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## **Cisco Service Control Application for Broadband Protocol Reference Guide**

Protocol Pack #55

November 28, 2016

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## About this Guide

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### Introduction

This reference guide is intended to provide information about protocol support in Cisco Service Control Application for Broadband (SCA BB) to the various users and potential users of Cisco SCA BB.

### Document Revision History

The Document Revision History below records changes to this document.

**Table 1**      **Document Revision History**

<b>Revision</b>	<b>Related Protocol Pack Notes, Cisco Service Control Release and Date</b>	<b>Change Summary</b>
OL-9764-60	Protocol Pack #55, Cisco SCA BB 5.2.0 Nov 28, 2016	Protocol Pack #55 protocol information added
OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-58	Protocol Pack #53, Cisco SCA BB 4.2.0, 5.2.0 May 27, 2016	Protocol Pack #53 protocol information added
OL-9764-57	Protocol Pack #52, Cisco SCA BB 4.2.0, 5.2.0 March 25, 2016	Protocol Pack #52 protocol information added
OL-9764-56	Protocol Pack #51, Cisco SCA BB 4.2.0, 5.1.0, 5.2.0 February 3, 2016	Protocol Pack #51 protocol information added
OL-9764-55	Protocol Pack #50, Cisco SCA BB 4.2.0, 5.1.0, 5.2.0 November 30, 2015	Protocol Pack #50 protocol information added

**Table 1 Document Revision History (continued)**

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OL-9764-54	Protocol Pack #49, Cisco SCA BB 4.2.0, 5.1.0, 5.2.0 September 30, 2015	Protocol Pack #49 protocol information added
OL-9764-53	Protocol Pack #48, Cisco SCA BB 4.0.0, 4.2.0, 5.1.0 July 29, 2015	Protocol Pack #48 protocol information added
OL-9764-52	Protocol Pack #47, Cisco SCA BB 4.0.0, 4.2.0, 5.1.0 May 28, 2015	Protocol Pack #47 protocol information added
OL-9764-51	Protocol Pack #46, Cisco SCA BB 4.0.0, 4.2.0, 5.0.0, 5.1.0 March 30, 2015	Protocol Pack #46 protocol information added
OL-9764-50	Protocol Pack #45, Cisco SCA BB 4.0.0, 4.1.0, 4.2.0, 5.0.0 January 31, 2015	Protocol Pack #45 protocol information added
OL-9764-49	Protocol Pack #44, Cisco SCA BB 4.0.0, 4.1.0, 4.2.0, 5.0.0 December 08, 2014	Protocol Pack #44 protocol information added
OL-9764-48	Protocol Pack #43, Cisco SCA BB 4.0.0, 4.1.0, 4.2.0, 5.0.0 September 30, 2014	Protocol Pack #43 protocol information added
OL-9764-47	Protocol Pack #42, Cisco SCA BB 4.0.0, 4.1.0 May 31, 2014	Protocol Pack #42 protocol information added
OL-9764-46	Protocol Pack #41, Cisco SCA BB 4.0.0, 4.1.0 May 31, 2014	Protocol Pack #41 protocol information added
OL-9764-45	Protocol Pack #40, Cisco SCA BB 4.0.0, 4.1.0 March 31, 2014	Protocol Pack #40 protocol information added
OL-9764-44	Protocol Pack #39, Cisco SCA BB 3.7.2, 3.8.5, 4.0.0, 4.1.0 January 31, 2014	Protocol Pack #39 protocol information added

**Table 1 Document Revision History (continued)**

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OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-43	Protocol Pack #38, Cisco SCA BB 3.7.2, 3.8.5, 4.0.0 November 29, 2013	Protocol Pack #38 protocol information added
OL-9764-42	Protocol Pack #37, Cisco SCA BB 4.0.0 September 30, 2013	Protocol Pack #37 protocol information updated for Cisco SCA BB 4.0.0
OL-9764-41	Protocol Pack #36, Cisco SCA BB 4.0.0 August 08, 2013	Protocol Pack #36 protocol information updated for Cisco SCA BB 4.0.0
OL-9764-40	Protocol Pack #36, Cisco SCA BB 3.8.5 August 07, 2013	Protocol Pack #36 protocol information added
OL-9764-39	Protocol Pack #35, Cisco SCA BB 4.0.0 July 18, 2013	Protocol Pack #35 protocol information updated for Cisco SCA BB 4.0.0
OL-9764-38	Protocol Pack #35, Cisco SCA BB 3.8.5 June 14, 2013	Protocol Pack #35 protocol information added
OL-9764-37	Protocol Pack #34, Cisco SCA BB 3.8.5 April 12, 2013	Protocol Pack #34 protocol information added
OL-9764-36	Protocol Pack #33, Cisco SCA BB 3.8.5 January 31, 2013	Protocol Pack #33 protocol information added
OL-9764-35	Protocol Pack #32, Cisco SCA BB 3.8.0 November 29, 2012	Protocol Pack #32 protocol information added
OL-9764-34	Protocol Pack #31, Cisco SCA BB 3.7.5 September 30, 2012	Protocol Pack #31 protocol information added
OL-9764-33	Protocol Pack #30, Cisco SCA BB 3.7.5 August 13, 2012	Protocol Pack #30 protocol information added

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OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-32	Protocol Pack #29, Cisco SCA BB 3.7.5 May 30, 2012	Protocol Pack #29 information updated for Cisco SCA BB 3.7.5
OL-9764-31	Protocol Pack #29, Cisco SCA BB 3.7.2 May 30, 2012	Protocol Pack #29 protocol information added
OL-9764-30	Protocol Pack #28, Cisco SCA BB 3.7.2 April 3, 2012	Protocol Pack #28 protocol information added
OL-9764-29	Protocol Pack #27, Cisco SCA BB 3.7.2 February 16, 2012	Note added to Flashget section
OL-9764-29	Protocol Pack #27, Cisco SCA BB 3.7.2 February 2, 2012	Minor changes
OL-9764-29	Protocol Pack #27, Cisco SCA BB 3.7.2 January 30, 2012	Removed Dropbox from Protocol Pack #26
OL-9764-29	Protocol Pack #27, Cisco SCA BB 3.7.2 January 24, 2012	Protocol Pack #27 protocol information added
OL-9764-28	Protocol Pack #26, Cisco SCA BB 3.7.0 November 8, 2011	Protocol Pack #26 protocol information added
OL-9764-27	Protocol Pack #25, Cisco SCA BB 3.6.5 July 12, 2011	Protocol Pack #25 protocol information added
OL-9764-26	Protocol Pack #24, Cisco SCA BB 3.6.5 April 28, 2011	Updated the ooVoo protocol version information supported
OL-9764-25	Protocol Pack #24, Cisco SCA BB 3.6.5 March 8, 2011	Protocol Pack #24 protocol information added



**Table 1 Document Revision History (continued)**

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OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-24	Protocol Pack #23, v 3.6.5 February 15, 2011	Updated the procedure for blocking Thunder downloads, <a href="#">Thunder Service: Blocking Thunder Download</a>
OL-9764-23	Protocol Pack #23, Cisco SCA BB 3.6.5 December 14, 2010	Protocol Pack #23 supported on SCA BB Release 3.6.5
OL-9764-22	Protocol Pack #23, Cisco SCA BB 3.6.0 and SCA BB 3.6.1 November 12, 2010	Protocol Pack #23 protocol information added
OL-9764-21	Protocol Pack #22, Cisco SCA BB 3.6.0 and SCA BB 3.6.1 August 12, 2010	Protocol Pack #22 protocol information added
OL-9764-20	Protocol Pack #21, Cisco SCA BB 3.6.0 May 3, 2010	Protocol Pack #21 protocol information added
OL-9764-19	Protocol Pack #20, Cisco SCA BB 3.5.5 January 28, 2010	Protocol Pack #20 protocol information added
OL-9764-18	Protocol Pack #19, Cisco SCA BB 3.5.5 October 29, 2009	Protocol Pack #19 protocol information added
OL-9764-17	Protocol Pack #18, Cisco SCA BB 3.5.5 August 15, 2009	Protocol Pack #18 protocol information added
OL-9764-16	Protocol Pack #17, Cisco SCA BB 3.5.0 May, 2009	Protocol Pack #17 protocol information added
OL-9764-15	Protocol Pack #16, Cisco SCA BB3.5.0 February, 2009	Protocol Pack #16 protocol information added
OL-9764-14	Protocol Pack #15, Cisco SCA BB 3.1.6 November, 2008	Protocol Pack #15 protocol information added

**Table 1 Document Revision History (continued)**

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OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-13	Protocol Pack #14, Cisco SCA BB 3.1.6 July, 2008	<ul style="list-style-type: none"> <li>• Protocol Pack #14 protocol information added.</li> <li>• General Information chapter added.</li> </ul>
OL-9764-12	Protocol Pack #13, Cisco SCA BB3.1.6 March, 2008	Protocol Pack #13 protocol information added
OL-9764-11	Protocol Pack #12, Cisco SCA BB 3.1.5 January, 2008	Protocol Pack #12 protocol information added
OL-9764-10	Protocol Pack #11, Cisco SCA BB 3.1.1 November, 2007	Protocol Pack #11 protocol information added
OL-9764-09	Protocol Pack #10, Cisco SCA BB 3.1.0 August, 2007	Protocol Pack #10 protocol information added
OL-9764-08	Protocol Pack #09, Cisco SCA BB 3.1.0 June, 2007	Protocol Pack #09 protocol information added
OL-9764-07	Protocol Pack #08, Cisco SCA BB 3.0.6 March, 2007	Protocol Pack #08 protocol information added
OL-9764-06	Protocol Pack #07, Cisco SCA BB 3.0.5A January, 2007	Protocol Pack #07 protocol information added
OL-9764-05	Protocol Pack #06, Cisco SCA BB 3.0.5 November, 2006	SCA BB 3.0.5 protocol information added (see Table (4 5)).
OL-9764-04	Protocol Pack #06, Cisco SCA BB 3.0.4 November, 2006	Protocol Pack #06 protocol information added
OL-9764-03	Protocol Pack #05, Cisco SCA BB 3.0.4 September, 2006	<ul style="list-style-type: none"> <li>• Protocol Signatures chapter updated.</li> <li>• Gaming protocols added.</li> </ul>

**Table 1** Document Revision History (continued)

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OL-9764-59	Protocol Pack #54, Cisco SCA BB 4.2.0, 5.2.0 July 25, 2016	Protocol Pack #54 protocol information added
OL-9764-02	Protocol Pack #05 August, 2006	<ul style="list-style-type: none"><li>• Added Protocol Signatures.</li><li>• Protocols updated for Protocol Pack #05.</li></ul>
OL-9764-01	Protocol Pack #04 April, 2006	Created the Cisco SCA BB Protocol Reference Guide.

## Organization

This guide contains the following sections:

**Table 2** Document Organization

Chapter	Title	Description
Chapter 1	<a href="#">P2P Protocols</a>	A listing of all P2P protocols currently supported by SCA BB.
Chapter 2	<a href="#">Internet Protocols</a>	A listing of all other Internet protocols currently supported by SCA BB
Chapter 3	<a href="#">IP Protocols</a>	A listing of all IP protocols currently supported by SCA BB.
Chapter 4	<a href="#">Protocol Signatures</a>	A listing of all protocol signatures currently supported by SCA BB.
Chapter 5	<a href="#">General Information</a>	Information regarding URL-based HTTP protocol signatures and classifying HTTP Flash-based signatures.

## Related Publications

For more information regarding configuring and running the Cisco SCA BB application refer to:

- *Cisco Service Control Application for Broadband User Guide*
- *Cisco Service Control Application for Broadband Reference Guide*

For information regarding existing Protocol Packs, see the *Cisco Service Control Application for Broadband Protocol Pack Notes*.

# Conventions

This document uses the following conventions:

**Table 3**      **Conventions**

Convention	Indication
<b>bold font</b>	Commands and keywords and user-entered text appear in <b>bold font</b> .
<i>italic font</i>	Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic font</i> .
[ ]	Elements in square brackets are optional.
{ x   y   z }	Required alternative keywords are grouped in braces and separated by vertical bars.
[ x   y   z ]	Optional alternative keywords are grouped in brackets and separated by vertical bars.
string	A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.
courier font	Terminal sessions and information the system displays appear in <code>courier font</code> .
< >	Nonprinting characters such as passwords are in angle brackets.
[ ]	Default responses to system prompts are in square brackets.
!, #	An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.



**Note**

Means *reader take note*.



**Tip**

Means *the following information will help you solve a problem*.



**Caution**

Means *reader be careful*. In this situation, you might perform an action that could result in equipment damage or loss of data.



**Timesaver**

Means *the described action saves time*. You can save time by performing the action described in the paragraph.



**Warning**

**Means *reader be warned*. In this situation, you might perform an action that could result in bodily injury.**

# Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see [What's New in Cisco Product Documentation](#).

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# P2P Protocols

## Introduction

This chapter lists the P2P protocols currently supported by Cisco SCA BB. For each protocol, the following information is provided:

- Clients of this protocol that are supported, including the specific version supported.
- Default TCP ports for these P2P protocols. Traffic on these ports would be classified to the specific protocol as a default, in case this traffic was not classified based on any of the protocol signatures.
- Comments; these mostly relate to the differences between various Cisco SCA BB releases in the level of support for the P2P protocol for specified clients.

**Table 1-1** P2P Protocols

Protocol Name	Validated Clients	TCP Ports	Comments
Acestream	Acestream PC v2.1	—	Supported PC v2.1 as of Protocol Pack #39. Supported PC v3.0 as of Protocol Pack #44.
Amazon Appstore	Android v12.0000.803.0C_642000010	—	Supported as of Protocol Pack #44.
Angle Media	—	None	Supported as of Protocol Pack #13.
AntsP2P	Beta 1.5.6 b 0.9.3 with PP#05	—	—
Aptoide	Android v7.0.6	None	Supported as of Protocol Pack #52.
BaiBao	BaiBao v1.3.1	None	—
Baidu	Baidu PC [Web Browser], Android v6.1.0	None	Supported as of Protocol Pack #44.
Baidu Movie	Baidu Movie 2000	None	Supported as of Protocol Pack #08.
BBBroadcast	BBBroadcast 1.2	None	Supported as of Protocol Pack #12.

