

# NBAR Web-based Custom Protocols

The NBAR Web-based Custom Protocols feature provides the mechanism to define custom protocols to match based on HTTP URL and/or host name.


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# Restrictions for NBAR Web-based Custom Protocols

The HTTP URL and the Host name defined for custom protocol match should be unique. The length of the protocol name should be at least 4 characters long and the prefix of the protocol name should be different from the prefixes of any other protocol name.

# Information About NBAR Web-based Custom Protocols

## Overview of NBAR Web-based Custom Protocols

The NBAR Web-based Custom Protocols feature provides the mechanism to define custom protocols to match the traffic based on HTTP URL and/or host name.

All 120 custom protocols can be defined to match based on HTTP URL and/or host name. While matching web-based custom protocols, the custom protocol that has both HTTP URL and the host name defined has the highest priority, followed by HTTP URL as the second priority, and then followed by Host name as the last priority. Matching a web-based sub-protocol has higher priority than matching any type of web-based custom protocol, for example the **match protocol** *http url http-url* command has a higher priority than a custom priority with the same URL configuration.

# How to Define NBAR Web-based Custom Protocols Match

## Defining a Web-based Custom Protocol Match

### SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip nbar custom** *custom-protocol-name* **http** {**host** *host-name* | **url** *http-url* [**host** *host-name*]} [**id** *selector-id*]
4. **end**

### DETAILED STEPS

**Procedure**

| | Command or Action | Purpose |
|---|---|---|
| **Step 1** | **enable**<br>**Example:**<br>`Router> enable` | Enables privileged EXEC mode.<br>• Enter your password if prompted. |
| **Step 2** | **configure terminal**<br>**Example:**<br>`Router# configure terminal` | Enters global configuration mode. |
| **Step 3** | **ip nbar custom** *custom-protocol-name* **http** {**host** *host-name* \| **url** *http-url* [**host** *host-name*]} [**id** *selector-id*]<br>**Example:**<br>`Router(config)# ip nbar custom app_sales1 http url www.example.com` | Defines web-based custom protocol match.<br>• Enter the custom protocol name and any other optional keywords and arguments.<br>**Note** To add a custom protocol, use the **ip nbar custom** command. To enable the protolcol, use the **match protocol** command or **ip nbar protocol discovery** command. |
| **Step 4** | **end**<br>**Example:**<br>`Router(config)# end` | (Optional) Exits global configuration mode. |

# Configuration Examples for NBAR Web-based Custom Protocols

## Examples: Defining Web-based Custom Protocol Match

The following example displays how to match a custom protocol based on http url:

```
Router> enable
Router# configure terminal
Router(config)# ip nbar custom app_sales1 http url www.example.com
```

The following example displays how to match a custom protocol that contains the string 'example' as a part of host name:

```
Router> enable
Router# configure terminal
Router(config)# ip nbar custom app_sales1 http host *example*
```

# Additional References for NBAR Web-based Custom Protocols

### Related Documents

| Related Topic | Document Title |
|---|---|
| Cisco IOS commands | *Cisco IOS Master Command List, All Releases* |
| Custom Protocols | *Creating a Custom Protocol* module |

### 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 Web-based Custom Protocols

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

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

***Table 1: Feature Information for NBAR Web-based Custom Protocols***

| Feature Name | Releases | Feature Information |
|---|---|---|
| NBAR Web-based Custom Protocols Scalability | Cisco IOS XE Release 3.13S | The NBAR Web-based Custom Protocols Scalability feature enables defining custom protocols match based on http host name and/or url.<br><br>The following command was introduced or modified:<br><br>**ip nbar custom**. |