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**NESiGate-HG**  
NetEx/IP HYPERchannel-to-IP Gateway

**Release 2.8.2**

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**Reference Manual**

# Revision Record

<b>Revision</b>	<b>Description</b>
01 (Oct 2000)	Initial manual release by Network Executive Software
02 (Jan 2001)	Added procedures for new CDROM distribution and software keys
03 (Jan 2002)	Updated for Red Hat 7.2 distribution, miscellaneous corrections and additions.
04 (Apr 2002)	Miscellaneous updates to correspond with version 2.3 release.
05 (Oct 2002)	Added documentation for NG_HG service
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# Notice to the Customer

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Details on Network Executive Software's warranty and support policies specific to NESiGate may be found at <http://www.netex.com/services/warrantyNG.html>.

## NESiGate Modification Policy

NESiGate is an appliance that contains proprietary software and firmware. Modifications to the software, firmware, or hardware platform that are not specifically authorized by NESi are prohibited.

Examples of prohibited activities include (but are not limited to) the following items:

- Installing other software on NESiGate
- Modifying the file system (including adding, deleting, or moving files and/or directories, or changing permission levels, ownership, or other attributes of files and/or directories)
- Adding or deleting user accounts
- Starting or stopping system services
- Adding or removing hardware components

Any unauthorized modifications to NESiGate 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.

# Introduction

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The purpose of this manual is to provide an overview of the procedures used to integrate and customize the NetEx/IP components onto a NESiGate HYPERchannel-to-IP NetEx/IP gateway platform, and to provide a description of the command and web browser interfaces.

This manual is divided into four sections:

- 1) **Integration:** Integration of NESiGate software on the hardware platform is covered in the NESiGate Software Installation Guide. Refer to that guide, then return to this manual to complete the configuration of NESiGate as a HYPERchannel Gateway (HG) type device
- 2) **Customization:** this section is targeted to the end-user who is responsible for customizing the NESiGate for use as a HYPERchannel-to-IP gateway. It is assumed the NESiGate already has the appropriate level of the NESiGate-OS installed. To complete the customization, the reader must be familiar with network addressing concepts.
- 3) **Web Browser Interface:** this section is targeted to the end-user who is responsible for customizing the NESiGate for use as a HYPERchannel-to-IP gateway, and who is responsible for configuring and controlling operational aspects of the device.



# Customization

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## Overview

The purpose of this section is to provide an overview of the procedures used to complete the customization of the NESiGate. This section is targeted to the end-user responsible for customizing a NESiGate for use as a HYPERchannel-to-IP gateway. It is assumed the NESiGate already has the appropriate level of the NESiGate-OS installed.

Prior to performing the GNA and IP customization tasks, it would be beneficial to review NESiGate GNA and network addressing concepts.

There are two important addressing elements involved in delivering NetEx/IP HYPERchannel data that is not IP-aware, and transferring it over an IP network to the correct destination:

