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

**Release 7.0.4**

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**Memo to Users**

July 31, 2015

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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, OpenSuSE 11, and Oracle Linux Server Release 6.6. 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](mailto: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 7.0.4-1 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](mailto: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

- At this time “trapcmd” is not valid for this NetEx/IP product. We recommend leaving it commented out of the NTX\_DEFAULT file.
- NetEx/IP may install into different directories than previous releases. Once you have the distribution package, it is encouraged to run a command to view what is in the package and where it is installed (i.e. rpm -qlp {full path to the package file}).

## New Features

The following new fixes are included in this release:

Release 7.0.4:

<b>Ticket</b>	<b>Description</b>
5826	max allowable size of pamlist is 512 chars - exceeding that will core dump netex at startup
5833	display of defaults in netex log incorrectly shows ropclass as gblither
5839	unable to APR through a unknown adapter
5846	ntxoper commands accept string values that only partially match
5852	Enhance ntxoper client command processing
5858	Level2: Warning: Local NCT entry not defined as PROTOCOL=4
5866	Remove the ntxrmtop support - this functionality is available in ntxoper.
6063	Netex crash on operator commands using long hostname
6071	Netex core dumps when performing a remote oper cmd to a host that has one route but disabled adapter
6136	3508 error when all paths to first host in group are drained
6352	Implement a Drain path feature
6389	Make the groupname in the connect data optional

6410	Provide useful and consistent information in the display host (summary)
6420	Provide useful and consistent information in the display host 'specific'
6482	Enhancements to NtxOper display commands
6493	drain adapter by IP address not working
6763	SM connect Protocol error

## Previous Releases

The following features are available from prior releases.

### Release 7.0.1

- 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.

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

### Prior 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 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 2.
- 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

## 7.0.4

1. Pamlist has been increased to a maximum allowable size of 1024
2. Ntxoper commands can accept string values that only partially match
3. Implement a Drain path feature
4. Allow groupnames in the connect data optional
5. Enhancements to NtxOper display commands

## 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 utilities.

## 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

<b>Parameter</b>	<b>6.6.5</b>	<b>7.0.0</b>
msgsyslog	1	3
ropclass	A	g
bufcnt	40	2000
connto	25	13
defblkln	32767	32768
defblkout	32767	32768
dreadqueue	6 12	12
maxblkln	32767 64000	65400

Parameter	6.6.5	7.0.0
maxblkout	32767 64000	65400
maxmbxfer	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 **mbufin**, **mbufout**, **maxkbitspersec**, 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.