Table 1-1 P2P Protocols (continued)


Protocol Name	Validated Clients	TCP Ports	Comments
BitTorrent	BitTorrent v4.0.1 exeem v0.23 Morpheus v5.0 beta Azureus v2.3 - as of 2.5.7, with the Sep 05 Protocol Pack (PP #01) Bit Comet 0.60 - as of 2.5.7, with the Nov 05 Protocol Pack (PP #02) Azureus v2.4.0.2 - as of 2.5.9 / 3.01, with Protocol Pack #04 BitComet v0.63 - as of 2.5.9 / 3.01, Protocol Pack #04 uTorrent 1.5 - as of 2.5.9 / 3.01, Protocol Pack #04 uTorrent 1.6 - as of 2.5.10 / 3.04, Protocol Pack #06 Azureus 2.5.0.0 as of 2.5.10 / 3.0.5 with Protocol Pack #07 ABC 3.1 as of 2.5.10 / 3.0.5 with Protocol Pack #07 Deluge BitTorrent 0.5.6 as of Protocol Pack #12 Azureus 3.0.3 as of Protocol Pack #12 uTorrent 1.8 as of Protocol Pack #13 BitComet v0.99 as of Protocol Pack #13 Azureus Vuze 3.0.5 as of Protocol Pack #14 BitTorrent DNA 2.2.2 as of Protocol Pack #19 BitTorrent 6.2 as of Protocol Pack #19 uTorrent 2.0.2 as of Protocol Pack #22 BitTorrent 7.1 as of Protocol Pack #23 uTorrent 2.0.4 as of Protocol Pack #23 BitComet v1.28 as of Protocol Pack #26 Torrent 3.1 as of Protocol Pack#27 BitTorrent 7.6 as of Protocol Pack #27(ipv6 support) BitTorrent v 7.8 Build 29112, Utorrent v 3.3 Build 29333,and Android v 1.18 as of Protocol Pack #34	6881-6889, 6969	Supported Bittorrent Sync as of PP#38 Android v-1.1.37, iOS v-1.1.118 ans PC v-1.1.27.



Table 1-1 P2P Protocols (continued)

Protocol Name	Validated Clients	TCP Ports	Comments
	Android v-1.1.37, iOS v-1.1.118 ans PC v-1.1.27 Bitcomet 1.40		Supported Bitcomet 1.40 as of Protocol Pack #52.
Bump	Android v3.5.8, iOS v3.5.8, PC (Web Browser)	None	Supported as of Protocol Pack #35. Support for Bump is discontinued as of Protocol Pack #39.
Carbonite	PC v 5.4.4 Build 2952, iOS v 3.0.5, Android v3.1.1 PC v5.4.4 Build 2952, iOS v3.1.1 Android v3.1.3	None	Supported as of Protocol Pack #34. Updated support to Android v 3.1.3, iOS v 3.1.1 as of Protocol Pack #35.
Club Box	—	None	Supported as of Protocol Pack #08.
Carousel	Android v1.0.1, iOS v1.0.1	—	Supported as of Protocol Pack #42.
Crashplan	Android v3.5.4, iOS v3.5.4, PC v3.5.3	None	Supported as of Protocol Pack #36.
Cubby	Android v 1.0.0.12063, iOS v 1.0.12066, PC (Web Browser)	None	Supported as of Protocol Pack #34.
DHT	Distributed Hash Table Protocol mostly used by p2p applications such as Azureus, BitComet, Metastock, uTorrent, etc.	None	Supported as of Protocol Pack #06.
Dijjer	1.0 build117-as of 2.5.9/ 3.0.1 with Protocol Pack #04	—	—
DirectConnect	CDZC++ v0.666 DC++ v0.4034 DirectConnect 2 v2.20 build 5	411-413	—
Dropbox	Dropbox v1.4.9 and v1.4.11 Android -v2.3.12.22 iOS v4.2.4	None	Supported as of Protocol Pack #30. Supported as of Protocol Pack #52.
eDonkey	eDonkey v1.0 eMule v0.44d Morpheus v5.0 beta	4661-4665, 4672-4673, 4711, 5662, 5773, 5783 [UDP ports are the same]	—
Einy	Einy 1.0.3.4	—	Supported as of Protocol Pack #20.
EmuleEncrypted	eMule 0.47c eMule v0.48a as of 2.5.10/3.0.6/3.1.0 with Protocol Pack #10 eMule v0.49a as of Protocol Pack #14 eMule v 0.50a as of Protocol Pack #33	None	Supported as of Protocol Pack #06.
Entropy	As of 2.5.10 with Protocol Pack #07/3.0.5	—	Supported as of Protocol Pack #06.

Table 1-1 P2P Protocols (continued)

Protocol Name	Validated Clients	TCP Ports	Comments
Evernote	Android v4.5.4, iOS v5.2.3, PC v4.6.4	None	Supported as of Protocol Pack #35.
Exosee	0.99.022 as of 2.5.9/3.0.1 with Protocol Pack#04	—	—
FastTrack KaZaA File Transfer	Grokster v2.6 Kazaa lite v2.6 Kazaa media desktop v3.0 Morpheus v5.0 beta	—	—
FastTrack KaZaA Networking	iMesh v4.5 build 150	1214	—
Feidian	Feidian v1.3	None	Supported as of Protocol Pack #08.
Fileguri	Fileguri v5.29	None	Supported as of Protocol Pack #18.
FileTopia	FileTopia v3.04d	None	—
Freenet	Freenet 0.7	None	Supported as of Protocol Pack #06.
Furthur	As of 2.5.9/3.01 with Protocol Pack #04	—	—
Flashget	Flashget Chinese version v3.7.0.1152	None	Supported as of Protocol Pack #25.   <b>Note</b> Within the Flashget Application there is the possibility to download software. This is blocked since this is based on the configured ZoneIP defined in the Protocol Pack.
Gnutella File Transfer	Bearshare v51 Lime Wire v4.0 Lime Wire v4.14.12 Morpheus v5.0 beta	None	Support enhanced as of Protocol Pack #17.
Gnutella Networking	iMesh v4.5 build 150	6346-6349	Support enhanced as of Protocol Pack #17.
Google Photos	Pc browsers, Iphone:1.11.0,Android:1.22.0.1241686 45	None	Supported as of Protocol Pack #54
Guru Guru	Guru Guru	None	2.5.7: requires Protocol Pack.  3.0.0: Temporarily not supported (the protocol is supported in the #04 Protocol Pack for 3.0.1).
Hotline	Hotline connect	5498, 5500-5503	Service tree mapping changed from FileSharing > P2P > OtherP2P to Instant Messaging > Other Instant Messaging in PP#37 (Applicable for 400).

**Table 1-1 P2P Protocols (continued)**

Protocol Name	Validated Clients	TCP Ports	Comments
Hotspot Shield	PC v2.88(Free and Elite)	None	Supported as of Protocol Pack #34.
Justcloud	Android v 1.0.11, iOS v 1.18, and PC (Web Browser)	None	Supported as of Protocol Pack #34. Updated support to Android v-1.0.12 and iOS v-1.2.0 as of Protocol Pack #35.
Kindle	V3.6.0 for android, v3.3 for iPhone	None	Supported as of Protocol Pack #32. Protocol Service Tree Mapping changed for Kindle App in Protocol Pack #33.
Kuro	Kuro v4.93	None	2.5.7: requires Protocol Pack. 3.0.0: Temporarily not supported (the protocol is supported in the #04 Protocol Pack for 3.0.1).
KuGoo	V3.243	None	Supported as of Protocol Pack #10.
Location Free	LF-B10/20	None	Supported as of Protocol Pack #09.
LottoFile	V4.6.7	None	Downloading files supported as of Protocol Pack #19.
Manolito	Blubster v2.5 Piolet v1.05	None	—
MEGA	PC (Web Browser), Android v1.1.1	None	Supported as of Protocol Pack #34. Updated support to Android v1.1.1 as of Protocol Pack #36.
Megacloud	Android v1.4.1, iOS v1.7.2, PC	None	Supported as of Protocol Pack #36.
Mute	Mute v 0.3-t	None	—
Monkey3	V3 supported as of Protocol Pack #19	None	Downloading files supported as of Protocol Pack #19. This protocol is only partially supported in release 3.1.7 because flavors are not supported.
Mozy	Android v1.5.0, iOS v-1.5.0, PC v2.20.2.276	None	Supported as of Protocol Pack #36.
Napster	Napster 2 v2.2	None	—
NeoNet	Morpheus v5.0 beta	None	—
NodeZilla	NodeZilla v0.4.3	None	—
OpenDrive	Android v2.0.1, iOS v2.3.1 and PC(Web Browser)	None	Supported as of Protocol Pack #38.
Pando	Pando v1.6.11	—	Supported as of Protocol Pack #10.
PeerEnabler	As of protocol 2.5.9/3.0.1 with Protocol Pack #04	—	—

Table 1-1 P2P Protocols (continued)

Protocol Name	Validated Clients	TCP Ports	Comments
Poco	Poco 2005 build 0405 Poco 2006 build 11.22 as of 2.5.10/3.0.5 with Protocol Pack #07 Poco 2007 beta as of 2.5.10/3.0.6/3.1.0 with Protocol Pack #09	None	2.5.7: Requires November 2005 Protocol Pack.
PPFilm	PPFilm 2.3.0.0	None	Supported as of Protocol Pack #15.
PPLive	PPLive v1.0.7.4 - As of 2.5.7 with the Sep 05 Protocol Pack(PP#01) PPLive v1.1.1.0 - As of 2.5.8 and 3.0.0 with the Jan 06 Protocol Pack(PP#03) PPLive v1.6.19 - As of 2.5.10 and 3.0.6 with PP08 PPLive v1.8.x – As of Protocol Pack #12 PPLive v1.9.35 – As of Protocol Pack #14 PPLive v1.9.47 – As of Protocol Pack #18 PPLive v2.2.2 (Chinese version) – As of Protocol Pack #18 PPLive v2.3.5. - As of Protocol Pack #21	None	Strengthening the PPLive v2.3.5. – As of Protocol Pack #28.
PPStv(PPStream)	PPStreamv1.0.098–As of 2.5.7 with the Nov05 Protocol Pack #02 As of 3.0.0 with the Jan 06 Protocol Pack #03 V2.0 supported as of 2.5.10/3.0.6/3.1.0 with Protocol Pack #10 PPStream v2.6.86 supported as of Protocol Pack #21 PPStream v2.7.0.1166 supported as of Protocol Pack #25	—	Supported PC Web Browser, Android v3.0.7, iOS v3.1.0 as of Protocol Pack #43.
Rodi	0.3.60 with PP#05	—	—
Share	NT5 and EX2 with PP #05	None	—
Shareman	—	—	Supported as of Protocol Pack #25.
SkeedReceiver	V1 and v2	—	Supported as of Protocol Pack #21.
Songsari	Songsari v0.7.0.148	None	Supported as of Protocol Pack #18.
SopCast	2.0.4	None	Supported as of Protocol Pack #13.

Table 1-1 P2P Protocols (continued)

Protocol Name	Validated Clients	TCP Ports	Comments
Soribada	Soribada v311 Soribada v6 supported as of Protocol Pack #19	None	2.5.7: requires Protocol Pack. 3.0.0: Temporarily not supported (the protocol is supported in the #04 Protocol Pack for 3.0.1). V6 supported as of Protocol Pack #19.
Soulseek	Soulseek v152	None	—
SpiderOak Hive	PC v5.0.2, Android v2.0.2, iOS v2.1.0	None	Supported as of Protocol Pack #29.
Teredo	—	None	Supported as of Protocol Pack #29.
Thunder	v5.5 supported as of 2.5.10/3.0.5 with Protocol Pack #07 v5.9.20.1418 supported as of 3.5.5/3.6.0 with Protocol Pack #22 v7.2.1.3136 supported as of 3.5.5/3.6.0 with Protocol Pack #26	None	With existing Thunder signature, an HTTP Flavor is supported to block Thunder file download traffic as of Protocol Pack #22. For further information on how to effectively control Thunder download traffic, see <a href="#">Thunder Service: Blocking Thunder Download, page 5-8</a> Supported as of Protocol Pack #26.
TomatoPang	TomatoPang v3.13	None	Supported as of Protocol Pack #18.
Tor, Orbot, and Tor Obfuscation(Obfs proxy)	Tor 0.1.2.19 0.2.0.18-alpha	None	Supported as of Protocol Pack #13. Updated Android v 1.0.11 and PC v 2.3.25.5 as of protocol pack #34. Updated Obfsproxy PC v-2.4.11-alpha-2-pt1_en-us.exe as of protocol pack #36. Updated Pc- Tor browser bundle Version 3.5.2.1, Android- Orbot 13.0.4a supported as of Protocol Pack #40. Supported PC-Tor Browser Bundle 3.6.2 as of Protocol Pack #42.
TVUPlayer	TVUPlayer v2.3.7.1	None	Supported as of Protocol Pack #15.
Ultrasurf	PC v13.01	None	Supported PC v 13.01 as of Protocol Pack #35. Supported PC v13.04 and v14.03 as of Protocol Pack #42.
Utageo UGLive2	UG Live Version 2.0	—	Supported as of Protocol Pack #21.
V-Share	—	—	—
Wandoujia	PC [Web Browser], Android v3.14.2	None	Supported as of Protocol Pack #44.

Table 1-1 P2P Protocols (continued)

Protocol Name	Validated Clients	TCP Ports	Comments
Warez/FileCroc	Ares v1.8.1 Warez v2.5 Ares 1.9.2 as of 2.5.10/3.0.4 with Protocol Pack #06 Ares 1.9.9 as of 2.5.10/3.0.5 with Protocol Pack #07 Ares 2.0.9 as of 3.0.6/3.1.0/3.1.1 with Protocol Pack #11 Ares 2.1.1.3035 as of Protocol Pack #18	None	Enhanced in Protocol Pack #22 to strengthen the signature, since camera traffic was misclassifying to Warez.
Waste	—	None	—
WebThunder	1.10.2.173 as of 3.0.6/3.1.0/3.1.1 with Protocol Pack #11	—	—
Wetransfer	PC (Web Browser)	—	Supported PC (Web Browser) as of Protocol Pack #39.
WinMX/ OpenNap	ezPeer v1.990 WinMX v3.53	6257, 6699 [UDP port = 6257]	ezPeer: currently classified as WinMX.
Winnyp	Winnyp 2b7.1 Winnyp 7.25 Winnyp 2.0 b7.28	7742-7745, 7773	Winnyp 2b7.28: Support verified by an external partner.
Yandex.disk	Android v-1.22 iOS v-1.22 PC v-1.0.1.3812 PC (Web Browser)	None	Supported as of Protocol Pack #37.
Zattoo	beta as of Protocol Pack #09 Zattoo 4.0.5 as of 3.5.5/3.6.0 with Protocol Pack #22	None	Supported as of Protocol Pack #09. Updated as of Protocol Pack #24.
Zona	PC v1.0.5	None	Supported PC v1.0.5 as of Protocol Pack #43.



