



**H800IP NetEx/IP™
for Linux® Systems**

Release 7.0.1

Memo to Users

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Introduction

The H800IP product implements the host based NetEx/IP product for SuSE distributions of Linux. As of this date, it has been tested on SuSE SLES 10 SP4 and OpenSuSE 11. This is an ongoing process. Please contact NESi Support for an updated list of tested systems.

For NetEx/IP and associated products, support is available via:

- 24x7 telephone at (800) 854-0359
- the worldwide web: <http://www.netex.com/>
- email: support@netex.com

An on-line version of the current “Memo To Users” and Software Reference Manual may be found on the “Customer SelfHelp” page at:

<http://www.netex.com>

Product Documentation

Additional information about this NetEx/IP software may be found in the following:

- *NetEx/IP for Unix Systems Release 7.0 Software Reference Manual*
- *“C” Configuration Manager and NetEx® Alternate Path Retry (APR)*

The latest revision of this “Memo To Users” document and any other relevant reference documentation can be found at <http://www.netex.com> by going to the Support dropdown and selecting Products and then selecting the x86 platform.

Notice to the Customer

Comments about this documentation may be submitted via e-mail to pubs@netex.com or by visiting our website, <http://www.netex.com>. Always include the complete title of the document with your comments.

Information on Network Executive Software’s general software support policy (e.g., alternate contact methods, support severity level descriptions, and service status definitions) may be found at <http://www.netex.com/support>.

Software Modification Policy

Modifications to H800IP that are not specifically authorized by NESi are prohibited.

Any unauthorized modifications to H800IP may affect its operation and/or obstruct NESi’s ability to diagnose problems and provide corrections. Any work resulting from unauthorized modifications shall be paid by the customer at NESi’s then-current support rates and may result in the immediate termination of warranty/support coverage.

Service Notes

- There are two new parameters available in the sample NTX_DEFAULT file in this release. The two parameters are “**msgsyslog**” and “**trapcmd**” At this time “trapcmd” is not valid for this NetEx/IP product. We recommend leaving it commented out.
- This release of NetEx/IP attempts to conform to the OSF/1 file system layout. The following shows the location

File or Directory Location	Description
/opt/netex	base directory
/opt/netex/cmds	Operator interface
/etc/opt/netex/ntx_default	configuration for NetEx/IP
/etc/opt/netex/tnp.cfg	configuration for TNP
/etc/opt/netex/ntx_pam	Address map location
/var/opt/netex/netexserver	NetEx/IP interprocess communication point
/etc/opt/nesi/NESikeys	Default location of the software key file.
/usr/include/	NetEx include files – netex.h & ntxerror.h
/usr/lib/	libntx.a == libntxuser.a

The directory /opt/netex/cmds must be added to the shell default scripts by the systems programmer so that the NetEx/IP operator commands are available.

- There has been a change to the displayed messages in ntxlog during NetEx/IP startup. After the initialization parameters and release level have been displayed, the following messages will be shown:

```
** 0009 Fri Aug 24 12:56:30 2012 - NETEX driver interface initialization pending *  
** 0010 Fri Aug 24 12:56:30 2012 - NETEX entering "intra-host" mode *  
** 0011 Fri Aug 24 12:56:31 2012 - NETEX initialization complete. *  
** 0012 Fri Aug 24 12:56:31 2012 - NETEX exiting "intra-host" mode *
```

This is now the normal sequence of messages and not an indication of an error.

New Features

The following new fixes are included in this release:

Ticket	Description
4900	Create Distribution with a single, most comprehensive EAT/GEN
5480	libntx.a missing from distribution
5498	msg loop on startup
5505	Programmed netex defaults not used if no default file
5531	Copyright statements need to be updated
5538	Need to add a NCT.samp file to the installation
5578	reading new code conversion table is broken
Misc	GPG signed distribution
Misc	More comprehensive eat/gen utilities; updated Configuration Manager

Previous Releases

The following features are available from prior releases.

- TNP which is a NetEx offload support can be licensed with this release. The TNP feature serves as a NetEx/IP “proxy”, which can be used by other hosts for which a host-based NetEx/IP is not available. A NetEx/IP Requester, residing on an HP NonStop, OpenVMS, Bull, or Stratus server, works with BFX, USER-Access, eFT, PFX (or other NetEx/IP applications running on the Requester server), and reads and writes the application’s NetEx/IP requests over a TCP/IP connection to TNP, which then passes the request to H800IP, on behalf of the Requester’s NetEx/IP application. In effect, TNP serves as a “proxy” application for the Requester’s NetEx/IP applications.
- Prior to H800IP with TNP, Requester applications would use a NESiGate-LO device to provide NetEx/IP services. H800IP with TNP eliminates the need for NESiGate-LO.
- Logging of messages has been improved. Messages may now be logged to the product log and/or the system syslog facility. The default is both. Sample configuration files are included for syslogd and logrotate.
- The ability to have NTXOPER commands in the ntx_default file has been implemented. This allows the user to have SET IPROUTE commands and/or any other NTXOPER command executed automatically at startup.
- The following ntx_default parameters will be fully utilized now for protocol-2 in order to improve performance over long distances: **mbufin**, **mbufout**, **defmsecsonewaydelay**, and **maxkbitspersec**.

