



# Release Notes for NBAR2 Protocol Pack 40.0.0 for Cisco Wireless Controllers

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# Overview

The NBAR2 Protocol Pack 40.0.0 release includes:

- New protocols
- Improvements to classification of protocols
- Deprecated protocols

# Supported Platforms

NBAR2 Protocol Pack 40.0.0 is supported on the following platforms:

- Cisco 3504 Wireless Controller
- Cisco 5520 Wireless Controller
- Cisco 8540 Wireless Controller
- Cisco Virtual Wireless Controller (vWLC) on the following platforms
  - VMware vSphere Hypervisor (ESXi) Version 5.x and 6.x
  - Hyper-V on Microsoft Servers 2012 and later versions (Support introduced in Release 8.4)
  - Kernel-based virtual machine (KVM) (Support introduced in Release 8.1. After KVM is deployed, we recommend that you do not downgrade to a Cisco Wireless release that is earlier than Release 8.1.)
- Cisco Wireless Controllers for High Availability for Cisco 3504 controller, Cisco 5520 controller, and Cisco 8540 controller.
- Cisco Mobility Express Solution

## New Protocols in NBAR2 Protocol Pack 40.0.0

The following protocols were added in NBAR2 Protocol Pack 40.0.0 (since 37.0.0):

Protocol Name	Common Name	Long Description
amazon-cloudfront	Amazon CloudFront	Amazon CloudFront is a content delivery network offered by Amazon Web Services. Content delivery networks provide a globally-distributed network of proxy servers which cache content.
amazon-ec2	Amazon EC2	Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud. It is designed to make web-scale cloud computing easier for developers.
amazon-s3	Amazon S3	Amazon S3 provides object storage through web services interfaces (REST, SOAP, and BitTorrent).
apple-location-services	Apple Location Services	Apple Location Services allows Apple and third-party apps and websites to gather and use information based on the current location of your iPhone or Apple Watch to provide a variety of location-based services. This traffic was previously classified as “apple-services”. This change might require policy changes. The “apple-group” group can be used for aggregation.
cisco-cta	Cisco Cognitive Threat Analytics	Cisco Cognitive Threat Analytics pinpoints attacks before they can extract sensitive data. It analyzes web traffic, endpoint data from Cisco AMP for Endpoints, and network data from Cisco Stealthwatch Enterprise. It then uses machine learning to identify malicious activity.
cisco-meraki	Cisco Meraki	Cisco Meraki is a cloud managed solution that includes wireless, switching, security, EMM, communications, and security cameras, all centrally managed from the web.
cisco-stealthwatch	Cisco Stealthwatch	Cisco Stealthwatch provides continuous real-time monitoring and pervasive views into network traffic.
coap	COAP	The Constrained Application Protocol (CoAP) is a specialized web transfer protocol for use with constrained nodes and constrained (for example, low-power, lossy) networks.
ebay	eBay	eBay is a multinational e-commerce corporation that facilitates consumer-to-consumer and business-to-consumer sales through its website.
imgur	Imgur	Imgur is an online image sharing community and image host.

Protocol Name	Common Name	Long Description
iperf	iPerf	iPerf is a widely used tool for network performance measurement and tuning. Support for releases 2.x and later.
lifesize	Lifesize	Lifesize is a video and audio telecommunications company providing high definition videoconferencing endpoints and accessories, touchscreen conference room phones, and a cloud-based video collaboration platform.
llmnr	Link-Local Multicast Name Resolution	The Link-Local Multicast Name Resolution (LLMNR) is a protocol based on the Domain Name System (DNS) packet format that allows both IPv4 and IPv6 hosts to perform name resolution for hosts on the same local link.
mdns	mDNS	The multicast DNS (mDNS) protocol resolves host names to IP addresses within small networks that do not include a local name server.
mindtouch	MindTouch	MindTouch enables a team to create, publish, and edit content, and then structure the content within a responsive user interface.
mqtt	MQTT	MQTT (Message Queuing Telemetry Transport) is a lightweight broker-based publish/subscribe messaging protocol. It is designed for constrained devices and low-bandwidth, high-latency or unreliable networks.
slack	Slack	Slack is a cloud-based set of proprietary team collaboration tools and services.
slack-media	Slack Media	Slack media streaming services.
snapchat	Snapchat	Snapchat is a multimedia messaging app.
tumblr	tumblr	Tumblr is a microblogging and social networking website.