- GNA Address
- IP Address

## GNA Address

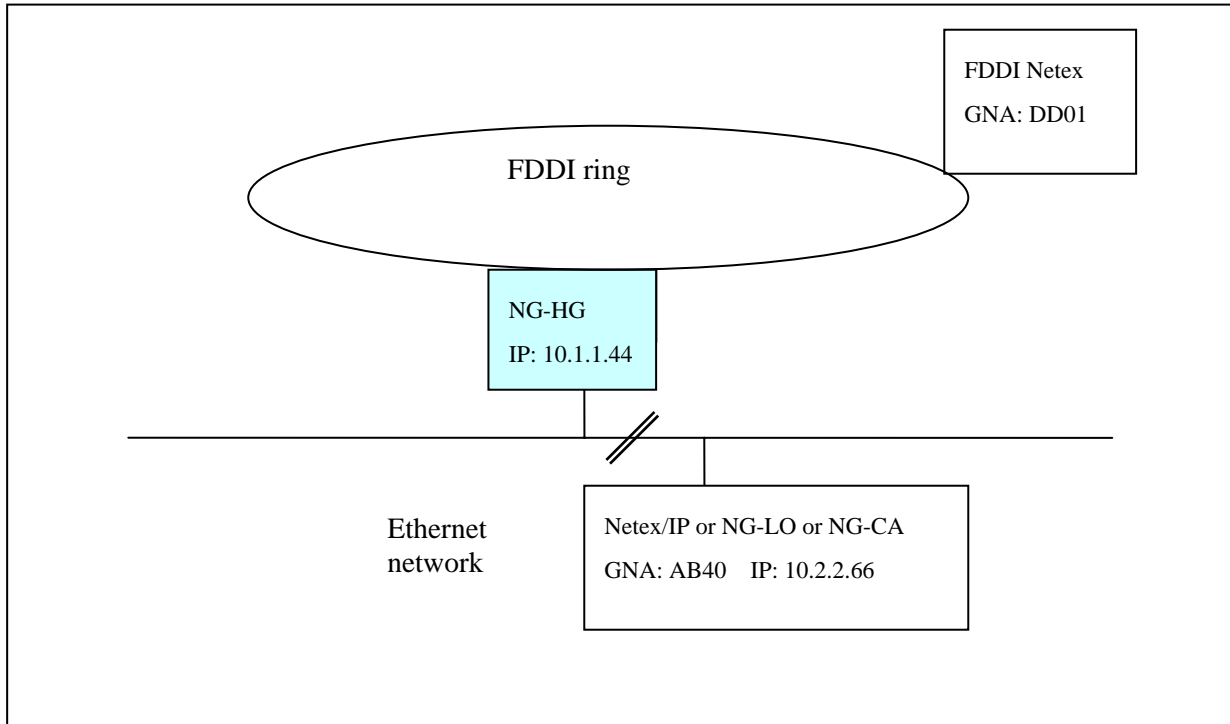
The GNA address represents a NetEx/IP network address that is associated with a given device or network node. It is specified in the NetEx/IP Network Configuration Table (NCT). It is also specified during the customization of the NESiGate HCG Interface.

## IP Address

The IP address represents a NetEx/IP network node address. During the NESiGate customization task, IP host names are defined, each having a format based on its GNA address. This enables NESiGate to perform a direct mapping between GNA and IP addresses. This mapping is transparent to the communicating NetEx/IP's, as well as to all NetEx/IP applications.

## IP-GNA Relationship

Assume a simple network with a NG gateway like:



In this configuration, the NG-HG will “see” the DD01 address being advertised on the ring and accept requests for that GNA. It must also be configured to accept GNA AB40 and forward that GNA to IP address 10.2.2.66 (See ‘HCG Add Accepted’ below). Any NetEx/IP on the Ethernet network (host-based, or NESiGate) must have a defined route, a host entry, or DNS entry that relates the FDDI NetEx GNAs to the IP address of the Gateway (e.g.10.1.1.44).

## Using a Web Browser to Configure NESiGate

The NESiGate Web Browser Interface may be used to configure NESiGate. This procedure consists of the following steps. Refer to the “Web Browser Interface” section on page 7 for a complete description of the commands used in this section.

### Start Browser

The NESiGate Web Browser Interface may be used to configure NESiGate. Before configuring the NG-HG specific items, the common System and Network configuration should be completed. See the “Installation Guide” (NG-SW) manual for details.

## Define the HCG FDDI Interface(s)

Select the *H/C Gateway* link in the navigation menu. This will open the page that is titled:

*NG-HyperChannel Gateway*

Refer to page 8 for a description of this screen.

## Add Routes (optional)

This step is only necessary if static routes are to be defined. If static routes are not defined, NESiGate will use DNS services to resolve IP addresses.

Select the *Router* link in the navigation menu. This will open the page that is titled: *NESiGate Router*.

Using the configuration data from a completed worksheet provided in “Appendix A: Configuration Worksheet”, use the “Route Add Route” button to define the routes. Refer to page 19 for a description of this command.

Repeat this step as many times as necessary until all required routes are defined.

## Define IP Interface

This step is only necessary if default IP parameters are to be modified (usually not necessary).

Select the *IP Interface* link in the navigation menu. This will open the page that is titled: *NESiGate IP Interface*.

Use the “IP Interface Define Interface” button to define the IP interface parameters. Refer to page 25 for a description of this command.

