.9778
<u>#745</u>	Fly over help is not working
<u>#748</u>	Unable to configure JIF Share over NMS
<u>#749</u>	Unable to Acknowledge Yellow Alarm on Ring or Node from System Tree
<u>#751</u>	Linux-IPSU does not work with IP in the local address ranges
<u>#752</u>	Cannot access CDAX spur via right CDAX or optic unit from SONET
<u>#753</u>	OC-1 Unit Control is blank
<u>#757</u>	Enumeration datapoints that have the "useOR" property return incorrect values
<u>#770</u>	Current Alarms Count is changing upon applying tree filter
#774	Date-Time configuration problem on IPSU without NTP
#782	VistaNET does not support Service Units with old firmware

<u>#783</u> <u>Corrections to labels in Administration & Startup Options</u>



<u>Ticket</u>	<u>Summary</u>
#784	"Clear CV Counts" does not work for T1/E1 unit in network mode
#786	JIF-DS1/Quad DS1 units' Clear BPV count buttons are not working
#787	Any datapoints that depend on the "initdpname" property of the XML do not configure properly
#789	Traffic Management capture does not save data for units
<u>#790</u>	RS232S - VistaNET Changes
#792	Inventory deleted after VistaNET upgrade to 4.05
#794	Serial Ports are not read automatically when service is started manually without GUI
#797	VistaNetService cannot be stopped if the GUI crashes or is killed
<u>#798</u>	Database does not get compacted (vacuumed) at end of day
#800	Administrative Cleanup post Service/GUI decoupling
#801	VistaNET does not show names and types for the units under SDH network
#804	Test Case: Datapoints that may be affected by fix for clear CV counts
#808	Issues observed when VistaNetService is stopped but GUI is on
#809	OC-48 Firmware Reboot: Reboots both units in node
#810	No alarms declared for Ether-100 Port alarms
<u>#811</u>	VistaNET Service not responding (RPC Server is not available) if GUI is not also restarted after restarting the service
#812	VistaNET GUI does not close as expected after the server is restarted
#814	When stopping VistaNetService, VistaNET GUI does not close.
#816	Element disappears when left or right clicking
#818	"Connect to remote VistaNET services in your network" results in non-operational GUI.
<u>#824</u>	IPSU unable to connect to SNMP manager
Copyrig	ht © GE Multilin Inc. 2012



FIXED DEFICIENCIES (4.05)

The following deficiencies were identified corrected and validated prior to this release at GE Lentronics. They are listed here as a reference to your reported earlier problems and also as a record of the shared knowledge base with the VistaNET user base:

Ticket Summary

- #410 Enable/disable VNI without VistaNET restart
- #692 Removing IP from DHT
- #693 Chat does not work
- #819 Phantom IP addresses detected in Active Services upon Ethernet cable disconnect
- #829 Cannot start VistaNET
- #837 E-100 Multiport paddleboard not reporting loss of link alarm
- #854 Erroneous tie connections shown connecting rings in Network Map View
- #867 Memory Leak in VistaNetService (Critical)
- #868 VistaNET unresponsive
- #869 Adding 'Reset Unit' feature for T1E1 unit
- #875 Cannot configure DSO unit connected to JIF (not JIF-Share) unit
- #876 Quickly switching the craft interface from one channel unit to another sometimes causes the unit to reset