



NBAR Protocol Pack

First Published: March 14, 2011

Last Updated: March 14, 2011

The NBAR Protocol Pack feature provides an easy way to load a protocol pack, which is a single compressed file that contains multiple Protocol Description Language (PDL) files and a manifest file. Before this feature was introduced, PDLs had to be loaded separately. Now a set of required protocols can be loaded, which helps network-based application recognition (NBAR) to recognize additional protocols for classification on your network.

The protocol pack manifest file contains a description of the protocol pack. Packet Description Language Modules (PDLMs) are used to add support for a protocol that is currently not available as part of the Cisco IOS software.

Finding Feature Information

For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the “[Feature Information for NBAR Protocol Pack](#)” section on page 7.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

Contents

- [Prerequisites for the NBAR Protocol Pack, page 2](#)
- [Restrictions for the NBAR Protocol Pack, page 2](#)
- [Information About the NBAR Protocol Pack, page 2](#)
- [How to Load the NBAR Protocol Pack, page 2](#)
- [Configuration Examples for the NBAR Protocol Pack, page 3](#)
- [Additional References, page 5](#)



Americas Headquarters:

Cisco Systems, Inc., 170 West Tasman Drive, San Jose, CA 95134-1706 USA

- [Feature Information for NBAR Protocol Pack, page 7](#)

Prerequisites for the NBAR Protocol Pack

- The protocol pack must be copied to the local disk to avoid any errors after rebooting.

Restrictions for the NBAR Protocol Pack

- Only one protocol pack is supported.

Information About the NBAR Protocol Pack

- [Protocol Pack Overview, page 2](#)

Protocol Pack Overview

Application recognition modules (also known as PDLMs) can be used to extend the functionality of NBAR by enabling NBAR to recognize additional protocols on your network. A PDLM is used to add support for a protocol that is currently not available as part of the Cisco IOS software. A PDLM extends the list of protocols that NBAR can recognize.

A protocol pack is a single compressed file that contains multiple PDL files and a manifest file. Your organization determine the contents of the protocol pack. Protocol packs allow you to load a set of protocols together rather than load them separately.

Protocol packs provides the following features:

- Easy to load.
- Easy to upgrade to a higher version protocol pack or revert to a lower version protocol pack.
- Provides only the required set of protocols.

Cisco provides a specific identity number for the organization (also known as “publisher”) that creates the protocol packs and uses the Cisco tools and processes to create new protocol packs. The organization that creates the protocol pack owns it.

The Default Protocol Pack (DPP) is provided as the base protocol pack version with the Cisco IOS image in the router.

How to Load the NBAR Protocol Pack

- [Loading the NBAR Protocol Pack, page 2](#) (required)

Loading the NBAR Protocol Pack

Perform the following task to load a network-based application recognition (NBAR) protocol pack.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip nbar protocol-pack** *protocol-pack* [**force**]
4. **exit**
5. **show ip nbar protocol-pack** {*protocol-pack* | **active**} [**detail**]

DETAILED STEPS

	Command or Action	Purpose
Step 1	enable Example: Router> enable	Enables privileged EXEC mode. Enter your password if prompted.
Step 2	configure terminal Example: Router# configure terminal	Enters global configuration mode.
Step 3	ip nbar protocol-pack <i>protocol-pack</i> [force] Example: Router(config)# ip nbar protocol-pack harddisk:defProtoPack	Loads the protocol pack. Use the force keyword to specify and load a protocol pack of a lower version than the default protocol pack version.
Step 4	exit Example: Router(config)# exit	Returns to privileged EXEC mode.
Step 5	show ip nbar protocol-pack { <i>protocol-pack</i> active } [detail] Example: Router(config)# show ip nbar protocol-pack active	Displays the protocol pack information. - Verify the loaded protocol pack version, publisher, and other details using this command. - Use the <i>protocol-pack</i> argument to display the information of the specified protocol pack. - Use the active keyword to display active protocol pack information. - Use the detail keyword to display detailed protocol pack information.