## Reboot NESiGate

After the configuration changes have been made, the NESiGate unit must be rebooted to make the changes effective:

- Browse to the “System Config” page of the NESiGate
- In the “Misc Commands” menu, select “REBOOT with NG on”
- Click the “DoIt” button



# Web Browser Interface

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## Overview

The Apache web server is used on NESiGate to provide a web-enabled configuration facility. Connecting NESiGate to an intranet infrastructure enables usage of a web browser to configure the Gateway, Router, and IP components. The browser can also be used to display configuration information, and control various operational aspects of the components.

## Browser Considerations

The browser can be hosted on any system, as long as that system has connectivity to NESiGate. However, the browser must be configured to refresh pages on each page reference.

## Initial Screen

When the browser first connects to NESiGate, a password entry window will be displayed. Enter the ngadmin userid you have been assigned and its password to gain access to the NesiGate. Default user-ids and passwords are described in the common NESiGate Installation Manual.

The initial screen displayed when the password has been accepted includes a “Welcome” screen with general information on the right and a dropdown navigation list of the available command frames and HELP links on the left.

## System, Product, SNMP & Network Configuration

The navigation links will bring you to the area for re-configuring and displaying common information. Refer to the NESiGate Installation Manual for a description of these commands.

## NG-HyperChannel Gateway

This screen is used to define, control, or view HCG FDDI interface data.

### Command drop-down menu

From this drop-down menu, the following commands can be initiated -

- HCG Display Config
- HCG Display Info
- HCG Display Stats
- HCG Display Route Table
- HCG Clear Stats
- HCG Clear Route Table
- HCG Start Interface
- HCG Stop Interface

After selecting the desired command and entering the necessary parameters, click the **GO** button to process. Results of the command will be returned to the browser for display.

## HCG Display Config

This command displays the current hcg interface configuration. Prior to selecting this button, provide the following data on the selection screen:

ID (optional)                    specify the name of the interface to display.

If ID is not specified, all defined hcg interfaces are displayed.

netDevName	minor	l_index	opt	rtadv	reasm	myGna	nucGna
fddi0	1	1	0	30	2	0101a600	0101a6ff
dom_mask	00000000	00000000	00000000	00000000	00000000	00000000	00000000
net_mask	00000000	00000000	00000000	00000000	00000000	00000000	00000000
unitmask	00000000	00000000	00000000	00000000	00000000	00000000	00000000
units	a1 a6	ab ac	af b1	b6			

**where:**

- netDevName** assigned name of the FDDI network interface
- minor** the streams minor number associated with this interface
- l\_index** the streams link index associated with the router side of this interface
- opt** interface options (currently not used)
- rtadv** time in seconds between route advertisement broadcasts
- reasm** maximum time in seconds to wait for fragments of a fragmented block
- myGNA** Global Network Address assigned to this device
- nucGNA** Global Network Address for the pseudo-nucleus of this device
  
- dom\_mask** 256 bit mask of domains to forward out this interface
- net\_mask** 256 bit mask of networks to forward out this interface
- unitmask** 256 bit mask of units to forward out this interface
- units** list of units from unitmask

## HCG Display Info

This command displays detailed hcg interface information. Prior to selecting this button, provide the following data on the selection screen:

ID (optional) specify the name of the hcg interface to display. If ID is not specified, all defined hcg interfaces are displayed.

id	txpacks	txfrags	rxpacks	rxfrags	
fddi0	10266608	134170883	7758919	48783658	
delayTx	delayRx	notifSnt	notifRcv	noAccept	dupAccep
0	0	25365	229270	0	0
skipNoBf	badFormt	dropFlow	dropNotS	reasmTmo	dupUnit
0	0	0	0	1	0
dupAcc1	dupAcc2	mac1	mac2		
0	0	0000000000000000	0000000000000000		

## HCG Display Stats

This command displays statistics for a particular hcg interface. Prior to selecting this button, provide the following data on the selection screen:

ID - specify the name of the hcg interface to display.

id	txpacks	txfrags	rxpacks	rxfrags	
fddi0	10266608	134170883	7758919	48783658	
delayTx	delayRx	notifSnt	notifRcv	noAccept	dupAccep
0	0	25365	229270	0	0
skipNoBf	badFormt	dropFlow	dropNotS	reasmTmo	dupUnit
0	0	0	0	1	0
dupAcc1	dupAcc2	mac1	mac2		
0	0	0000000000000000	0000000000000000		

where:

**id** assigned name of the fddi network interface

<b>txpacks</b>	transmitted packet count
<b>txfrags</b>	transmitted packet fragments count
<b>rxpacks</b>	received packet count
<b>rxfrags</b>	received packet fragments count
<b>delayTx</b>	number of delayed (network backed up) transmit packets
<b>delayRx</b>	number of delayed received packets (always 0 currently)
<b>notifSnt</b>	notify messages sent
<b>notifRcv</b>	notify messages received
<b>noAccept</b>	number of packets tossed because there is no acceptor mac address to send to
<b>dupAccep</b>	number of duplicate acceptors received
<b>skipNoBf</b>	number of received packets tossed because of no available stream buffers
<b>badFmt</b>	number of invalid notification messages received
<b>dropFlow</b>	number of received packets tossed because of router flow control
<b>dropNotS</b>	number of received packets tossed because the stream interface is not started
<b>reasmTmo</b>	number of packet reassembly timeouts
<b>dupUnit</b>	number of duplicate unit number acceptors received
<b>dupAcc1</b>	one of the acceptor GNAs advertising the duplicated unit number
<b>dupAcc2</b>	the other acceptor GNA advertising the duplicated unit number
<b>mac1</b>	mac address of one unit advertising duplicate unit number
<b>mac2</b>	mac address of the other unit advertising duplicate unit number

## HCG Display Route Table

This command shows all learned route entries. Prior to selecting this button, provide the following data on the selection screen:

ID - specify the name of the hcg interface to display.

```
Domains
-----

Networks
-----

Units
-----
20 0000a9022b38 010120f0
21 0000a9022b38 010120f0
22 0000a9022b38 010120f0
23 0000a9022b38 010120f0
24 0000a9022b38 010120f0
25 0000a9022b38 010120f0
26 0000a9022b38 010120f0
28 0000a9022b38 010120f0
b3 0000a9022065 0101b300
b4 0000a9022065 0101b300
b5 0000a90220f8 0101b500
ca 0000a9020b4e 0101ca00
cb 0000a9020b4e 0101ca00
```

Domains & Networks: not currently used

Units: the FDDI network unit numbers acceptor MAC addresses and nucleus GNAs

## HCG Clear Stats

This command clears all or selected hcg interface statistics. Prior to selecting this button, provide the following data on the selection screen:

ID - specify the name of the hcg interface to clear.

## HCG Clear Route Table

This command clears all learned route table entries.

## HCG Start Interface

This command starts a defined hcg interface. Prior to selecting this button, provide the following data on the selection screen:

ID - specify the name of the hcg interface to start.

## HCG Stop Interface

This command stops a defined hcg interface. Prior to selecting this button, provide the following data on the selection screen:

ID - specify the name of the hcg interface to stop.

## HCG Define Interface

This button defines an hcg interface, which consists of a FDDI interface and associated parameters and accepted GNAs. Prior to selecting this button, provide the following data on the selection screen:

NETDEVNAME - name of the hcg interface. This name must match the device name of the FDDI NIC

myGNA - GNA address of the gateway itself. This represents an internal dummy address that specifies a GNA address in the form uuss.

RouteAdvTime - Time in seconds between route advertisement broadcasts.

ReAsnTimeout - Maximum time in seconds to wait for fragments of a fragmented block.

Chg running (temp) - select this box to make a temporary change. The change will only remain in effect until the unit is restarted.

Chg file (perm) - select this box to make a permanent change.

## Reset

This button resets the values specified in the display windows to the default values. It does not result in any command submission.

## HCG Undefine Interface

This button deletes a previously defined hcg interface. Prior to selecting this button, provide the following data on the selection screen:

- NETDEVNAME - name of the hcg interface. This specifies the name used when the hcg interface was defined.
- Chg running (temp) - select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
- Chg file (perm) - select this box to make a permanent change

## HCG Add Accepted

This button adds GNA addresses that will be accepted by the gateway HYPERchannel interface and directed to the IP network. Prior to selecting this button, provide the following data on the selection screen:

- ID - specifies the name of the hcg interface that should accept the starting (and ending) GNA addresses, as specified in the following boxes
- Dom - check this box if the start (and end) address indicates a GNA domain address
- Net - check this box if the start (and end) address indicates a GNA network address
- Unit - check this box if the start (and end) address indicates a GNA unit address
- Start - specifies the starting GNA address, as indicated by the Dom/Net/Unit box
- End - specifies the ending GNA address, as indicated by the Dom/Net/Unit box
- Chg running (temp) - select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
- Chg file (perm) - select this box to make a permanent change.