# Internet Protocols

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## Introduction

This chapter lists the Internet protocols currently supported by Cisco SCA BB. The protocols are divided into the following categories:

- [VoIP](#)
- [Instant Messaging](#)
- [Gaming](#)
- [WEB](#)
- [Streaming](#)
- [Email](#)
- [File Transfer](#)
- [Terminal Access](#)
- [Trading](#)
- [Multi-Thread](#)
- [Mobile](#)
- [Enterprise](#)
- [Networking](#)
- [Security](#)
- [Other](#)

The default TCP and UDP ports of each of the protocols are listed. Traffic on these ports would be classified to the specific protocol as a default, in case this traffic was not classified based on any of the protocol signatures.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
<b>VoIP</b>				
Alicall	None	None	Yes	Version 5.0 supported as of PP#24. Service tree changes updated.
Comm	None	None	Yes	Android v- 1.12.0 and iOS v-1.6.1 supported as of Protocol Pack #35.
Daum My People	None	None	Yes	Supported as of Protocol Pack #31.
Dial 070	None	None	Yes	Supported as of Protocol Pack #22.
Dial91	None	None	Yes	Supported Android v-2.3.0, iOS v2.3.5.15203 as of Protocol Pack #37.
Dingo Tel	None	None	Yes	—
Facebook Lite	None	None	Yes	Supported Android-V1.0.0, as of Protocol Pack #47.
Facebook voip	None	None	Yes	Supported Android v2.5.3, and iOS v2.5 as of Protocol Pack #36. Supported PC (web browser), Android v6.1, iOS v6.1 as of Protocol Pack #42.
Fun Call	None	None	Yes	Supported iOS-V1.1 as of Protocol Pack #46.
Google Voice	None	None	Yes	Google Voice Web Interface supported as of Protocol Pack #19. Supported as of Protocol Pack #22.
Gmail Video (v2.9.10.7526)	None	None	Yes	Supported as of Protocol Pack #24. Updates in Protocol Pack #29. Updated support to PC v3.19.1.13088 as of Protocol Pack #35.
Gmail VoIP	None	None	Yes	Supported as of Protocol Pack #24. Updated as of Protocol Pack #32.
Google Talk Voice	None	None	Yes	Updated Android v 4.1.1 as of Protocol Pack #33.
H323	1720	—	Yes	—
Headcall	None	None	Yes	HeadCall PC-to-PC Voice is supported as of Protocol Pack #23.
ICQ VoIP	None	None	Yes	ICQ Version 5.1 supported as of Protocol Pack #05. Support updated to Android v4.0.5, iOS v4.0.3, PC v8 as of Protocol Pack #35.
iFone Platinum	None	None	Yes	Supported Android v1.4.02, and iOS v1.1.31 as of Protocol Pack #36.
IMO	None	None	Yes	Supported Android-V9.8.00000001821, iOS-V6.9.1
Int Call	None	None	Yes	Supported iOS-V4.1 as of Protocol Pack #46.



**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
JustVoIP	None	None	Yes	Supported v4.07(build 629) for PC-to-PC calls as of Protocol Pack #25.
Kakao Talk	None	None	Yes	Supported as of Protocol Pack #31. Supported Android v4.6.6, iOS v4.3.2 as of Protocol Pack #44.
LINE Voice	None	None	Yes	Supported as of Protocol Pack#30. Updated support to PC v- 3.1.7[Windows 8] , PC v- 3.1.9 [Windows 7] as of Protocol Pack #36. Updated support for Android v- 3.8.5, iOS v- 3.8.1 as of Protocol Pack #37. Supported PC-V3.6.0.34 as of Protocol Pack #42. Supported PC-V4.0.3.369, Android-V5.2.3,iOS-V5.2.0 as of Protocol Pack #48.
LINE VOIP	None	None	Yes	Supported as of Protocol Pack #30. Updated support to PC v3.1.7(MS Windows 8) and PC v3.1.9 (MS Windows 7) as of Protocol Pack #36. Updated support to Android v-3.8.5, iOS v-3.8.1 as of Protocol Pack #37. Supported PC v3.6.0.34 as of Protocol Pack #42.
Mailru Voice Video	None	None	Yes	Supported PC v6.0 as of Protocol Pack #35.
MaskMyNumber	None	None	Yes	Supported Android-V3.4 as of ProtocolPack#46.
Mumble(v 1.2.3a)	None	None	Yes	Supported as of Protocol Pack #29 (IPV4 and IPv6 support).
MGCP	None	2427,2727	Yes	—
MyPeople	None	None	Yes	v2.3.2 is supported as of Protocol Pack #25.
NateOn	None	None	Yes	NateOn v3.7 supported as of Protocol Pack #15.
NateOnTalk	None	None	Yes	Supported as of Protocol Pack #31.
Naver Phone	None	None	Yes	Naver Phone v1.2 (build 441) supported as of Protocol Pack #15.
Net2Phone	None	None	Yes	Supported as of Protocol Pack #23.
Primus	None	None	Yes	Supported as of Protocol Pack #06.
Pinterest	None	None	Yes	Supported as of Protocol Pack #29.
Qik	None	None	Yes	Supported as of Protocol Pack #35. Service changed to Internet Video in Protocol Pack #36.
SIP	5060-5061	5060-5061	Yes	—

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
SIP-I	—	—	Yes	Supported as of Protocol Pack #16.
Skinnny	2000	2000	Yes	—
Skype	33033	—	—	<p>Skype 1.3 as of 2.5.7/3.0.0.</p> <p>Skype 1.4 as of 2.5.8/3.0.1.</p> <p>Skype 2.0 as of 2.5.9/3.0.1 with Protocol Pack #04.</p> <p>Skype 2.5 as of 2.5.10/3.0.4 with Protocol Pack #06.</p> <p>Skypein/out/Cast as of 2.5.10/3.0.5 with Protocol Pack #07.</p> <p>Skype 3.0 as of 2.5.10/3.0.6 with Protocol Pack #08.</p> <p>Skype 4.0 betal with Protocol Pack #15.</p> <p>Skype 4.0.0.224 with Protocol Pack #17.</p> <p>Skype 4.1.0.136 with Protocol Pack #18.</p> <p>Skype 4.2.0.169 with Protocol Pack #22.</p> <p>Skype 5.1.0.122 with Protocol Pack #24.</p> <p>Skype 5.3 VOIP (PC-to-PC) with Protocol Pack#25.</p> <p>For further information on how to effectively control Skype traffic it is strongly recommended to see <a href="#">Skype Signatures and Support Matrix</a>, page 5-2.</p> <p>Skype 5.8 IM with Protocol Pack #28.</p> <p>Skype 5.8 Skype Out traffic classification rate limiting with Protocol Pack #28.</p> <p>Skype on Windows 8 Microsoft store version 1.3.0.112 (Voice and Video).</p> <p>Updated Skype Android v3.1.0.06458, iOS v4.5.222 and PC v6.2.0.106 as of Protocol Pack #34.</p> <p>Updated Skype Android v4.4.0.34403, iOS v4.13 and PC v6.10.60.104 as of Protocol Pack #38.</p> <p>Supported PC[Web Browser] as of Protocol Pack #47.</p>
Skype Video	—	—	—	<p>Skype 5.3 with Protocol Pack #25.</p> <p>Skype 5.8(pc-pc) with Protocol Pack #28.</p>
Skype VoIP	None	None	Yes	Skype 5.8 with Protocol Pack #28.
Skype File Transfer	None	None	Yes	Skype 5.8(pc-pc) with Protocol Pack #28.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Skype over Facebook	None	None	Yes	Skype 5.8(pc-pc) with Protocol Pack #30.
Talkray	None	None	Yes	Supported Android v1.13 and iOS v1.13 as of Protocol Pack #34.
Tango Message Count	None	None	Yes	Supported Android v3.13.126350, iOS v3.13.125399 as of Protocol Pack #45.
Tango Video Calls	None	None	Yes	Supported as of Protocol Pack #25. Updated support to Android v2.8.43942, iOS v2.8.42941, and PC as of Protocol Pack #35.
TeamSpeak	None	None	Yes	Version 2.0 supported as of Protocol Pack #14. Version 3.0 supported as of Protocol Pack #24.
Telepresence	—	—	Yes	CTS-3000 supported as of Protocol Pack #16.
Truphone	None	None	Yes	Version 3.0 supported as of Protocol Pack #18.
TuMe	None	None	Yes	Version 1.2.1 Supported as of Protocol Pack #32.
UUCALL	123, 1554,1800	None	Yes	UUCall-Login supported as of Protocol Pack #30.
Ventrilo	None	None	Yes	Version 3.0.1 supported as of Protocol Pack #14.
Viber	None	None	Yes	Supported as of Protocol Pack # 24 V2.1.5.270(iPhone),2.1.6.632(Android) support updated as of Protocol Pack #30 Updated support to Android v- 3.0.2.5, iOS v- 3.0 and PC v- 3.1.0 as of Protocol Pack #36 Updated support to Android v- 3.1.1.15, iOS v- 3.1.3 and PC v- 3.0.0.133634 as of Protocol Pack #37 Updated Support to Android v- 4.1.1, iOS v 4.1 and PC v-3.0.0.134193as of ProtocolPack #39 Updated support to Android-V4.2.1 As of Protocol Pack#40 SupportedPC-V3.0.0.134193,Android-V4.2.1,iOS-V4.1 asofProtocolPack#42 Supported Viber Message counting PC-V 3.0.0.134678,Android-V4.3.3,iOS-V4.2.1 asofProtocolPack#43 Supported Android-V5.5.2.28, iOS-V5.5.1 as of protocol pack #49 Supported Android-6.1.5,iOs-6.1.5, windows-6.1.0 ,PC-V6.0 as of Protocol Pack #54
Viber Encrypted	None	None	Yes	Supported Android v5.0.2 as of Protocol Pack #47.
Vivox	None	None	Yes	Supported as of Protocol Pack #12.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Vonage	5061	5061	Yes	—
vopium	None	None	Yes	Supported as of Protocol Pack #31.
WebEx	None	None	Yes	Supported as of Protocol Pack #21. WebEx protocol mapped under VideoConference and Webex Service renamed to VideoConference as of Protocol Pack #37.
WeChat	None	None	Yes	Supported WeChat v 4.3 as of Protocol Pack #33.
WeChat Message Count	None	None	Yes	Supported Android v4.5.2, iOS v6.0 as of Protocol Pack #44.
Yahoo Messenger VoIP	None		Yes	Updated as of Protocol Pack #24. Supported Yahoo Messenger version: 10.0.0.1270-us. Support updated for versions 11.5 as of Protocol Pack #32.
Jajah Yahoo PhoneOut	None	None	Yes	Jajah of Yahoo Messenger v10.0.0.1269-US is supported as of Protocol Pack #22. Updated as of Protocol Pack #24. Supported Yahoo Messenger version: 10.0.0.1270-us.
iTel	None	None	Yes	Support updated as part of Protocol Pack #26. Support updated as part of Protocol Pack #27.
Magic Jack v2.0.6	None	None	Yes	Support updated as part of Protocol Pack #26.
gPlex	None	None	Yes	Support updated as part of Protocol Pack #26.
Facetime	—	—	—	Supported as of Protocol Pack #27.
Nimbuzz	5222	None	Yes	Support Android v 2.09 as of Protocol Pack #27. Updated support to Android v2.4.1, iOS v3.1.0, and PC v2.5.2 as of Protocol Pack #36.
NymGo	None	None	Yes	Supported Android v4.1.19,iOS v5.4.12 and PC v5.2.30 as of Protocol Pack #36.
Trace Bust	None	None	Yes	Supported Android-V1.0 as of Protocol Pack #46.
<b>Instant Messaging</b>				
Bitmessage	None	None	Yes	Supported PC v0.4.2 as of Protocol Pack #40.
Bleep over BitTorrent	None	None	Yes	Supported Android- V0.23.558 as of Protocol Pack #48.
BurnNote	None	None	Yes	Supported Android- V1.60 and iOS-V1.60 as of Protocol Pack #50.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
ChatON	None	None	Yes	Supported PC (Web Browser), iOS v 1.9.1, Android v 1.11.1 as of Protocol Pack #33. Updated support to Android v2.3.11 and iOS v2.1.2 as of Protocol Pack #35. Updated support to iOS v2.7.3, Android v3.0.533 as of Protocol Pack #38.
eBuddy	None	None	Yes	Supported as of Protocol Pack #30.
Facebook	None	None	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18. Facebook Mobile chat supported as of Protocol Pack #31. Updated Zone support to Android, iOS and PC as of Protocol Pack #37.
Facebook HTTP	None	None	Yes	Supported Android (Browser) and PC (Web Browser) as of Protocol Pack #34.
Facebook Messenger	None	None	Yes	Supported Android-V29.0.0.43.279 and iOS-V29.1 as of Protocol Pack #48.
Facebook Poke	None	None	Yes	Supported iOS v 1.0 as of Protocol Pack #34.
Facebook Slingshot	None	None	Yes	Supported Android v1.1, iOS v1.1 as of Protocol Pack #43.
Fring	None	None	Yes	Beta version supported as of Protocol Pack#10. Updated support for Android v4.5.1.1-12 and iOS v7.0.0.6.0-20 as Protocol Pack #39.
GaduGadu	None	None	Yes	Version 10 supported as of Protocol Pack #24. Version 10.5.2.13164 supported as of Protocol Pack #30.
Google Talk	None	None	Yes	Beta version supported as of Protocol Pack #08. Support updated as of Protocol Pack #18. Support updated as of Protocol Pack #22. Support updated as of Protocol Pack #31. Supported PC Web Browser as of Protocol Pack #43.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Google+ Hangout Video	None	None	Yes	Support updated as of Protocol Pack #31. Updated support to PC (Web Browser) as of Protocol Pack #38. Updated support to Android v-1.2, iPhone v-1.2.0.3121 as of Protocol Pack #38. Supported Android-V8.0, iOS-V9.1.0 as of Protocol pack #53.
GroupMe	None	None	Yes	Supported Android v 3.9.9, iOS v 4.0 as of Protocol Pack #33. Updated support to Android v4.1.1, iOS v4.1.5 as of Protocol Pack #35.
Hike	None	None	Yes	Supported Android v2.6.0 and iOS v2.2.2, PC (Web Browser) as of Protocol Pack #38. Supported Hike Messenger for Android v3.1.0, iOS v2.5.2 as of Protocol Pack #43.
Hike Message Counting	None	None	Yes	Supported Android v3.6.0, iOS v3.1.0 as of Protocol Pack #45.
ICQ	None	None	Yes	ICQ Version 5.1 supported as of Protocol Pack #05. ICQ IM Mobile Android v4.0.0135, iPhone v4.0 and PC v 7M support updated as of Protocol Pack #32.
IRC	194	194	Yes	—
Jabber	5223	None	Yes	Supported as of Protocol Pack #05. Supported as of Protocol Pack #29 (IPv6 support). Support updated as of Protocol Pack #31(SSL support for both IPV4 and IPV6).
Jott Messenger	None	None	Yes	Supported Android- V1.0.25 and iOS1.7.8 as of Protocol Pack #50.
Joyn	None	None	Yes	Supported Android v9.85-b8731, iOS v2.4.9 as of Protocol Pack #43.
Kakao Talk Message Count	None	None	Yes	Supported Android v4.6.6, iOS v4.3.2 as of Protocol Pack #44.
Kik Messenger	None	None	Yes	Supported Android- V 9.2.0.3916 as of Protocol pack #51.
LINE (Browsing)	None	None	No	Supported PC v3.6.0.34 as of Protocol Pack #42. Supported PC Android v4.6.1, iOS v4.5.1, Windows v3.7.2.468 as of Protocol Pack #43. Supported PC-V4.0.3.369, Android-V5.2.3, iOS-V5.2.0 as of Protocol Pack #48.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
LINE File Transfer	None	None	Yes	Supported PC v3.6.0.34 as of Protocol Pack #42. Supported PC-V4.0.3.369, Android-V5.2.3, iOS-V5.2.0 as of Protocol Pack #48.
LINE MESSENGER	None	None	Yes	Supported as of Protocol Pack #30.
LINE Message Count	None	None	Yes	Supported Android v4.7.1, iOS v4.7.2 as of Protocol Pack #44.
Linphone	None	None	Yes	Supported Android- V2.5.1 and iOS-V2.3 as of Protocol Pack #50.
Mail.ru Chat and Voice Video	None	None	Yes	Supported PC v6.1 as of Protocol Pack #35. Updated support to PC v6.1 as of Protocol Pack #37.
MessageMe	None	None	Yes	Supported Android v1.5.2, iOS v1.6 as of Protocol Pack #38.
MSN Messenger v 15.4	1863	1863	Yes	Windows Live Messenger (MSN) v8.1 – as of 2.5.10/3.0.6/3.1.0 with Protocol Pack #09. MSN VoIP support updated for MSN Messenger v14.0 as of Protocol Pack #22. For further information on how to effectively control MSN VoIP traffic, see <a href="#">MSN VoIP Traffic Blocking, page 5-7</a> . Supported as of Protocol Pack #26.
My Jabber	None	None	Yes	myJabber v1.0 supported as of 3.0.6/3.1.0/3.1.1 with Protocol Pack #11.
mychat	None	None	Yes	Supported Android v1.4, iOS v2.1.0, Windows Phone v.1.0.0.36 as of Protocol Pack #43.
ooVoo	None	None	Yes	As of PP #22, the version of ooVoo supported is 2.6.0.20. ooVoo v3.0.1.46 support Updated as of Protocol Pack #27.
QQ	None	None	Yes	QQ-2006 Beta 3, QQ-2005 (English version). Supported as of Protocol Pack #07. Updated support to PC v1.6 as of Protocol Pack #35. Updated support to Android v4.2.1.1575 as of Protocol Pack #37.
Quora	None	None	Yes	Supported PC browser, Android :2.3.6,Iphone :4.5.0,Windows:1.2.0.0 as of Protocol Pack #54

