

NBAR Custom Applications Based on DNS Name

NBAR Custom Applications based on DNS Name feature provides the mechanism to customize applications based on the Domain Name System (DNS) hostnames.

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Prerequisites for NBAR Custom Applications Based on DNS Name

You must have basic knowledge of domain names.

Restrictions for NBAR Custom Applications Based on DNS Name

To use Domain Name System (DNS), you must have a DNS name server on your network.

DNS permits reading of UDP type messages only and considers only those response packets which have a source port of 53.

Information About NBAR Custom Applications Based on DNS Name

Overview of NBAR Custom Applications Based on DNS Name

Network-Based Application Recognition (NBAR) recognizes and classifies network traffic on the basis of a set of protocols and application types. The user adds to the set of protocols and application types that NBAR recognizes by creating custom protocols.

The user provides the DNS hostname signatures using the**ip nbar custom** *custom1 dns domain-name regular-expression id* command in the form of a simplified regular expression, which the DNS server pushes to the DNS templates. The DNS-based classification functions only when the IP addresses derived as direct responses are added to the look up table (LUT) for future classification lookups.

The following types of domains are supported:

- A
- AAAA
- CNAME

When you define the **ip nbar custom myDns dns domain-name** **example* command, the DNS traffic for a domain name that matches the expression "example" reaches the device. NBAR stores the corresponding IP address A.B.C.D of domain that matches the domain name with the expression "example" in its tables. When any TCP or UDP traffic with IP address A.B.C.D arrives, it is classified as myDns protocol.

How to Configure NBAR Custom Applications Based on DNS Name

Configuring the NBAR Custom Applications Based on DNS Name

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **ip nbar custom** *custom-name* **dns** *domain-name regular-expression* **id** *1*
4. **exit**

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**ip nbar custom** *custom-name* **dns** *domain-name regular-expression* **id** *1* **Example:** `Device(config)# ip nbar custom cust1 dns dns-name *example.com id 1`	Configures the NBAR Custom Applications Based on DNS Name feature. **Note** You can provide either the full domain name or a part of it as a regular expression. For example: the expression "*example" will match any domain that contains the word "example".
Step 4	**exit** **Example:** `Device(config)# exit`	Exits the global configuration mode and enters privileged EXEC mode.

Configuration Examples for NBAR Custom Applications Based on DNS Name

Example: Configuring NBAR Custom Applications Based on DNS Name

```
Device> enable
Device# configure terminal
Device(config)#  ip nbar custom custom1 dns domain-name *example id 11
Device(config)# exit
```

Additional References for NBAR Custom Applications Based on DNS Name

Related Documents

Related Topic	Document Title
Cisco IOS commands	*Cisco IOS Master Command List, All Releases*

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 Custom Applications Based on DNS Name

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 Custom Applications Based on DNS Name

Feature Name	Releases	Feature Information
NBAR Custom Applications Based on DNS Name	Cisco IOS XE Release 3.15S	NBAR custom applications based on Domain Name Service (DNS) Name feature provides the mechanism to customize applications based on the DNS hostnames. The following command was introduced or modified: **ip nbar custom**.