## Reset

This button resets the values specified in the display windows to the default values. It does not result in any command submission.

## HCG Remove Accepted

This button removes GNA addresses that were previously accepted by the gateway HYPERchannel interface. Prior to selecting this button, provide the following data on the selection screen:

- ID - specifies the name of the hcg interface that should remove the starting (and ending) GNA addresses, as specified by the following boxes
- Dom - check this box if the start (and end) address indicates a GNA domain address
- Net - check this box if the start (and end) address indicates a GNA network address
- Unit - check this box if the start (and end) address indicates a GNA unit address
- Start - specifies the starting GNA address, as indicated by the Dom/Net/Unit box
- End - specifies the ending GNA address, as indicated by the Dom/Net/Unit box
- Chg running (temp) - select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
- Chg file (perm) - select this box to make a permanent change.

## HCG Set Debug

This button sets the debug trace level for all interfaces, or for a specific hcg interface. Prior to selecting this button, provide the following data on the selection screen:

- ID - specify the name of the hcg interface for which to enable debug, or, select the "global" checkbox for all interfaces.

Debug Level enter one of the following values:

- 0 - no console tracing
- 1 - trace only H-level msgs
- 2 - trace H,M-level msgs
- 3 - trace H,M,L-level msgs
- 4 - trace H,M,L,D-level msgs
- 5 - trace streams msgs
- 6 - trace msg data
- 7 - trace all data

## **Help Debug**

This button displays help information for the 'HCG Set Debug' command in a separate window.

## NESiGate Router

This screen is used to define, process, or view router configuration data.

### Command drop-down menu

From this drop-down menu, the following commands can be initiated -

- Route Display Config
- Route Display Info
- Route Display Locals
- Route Display Routes
- Route Display Stats
- Route Clear Stats

After selecting the desired command, click the **GO** button to process. Results of the command will be returned to the browser for display.

### Route Display Config

This command displays the current configured routes.

### Route Display Info

This command displays information for the router control stream or a particular stream identified by Link Index. The Link Index can be obtained by first issuing the "Route Display Info" command without specifying any value for Link Index.

### Route Display Locals

This command displays all current defined local routes (device to GNA mappings).

### Route Display Routes

This command displays all current defined external routes (IP address to GNA mappings).

## Route Display Stats

This command displays statistics for the router control stream or for a particular stream identified by the Link Index. The Link Index can be obtained by first issuing the “Route Display Info” command” without specifying any value for Link Index.

Sample output:

id	txmsgs	txbytes	rxmsgs	rxbytes	outDrop	inDrop
2	0	0	0	0	0	0

where -

**id** : control or *L\_INDEX*  
**txmsgs** : the number of messages sent from the router to the lower stream  
**txbytes** : the number of bytes sent from the router to the lower stream  
**rxmsgs** : the number of messages received from a lower stream  
**rxbytes** : the number of bytes received from a lower stream  
**outDrop** : the number of dropped messages from an upper stream  
**inDrop** : the number of dropped messages from a lower stream

## Route Clear Stats

This command clears statistics for the router control stream or for a particular stream identified by the Link Index. The Link Index can be obtained by first issuing the “Route Display Info” command without specifying any value for Link Index..

**control** clear statistics for the Control stream

**index** clear statistics for the stream linked under the Router at *L\_INDEX*. *L\_INDEX* can be obtained by first displaying the channel configuration.

## Route Set Debug

This button sets the debug trace level globally, for the control stream or for a particular stream identified by the Link Index. The Link Index can be obtained by first issuing the Router Display Info command without specifying any value for Link Index.

*VALUE*:

0 : no console tracing

- 1 : console trace only H level messages
- 2 : console trace level H and M messages
- 3 : console trace level H, M, and L messages
- 4 : console trace level H, M, L, and D messages
- 5 : console trace the actual streams messages
- 6 : console trace the streams message data
- 7 : console trace all the data

**global**            set Router debug level globally

**control**           set Router debug level for the Router control stream.

*L\_INDEX*           set Router debug level for the stream linked under the Router at *L\_INDEX*. *L\_INDEX* can be obtained by first displaying the channel configuration

## Help Debug

This button displays help information for the "Route Set Debug" command in a separate window.