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Snapchat	None	None	Yes	Supported iOS v4.0.3 as of Protocol Pack #34. Supported Android v5.0.5, iOS v7.0.1 as of Protocol Pack #42. Supported Android-V9.8.0.0 and iOS-V9.8.0.1 as of Protocol Pack #48.
Slack	None	None	Yes	Supported Android-V2.02,iOS-V2.05 as of Protocol Pack #49.
Smule	None	None	Yes	Supported Android v3.5.4, iOS v4.5.3 as of Protocol Pack #52.
Talkray	None	None	Yes	Supported Android v 1.8 and iOS v 1.3 as of Protocol Pack #34.
Tapatalk	None	None	Yes	Supported Android v5.6.1, iOS v5.5.1, Windows v1.2.1 as of Protocol Pack #52.
Textsecure	None	None	Yes	Supported Android- V2.28.1 and iOS-V2.1.3 as of Protocol Pack #50.
Threema	None	None	Yes	Supported Android-2.8,iOS-V2.7.2, windows-V1.5 as of Protocol pack#54
Tinychat	NA	NA	Yes	Supported Android-V5.8.2,iOS-V5.8, PC (Web Browser) as of Protocol Pack #51.
Twitter	None	None	Yes	Supported Android v3.4.0, iOS v 5.3.1, and PC (Web Browser) as of Protocol Pack #34. Supported Android Version varies with devices, iOS v6.1.0, and PC Web Browser as of Protocol Pack #43. Supported Android Version v5.52.0, iOS v6.25.1, and PC Web Browser as of Protocol Pack #47. Support Android-5.91.0,iOS-V6.44, PC-Web Browser as of Protocol Pack #51.
UC	None	None	Yes	—
Untappd	None	None	Yes	Supported Android-V2.7.6, iOS-V2.5.9. Windows V2.0.4 as of ProtocolPack#54
Wickr	None	None	Yes	Supported Android-V2.6.4.1,iOS-2.6.4V,Windows-V2.6.0.4 as of Protocol Pack #54
Wikipedia	None	None	Yes	Supported Android-V2.3.152-R-2016-08, iOS-5.2.1, PC [Web Browser] as of Protocol Pack #55.
Yahoo General Login	None	None	Yes	Supported as of Protocol Pack #17.
Yahoo Messenger	5000-5001	5000-5001	Yes	V8.1.0 supported as of Protocol Pack #10.
Yikyak	None	None	Yes	Supported Android –V2.6.1and iOS-V2.6.1 as of Protocol Pack #48.



**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
WhatsApp v2.6.5320	None	None	Yes	Supported as of Protocol Pack #26. Support updated for versions beyond v2.6.5320 as of Protocol Pack #27. Support updated for versions beyond v2.6.x,v2.7.x as of Protocol Pack #28. Support updated for versions beyond v2.8.x as of Protocol Pack #30. Support updated for Android v2.11.109, iOS v2.11.4 as of Protocol Pack #38. Support updated for Android v-2.12.367, iOS v-2.12.13 as of Protocol Pack #51.
WhatsApp Message Count	None	None	Yes	Supported Android v2.11.198, iOS v2.11.14 as of Protocol Pack #45. Supported iOS-V2.12.15, Android 2.12.5.10 as of Protocol Pack #52.
WhatsApp Voice	None	None	Yes	Supported Android v2.12.5, iOS v2.12.2 as of Protocol Pack #47.
Uptalk	None	None	Yes	Supported Android (2.1.1), iPhone(2.8.1), Windows(1.2.0.3) as of Protocol Pack #50.
Yahoo Livetext	None	None	Yes	Supported Android- V1.0.1523 and iOS-V1.0.2 as or Protocol Pack #49.
iMessage	None	None	Yes	Supported as of Protocol Pack #27. Support updated as of Protocol Pack #32. Support updated as of Protocol Pack #33. Support updated to iOS v6.1.3 as of Protocol Pack #36. Supported attachments as of Protocol Pack #45. Support updated message counting feature as of Protocol Pack #45.
Hyves	None	None	Yes	Supported as of Protocol Pack #28.
<b>Gaming</b>				
Anarchy	7013, 7500-7501	7013, 7500-7501	—	—
Ashérons Call	9000 - 9013	9000 - 9013	—	—
Black And White	2611 - 2612	—	—	—
Call of Duty	—	28960-28965	Yes	Supported as of Protocol Pack #18. New Signature of Call of Duty 2 for Xbox added as of Protocol Pack #22.
Call of Duty-Black Ops	None	None	Yes	Support updated as part of Protocol Pack #27.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Candy Crush Saga	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #41.
MT4	None	None	Yes	Supported MT4 as of Protocol Pack #52.
Counter strike	27020-27039	1200, 27000-27014	—	Support updated and based on Quake3 Gaming Server as of Protocol Pack #18.
Champions Online	None	None	Yes	Support updated as part of Protocol Pack #27.
Dark Reign	26214	26214	—	—
Delta Force	3100, 3999	3100, 3999, 3568, 3569	—	—
Diablo	6112-6119	6112-6119	—	—
DirectPlay	2234	2234	—	—
DirectPlay8	6073	6073	—	—
Doom	666	666	—	—
Dota2	None	None	—	Supports Game and patch updated on 20th February 2014 as of Protocol Pack #40.
Elite Force	—	26000, 27500	—	Support updated and based on Quake3 Gaming Server as of Protocol Pack #18.
F16	—	3862, 3863	—	—
F22 Simulator (lightning 3)	—	3874-3875, 4533, 4534	—	—
Final Fantasy	None	None	Yes	Supported PC v-xiv (patch 2.1) as of Protocol Pack #39.
Game-Search	29001	—	—	—
Game Center	None	None	Yes	Supported as of Protocol Pack #32.
GameSpy	6500, 28900, 29000	6515, 27900	—	—
Guild Wars 2	None	None	Yes	Supported as of Protocol Pack #32.
Half-Life	—	27015	—	—
HALO5	None	None	Yes	Supported Halo for Xboxone Halo5 as of Protocol Pack #51.
Heretic2	28910	—	—	—
Hexen	—	26900	—	—
Kali	2213	2213	—	—
Kingpin	31510	31510	—	—
Knight Online	None	None	Yes	Supported PC v2004 as of Protocol Pack #39.
Kohan Immortal Sovereigns	3855,17437	3855,17437	—	—
League of Legends	—	—	Yes	Support PC as of Protocol Pack #39.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Maple Story	None	None	Yes	Supported as of Protocol Pack #18. Updated as of Protocol Pack #23.
Minecraft-Gaming	None	None	Yes	Classic and Beta v1.6.6 supported as of Protocol Pack #25.
Motorhead	16000, 16010 - 16030	16000, 16010 – 16030	—	—
Myth	3453	3453	—	—
Need For Speed	9442	9442	—	—
Need For Speed 3	1030	1030	—	—
Onlive	None	None	Yes	Supported PC v1.1.0.54514 as of Protocol Pack #37.
Operation Flash Point	47624, 6073	6073	—	—
Origin	5222	None	Yes	Supported as of Protocol Pack #31.
Outlaws	5310	5310	—	—
Parsec-Game	6582	6582	—	—
PS2	10070-10080	10070	—	—
Play Station 4	None	None	Yes	Supported Play Station 4 as of Protocol Pack #41.
Quake3 Gaming Server	None	None	Yes	Supported as of Protocol Pack #18.
Quake-Server	27960	27910,27960	—	—
Rainbox six	2346	2346	—	—
RuneScape	43594	—	—	—
SD Gundam Capsule Fighter Online	None	None	Yes	Supported as of Protocol Pack #28.
Second Life	None	None	Yes	Supported as of Protocol Pack #12.
SilkRoad (Game)	—	—	Yes	Supported PC v1.403 as of Protocol Pack #39.
Soldier of fortune	—	28910 - 28915	—	Support updated and based on Quake3 Gaming Server as of Protocol Pack #18.
Spiral Knight	None	None	Yes	Supported as of Protocol Pack #26.
Starcraft2-Gaming	None	None	Yes	Wings of Liberty supported as of Protocol Pack #25. Supported PC (Standalone) as of Protocol Pack #41.
Starsiege	—	29001-29009	—	—
Starwars Jedi Knight	—	28070-28081 28060-28062	—	Support updated and based on Quake3 Gaming Server as of Protocol Pack #18.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Steam	None	None	Yes	Supported as of Protocol Pack #19. Steam support updated as of Protocol Pack #27.
Street Fighter	None	None	Yes	StreetFighter IV supported for Playstation as of Protocol Pack #20.
Supercell - Clash of Clans	None	None	Yes	Supported as of Protocol Pack #41 Android-V6.56.1, iOS V6.56.1. Supported Android V2.3.12.22 and iOS-4.2.4 as of Protocol Pack #53.
Swat3	16639	16638	—	—
Team Fortress 2	None	None	Yes	Support updated as part of Protocol Pack #27.
Titan-Fall	None	None	Yes	Supported PC v1.0.2.15 as of Protocol Pack #41.
Tribes	28001	28001	—	—
Ubisoft Uplay	None	None	Yes	Supported PC (standalone and Web Browser) as of Protocol Pack #39.
Ultima	5002-5010, 7775-7777, 8888, 9999, 8800-8900 7875	—	—	—
Warcraft	3724	3724	—	—
Warcraft 3	None	None	Yes	Support updated as part of Protocol Pack #27.
Westwood online	1140, 1234	1140, 1234	—	—
Wolfenstein Enemy Territory	—	27960	—	Support updated and based on Quake3 Gaming Server as of Protocol Pack #18.
Wow-Gaming	None	None	Yes	Supported as of Protocol Pack #23. Updated as of Protocol Pack #24. v4.2 updated as of Protocol Pack #25. Updated support to PC v5.1.0 as of Protocol Pack #34.
XBOX Live	3074	3074	—	—
Xbox One	NA	NA	Yes	Supported as of Protocol Pack #39. Supported as of Protocol Pack #49.
Yahoo Games	11999	—	—	—
Znes	—	7845	—	—
<b>WEB</b>				
31SMS v3.0	None	None	No	Classification is supported as of Protocol Pack #26.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Ameba.jp	None	None	Yes	Classification is supported as of Protocol Pack #41. Supports PC (Web Browser), Android v3.9.1, and iOS v5.7.0.
AsianTown	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Audio over HTTP	—	—	Yes	Supported as of Protocol Pack #08. See <a href="#">General Information</a> for additional information.
Bebo	None	None	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Updated iOS v 1.2.2 as of Protocol Pack #33.
Binary over HTTP	—	—	Yes	Supported as of Protocol Pack #08. See <a href="#">General Information</a> for additional information. Supported as of Protocol Pack #27(IPv6 support).
BlackPlanet	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Supported PC (Web Browser), Android-V1.0.10, iOS-V2.2.1 as of Protocol Pack #46.
Bubbly	—	—	Yes	Support Android-V4.3.4, iOS-V4.2, PC (Web Browser) as of Protocol Pack #51.
CafeMom	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Classmates	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Supported as of Protocol Pack #27(IPv6 support).
Download over HTTP	None	None	None	Supported as of Protocol Pack #28(IPv6 support).
Download over NNTP	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Facebook	No	No	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Supported as of Protocol Pack #27(IPv6 support).
Facebook Over HTTPS	None	None	Yes	Supported as of Protocol Pack #33. Zone supported on Android, iOS, and PC as of Protocol Pack #38.
Facebook_SPDY	None	None	Yes	Supported as of Protocol Pack #44.
Flixter	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Flickr	80	None	None	Classification is supported using HTTP flavors. Supported as of Protocol Pack #29. Updated support to Android v 1.5.1 and iOS v 2.10.803 as of Protocol Pack#34.
FourSquare	No	No	Yes	Supported Android v 3.0, iOS v 4.0 as of Protocol Pack #33. Updated support to Android v2013.05.23, iOS v6.2 as of Protocol Pack #35.
Friendster	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
FriIp	No	No	Yes	Supported PC (Web Browser) as of Protocol Pack #51.
Fubar	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Google Generic	—	—	Yes	Supported as of Protocol Pack #53. Supported as of Protocol Pack #54.
Google Plus	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #43.
Google Search	None	None	Yes	Supported for PC (Web Browser), Mobile (Web Browser) and Standalone as of Protocol Pack #42.
Google_SPDY	None	None	Yes	Supported as of Protocol Pack #44.
Hi5	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
HTTP Browsing	80, 8080	—	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Updated support as of 3.5.5 and later with Protocol Pack #22. Supported as of Protocol Pack #27(IPv6 support).
HTTP POST	None	None	Yes	Supported as of Protocol Pack #35.
HTTPS	443	—	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Imgur	—	—	Yes	Supported Android v1.3.0, iOS v1.2.3, and PC (Web Browser) as of Protocol Pack #39.
Keek	—	—	Yes	Supported Android v3.0.1, and iOS v4.0.1 as of Protocol Pack #39.
LinkedIn	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Updated support for Android v3.4.0, iOS v5.3.1, and PC (Web Browser) as of Protocol Pack #35 and #36.
Line Camera	—	—	Yes	Supported Android v- 4.1and iOS as of Protocol Pack #39. Supported PC-V4.0.3.369, Android -V5.2.3, iOS-V5.2.0 as of Protocol Pack #48.
LiveJournal	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Meetup	NA	NA	Yes	Supported Android-V2.9.0,iOS-V5.0.6, PC (Web Browser) as of protocol pack #51.
Microsoft Silverlight	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Mindset	NA	NA	Yes	Supported PC (Web Browser) as of Protocol Pack #51.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
MySpace	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Updated support as of 3.7.0 and later with Protocol Pack #31. Service Tree changed from Browsing to Internet Video. Updated support as Protocol Pack #32.
MyYearbook	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Ning	119	—	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
NNTP	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21. Supported as of Protocol Pack #27(IPv6 support).
Orkut	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Oupeng	None	None	Yes	Supported Android-V10.5.0 as of Protocol Pack #49.
QUIC	None	None	Yes	Supported PC (Google Chrome browser) as of Protocol Pack #48. Supported PC[Google Chrome browser] as of protocol pack #53.
SinaWeibo	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #40.
Songza	None	None	Yes	Supported PC (Web Browser), Android-V5.1.0.6,iOS-V3.3.2 as of Protocol Pack #46.
SPDY	—	—	Yes	Supported PC (Web Browser) as of Protocol Pack #39. Supported PC (Web Browser), Android, iOS as of Protocol Pack #45.
Tagged	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.



