

# 90000-5x

## Advanced NMS version 8.3.2 Release Notes

Document version: 1.00  
Release Date: Sept 30<sup>th</sup>, 2020  
Type of Release: Production Release

### Lentronics Multiplexers

For SONET/SDH Multiplexers & T1/E1 Multiplexers

### Lentronics JunglePAX Platform

JunglePAX MPLS Platform (firmware 1.18.29050)

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## RELEASE SUMMARY

### PRODUCT/COMPONENT

- Software Version: 8.3.2 for Appliance (host server) & Client
- 90000-5x Advanced NMS Licenses (for JunglePAX)
  - 90000-50, Standard NMS license per Network Element
  - 90000-51, Standard (High Availability) NMS license per Network Element
  - 90000-50/G, GOLD NMS license per Network Element
  - 90000-51/G, GOLD (High Availability) NMS license per Network Element
- 86456-7x Advanced NMS Licenses (for Lentrionics Multiplexers)

### REQUIREMENTS

- VistaNET version 5.10+ is a required software component for Multiplexer products. VistaNET can be downloaded from GE's website <http://www.gegridsolutions.com/communications/Multiplexers.asp>
- Ad^NMS version 8.0.3 is compatible with JunglePAX firmware package version 1.14a
- Ad^NMS version 8.2.1 is compatible with JunglePAX firmware package version 1.16d
- Ad^NMS version 8.3.2 is compatible with JunglePAX firmware package version 1.18
  
- CentOS version 7 for the Host Server (NMS Appliance)
- Windows 10 for the NMS Client (Client)
- Version 8.3.2 of the Advanced NMS Appliance (Host Server) is typically installed on a Virtual Machine running within Linux (v7) and connected over a secure network to the Utilities Optical Communications Network (MUX or JPAX). This appliance is connected to
  - GE's VistaNET NMS platform to manage Lentrionics Multiplexers via the SNMP protocol,
  - GE JunglePAX (Primary and/or Secondary Gateway node(s)) via the Netconf protocol
- One user seat is offered by default. Customers needing support for concurrent users have the option of purchasing additional RTU seat licenses
- Advanced NMS client(s) are installed on customers laptops with Windows 10 OS

### DOCUMENTATION CONTROL

Version 1.00	Production Release	Sept 30 <sup>th</sup> , 2020
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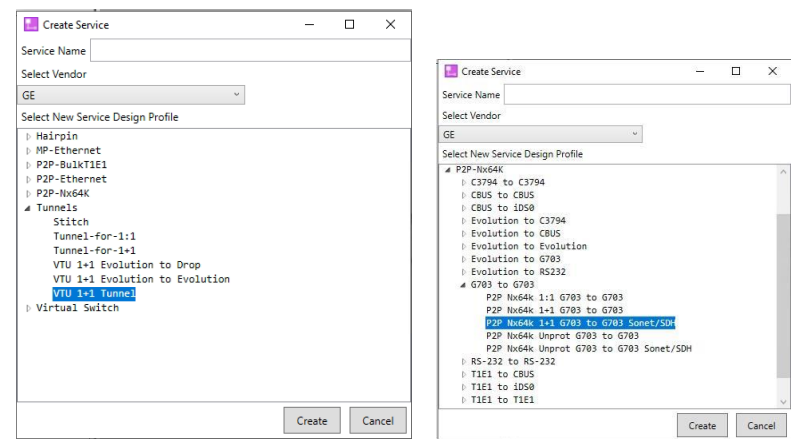