- New NTX_DEFAULT parameters
 - **ROPCLASS** (Remote Operator Class) – May be set to A or G. “A” will allow privileged instructions such as SET, HALT, etc. to be issued via the remote operator facility. “G” only allows non-privileged operator commands (DISPLAY, etc.). The default setting is “A”.
 - **NODNS** – When set to 1 (true), NetEx/IP will skip DNS lookups when the PAMFILE is read. The default is 0 (false). This is only useful if the user intends to ONLY use the “SET IPRROUTE” command to manually map *toGNA* addresses to *toIP* addresses.
 - **PREFPROT** – Defines the default preferred protocol type to use when connecting to hosts that support multiple NetEx/IP protocol types. Valid values are 2 or 4. Default is 4.
- New NetEx/IP operator commands.
 - HALT Adapter <uuss>

UUSS is the four HEX character network address (DREF) of the adapter to be halted.

Link or gateway adapters may not be halted at this time.

When a local adapter is halted, NetEx/IP immediately stops writing to or reading from the halted adapter. This is true regardless of the state of connections using that adapter. If a remote host attempts to establish a new connection on a route through a halted adapter, the local NetEx/IP will ignore those messages sent by the remote host.

Non-local adapters are adapters that are not attached to the host on which this NetEx/IP is running. After non-local adapters are halted, all new connections are established using routes through other adapters.

Once a session connection is established through a remote adapter, the connected session continues even after a HALT command has been entered for it.
 - STart Adapter <uuss>

UUSS is the four HEX character network address (DREF) of the adapter to be started.

The operator may start an adapter that is halted to NetEx/IP.
 - Display DRAINED

The operator may display a list of drained adapters.
- Code conversion table modification.

Customers can execute the command “/opt/netex/cmds/cctbld *filename*” (where *filename* is a file location on the host) to create a text file version that they can edit. The default location for the file is /etc/opt/netex/cctable.

However, if the customer creates the file in an alternate location, they must add the variable “cctable” to the NTX_DEFAULT along with the fully qualified pathname of the file.

NetEx/IP checks for the existence of a code conversion file during startup. If an alternate code conversion table does not exist, NetEx/IP will use the built-in default table.
- Support for Multi-threaded applications through the NetEx/IP API.

Though the API interface remains the same for either single or multi-threaded applications, there are some considerations that programmers should take into account. Please refer to the description of the SWAIT C Function in the “C High Level Interface” chapter of the “*NetEx/IP for UNIX Systems*” (MAN-REF-HUNXIP) software reference manual

- NetEx/IP Protocol 4 support

Provide the ability for NetEx/IP to dynamically maximize the network performance, based on factors such as available bandwidth, distance, and workload on the network.

- IP mapping has been modified to allow multiple adapters with the same unit number – they may be local and/or remote.
- The driver logic has been modified to properly check for device write completions after an “EA-GAIN” condition is encountered on output.

Installation Notes

For installation procedures for H800IP please refer to the appropriate appendix in the general NetEx/Unix Software Reference Manual.

Update Summary

7.0.1

1. This release is distributed with GPG signature for authentication
2. A new configuration manager is distributed with this release (5.1)
3. More comprehensive eat/gen NetEx utilites.

7.0.0

4. This release includes support for TNP which allows the use the H800IP NetEx stack by another host which has the NetEx Requester.
5. Enhanced logging
6. NTXOPER commands in the ntx_default file
7. Default parameter value changes in the ntx_default file

Parameter	6.6.5	7.0.0
msgsyslog	1	3
ropclass	A	g
bufcnt	40	2000
connto	25	13
defblkkin	32767	32768
defblkout	32767	32768
dreadqueue	6 12	12
maxblkkin	32767 64000	65400
maxblkout	32767 64000	65400
maxmbxxfer	32767	32768
segsize	4096 64000	32768
rcvratesecs	6	2
sndratesecs	3	4

6.6.5-1

1. This release is primarily a maintenance update release to fully deploy the protocol-2 parameters necessary for improved performance over a WAN. These parameters are **mbuflin**, **mbuflout**, **maxbitspersec**, and **defmsecsonewaydelay**.

6.6.4-5

1. This release is primarily a maintenance update release to correct changes to the scripts used by RPM for product installation and removal.

6.6.4-4

1. Modified to install and run on both Red Hat and SuSE distributions.

Primary changes in this release were to the installation and service startup scripts to be compatible with both SuSE and Red Hat distributions.

2. Minor error corrections to the driver and dispatch code. Dispatch code modified to redirect standard error and an improper address comparison was corrected.

6.6.4-3

1. There are three new parameters available in the NTX_DEFAULT file:

ROPCLASS (Remote Operator Class) – Maybe be set to A or G. “A” will allow privileged instructions such as SET, HALT, etc. to be issued via the remote operator facility. “G” only allows non-privileged operator commands (DISPLAY, etc.). The default setting is “G”.

NODNS – When set to 1 (true), NetEx/IP will skip DNS lookups when the PAMFILE is read. The default is 0 (false). This is only useful if the user intends to ONLY use the “SET IPROUTE” command to manually map toGNA addresses to toIP addresses.

PREFPROT – Defines the default preferred protocol type to use when connecting to hosts that support multiple NetEx/IP protocol types. Valid values are 2 or 4. Default is 4.

2. There are three new NetEx/IP operator commands:

HALT Adapter <uuss> - Command to halt local or remote adapters.

STart Adapter <uuss> - The operator may start an adapter that is halted to NetEx/IP.

Display HALTED - The operator may display a list of halted adapters.

3. The driver initialization has been changed to properly keep track of whether or not the software is in local loopback mode.
4. The code conversion table handling has been corrected for problems seen at some customer sites.
5. A correction has been made to speed up the processing of batched operator commands.

6.0-6.6.0

1. This is the initial release of H800IP. There are no known issues at the time of this release.