**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
TencentWeibo	None	None	Yes	Supported PC (Web Browser), Android v4.3.0, iOS v4.3.0 as of Protocol Pack #40. Supported PC (Web Browser), Android v4.4.4, iOS v4.4.4 as of Protocol Pack #43.
Tinder	None	None	Yes	Supported Android-V4.1.6 and iOS-V4.1.6 as of Protocol Pack #48.
True Caller	None	None	Yes	Supported Android-V7.07, iOS-V6.70, Windows-V5.32 PC [Web Browser] as of Protocol Pack #53.
Tuenti	None	None	Yes	Supported as of Protocol Pack #32. Updated support to Android v2.5.1 as of Protocol Pack #35. Updated support to Android v3.1.1 as of Protocol Pack #36.
Twitter_SPDY	None	None	Yes	Supported as Protocol Pack #44.
Uber	None	None	Yes	Supported iPhone-2.98.8, Android-3.73.2, Windows-3.2.6.4 as of Protocol Pack #50.
Video over HTTP	—	—	Yes	Supported as of Protocol Pack #08. See <a href="#">General Information</a> for additional information.
Vk	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #35.
WazeGPS	None	None	Yes	Supported Android v 3.5.1.4, iOS v 3.5.1.0 as of Protocol Pack #33. Updated support to Android v3.6.0.0, iOS v3.6.0.0 as of Protocol Pack #35. Updated support to Android v4.9.0.2, iOS v4.13.0, PC [Web Browser] as of Protocol Pack #55.
Xanga	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Yahoo Profiles	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Yelp	None	None	Yes	Supported Android v2.5, iPhone v3.3, PC (Web Browser) as of Protocol Pack #50.
Yuku	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.

**Streaming**

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
ABC iView	None	None	Yes	Version on top of RTMP is supported as of Protocol Pack #15.
AccuRadio	None	None	Yes	Supported PC (Web Browser), Android-V1.53, iOS-V2.15 as of Protocol Pack #46.
Apple	None	None	Yes	Supported as of Protocol Pack #31.
AppleMaps	None	None	Yes	Classification is supported using HTTP flavors. Supported as of Protocol Pack #32. Updated support for AppleMaps for iOS7 as of Protocol Pack #40.
AppleTV	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
Apple iCloud	None	None	Yes	Supported as of Protocol Pack #29. Service Tree changed from Commercial Media Distribution to Other File Sharing. Updated support as Protocol Pack #32.
Appstore	None	None	No	Supported as of Protocol Pack #34.
Amazon AppstoreDownload	None	None	Yes	Supported Android-V12.0000.803.0C_642000010 as of protocol pack #44. Supported Android-V20.0000.912.1C_650000010 as of Protocol Pack #53.
Amazon Cloud	None	None	Yes	Supported as of Protocol Pack #29.
Amazon Cloud Drive Desktop App	None	None	Yes	Supported as of Protocol Pack #31.
Amazon Instant Video	None	None	Yes	Supported PC Web Browser, iOS v2.70.8270.17 as of Protocol Pack #43. Supported Android v1.0 as of Protocol Pack #45.
ARD Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #38.
Arte Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #41.
BabelGum	None	None	Yes	Beta version supported as of Protocol Pack #14.
Baidu Appstore	None	None	Yes	Supported PC (Web Browser), Android v6.1.0 as of Protocol Pack #44.

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
BBC iPlayer	1935/80	None	Yes	Beta version on top of Kontiki is supported as of Protocol Pack #11. Beta version on top of RTMP is supported as of Protocol Pack #14. Version 3.2.13 supported as of Protocol Pack #27. Version 3.2.15 supported as of Protocol Pack #30. For details, see the “BBC iPlayer” section on <a href="#">page 5-15</a> . Updated support to PC v3.2.15 as of Protocol Pack #36. Updated support to PC v3.2.15, PC (Web Browser) as of Protocol Pack #37.
BR Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #38.
BT Sport	None	None	No	Supported Android v1.1.10, iOS v1.1.5 and PC (Web Browser) as of Protocol Pack #38.
Cablevision Veo TV	None	None	No	Supported PC (Web Browser) as of Protocol Pack #39.
CardSharing	None	None	Yes	GBox, CardSharing, CCCam, and Newcamd are supported as of Protocol Pack #22. GBox and CCCam signatures are updated as of Protocol Pack #24.
CBox	None	None	Yes	Supported Android v5.2.0 as of Protocol Pack #44.
CinepolisKlic	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #37.
Clarovideo	None	None	No	Supported PC (Web Browser) as of Protocol Pack #38.
clipfish.de	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #37.
CNN	None	None	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
Crackle	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #38. Updated Service Tree Mapping from RTM to Audio and Video over HTTP.
CU-SeeMe	None	None	Yes	Version 7.0.59.1 supported as of Protocol Pack #05.

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Dailymotion	None	None	Yes	Supported as of Protocol Pack #31. Updated as of Protocol Pack #32. Updated support to Android v3.1, iOS v3.2.3 and PC (Web Browser) as of Protocol Pack #37. Updated support to Android v9422, iOS v5.6.5, PC [Web Browser] as of Protocol Pack #55.
Deezer	None	None	No	Supported as of Protocol Pack #41. Supports Android v4.2.3.1, iOS v4.8.1, and PC (Web Browser).
Dubsmash	None	None	No	Supported Android-V1.6.3 and iOS-V1.2.8 as of Protocol Pack#49.
ESPN	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18. See <a href="#">General Information</a> for additional information.
ESPN Streaming	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #45.
EyeBeam	None	None	Yes	Supported PC v1.5 as of Protocol Pack #38.
Flash	None	None	Yes	Supported as of Protocol Pack #07. Updated Flash Over HTTP for initiate as of Protocol Pack #23. See <a href="#">General Information</a> for additional information. Supported PC (Web Browser), Android v5.7.38, iOS v2.7.1 for YouTube Audio under FlashYouTube as of Protocol Pack #42.
Flash MySpace	None	None	—	Updated Flash MySpace flavor as of Protocol Pack #31.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Flash YouTube Normal	None	None	Yes	Supported as of Protocol Pack #17. Updated as of Protocol Pack #24. Supported as of Protocol Pack #27(IPv6 support) Updated as of Protocol Pack #32 Updated support for Youtube Mobile as of Protocol Pack #35 Updated PC[Web Browser], Android-V5.3.32,iOS-V2.2.0.10 Supported as of PotocolPack#40 Supported PC[Web Browser], Android-V11.19.56,iOS-V11.21, winows-V3.2.0.0 as of Protocol Pack #54
Flash YouTube HD	None	None	Yes	Supported as of Protocol Pack #17. Support enhanced and include YouTube Shows as of Protocol Pack #18. Supported as of Protocol Pack #27(IPv6 support). Updated support for PC (Web Browser), Android v5.3.32 and iOS v2.2.0.10 as of Protocol Pack #40. Supported PC[Web Browser], Android-V11.19.56,iOS-V11.21, winows-V3.2.0.0 as of Protocol Pack #54.
Flash YouTube HQ	None	None	Yes	Supported as of Protocol Pack #18. Updated support for PC (Web Browser), Android v5.3.32 and iOS v2.2.0.10 as of Protocol Pack #40. Supported PC[Web Browser], Android-V11.19.56,iOS-V11.21, winows-V3.2.0.0 as of Protocol Pack #54.
Fox News	None	None	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
FoxTube	None	None	Yes	Supported iOS v2.4.0 and v3.3.0, iPad v2.3.9, v3.2.2 as of Protocol Pack #42.
Funshion	None	None	Yes	Version 2.3.0.25 supported as of Protocol Pack #24.
Globo	None	None	No	Supported PC (Web Browser) as of Protocol Pack #37. Supported PC (Web Browser) as of Protocol Pack #55.

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
GoogleEarth	None	None	Yes	Version 3.0.0762 supported as of Protocol Pack #05. v7.0.1.8244 for PC, v7.0.0000.7455 for iPhone updated as of Protocol Pack#32. Updated support for SSL flows and PC v7.1.3 as of Protocol Pack #40.
GoogleMaps	None	None	Yes	Version iOS 5.1.1 Supported as of Protocol Pack #32 Updated iOS v 5.1.1 as of Protocol Pack #33. Updated iOS v2.2.0 and PC (Web Browser) as of Protocol Pack #37.
Google Play Movies	None	None	No	Supported Android v3.0.29 as of Protocol Pack #41.
GooglePlayMusic	None	None	Yes	Supported Android- V7.0.4007-1.J34890099, iOS-V7.0.4007-1.J,PC [Web Browser] as of Protocol Pack #55.
GrooveShark	None	None	Yes	Supported PC (Web Browser), Android-V1.0 as of Protocol Pack #46.
Gyao	None	None	No	Classification is obtained by setting appropriate RTSP & HTTP flavors manually as explained in Protocol Pack documentation. Supported as of 3.0.6/3.1.0/3.1.1 with Protocol Pack #11.
HBO Streaming	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #45.
HyppTV	None	None	Yes	Supported as of Protocol Pack #16.
iHear Radio	None	None	Yes	Supported PC (Web Browser) Android v5.0.7, iOS v7.1.0
iOS Update	None	None	No	Supported iOS v7.1 as of Protocol Pack #41.
iQIYI- TV Box Application	None	None	Yes	Supported Android v3.4.24.14106 as of Protocol Pack #42. Supported Android v5.5, iOS v5.4 as of Protocol Pack #43.
iTube	None	None	Yes	Supported iOS v1.1 as of Protocol Pack #42.
iTunes	None	None	Yes	Supported as of Protocol Pack #16.
iTunes Radio	None	None	Yes	Supported iOS v7 as of Protocol Pack #41. Supported iOS v8 as of Protocol Pack #45.
ITV Player	None	None	Yes	Supported PC Web Browser, Android Version varies with devices, iOS v3.5.1 as of Protocol Pack #43.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Ivi	None	None	No	Supported Android v3.19, iOS v2.11 and PC (Web Browser) as of Protocol Pack #36.
KSVOD4TV	None	None	No	Supported Android v2.9.28-2.2 as of Protocol Pack #45.
KonTiki Download	—	—	Yes	Starting with Protocol Pack #04.
Last FM	None	None	No	Supported Android v2.9.28-2.2 as of Protocol Pack #52.
LeTV	None	None	Yes	Supported Android v2.0 as of Protocol Pack #43.
Livestream	None	None	Yes	Supported Android-V3.1.13 and iOS-V3.8.11 and PC (Web Browser) as of Protocol Pack#49.
Love Film	None	None	Yes	Classification is supported using HTTP flavors. Supported as of Protocol Pack #29. Updated support for PC (Web Browser) as of Protocol Pack #37.
MacAppStore	None	None	Yes	Supported Mac Devices as a part of Protocol Pack #42.
Maxdome.de	None	None	No	Supported PC (Web Browser) as of Protocol Pack #37.
Meerkatapp	None	None	Yes	Supported iOS v1.2.1 as of Protocol Pack #47.
MetaCafe	—	—		Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18. Updated support to PC (Web Browser) as of Protocol Pack #34.
Microsoft MMS	—	—	Yes	—
MLB	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
More TV	None	None	Yes	Supported Android v2.5.1 as of Protocol Pack #47.
Movie City	None	None	No	Supported iOS v1.6.1 and PC (Web Browser) as of Protocol Pack #38.
MSN	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
MyVideo	None	None	Yes	Capture based classification is supported as of Protocol Pack #34.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
MyVideo.de	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #40. Updated PC (Web Browser) as of Protocol Pack #41.
NBA	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
NDR Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #40.
NetFlix	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18. HTTP Flavor and Signature-based support is provided as of Protocol Pack #23. HTTP Flavor updated as of Protocol Pack #24. HTTP Flavor and Signature based support is provided as of Protocol Pack #25. Updated support to NetFlix as of Protocol Pack #35. Updated support to Android v2.3.2, iOS v4.1, PC (Web Browser) as of Protocol Pack #36. Updated support for PC (Web Browser), Android v3.3.2, iOS v5.3.1 as of Protocol Pack #42. Supported Android v4.3.0, iOS v8.0.2, PC (Web Browser) as of Protocol Pack #52.
NexTV	None	None	Yes	Supported as of Protocol Pack #25.
NicoVideo	80	None	Yes	Supported as of Protocol Pack #27.
NBC Olympics	None	None	Yes	Supported PC (Web Browser), Android v1.0.5(8), iOS v1.0.13 (1.0.13) as of Protocol Pack #42.
Nimbuzz	None	None	Yes	Supported Android v2.3.0, iOS v3.1.0 and PC v2.3.1 as of Protocol Pack #36.
NowTV	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #37.
Nubeox	None	None	No	Supported PC (Web Browser) as of Protocol Pack #37.
Odnoklassniki	None	None	No	Supported Android v3.3.3, iOS v3.8.2 and PC (Web Browser) as of Protocol Pack #36.



**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
PandoraOne	None	None	Yes	Supported on releases 3.6.0 and 3.6.1 as of Protocol Pack #23. Updated support to iPhone v5.2.1, Android v5.2, PC (Web Browser), PC (Standalone) v2.0.8 as of Protocol Pack #41.
Periscope	None	None	Yes	Supported android-V1.0.1 and iOS-V1.1.1 as of Protocol Pack #48.
Popcornflix	None	None	No	Supported iPhone-10.5.0,Android-7.10.1and PC (Web Browser) as of Protocol Pack #50.
Prosieben	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #42.
QQ-Live	None	None	Yes	Versions: 2.1, 2.3 (English version). Supported as of Protocol Pack #07.
Qvod v5.0.81	None	None	Yes	Supported as of Protocol Pack #27. Updated support to PC v5.8.130 as of Protocol Pack #35.
QQVideo	None	None	No	Supported PC (Web Browser) as of Protocol Pack #33.
Radio Paradise	None	None	Yes	Supported PC (Web Browser), Android-V3.1.6, iOS-V2.5.1 as of Protocol Pack#46.
RayV	None	None	Yes	—
Rdio	None	None	Yes	Supported PC (Web Browser), Android v3.0.1.65, iOS v3.0.1.65. Supported as of Protocol Pack #45.
Rhapsody	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #46.
RTL Now	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #38.
RTMP	None	None	Yes	Supported as of Protocol Pack #14. RTMPS and RTMPE supported as of Protocol Pack #20. RTMPE signature updated as of Protocol Pack#23. RTMP and RTMPS classification strengthened (as a work around to Video over HTTPS) as part of Protocol Pack #27. RTMPE (Encrypted Joost & iTV traffic) as Protocol Pack#28. Supported as of Protocol Pack #29 (IPv6 support). RTMPT Supported as of Protocol Pack #30 (IPv6 support).