## Route Add Route

This button defines a mapping of a GNA route to an IP address. If the GNA already has a route defined, it will be changed.

Prior to selecting this button, provide the following data on the selection screen:

- StartGNA            specify the GNA address of the destination host.
- IP Addr             specify the IP address to which the StartGNA value should be routed.
- Num                 specify the number of consecutive StartGNA addresses to route.
- Chg running (temp)    select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
- Chg file (perm)        select this box to make a permanent change.

## Route Delete Route

This button deletes a currently defined route. Prior to selecting this button, provide the following data on the selection screen:

StartGNA	specify the GNA address of the destination host to delete.
Chg running (temp)	select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
Chg file (perm)	select this box to make a permanent change.

## Route Delete All Routes

This button deletes all defined routes. Prior to selecting this button, provide the following data on the selection screen:

Non-Configured	select this box to delete only the routes that were found by DNS look-ups.
Configured	select this box to delete only the routes that were defined with Route Add commands.
Chg running (temp)	select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
Chg file (perm)	select this box to make a permanent change.

## NESiGate IP Interface

This screen is used to define, control, or view IP configuration data. They are normally not used.

### Command drop-down menu

From this drop-down menu, the following commands can be initiated -

- IP Interface Display Config
- IP Interface Display Info
- IP Interface Display Stats
- IP Interface Clear Stats

After selecting the desired command, click the **GO** button to process. Results of the command will be returned to the browser for display.

### IP Interface Display Config

This command displays the current IP configuration.

type	prot	minor	l_index	ref	optfl	lport	mxrcvbyt	mxsndbyt
MSG	UDP	2	4	c2a4ba20	0	6950	512000	512000

where -

type	: currently only MSG is supported
prot	: currently only UDP is supported
minor	: the streams minor number associated with this interface
l_index	: the streams link index associated with the router side of this IP interface
ref	: reference # for this interface (address of connection control block)
opt fl	: option flags 0x80 : checksum off
lport	: local port number associated with this interface
mxrcvbyt	: maximum socket receive byte count
mxsndbyt	: maximum socket send byte count

## IP Interface Display Info

This command displays detailed information for a particular IP interface stream ID. The ID can be obtained by first displaying the IP configuration with the "IP Interface Display Config" command.

```

-----
      id          ref          state    db prot fl backlog rdCred padLen
-----
      msg:2  cf715020          0  0  UDP  80          0      -1      0

waitWrQ  waitConQ  stream      sk          sock      unsolId  saveUId  svFl
-----
      0          0  cdbdc800  cf054b80  cda4d08c          0          0      0

abrtR  rPort  rAddr  lPort  lAddr  mxRcvByt  mxSndByt  con
-----
      0      0          0  6950          0  512000  512000  cf715020

```

where -

id : temporary id for display only – minor number  
 ref : reference # for this connection (address of connection control block)  
 state : current state of this connection (currently unused)  
 db : stream debug level  
 prot : protocol (currently only UDP supported)  
 fl : stream flags 0x80 : read queue is being serviced  
       0x40: write queue is being serviced  
       0x20: control stream  
 backlog : currently unused  
 rdCred: : currently unused (should always be -1)  
 padLen : currently unused  
 waitWrQ : currently unused  
 waitConQ : currently unused  
 stream : the address of the stream control block  
 sk : address of IP sock structure  
 sock : address of IP socket structure  
 unsolId : unsolicited id (currently unused)  
 saveUId : temporary save area  
 svFl : temporary save area  
 abrtR : abort reason code (currently unused)  
 rPort : remote port number if connected (currently unused)  
 rAddr : remote IP address if connected (currently unused)  
 lPort : local port number  
 lAddr : local IP address (0 if any address)  
 mxRcvByt : maximum socket receive byte count  
 mxSndByt : maximum socket send byte count  
 con : address of connection control block

```

      id      device  minor  db sdb gdb gsdb mt  fl  retId  hcCon
-----
      msg      4801      1  0 OFF  2  OFF  ON  0      0 cf715020

  openFl  streamFl  readQ   writeQ   stream  numCons
-----
      2          2 cd80e154 cd80e190 cdbdc800      1

                                cons
-----
cf715020