## Updated Protocols in NBAR2 Protocol Pack 40.0.0

The following protocols have been updated to improve accuracy in NBAR2 Protocol Pack 40.0.0 (since 37.0.0):

- bittorrent
- cisco-umbrella
- dns
- gree
- htc-services
- icloud
- iPerf
- kerberos
- ldap
- linkedin
- mDNS
- ms-lync
- ms-office-365
- ms-teams
- ms-update
- netflix
- outlook-web-services
- QQ-Services
- salesforce
- samsung
- share-point
- skype
- skype
- SNMP
- statistical-p2p
- the-pirate-bay
- vmware-vsphere
- WeChat
- windows-azure
- workday
- youtube

## Deprecated Protocols in NBAR2 Protocol Pack 40.0.0

The following protocols have been deprecated in NBAR2 Protocol Pack 40.0.0 (since 37.0.0):

Application	Description	NBAR2 Protocols Deprecated
AOL Messenger	AOL Instant Messenger allows users to communicate either through AIM contacts or Facebook/Google-talk contacts and share photos.	aol-messenger
Babelgum	Babelgum is an internet TV website based on streaming TV shows and music videos. Also supporting Apple mobile devices, including the iPhone, iPod Touch and iPad.	babelgum
Vine	Vine - Mobile App for sharing photos and videos clips.	vine

# Caveats in NBAR2 Protocol Pack 40.0.0

**Note**

If you have an account on Cisco.com, you can view information on select caveats, using the Bug Search Tool (<https://bst.cloudapps.cisco.com/bugsearch/>).

**Resolved Caveats in NBAR2 Protocol Pack 40.0.0**

The following table lists the caveats resolved in NBAR2 Protocol Pack 40.0.0 (since 37.0.0):

Caveat	Description
<a href="#">CSCvi90495</a>	Certain vendor Wi-Fi calling is not detected as Wi-Fi-calling



## Downloading NBAR2 Protocol Pack 40.0.0

NBAR2 Protocol Packs are available for download on the Cisco.com software download page (<http://www.cisco.com/cisco/software/navigator.html>). On the download page, specify a platform model to display software available for download. One software option will be **NBAR2 Protocol Packs**.

### Example

To display protocol packs available for the Cisco Wireless Controllers platform, the navigation path is:

**Download Software > Enter the Controller model > NBAR2 Protocol Pack.**

## Special Notes and Limitations

Protocol Name	Special Note or Limitation
apple-app-store	Login and a few encrypted sessions are classified as iTunes.
bittorrent	HTTP traffic generated by the bitcomet bittorrent client might be classified as HTTP.
capwap-data	For capwap-data to be classified correctly, capwap-control must also be enabled.
ftp	During configuring QoS class-map with ftp-data, the FTP protocol must be selected. As an alternative, the FTP application group can be selected.
hulu	Encrypted video streaming generated by hulu may be classified as its underlying protocol rtmpe.
logmein	Traffic generated by the logmein android app may be classified incorrectly as ssl.
ms-lync	Login and chat traffic generated by the ms-lync client may be classified incorrectly as ssl.
pcanywhere	Traffic generated by pcanywhere for mac may be classified as unknown.
perfect-dark	Some perfect-dark sessions may be classified as unknown.
qq-accounts	Login to QQ applications which is not via the internet may not be classified as qq-accounts.
ssl	<p>The Sub Classification (SC) mechanism was modified to include search for wildcard.</p> <p><b>Note</b> The SC rule for the part of the Server Name Indication (SNI) or the common name (CN) can now include a wildcard. If a wildcard is not used, the complete SNI or the CN is required.</p> <p>For example, you can either use, "*.pqr.com" or "abc.pqr.com" to classify abc.pqr.com.</p>