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
RTP	None	None	Yes	Supported as of Protocol Pack #21. Supported as of Protocol Pack #29 (IPv6 support).
RTSP Streaming	554, 1554, 7070	—	Yes	—
RuTube	—	—	—	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18.
Saavn	None	None	Yes	Supported as of Protocol Pack #31.
SAT1 Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #40.
Satellite Direct	None	None	Yes	Supported PC v8.8.0.9 as of Protocol Pack #36.
SCTP	None	None	Yes	Supported as of Protocol Pack #44.
sevenload.com	None	None	No	Supported PC (Web Browser) as of Protocol Pack #37.
Shoutcast	None	None	Yes	Mapped to HTTP Streaming. Supported iOS v1.4.2, PC (Web Browser) as of Protocol Pack #35.
Showmax	None	None	Yes	Supported Android- V1.1.15.7 and iOS-1.15(27) and PC (Web browser) as of Protocol Pack #50.
SinaTV	None	None	No	Supported PC (Web Browser) as of Protocol Pack #33. Updated support for PC (Web Browser) as of Protocol Pack #37.
Sina Video	None	None	No	Classification is supported using HTTP flavors. Supported as of 3.5.5 and later with Protocol Pack #21.
Sky Go	None	None	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.0 with Protocol Pack #17. Supported as of Protocol Pack #26. Updated as of Protocol Pack#32.
SkyStoreUK	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #44.
SlingBox	None	None	Yes	SlingPlayer 1.0.5.140 supported as of Protocol Pack #05.
Slacker Radio	None	None	Yes	Supported as of Protocol Pack #30. Supported PC (Web Browser), Android v5.0.4428, iOS v6.0.79 as of Protocol Pack #45.
SocialCam	None	None	Yes	Supported Android v 2.1.5, iOS v 5.1 and PC (Web Browser) as of Protocol Pack #34.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Sohu TV	None	None	Yes	Supported Android v4.3.2, iOS v4.3.1, Windows Phone v4.3.2 as of Protocol Pack #43.
Spotify	80	None	None	Supported as of Protocol Pack #27. Supported PC (Web Browser), Android v 0.9.15.27, iOS v2.2.0 as of Protocol Pack #45. Supported Android 5.4.0.858,iPhone 5.7.0 as of Protocol Pack #54.
STAN	None	None	Yes	Supported Android-V2.4.1, iOS-V1.6.3, PC (Web Browser) as of Protocol Pack #55.
StromMedia	None	None	Yes	Updated Support to Player on PC as of Protocol Pack #37.
SVTPlay	None	None	Yes	Supported as of Protocol Pack #23.
Teredo	None	None	Yes	Supported as of Protocol Pack #29.
TencentAppGemDownload	None	None	Yes	Supported Android v5.0.0 as of Protocol Pack #44.
Tivibu	None	None	Yes	Supported PC v4.10.0, Android v1.9, and iOS v1.8 as of Protocol Pack #40.
Togic TV	None	None	No	Supported Android v2.8.2 as of Protocol Pack #43.
TotalMovie	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #36.
TTNET Muzik	None	None	Yes	Supported Android v3.0.5, and iOS v3.1 as of Protocol Pack # 40.
Tudou	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #29. Supported Android v4.1.0, iOS v4.1.0 as of Protocol Pack #42.
TuneIn Radio	—	—	Yes	Supported PC (Web Browser) as of Protocol Pack #39.
TVAnts	None	None	Yes	Supported as of Protocol Pack #06.
Twitch tv	None	None	Yes	Supported PC (Web Browser), Android v2.7.2, iOS v3.0.4 as of Protocol Pack #42.
Ustream	None	None	Yes	Supported as of Protocol Pack #23.
Vagaa	—	—	Yes	Supported as of 3.1.5, 3.1.6, 3.1.6S, 3.1.7, and 3.5.0 Protocol Pack #16.
VGTV and VGDiekte	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #43.
Viddy	None	None	Yes	Supported PC (Web Browser), Android v1.3.1, iOS v1.9.7 as of Protocol Pack #33. Updated Support to Android v1.3.2, iOS v2.6.2, PC (Web Browser) as of Protocol Pack #38.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Vine	None	None	Yes	Supported Android-V3.3.05, iOS-V3.7.1 and PC (Web Browser) as of Protocol Pack#49.
VST	None	None	No	Supported Android v2.1.0 as of Protocol Pack #44.
Vuclip	None	None	No	Supported as of Protocol Pack #32.
Vudu	None	None	No	Support PC (Web Browser) as of Protocol Pack #37.
Vimeo	None	None	Yes	Classification is supported using HTTP flavors. Supported as of 3.5.0 and later with Protocol Pack #18. Updated support for Android v1.1.41, iOS v3.0.1 PC (Web Browser) as of Protocol Pack #36.
Wandoujia Android Appstore	None	None	Yes	Supported PC (Web Browser), Android v3.14.2 as of Protocol Pack #44.
Wanhuatong	None	None	No	Supported Android v1.0520 as of Protocol Pack #47.
watchitoo	None	None	Yes	Supported as of Protocol Pack #33. Updated Supported PC (Web Browser) and protocol mapped under Video Conference as of Protocol Pack #37.
Watchever	None	None	Yes	Supported PC Web Browser as of Protocol Pack #43.
WDR-Mediatheken	None	None	No	Supported PC (Web Browser) as of Protocol Pack #37.
Webrtc-Firefox Hello	None	None	Yes	Supported PC (Web Browser)- Firefox 36 as of Protocol Pack #47.
Yahoo Screen	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #39.
Youku	None	None	Yes	Supported as of Protocol Pack #25.
Yuzu	None	None	No	Supported as of Protocol Pack #38.
Waukitv	None	None	Yes	Supported PC (Web Browser), Android v2.0, and iOS v2.0 as of Protocol Pack #40.
Windows Store[App Download]	None	None	Yes	Supported PC (Web Browser), Windows 8.1 OS, Mobile (Web Browser), Windows 8 as of Protocol Pack #41. Supported PC v8.1, Windows Phone v8.0 as of Protocol Pack #44.
Xbox_Video/Browsing	None	None	Yes	Supported PC (Web Browser) application on Windows 8 as of Protocol Pack #41.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Xunlei Kankan	None	None	Yes	Supported Android [Thunderlook v3.7.01], cloudplay [Thunder video] v3.1.1.1, iThunder v4.1.2.2350, iOS [Thunderlook v3.9.1.341] cloudplay [Thundervideo] v3.1.1.1, iThunder v4.0.1.1077 as of Protocol Pack #44.
YouTube Https	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #41.
ZDF Mediathek	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #40.
<b>Email</b>				
BIFF	—	512	—	—
DAUM	None	None	Yes	Supported as of Protocol Pack #24.
Gmail	None	None	Yes	Supported as of Protocol Pack #15. Gmail Mobile Updated as of Protocol Pack #32.
Hotmail (Outlook)	None	None	Yes	Supported PC (Web Browser), Android v 4.8.4, iOS v3.2.16 as of Protocol Pack #47.
IMAP	143	143	Yes	Supported as of Protocol Pack #29 (IPv6 Signature and port based classification support).
IMAP3	220	220	—	—
IMAP4-SSL	585	585	—	—
IMAPS	993	993	—	SSL signature-based classification supported as of Protocol Pack #19 (V3.5.0 and later only). Supported as of Protocol Pack #29 (IPv6 Port based classification support).
Lotus Domino	None	None	—	Supported with the Protocol Pack #28.
MS Exchange	None	None	Yes	Supported as of Protocol Pack #21. Supported as of Protocol Pack #27(IPv6).
MS Push Mail	None	None	Yes	Windows 5.0 mobile device – as of 2.5.10/3.0.6/3.1.0 with Protocol Pack #09.
My_Com-MyMail	None	None	Yes	Supported Android v2.0.3.6634, iOS v2.0.1 as of Protocol Pack #42.
POP2	109	109	—	—
POP3	110	—	Yes	Supported as of Protocol Pack #27(IPv6).
POP3S	995	995	—	SSL signature-based classification supported as of Protocol Pack #19 (V3.5.0 and later only).
SMTP	25	—	Yes	Supported as of Protocol Pack #27(IPv6).
Yahoo Mail	None	None	Yes	Supported PC (Web Browser), Android v 3.1, iOS v2.3.67 as of Protocol Pack #47.

**Content Delivery Networks**

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Akamai	—	—	Yes	Supported Android, iOS, and PC as of Protocol Pack #39.
<b>File Transfer</b>				
Adobe Reader Cloud	None	None	Yes	Supported PC ver XI, Android v 10.4, iOS v10.4 as of Protocol Pack #33. Supported PCver XI as of Protocol Pack#45.
Android Market v3.5.19	None	None	Yes	Supported as of Protocol Pack #29. Renamed Android Market to Google play Updated support as Protocol Pack #32.
Appstore	None	None	Yes	Supported as of Protocol Pack #30. Updated Support for iOS as of Protocol Pack #39.
Aptoide Appstore	None	None	Yes	Supported V7.1.0.7 as of Protocol Pack #53.
Badongo	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
BFT	152	152	—	—
Bitshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Box.net	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Box.com	None	None	Yes	Supported as of Protocol Pack #32.
CloudMe	None	None	None	Supported PC v 1.5.9, Android v 1.5.9, iOS v 1.5.3 as of Protocol Pack #33.
DepositFiles	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23. Updated as part of Protocol Pack #29.
Divshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
Easyshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.
Enterupload	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Extabit	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
FileFactory	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
FileDen	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.
Filesonic	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Fileserve	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Freakshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.
FTP	21	—	Yes	Signature updated as of Protocol Pack #23. Supported as of Protocol Pack #27(IPv6 support).
FTP-Agent	574	574	—	—
FTP-Data	20	20	Yes	—
Furknet	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
GigaSize	80	None	Yes	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.
GoogleDrive	None	None	Yes	Supported as of Protocol Pack #30. Supported Android-V2.4.181.13.35, iOS-V4.8.1 as of Protocol Pack #53.
GoogleGoggles	None	None	Yes	Supported as of Protocol Pack #30.
Hopster	None	None	Yes	Release 17 supported as of Protocol Pack #05.
HotFile	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
HootSuite	None	None	Yes	Supported Android v 2.1.5, iOS v 2.4.13 as of Protocol Pack #34.
HTTP Tunnel	None	None	Yes	—
Hulkshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Instagram	None	None	Yes	Supported as of Protocol Pack #31.  Updated for Android v 3.4.1, iOS v 3.4.2 as of Protocol Pack #33.  Updated for Android v4.1.2, iOS v4.1.2 as of Protocol Pack #38.
LetitBit	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
LimeLinx	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
MediaFire	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23. Updated as of Protocol Pack #29. Updated support to Android v1.12.0, Android v4.0.5, iOS v1.6.1, iOS v4.0.3 and PC (Web Browser) as of Protocol Pack #35.
Megashares	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
MegaUpload	80	None	No	Classification is supported using HTTP flavors. Supported as of 3.5.0 with Protocol Pack #16.
MFTP	349	349	—	—
Netload	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
NI-FTP	47	47	—	—
Microsoft One-Drive	None	None	Yes	Supported Android v2.0.1, iOS v4.1, PC (Web Browser), Windows 8.1 (Standalone), Mobile v3.6 as of Protocol Pack #41.
Opera Mobile	None	None	Yes	Supported as of Protocol Pack #30.
Oron	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Plunder	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Putlo	None	None	Yes	Supported iOS v 1.02 as of Protocol Pack #33.
RapidShare	80	None	No	Classification is supported using HTTP flavors. Supported as of 3.5.0 with Protocol Pack #16. Supported as of Protocol Pack #33.
RPC	469	469	—	—
SendSpace	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
Sharebeast	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Shareflare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
SFTP	115	115	—	—



**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
SoundCloud	None	None	Yes	Supported PC (Web Browser), Android v 14.12.18-43, iOS v3.6.0 as of Protocol Pack #45.
SpeedyShare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23. Support updated with the Protocol Pack #27. Supported as of Protocol Pack #27(IPv6 support). Supported as of Protocol Pack #28. Updated signature supported as of Protocol Pack #30 (IPv6 support).
SSDP	None	—	Yes	—
SUNRPC	111	111	—	—
Sugarsync	None	None	No	Supported as of Protocol Pack #32.
TFTP	69	69	—	Supported as of Protocol Pack #27(IPv6 support).
Turbobit	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Ubuntuone	None	None	Yes	Supported as of Protocol Pack #31.
Uploaded2	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23. Updated as part of Protocol Pack #29.
Uploading	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
Usershare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
Upload Station	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Vipfile	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Wupload	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #27.
Wuploadupload	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #29.
Wuploaddownload	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #29.
Ziddu	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Zippyshare	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #24.
Zshare-Net	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
2shared	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
4shared	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #23.
<b>Terminal Access</b>				
Logmein Ignition	None	None	Yes	Supported as of Protocol Pack #31.
Remote Desktop Connection	None	None	Yes	Updated support to PC v8.0 as of Protocol Pack #35.
RTELNET	107	107	—	—
SSH	22	22	Yes	Signature-based support is provided as of Protocol Pack #24. Supported as of Protocol Pack #29 (IPv6 support).
Team Viewer v9	None	None	Yes	Supported as of Protocol Pack #26. Updated support for classification of SSL and TCP non-established flow for Team Viewer v9, PC v9.0.26297, Android v9.0.1555, and iOS v8.0.10465 as of Protocol Pack #40.
TELNET	23	23	Yes	Supported as of Protocol Pack #27 (L7 signature based). Supported as of Protocol Pack #28(IPv6 support).
TELNETS	992	992	—	—
VNC	None	None	Yes	Supported as of Protocol Pack #32.
<b>Trading</b>				
eBay	None	None	Yes	Supported Android v 2.1.1.0, iOS v 2.7 as of Protocol Pack #33.
<b>Multi-Thread</b>				
Thunder	None	None	Yes	Version 5.5 supported as of Protocol Pack #07.
<b>Mobile</b>				
Mobile MMS	None	None	Yes	—
Olive Phone	None	None	Yes	Supported with the Protocol Pack #26.
PTT Winphoria	None	None	Yes	—
TextPlus International	None	None	Yes	Supported as of Protocol Pack #32.