# RELEASE DETAILS

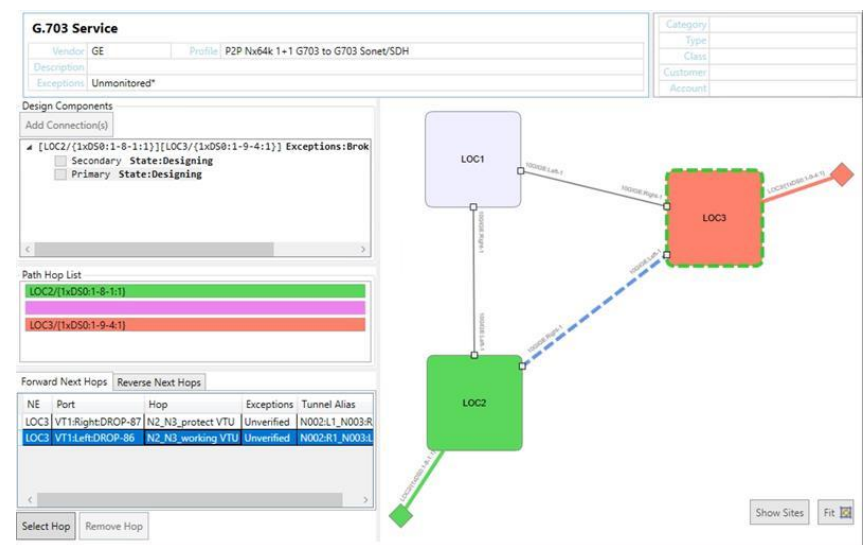
## NEW FEATURES

GE’s release of the Advanced Network Management System (Ad^NMS) software is now available for Lentronics Multiplexers and GE’s newest Hybrid MPLS & SONET/SDH JunglePAX platform. This version provides like-for-like functionality for managing Lentronics Multiplexers as the previous version 8.0.3 but now supports **JunglePAX firmware version 1.18.29050**

JunglePAX users running Ad^NMS version 8.3.2 can now build “VTUs” (VT1.5s) between network edges, allowing TDM service creation over JunglePAX SONET Transport Layer via Hybrid WAN ports for superior performance and dependability, especially for relaying applications. An equivalence is building 64kb/s channels over a JungleMUX SONET Multiplexer products, where channels are kept within their TDM frames (VT1.5s) and carried over the fiber optic in native TDM (without emulating it over packet). Utilities carrying teleprotection services over a SONET v’s MPLS Transport Layers benefit from SONET-like low latency, tighter control of asymmetry, determinism, and avoidance of complex traffic policing, monitoring and bandwidth management techniques. VT’s built to carry time sensitive teleprotection applications offer a clear advantage even to JunglePAX’s MPLS packet-transport layer.