```

where -

id : temporary id for display only – minor number  
 device : the stream device number associated with this interface  
 minor : the streams minor number associated with this interface  
 db : connection debug level  
 sdb : socket debug level  
 gdb : global debug level  
 gsdb : global socket debug level  
 mt : memory trace on or off  
 fl : connection flags      0x80 : hc connection  
                                  0x08 : no checksum socket option  
                                  0x04 : debug socket option  
  
 retId : current retry timeout id  
 hcCon : address of special hc connection control block  
 openFl : device open flags  
 streamFl : device stream flags  
 readQ : the address of the stream read queue  
 writeQ : the address of the stream write queue  
 stream : address of stream control block  
 numCons : number of connections using this interface  
 cons : list of connection control block addresses

## IP Interface Display Stats

This command displays statistics for the stream or a connection.

**Example 1:** no connection specified

```

      id      txmsgs  txbytes  rxmsgs  rxbytes
-----
      msg      0          0          0          0

  txdelay  rxdelay  outDrop  inDrop
-----
      0          0          0          0

```

## Example 2: specific connection (1)

```
igs msg 1:
  id          txmsgs    txbytes    rxmsgs    rxbytes
-----
  msg:1       0          0          0          0

txdelay  rxdelay  outDrop  inDrop
-----
  0        0        0        0
```

where -

id : temporary id for display only – minor number:connection reference number  
txmsgs : # messages sent to IP  
txbytes : # bytes sent to IP  
rxmsgs : # messages received from IP  
rxbytes : # bytes received from IP  
txdelay : # stream delayed messages destined for IP  
rxdelay : # stream delayed messages coming from IP  
outDrop : # dropped messages destined for IP  
inDrop : # dropped messages coming from IP

## IP Interface Clear Stats

This command clears the statistics for the stream or a connection.

## HELP Debug

This button displays help information for the "IP Interface Set Debug" command in a separate window.

## IP Interface Set Debug

This button sets the debug trace level globally or for a particular connection. The ID can be obtained by first displaying the IP configuration with the "IP Interface Display Config" command.

## IP Interface Define Interface

This button defines various IP interface parameters.

Prior to selecting this button, provide the following data on the selection screen:

- port number - the local port number (normally set to 6950).
- checksum - select this box to enable the checksum of IP packets.
- Max Receive - the maximum receive buffer size (normally set to 512000).
- Max Send - the maximum send buffer size (normally set to 512000).
- Chg running (temp) - select this box to make a temporary change. The change will only remain in effect until the unit is restarted.
- Chg file (perm) - select this box to make a permanent change

# Appendix A: Configuration Worksheet

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This worksheet can be used to record the necessary NESiGate configuration information.

<b>HOST &amp; IP Information</b> <i>(Used for Network Configuration)</i>	<i>Example</i>	<b>Site Configuration</b>
Host name	<i>netfin3</i>	
IP address	<i>10.1.2.27</i>	
Domain name	<i>netexsw.com</i>	
Network mask	<i>255.255.255.0</i>	
Default gateway	<i>10.1.2.50</i>	
IP address of name server	<i>10.1.3.1</i>	
<b>NESiGate Accepted GNAs Information</b>	<i>Example</i>	<b>Site Configuration</b>
HCG Interface	<i>fddi0</i>	
GNA accepted by gateway	<i>2000</i>	
(repeat for all GNAs)		
<b>NESiGate Router Information</b> <i>(Used for NESiGate Static Routes definitions) (Note 1)</i>	<i>Example</i>	<b>Site Configuration</b>
StartGNA (remote GNA address)	<i>DC00</i>	
IP Addr	<i>10.1.2.15</i>	
Num (number of consecutive addresses)	<i>4</i>	
(repeat for all remote GNA addresses)		

<b>NESiGate DNS Entries</b> <i>(Used for NESiGate Dynamic Routes definitions) (Note 1)</i>	<i>Example</i>	<b>Site Configuration</b>
Add entries to the DNS server	<i>NTX0000A110</i> <i>10.1.2.25</i>	

**Note 1:** Either **Static** or **Dynamic** routing definitions must be used for each NetEx/IP GNA-to-IP mapping requirement.