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
Viewn	80	None	No	Classification is supported using HTTP flavors. Supported as of Protocol Pack #25.
<b>Enterprise</b>				
ActiveSync Gmail	None	None	Yes	Supported as of Protocol Pack #22.
BitCoin	—	—	Yes	Supported PC and Android as of Protocol Pack #40.
Citrix	None	None	Yes	Supported as of Protocol Pack #20.
FIX	—	—	—	Supported as of Protocol Pack #21.
MSS	1755	—	—	—
MS-SQL-M	1434	1434	—	—
MS-SQL-S	1433	1433	—	—
ORACLE	1521	1521	—	—
OracleNames	1575	1575	—	—
oraclenet8cman	1630	1630	—	—
SAP	3200/ 3300 /3600	None	—	Supported as of Protocol Pack #20.
SQL*NET	66	66	—	—
SQL-NET	150	150	—	—
SQLSERV	118	118	—	—
SQLSRV	156	156	—	—
<b>Networking</b>				
I2TP	1701	1701	—	—
AUTH	113	113	—	—
BGP	179	179	—	—
BOOTPC	68	68	—	—
BOOTPS	67	67	—	—
CHARGEN	19	19	—	—
CORBA-IIOP	683	683	—	—
CORBA-IIOP-SSL	684	684	—	—
DNS	None	None	—	—
ECHO	7	7	—	—
FINGER	79	79	—	—
GOPHER	70	70	—	—
Iperf	None	None	Yes	Supported PC 2.0.5 as of Protocol Pack #35.
IPX	213	213	—	—
MDC-Portmapper	685	685	—	—
NETBIOS-DGM	138	138	—	—

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
NETBIOS-NS	137	137	—	—
NETBIOS-SSN	139	139	—	—
NPP	92	92	—	—
NTP	123	123	—	—
PPTP	1723	1723	Yes	Signature classification is complementary for port based.
RADIUS	1812-1813	1812-1813	—	—
SGMP	153	153	—	—
SGMP-TRAPS	160	160	—	—
SpeedTest	None	None	Yes	Supported PC (Web Browser), Android v3.0.1, and iOS v4.0.1 as of Protocol Pack #40.
SMPP	None	None	Yes	Supported PC and Mobile as of protocol pack #48.
SNMP	161	161	—	—
SNMPTRAP	162	162	—	—
SSTP	None	None	Yes	Supported as of Protocol Pack #47.
STUN	None	None	Yes	Supported as of Protocol Pack #05. Supported as of Protocol Pack #30(IPv6 support).
SYSLOG		514	—	—
TACACS	49	49	—	—
TACACS-DS	65	65	—	—
TIME	37	37	—	—
WHOIS	63	63	—	—
<b>Security</b>				
DroidVPN	None	None	Yes	Supported Android v2.1 as of Protocol Pack #40.
ESP	None	None	Yes	Supported as of Protocol Pack #18.
Getflix	None	None	Yes	Supporter PC (Web Browser), Android and iOS as of Protocol Pack #44.
IPSec over tcp	None	None	Yes	Supported as of Protocol Pack #18.
isakmp	500,4500	500,4500	Yes	Signature classification is complementary for port based and is supported as of Protocol Pack #18.  Prior to PP#18, ISAKMP was classified under “other well known ports”. As of PP#22, after having its own signature in PP#18, ISAKMP protocol has been moved to “IPSec VPN” service. Supported as of Protocol Pack #45
MacOsUpdate	None	None	Yes	Supported as of Protocol Pack #42.

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
MediaHint	None	None	Yes	Supported PC (Web Browser) as of Protocol Pack #44.
OpenVPN	None	1194	Yes	OpenVPN version 1.0.3 supported as of Protocol Pack #19. Updated as of Protocol Pack #32. Supported Proxy-based traffic of OpenVPN as of Protocol Pack #44.
PacketiX	PacketiX 1.0	None	Yes	Supported As of Protocol Pack #12. Service tree mapping changed from FileSharing > P2P > OtherP2P to Internet Privacy > VPN > Other VPN in PP#37 (applicable for 400).
ProxpnVPN	None	None	Yes	Supported PC v2.5.2, Android-1.3.9 v2.0.0 as of Protocol Pack #43.
SSL	None	None	Yes	Supported as of Protocol Pack #19. SSL v3 supported as Protocol Pack #27.
TunnelBear	None	None	Yes	Supported PC v2.2.2.0,Android v56,and iOS v1.0.7 as of Protocol Pack #40. Supported Android v7.0 as of Protocol Pack #43.
UNBLOCKUS	None	None	Yes	Supported PC v2.7, Android Browser, iOS Browser, Kindle Fire Browser as of Protocol Pack #43.
Windows Update	None	None	Yes	<ul style="list-style-type: none"> <li>Classifications are supported using HTTP flavors and signatures.</li> <li>Traffic related to self-update and downloading are supported using HTTP flavors.</li> <li>Traffic related to the list of updates are supported using signatures.</li> </ul> Supported as of v3.5.5 and later with Protocol Pack #21. Updated support for Windows 8.1 OS as of Protocol Pack #41. Updated support for Windows store upgrade 8 to 8.1 as of Protocol Pack #42. Updated support for Windows Mobile OS V8.1 as of Protocol Pack #46.
Zenmate	None	None	Yes	Supported PC v3.7 as of Protocol Pack #42.
<b>Other</b>				
3COM-AMP3	629	629	—	—
3COM-TSMUX	106	106	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
914C/G	211	211	—	—
9PFS	564	564	—	—
ACAS	62	62	—	—
ACCESSBUILDER	88	888	—	—
ACCESSNETWORK	699	699	—	—
ACI	187	187	—	—
ACMAINT_DBD	—	774	—	—
ACMAINT_TRANSD	—	775	—	—
ACP	599	599	—	—
ACR-NEMA	104	104	—	—
AED-512	149	149	—	—
AGENTX	705	705	—	—
AIM	5190-5193	—	—	—
ALPES	463	463	—	—
AMINET	649	649	—	—
AMPR-RCMD	459	459	—	—
ANET	212	212	—	—
ANSANOTIFY	116	116	—	—
ANSATRADER	124	124	—	—
AODV	654	654	—	—
APERTUS-LDP	539	539	—	—
APPLEQTC	458	458	—	—
APPLEQTCSRVR	545	545	—	—
APPLIX	—	999	—	—
ARCISDMS	262	262	—	—
ARIEL1	419	419	—	—
ARIEL2	421	421	—	—
ARIEL3	422	422	—	—
ARNS	384	384	—	—
ASA	386	386	—	—
ASA-APPL-PROTO	502	502	—	—
ASIA	626	626	—	—
ASIPREGISTRY	687	687	—	—
ASIP-WEBADMIN	311	311	—	—
AS-SERVERMAP	449	449	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
AT-3	203	203	—	—
AT-5	205	205	—	—
AT-7	207	207	—	—
AT-8	208	208	—	—
AT-ECHO	204	204	—	—
AT-NBP	202	202	—	—
AT-RTMP	201	201	—	—
AT-ZIS	206	206	—	—
AUDIONEWS	114	114	—	—
AUDIT	182	182	—	—
AUDITD	48	48	—	—
AURORA-CMGR	364	364	—	—
AURP	387	387	—	—
AUX_BUS_SHUNT	623	623	—	—
AVIAN	486	486	—	—
BANYAN-RPC	567	567	—	—
BANYAN-VIP	573	573	—	—
BDP	581	581	—	—
BGMP	264	264	—	—
BGS-NSI	482	482	—	—
BH611	354	354	—	—
BHEVENT	357	357	—	—
BHFHS	248	248	—	—
BHMDS	310	310	—	—
BL-IDM	142	142	—	—
BMPP	632	632	—	—
BNET	415	415	—	—
BORLAND-DSJ	707	707	—	—
BUSBOY	998	—	—	—
CABLEPORT-AX	282	282	—	—
CAB-PROTOCOL	595	595	—	—
CADLOCK	770	770	—	—
CAILIC	216	216	—	—
CAL	588	588	—	—
CDC	223	223	—	—

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
CFDPTKT	120	120	—	—
CHSHELL	562	562	—	—
CISCO-FNA	130	130	—	—
CISCO-SYS	132	132	—	—
CISCO-TDP	711	711	—	—
CISCO-TNA	131	131	—	—
CITADEL	504	504	—	—
CITRIXADMIN	2513	2513	—	—
CITRIXIMA	2512	2512	—	—
CITRIXIMACLIENT	2598	2598	—	—
CITRIX-RTMP	2897	2897	—	—
CL/1	172	172	—	—
CLEARCASE	371	371	—	—
CLOANTO-NET-1	356	356	—	—
CMIP-AGENT	164	164	—	—
CMIP-MAN	163	163	—	—
COAUTHOR	1529	1529	—	—
CODAAUTH2	3703	370	—	—
COLLABORATOR	622	622	—	—
COMMERCE	5442	542	—	—
COMPRESSNET	2-3	2-3	—	—
COMSCM	437	437	—	—
CON	759	759	—	—
CONCERT	786	786	—	—
CONFERENCE	531	531	—	—
CONNENDP	693	693	—	—
CONTENTSERVER	454	454	—	—
CORERID	284	284	—	—
COURIER	530	530	—	—
COVIA	64	64	—	—
CREATIVEPARTNER	455	455	—	—
CREATIVESERVER	453	453	—	—
CRS	507	507	—	—
CRYPTOADMIN	624	624	—	—
CSI-SGWP	348	348	—	—



**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
CSNET-NS	105	105	—	—
CTF	84	84	—	—
CUSTIX	528	528	—	—
CVC_HOSTD	442	442	—	—
CYBERCASH	551	551	—	—
CYCLESERV	763	763	—	—
CYCLESERV2	772	772	—	—
DANTZ	497	497	—	—
DATASURFSRV	461	461	—	—
DATASURFSRVSEC	462	462	—	—
DATEX-ASN	355	355	—	—
DAYTIME	13	13	—	—
DBASE	217	217	—	—
DCP	93	93	—	—
DDM-DFM	447	447	—	—
DDM-RDB	446	446	—	—
DDM-SSL	448	448	—	—
DEC_DLM	625	625	—	—
DECAP	403	403	—	—
DECAUTH	316	316	—	—
DECBSRV	579	579	—	—
DECLADEBUG	410	410	—	—
DECVMS-SYSMGT	441	441	—	—
DEI-ICDA	618	618	—	—
DEOS	76	76	—	—
DEVICE	801	801	—	—
DEVICESHARE	552	552	—	—
DHCP-FAILOVER	647	647	—	—
DHCP-FAILOVER2	847	847	—	—
DHCPV6-CLIENT	546	546	—	—
DHCPV6-SERVER	547	547	—	—
DIGITAL-EVM	619	619	—	—
DIGITAL-VRC	466	466	—	—
DIRECT	242	242	—	—
DIRECTV-CATLG	3337	3337	—	—