Creating 1+1 Protected VTUs and allocating a G.703 port

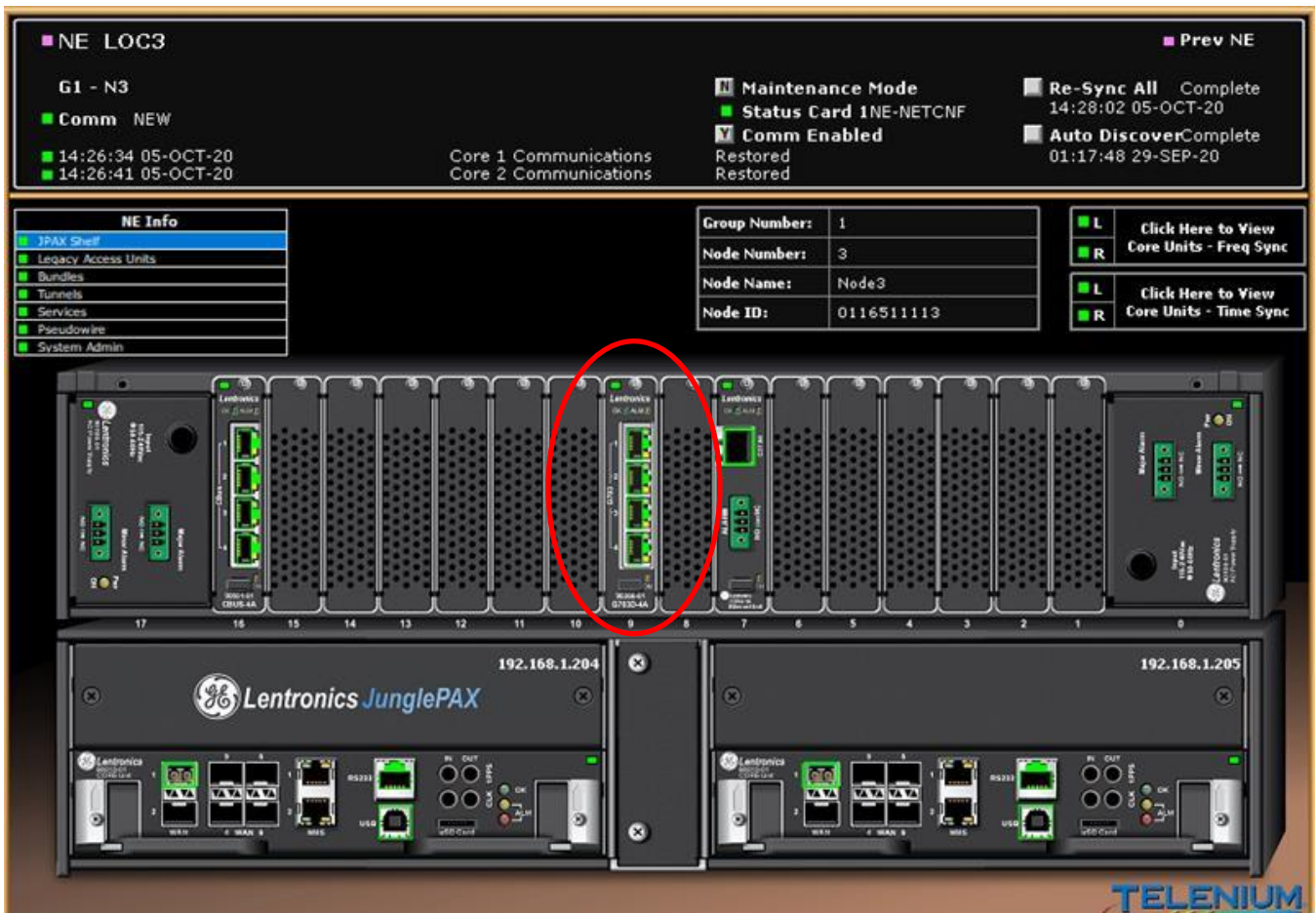


Building a G.703 service over SONET Transport Layer



Building VT's between two edge nodes follows the same build process as point-to-point MPLS-Tunnel creation, simplifying the user experience. Please refer to GE's Advanced\_NMS\_User's\_Guide for more details.

Support for a new Access Card: '4-port G.703', p/n 90366-01 shown below in the Graphical Services Manager (GSM)



## ENGINEERING RULES

VistaNET version 5.10 or newer is required and licensed with VistaNET SNMP (p/n 86456-51, 1 license per system) to manage Multiplexer alarms (Traps, Active and Cleared alarm tables). VistaNET Traffic Manager right-to-use licenses (p/n 86456-21, 1 license per node) can be optionally added to additionally manage Physical & Logical Entities, Performance Monitoring, Activity Logs and other general information.



## KNOWN LIMITATIONS

1. Support to build TUs (SDH TU-12s) is not supported in this software. Upgrade to software version 8.4 is required.
2. **GE-80:** If LAN cards (EC, EF) and CBUS cards are configured offline, i.e., if the access card types are selected as LAN/CBUS, but the cards physically don't exist, then GSM will not show the cards graphically.  
*Severity:* This will occur only when the cards don't exist physically.
3. **GE-84:** While creating a "T1 to iDS0" service, all available T1 slots and iDS0 slots in both nodes show up allowing users to choose T1 ports at both ends or iDS0 ports at both ends. Same goes with "CBUS to iDS0" services.  
*Severity:* "T1 to iDS0" or "CBUS to iDS0" service provision works fine if user chooses T1/CBUS ports at Node A and iDS0 ports at Node Z. The goal will be to eliminate unwanted ports while creating the service.
4. **GE-87:** When a core card is removed temporarily or by accident, GSM graphics still shows the core card.  
*Workaround:* All expected alarms will show up in Alarm Chrono upon sudden removal of a core card. Companion core card and neighboring core card also indicate alarms in GSM.
5. **GE-96:** Unable to discover Evolution module and unable to create services involving an Evolution module.  
*Workaround:* For now, all services through Evolution modules are created through CLI.
6. **GE-103:** While creating any type of hairpin service, when the first element is selected, it gives all the options including T1 ports and the other type of ports. But if the other type of port is selected as the first element and T1 port is selected as the second element, pre-activation always fails.  
*Workaround:* Select T1 port as the first element.
7. **GE-106:** Telenium does not support configuring a virtual G.703 card.  
*Workaround:* The G.703 card needs to be physically present.



