



# NASI Commands

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This chapter describes the commands used to enable your router to function as a NetWare Asynchronous Services Interface (NASI) server. A NASI server enables a NASI client to connect to asynchronous network resources (such as modems) without having these resources located on the client's desktop.

For configuration tasks and examples, refer to the chapter “Configure Support for NASI Clients to Access Network Resources” in the *Dial Solutions Configuration Guide*.

## ipx nasi-server enable

To enable NetWare Asynchronous Services Interface (NASI) clients to connect to asynchronous devices attached to your router, use the **ipx nasi-server enable** global configuration command. To prevent NASI clients from connecting through a router, use the **no** form of this command.

**ipx nasi-server enable**  
**no ipx nasi-server enable**

### Syntax Description

This command has no arguments or keywords.

### Default

NASI is not enabled.

### Command Mode

Global configuration

### Usage Guidelines

This command first appeared in Cisco IOS Release 11.1.

When you issue this command, NASI clients can connect to any port on the router other than the console port to access network resources. When the user on the NASI client uses the Windows or DOS application to connect to the router, a list of available tty and vty lines appears, beginning with tty1. The user selects the desired outgoing tty or vty port.

You can configure TACACS+ security on the router so that after the user selects a tty or vty port, a username and password prompt appear for authentication, authorization, and accounting purposes.

### Example

The following example shows a minimum configuration to enable NASI client dial-in access with TACACS+ authentication:

```
ipx routing
ipx internal-network ncs001
interface ethernet 0
  ipx network 1
ipx nasi-server enable
! enable TACACS+ authentication for NASI clients using the list name swami
aaa authentication nasi swami tacacs+
line 1 8
  modem inout
```

### Related Commands

You can use the master indexes or search online to find documentation of related commands.

**aaa authentication nasi**  
**nasi authentication**  
**show ipx nasi connections**  
**show ipx spx-protocol**

## show ipx nasi connections

To show the status of NetWare Asynchronous Services Interface (NASI) connections, use the **show ipx nasi connections** EXEC command.

**show ipx nasi connections**

### Command Mode

EXEC

### Usage Guidelines

This command first appeared in Cisco IOS Release 11.1.

### Sample Display

The following is sample output from the **show ipx nasi connections** command:

```
router# show ipx nasi connections

NASI Remote: A001500::0020.afe5.3ec5:626C   Local: ACBB::0000.0000.0001:2010
flags 0

NASI Remote: A001500::0020.afe5.3ec5:6E6C   Local: ACBB::0000.0000.0001:20D0
flags 0
Connected to line 2  incount 0  outcount 0  OVF 0
```

The following sample display shows an incoming NASI connection on tty line 2:

```
router# show users
      Line  User      Host(s)          Idle Location
*  0 con 0           idle            1
  2 tty 2   chris    incoming        1 A001500.0020.afe5.3ec5
```

Table 128 describes fields from the **show ipx nasi connections** sample display.

**Table 128 Show IPX NASI Connections Field Descriptions**

Field	Description
NASI Remote	<ul style="list-style-type: none"> <li>• <code>xxxxxx::yyyyyyyy:zzzz</code> is the address for the remote NASI client connected to the router.</li> <li>• <code>xxxx</code> is the IPX network number.</li> <li>• <code>yyyyyy</code> is the IPX host node (MAC address) for the client.</li> <li>• <code>zzzz</code> is the SPX connection number.</li> </ul>
Local	<code>xxxxxx::yyyyyyyy:zzzz</code> is the local address associated to this connection on the router end of the link.
flags	A status bit that is used internally to allow and close connections.
Connected to line 2	Appears only when the connection is associated with a tty port. Indicates that this NASI connection is attached to tty 2.
incount 0	Data from the remote client.
outcount 0	Data to be sent to the remote client.

**Table 128 Show IPX NASI Connections Field Descriptions (continued)**

<b>Field</b>	<b>Description</b>
OVF 0	Refers to the number of times data could not be written to the tty line, because the buffers were full. Ideally, this counter should stay at 0.

**Related Commands**

You can use the master indexes or search online to find documentation of related commands.

- ipx nasi-server enable**
- show ipx spx-protocol**

## show ipx spx-protocol

To view the status of the SPX protocol stack and related counters, use the **show ipx spx-protocol** command.

**show ipx spx-protocol**

### Syntax Description

This command has no arguments or keywords.

### Command Mode

EXEC

### Usage Guidelines

This command first appeared in Cisco IOS Release 11.1.

### Sample Display

The following is sample output from the **show ipx spx-protocol** command:

```
router> show ipx spx-protocol
Next wake time:

SPX socket: 1D90
state: 0 Connections: 2

SPX Remote: A001500::0000.c047.ed5a:3A80 Local: ACBB::0000.0000.0001:2010
state 1 flags 1
Queue counts: inq 0, outQ 0, unackedQ 0
Sequence: 34, Ack: 34, local-alloc: 39, remote-alloc: 35
Abort Timer fires in 24 secs
Verify Watchdog Timer fires in 3 secs

SPX Remote: A001500::0000.c047.ed5a:C980 Local: ACBB::0000.0000.0001:2900
state 1 flags 1
Queue counts: inq 0, outQ 0, unackedQ 0
Sequence: 111, Ack: 55, local-alloc: 60, remote-alloc: 112
Abort Timer fires in 27 secs
Verify Watchdog Timer fires in 0 secs
```

Table 129 describes significant fields from this sample display.

**Table 129 Show IPX SPX-Protocol Field Descriptions**

Field	Description
SPX socket:	IPX/SPX socket number.
state	Internal state.
connections:	Number of open connections for this IPX/SPX socket.
SPX Remote: xxxxxx::yyyy:zzzz	The SPX client address for each SPX connection on this IPX/SPX socket, where xxxx is the client IPX network number, yyyy is the client IPX MAC address, and zzzz is the client SPX connection number.

**Table 129 Show IPX SPX-Protocol Field Descriptions (continued)**

Field	Description
SPX Local xxxxxx::yyyy:zzzz	The local SPX address, where xxxx is local IPX network number, yyyy is the local IPX MAC address, and zzzz is the local SPX connection number.
state	Internal state.
flags	A status bit that is used internally to allow and close connections.
Queue counts	inQ, outQ, and unackedQ, as specified in the following three rows.
inQ	Number of SPX packets available for the SPX application to read.
outQ	Number of SPX packets that must be sent to the remote client.
unackedQ	Number of SPX packets sent, but no packet was received by the client, so far.
Sequence:	SPX sequence number. Represents the sequence number of next packet of data to be sent by the router.
Ack:	SPX acknowledgment number. Represents the sequence number of the client's packet that the router has received, so far.
local-alloc:	Maximum packet sequence number that is acceptable from the client. This is a method of imposing flow control on the NASI client.
remote-alloc:	Maximum packet sequence number that the NASI client can accept from the router. This is the NASI client's way of imposing flow control on the router.
Purge Timer	Time in seconds until this SPX connection is closed and deleted from the list.
Abort Timer	Time in seconds until this SPX connection is closed and deleted if a watchdog packet is not received.
Verify Watchdog Timer fires in X secs	Indicates the time when you last sent a watchdog packet to the client.

**Related Commands**

You can use the master indexes or search online to find documentation of related commands.

- aaa authentication nasi**
- ipx nasi-server enable**
- nasi authentication**
- show ipx nasi connections**