Configuration Examples for the NBAR Protocol Pack

- [Example: Loading the NBAR Protocol Pack, page 4](#)
- [Example: Verifying the Loaded NBAR Protocol Pack, page 4](#)

Example: Loading the NBAR Protocol Pack

The following example shows how to load an NBAR protocol pack named defProtoPack from the harddisk:

```
Router> enable
Router# configure terminal
Router(config)# ip nbar protocol-pack harddisk:defProtoPack
Router(config)# exit
```

The following example shows how to load a default NBAR protocol pack:

```
Router> enable
Router# configure terminal
Router(config)# default ip nbar protocol-pack
Router(config)# exit
```

The following example shows how to load a protocol pack of a lower version using the **force** keyword:

```
Router> enable
Router# configure terminal
Router(config)# ip nbar protocol-pack harddisk:olddefProtoPack force
Router(config)# exit
```

Example: Verifying the Loaded NBAR Protocol Pack

The following sample output from the **show ip nbar protocol-pack** command shows information about active protocol pack:

```
Router# show ip nbar protocol-pack active
```

ACTIVE protocol pack:

Name:	Default Protocol Pack
Version:	1.0
Publisher:	Cisco Systems Inc.

The following sample output from the **show ip nbar protocol-pack** command shows detailed information about the active protocol pack:

```
Router# show ip nbar protocol-pack active detail
```

ACTIVE protocol pack:

Name:	Default Protocol Pack
Version:	1.0
Publisher:	Cisco Systems Inc.
Protocols:	
base	Mv: 4
ftp	Mv: 5
http	Mv: 18
static	Mv: 6
socks	Mv: 2
nntp	Mv: 2
tftp	Mv: 2
exchange	Mv: 3
vdolive	Mv: 1
sqlnet	Mv: 2
netshow	Mv: 3
sunrpc	Mv: 3
streamwork	Mv: 2

```

citrix                Mv: 11
fasttrack             Mv: 3
gnutella              Mv: 7
kazaa2                Mv: 11

```

The following sample output from the **show ip nbar protocol-pack** command shows the protocol pack present in the specified disk location:

```
Router# show ip nbar protocol-pack disk:0ppsmall_higherversion
```

```

Name:                  Default Protocol Pack
Version:               2.0
Publisher:             Cisco Systems Inc.

```

The following sample output from the **show ip nbar protocol-pack** command shows detailed protocol pack information present in the specified disk location:

```
Router# show ip nbar protocol-pack disk:0ppsmall_higherversion detail
```

```

Name:                  Default Protocol Pack
Version:               2.0
Publisher:             Cisco Systems Inc.
Protocol Pack contents:
iana                  Mv: 1
base                  Mv: 4
tftp                  Mv: 2

```

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
Cisco IOS LAN Switching commands	Cisco IOS LAN Switching Command Reference
Cisco IOS XE QoS configuration information	Cisco IOS XE QoS Configuration Guide

Standards

Standard	Title
None	—

MIBs

MIB	MIBs Link
None	To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
None	—

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for NBAR Protocol Pack

Table 1 lists the release history for this feature.

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which Cisco IOS XE Software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://www.cisco.com/go/cfn>. An account on Cisco.com is not required.

**Note**

Table 1 lists only the Cisco IOS XE Software release that introduced support for a given feature in a given Cisco IOS XE Software release train. Unless noted otherwise, subsequent releases of that Cisco IOS XE Software release train also support that feature.

Table 1 Feature Information for NBAR Protocol Pack

Feature Name	Releases	Feature Information
NBAR Protocol Pack	Cisco IOS XE Release 3.3S	This feature was introduced on Cisco ASR 1000 Series Aggregation Services Routers. The NBAR Protocol Pack feature provides an easy way to configure the protocol pack, which is a set of protocols developed and packed together. The following commands were introduced or modified: default ip nbar protocol-pack, ip nbar protocol-pack, show ip nbar protocol pack.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1005R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2011 Cisco Systems, Inc. All rights reserved.