## RESOLVED LIMITATIONS

1. **GE -54:** Bulk T1/E1 services cannot be provisioned with the port set to 'unframed'.
2. **GE -95:** Error in autodiscovery for wrong PSU part no.
3. **GE -97:** When traffic manager window is maximized, the "Select hop" and "Remove hop" tabs are not fully visible.
4. **GE -102:** Issue with deleting entries from Power Tool Bulk load.
5. **GE -105:** T1 to RS232 service wrongly includes G703 ports as well.

## SOFTWARE UPGRADE PROCEDURE

To migrate the existing NMS environment from version 7.4.2 or 8.0.3 to version 8.3.2, GE will create a new VM and install CentOS 7 and NMS version 8.3.2.

This "Software Upgrade Procedure" will install a blank database where all history (alarm, pm, attribute, user changes, policies, etc.) has been discarded. The Bulk Import/Export and Policy Manager applications will be used to export data (NEs, Sites, Users, Policies, etc.) from your NMS version 7.4.2 or 8.0.2 database and import it to your new NMS version 8.3.2 database. Refer to the appropriate chapters of the Telenium System Administration documentation for instructions to perform the export and import of data and policies (Chapter 10 Policy Manager and Chapter 26 Telenium Power Tools).

### Upgrade requirements

1. A customer resource with access to, and administrator rights on the VM Host server. This access can be remote but should be able to go to the location of the server in a timely manner if hands on intervention is required.
2. GE will require access to a customers' Windows desktop with the following software installed:
  - Appliance v8.x.x (must be the matching version purchased by the customer).
  - WinSCP
  - Putty
3. The Windows desktop must be able to access the VM Host server as GE requires access to the built-in console of the VM Host Software to install CentOS 7 on the VM. This desktop must also be able to access the VM once CentOS 7 has been installed and an IP assigned to the VM.
4. The new VM must be able to access the existing software Appliance via the network if the databases are being migrated from the existing Appliance to the new v8.3.2 Appliance.
5. Download the latest CentOS 7 ISO from [http://isoredirect.centos.org/centos/7/isos/x86\\_64/](http://isoredirect.centos.org/centos/7/isos/x86_64/) and have that ISO file available on the Windows desktop that GE will have access to.



6. The VM will need access to the following URLs to complete the CentOS install. This access can be via the internet or from a standalone/offline mirror repository that is maintained by the customer:
- CentOS
    - [http://mirror.centos.org/centos/7/os/x86\\_64/](http://mirror.centos.org/centos/7/os/x86_64/)
    - [http://mirror.centos.org/centos/7/extras/x86\\_64/](http://mirror.centos.org/centos/7/extras/x86_64/)
    - [http://mirror.centos.org/centos/7/updates/x86\\_64/](http://mirror.centos.org/centos/7/updates/x86_64/)
  - EPEL
    - <http://dl.fedoraproject.org/pub/epel/7/>
  - MySQL-8.0
    - [http://repo.mysql.com/yum/mysql-8.0-community/el/7/x86\\_64/](http://repo.mysql.com/yum/mysql-8.0-community/el/7/x86_64/)
  - Percona-release-x86\_64
    - [http://repo.percona.com/percona/yum/release/7/RPMS/x86\\_64/](http://repo.percona.com/percona/yum/release/7/RPMS/x86_64/)
  - Microsoft dotNET
    - <http://packages.microsoft.com/rhel/7/prod/>
7. The VM will need access to a repository to complete the installation of the v8 Appliance. This access can be via the internet (SSH or HTTP connection to ssh.megasys.com) or via a standalone repository that has been pre-downloaded and copied to the Windows desktop GE will have access to.

## CONTACTS

For additional details or technical assistance, you may contact:

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