**Review Draft - Cisco Confidential****Table 2-1 Internet Protocols (continued)**

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
DIRECTV-SOFT	3335	3335	—	—
DIRECTV-TICK	3336	3336	—	—
DIRECTV-WEB	3334	3334	—	—
DISCARD	9	9	—	—
DISCLOSE	667	667	—	—
DIXIE	96	96	—	—
DLS	197	197	—	—
DLS-MON	198	198	—	—
DN6-NLM-AUD	195	195	—	—
DN6-SMM-RED	196	196	—	—
DNA-CLM	436	436	—	—
DNSIX	90	90	—	—
DPSI	315	315	—	—
DSAP	439	439	—	—
DSETOS	378	378	—	—
DSFGW	438	438	—	—
DSP	33	33	—	—
DSP3270	246	246	—	—
DTAG-STE-SB	352	352	—	—
DTK	365	365	—	—
DWR	644	644	—	—
EFS	520	—	—	—
ELCSD	704	704	—	—
EMBL-NDT	394	394	—	—
EMFIS-CNTL	141	141	—	—
EMFIS-DATA	140	140	—	—
ENTOMB	775	—	—	—
ENTRUST-AAAS	680	680	—	—
ENTRUST-AAMS	681	681	—	—
ENTRUST-ASH	710	710	—	—
ENTRUST-KMSH	709	709	—	—
ENTRUST-SPS	640	640	—	—
ENTRUSTTIME	309	309	—	—
EPMAP	135	135	—	—
ESCP-IP	621	621	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
ESRO-EMSDP	642	642	—	—
ESRO-GEN	259	259	—	—
EUDORA-SET	592	592	—	—
EXEC	512	—	—	—
EYELINK	589	589	—	—
FATSERV	347	347	—	—
FCP	510	510	—	—
FLEXLM	744	744	—	—
FLN-SPX	221	221	—	—
FSGS	6112	6112	—	—
FTPS	990	990	—	—
FTPS-DATA	989	989	—	—
FUJITSU-DEV	747	747	—	—
FXP-1	286	286	—	—
GACP	190	190	—	—
GARCON	999	—	—	—
GDOMAP	538	538	—	—
GENIE	402	402	—	—
GENRAD-MUX	176	176	—	—
GGF-NCP	678	678	—	—
GINAD	634	634	—	—
GLT POLIANE	1201	—	—	—
GO-LOGIN	491	491	—	—
GPPITNP	103	103	—	—
GRAPHICS	41	41	—	—
GROOVE	2492	2492	—	—
GSS-HTTP	488	488	—	—
GSS-XLICEN	127	127	—	—
GTP-USER	2152	2152	—	—
HA-CLUSTER	694	694	—	—
HAP	661	661	—	—
HASSLE	375	375	—	—
HCP-WISMAR	686	686	—	—
HDAP	263	263	—	—
HELLO-PORT	652	652	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
HEMS	151	151	—	—
HMMNP-OP	613	613	—	—
HMMP-IND	612	612	—	—
HOSTNAME	101	101	—	—
HOSTS2-NS	81	81	—	—
HP-ALARM-MGR	383	383	—	—
HP-COLLECTOR	381	381	—	—
HP-MANAGED-NODE	382	382	—	—
HTTP-ALT	591	591	—	—
HTTP-MGMT	280	280	—	—
HTTP-RPC-EPMAP	593	593	—	—
HYBRID-POP	473	473	—	—
HYPER-G	418	418	—	—
HYPERWAVE-ISP	692	692	—	—
IAFDBASE	480	480	—	—
IAFSERVER	479	479	—	—
IASD	432	432	—	—
IBM-APP	385	385	—	—
IBM-DB2	523	523	—	—
IBPROTOCOL	6714	6714	—	—
ICAD-EL	425	425	—	—
ICLNET-LOCATE	886	886	—	—
ICLNET-SVINFO	887	887	—	—
IDEAFARM-CATCH	903	903	—	—
IDEAFARM-CHAT	902	902	—	—
IDFP	549	549	—	—
IEEE-MMS	651	651	—	—
IEEE-MSS-SSL	695	695	—	—
IIOP	535	535	—	—
IMSP	406	406	—	—
INBUSINESS	244	244	—	—
INFOSEEK	414	414	—	—
INGRES-NET	134	134	—	—
INTECOURIER	495	495	—	—
INTEGRA-SME	484	484	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
INTRINSA	503	503	—	—
IPCD	576	576	—	—
IPCSERVER	600	600	—	—
IPDD	578	578	—	—
IPP	631	631	—	—
IRCS	944	944	—	SSL signature based classification supported as of Protocol Pack #19 (V3.5.0 and later only).
IRC-SERV	529	529	—	—
IS99C	379	379	—	—
IS99S	380	380	—	—
ISI-GL	55	55	—	—
ISO-ILL	499	499	—	—
ISO-IP	147	147	—	—
ISO-TP0	146	146	—	—
ISO-TSAP	102	102	—	—
ISO-TSAP-C2	399	399	—	—
ITM-MCELL-S	828	828	—	—
JARGON	148	148	—	—
K-BLOCK	287	287	—	—
KERBEROS	88	88	—	—
KERBEROS-ADM	749	749	—	—
KERBEROS-IV	—	750	—	—
KEYSERVER	584	584	—	—
KIS	186	186	—	—
KLOGIN	543	543	—	—
KNET-CMP	157	157	—	—
KPASSWD	464	464	—	—
KRYPTOLAN	398	398	—	—
KSHELL	544	544	—	—
LA-MAINT	51	51	—	—
LANSERVER	637	637	—	—
Laplink	1547	None	Yes	Laplink Gold v12 supported as of Protocol Pack #20.
LDAP	—	389	—	—
LDAPS	636	636	—	—
LDP	646	646	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
LEGENT-1	373	373	—	—
LEGENT-2	374	374	—	—
LINK	245	245	—	—
LJK-LOGIN	472	472	—	—
LOCUS-CON	127	127	—	—
LOCUS-MAP	125	125	—	—
LOGIN	513	—	—	—
MAC-SRVR-ADMIN	660	660	—	—
MAGENTA-LOGIC	313	313	—	—
MAILBOX-LM	505	505	—	—
MAILQ	174	174	—	—
MAITRD	997	997	—	—
MASQDIALER	224	224	—	—
MATIP-TYPE-A	350	350	—	—
MATIP-TYPE-B	351	351	—	—
MCIDAS	112	112	—	—
MCNS-SEC	638	638	—	—
MDBS_DAEMON	800	800	—	—
MECOMM	668	668	—	—
MEREGISTER	669	669	—	—
META5	393	393	—	—
METAGRAM	99	99	—	—
METER	570-571	570-571	—	—
MFCOBOL	86	86	—	—
MICOM-PFS	490	490	—	—
MICROMUSE-LM	1534	1534	—	—
MICROSOFT-DS	445	445	—	—
MIT-DOV	91	91	—	—
MIT-ML-DEV	83, 85	83, 85	—	—
MM-ADMIN	534	534	—	—
MOBILEIP-AGENT	434	434	—	—
MOBILIP-MN	435	435	—	—
MONDEX	471	471	—	—
MONITOR	561	561	—	—
MORTGAGEWARE	367	367	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
MPM	45	45	—	—
MPM-FLAGS	44	44	—	—
MPM-SND	46	46	—	—
MPP	218	218	—	—
MPTM	397	397	—	—
MRM	679	679	—	—
MSDP	639	639	—	—
MSEXCH-ROUTING	691	691	—	—
MSFT-GC	3268	3268	—	—
MSFT-GC-SSL	3269	3269	—	—
MSG-AUTH	31	31	—	—
MSG-ICP	29	29	—	—
MSNP	1836	1836	—	—
MS-OLAP	2382-2383, 2393-2394	2382-2383, 2393-2394	—	—
MSP	18	18	—	—
MS-ROME	569	569	—	—
MS-SHUTTLE	568	568	—	—
MS-TERM-SERVICES	3389	3389	—	—
MULTILING-HTTP	777	777	—	—
MULTIPLEX	171	171	—	—
MUMPS	188	188	—	—
MYLEX-MAPD	467	467	—	—
MYSQL	3306	3306	—	—
NAME	42	42	—	—
NAMP	167	167	—	—
NAS	991	991	—	—
NCED	404	404	—	—
NCLD	405	405	—	—
NCP	523	524	—	—
NDSAUTH	353	353	—	—
NEST-PROTOCOL	489	489	—	—
NET8-CMAN	1830	1830	—	—
NET-ASSISTANT	3283	3283	—	—
NETGW	741	741	—	—
NETNEWS	532	532	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
NETRCS	742	742	—	—
NETRJS-1	71	71	—	—
NETRJS-2	72	72	—	—
NETRJS-3	73	73	—	—
NETRJS-4	74	74	—	—
NETSC-DEV	155	155	—	—
NETSC-PROD	154	154	—	—
NETVIEWDM1	729	729	—	—
NETVIEWDM2	730	730	—	—
NETVIEWDM3	731	731	—	—
NETWALL	533	533	—	—
NETWARE-IP	396	396	—	—
NEWACCT	100	—	—	—
NEW-RWHO	550	550	—	—
NEXTSTEP	178	178	—	—
NICNAME	43	43	—	—
NI-MAIL	61	61	—	—
NIP	376	376	—	—
NLOGIN	758	758	—	—
NMAP	689	689	—	—
NMPM-LOCAL	610	610	—	—
NMSP	537	537	—	—
NNSP	433	433	—	—
NNTPS	563	563	—	SSL- signature-based classification supported as of Protocol Pack #20 (v3.5.0 and later only).
NOTIFY	—	773	—	—
NOVASTORBAKCUP	308	308	—	—
NPMP-GUI	611	611	—	—
NPMP-TRAP	609	609	—	—
NQS	607	607	—	—
NS	760	760	—	—
NSIIOPS	261	261	—	—
NSRMP	359	359	—	—
NSS-ROUTING	159	159	—	—
NSW-FE	27	27	—	—
NTALK	518	518	—	—



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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
NXEDIT	126	126	—	—
OBEX	650	650	—	—
OBJCALL	94	94	—	—
OCBINDER	183	183	—	—
OCS_AMU	429	429	—	—
OCS_CMU	428	428	—	—
OCSERVER	184	184	—	—
ODMR	366	366	—	—
OHIMSRV	506	506	—	—
OLSR	698	698	—	—
OMGINITIALREFS	900	900	—	—
OMSERV	764	764	—	—
ONMUX	417	417	—	—
OPALIS-RDV	536	536	—	—
OPALIS-ROBOT	314	314	—	—
OPC-JOB-START	423	423	—	—
OPC-JOB-TRACK	424	424	—	—
OPENPORT	260	260	—	—
OPENVMS-SYSIPC	557	557	—	—
ORASRV	1525	1525	—	—
ORBIX-CONFIG	3076	3076	—	—
ORBIXD	1570	1570	—	—
ORBIX-LOCATOR	3075	3075	—	—
ORBIX-LOC-SSL	3077	3077	—	—
OSU-NMS	192	192	—	—
PASSGO	511	511	—	—
PASSGO-TIVOLI	627	627	—	—
PASSWORD-CHG	586	586	—	—
PAWSERV	345	345	—	—
PCMAIL-SRV	158	158	—	—
PDAP	344	344	—	—
PEERENABLER	3531	3531	—	—
PERSONAL-LINK	281	281	—	—
PFTP	662	662	—	—
PH	481	481	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
PHILIPS-VC	583	583	—	—
PHONEBOOK	767	767	—	—
PHOTURIS	468	468	—	—
PIM-RP-DISC	496	496	—	—
PIP	321	321	—	—
PIRP	553	553	—	—
PKIX-3-CA-RA	829	829	—	—
PKIX-TIMESTAMP	318	318	—	—
POV-RAY	494	494	—	—
POWERBURST	485	485	—	—
PRINTER	515	515	—	—
PRINT-SRV	170	170	—	—
PRM-NM	409	409	—	—
PRM-SM	408	408	—	—
PROFILE	136	136	—	—
PROSPERO	191	191	—	—
PSSC	645	645	—	—
PTCNAMESERVICE	597	597	—	—
PTP-EVENT	319	319	—	—
PTP-GENERAL	320	320	—	—
PUMP	751	751	—	—
PUPARP	—	998	—	—
PURENOISE	663	663	—	—
PWDGEN	129	129	—	—
QBIKGDP	368	368	—	—
QFT	189	189	—	—
QMPT	209	209	—	—
QMQP	628	628	—	—
QOTD	17	17	—	—
QRH	752	752	—	—
QSC	—	787	—	—
QUOTAD	762	762	—	—
RAP	38	38	—	—
RDA	630	630	—	—
RDB-DBS-DISP	1571	1571	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
REALM-RUSD	688	688	—	—
RE-MAIL-CK	50	50	—	—
REMOTEF5	556	556	—	—
REMOTE-KIS	185	185	—	—
REPCMD	641	641	—	—
REPCMD	653	653	—	—
RESCAP	283	283	—	—
RFILE	750	—	—	—
RIPNG	521	521	—	—
RIS	180	180	—	—
RIS-CM	748	748	—	—
RJE	5	5	—	—
RLP	39	39	—	—
RLZDBASE	635	635	—	—
RMC	657	657	—	—
RMIACTIVATION	1098	1098	—	—
RMIREGISTRY	1099	1099	—	—
RMONITOR	560	560	—	—
RMT	—	411	—	—
ROUTER	—	520	—	—
RPASSWD	774	—	—	—
RPC2PORTMAP	369	369	—	—
RRH	753	753	—	—
RRP	648	648	—	—
RRSH-SPX	222	222	—	—
RSVD	168	168	—	—
RSVP_TUNNEL	363	363	—	—
RSYNC	873	873	—	—
RTIP	771	771	—	—
RTSPS	322	322	—	—
RUSHD	696	696	—	—
RXE	761	761	—	—
SAFT	487	487	—	—
SANITY	643	643	—	—
SCC-SECURITY	582	582	—	—

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Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
SCO-DTMGR	617	517	—	—
SCOHELP	457	457	—	—
SCOI2ODIALOG	360	360	—	—
SCO-INETMGR	615	615	—	—
SCO-SYSMGR	616	616	—	—
SCO-WEBSRVRMG3	598	598	—	—
SCO-WEBSRVRMGR	620	620	—	—
SCX-PROXY	470	470	—	—
SDNSKMP	558	558	—	—
SECURE-AUX-BUS	664	664	—	—
SEMANTIX	361	361	—	—
SEND	169	169	—	—
SERVSTAT	633	633	—	—
SET	257	257	—	—
SFS-CONFIG	452	452	—	—
SFS-SMP-NET	451	451	—	—
SGCP	440	440	—	—
SHELL	514	—	—	—
SHOCKWAVE	1626	1626	—	—
SHRINKWRAP	358	358	—	—
SIAM	498	498	—	—
SIFT-UFT	608	608	—	—
SILC	706	706	—	—
SILVERPLATTER	416	416	—	—
SIN	22450	22450	—	—
SITARADIR	2631	2631	—	—
SITARAMGMT	2630	2630	—	—
SITARASERVER	2629	2629	—	—
SKRONK	460	460	—	—
SMAKYNET	122	122	—	—
SMARTSDP	426	426	—	—
SMPNAMERES	901	901	—	—
SMPTE	420	420	—	—
SMSD	596	596	—	—
SMSP	—	413	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
SMUX	199	199	—	—
SNAGAS	108	108	—	—
SNARE	509	509	—	—
S-NET	166	166	—	—
SNPP	444	444	—	—
SNTP-HEARTBEAT	580	580	—	—
SOFTPC	215	215	—	—
SONAR	572	572	—	—
Soundcloud_HTTPS	None	None	Yes	Supported as of Protocol Pack #31.
SPMP	656	656	—	—
SPSC	478	478	—	—
SRC	200	200	—	—
SRMP	193	193	—	—
SRSEND	362	362	—	—
SS7NS	477	477	—	—
SSHHELL	614	614	—	—
SST	266	266	—	—
STATSRV	133	133	—	—
STMF	501	501	—	—
STREETALK	566	566	—	—
STX	527	527	—	—
SUBMISSION	587	587	—	—
SUBMIT	773	—	—	—
SUBNTBCST_TFTP	247	247	—	—
SU-MIT-TG	89	89	—	—
SUN-DR	665	665	—	—
SUPDUP	95	95	—	—
SURF	1010	1010	—	—
SUR-MEAS	243	243	—	—
SVRLOC	427	427	—	—
SWIFT-RVF	97	97	—	—
SYNOPTICS-TRAP	—	412	—	—
SYNOTICS-BROKER	392	392	—	—
SYNOTICS-RELAY	391	391	—	—
SYSTAT	11	11	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
TACNEWS	98	98	—	—
TALK	517	517	—	—
TD-REPLICA	268	268	—	—
TD-SERVICE	267	267	—	—
TEEDTAP	559	559	—	—
TELL	754	754	—	—
TEMPO	526	526	—	—
TENFOLD	658	658	—	—
TEXAR	333	333	—	—
TICF-1	492	492	—	—
TICF-2	493	493	—	—
TIMBUKTU	407	407	—	—
TIMED	525	525	—	—
TINC	655	655	—	—
TLISRV	1527	1527	—	—
TNETOS	377	377	—	—
TNS-CML	590	590	—	—
TN-TL-FD1	476	476	—	—
TN-TL-W1	474	—	—	—
TN-TL-W2	—	474	—	—
TPIP	594	594	—	—
TSERVER	450	450	—	—
UAAC	145	145	—	—
UARPSUMA	219	219	—	—
UIS	390	390	—	—
ULISTPROC	372	372	—	—
ULP	522	522	—	—
ULPNET	483	483	—	—
UNIDATA-LDM	388	388	—	—
UNIFY	181	181	—	—
UNREAL_UT	7778	7778	—	—
UPS	401	401	—	—
URL-RENDEZVOUS	465	465	—	—
URM	606	606	—	—
UTIME	519	519	—	—

**Review Draft - Cisco Confidential****Table 2-1** Internet Protocols (continued)

Protocol Name	TCP Ports	UDP Ports	Signature Classification	Comments
UTMPCD	431	431	—	—
UTMPSD	430	430	—	—
UUCP	540	540	—	—
UUCP-PATH	117	117	—	—
UUCP-RLOGIN	541	541	—	—
UUIDGEN	697	697	—	—
VACDSM-APP	671	671	—	—
VACDSM-SWS	670	670	—	—
VATP	690	690	—	—
VEMMI	575	575	—	—
VID	769	769	—	—
VIDEOTEX	516	516	—	—
VMNET	175	175	—	—
VMPWSCS	214	214	—	—
VNAS	577	577	—	—
VPP	677	677	—	—
VPPS-VIA	676	676	—	—
VSINET	996	996	—	—
VSLMP	312	312	—	—
WAP-HTTPS	4036	4036	—	—
WAP-PUSH	2948	2948	—	—
WAP-PUSHSECURE	2949	2949	—	—
WAP-VCAL	9205	9205	—	—
WAP-VCAL-S	9207	9207	—	—
WAP-VCARD	9204	9204	—	—
WAP-VCARD-S	9206	9206	—	—
WAP-WSP	9200	9200	—	—
WAP-WSP-S	9202	9202	—	—
WAP-WSP-WTP	9201	9201	—	—
WAP-WSP-WTP-S	9203	9203	—	—
WAR-HTTP	4035	4035	—	—
WEBSTER	765	765	—	—
WHO	—	513	—	—
WHOAMI	565	565	—	—
WORK-SOL	400	400	—	—

**Review Draft - Cisco Confidential****Table 2-1** *Internet Protocols (continued)*

<b>Protocol Name</b>	<b>TCP Ports</b>	<b>UDP Ports</b>	<b>Signature Classification</b>	<b>Comments</b>
WORLD FUSION	2595-2596	2595-2596	—	—
WPAGES	776	776	—	—
WPGS	780	780	—	—
WTA-WSP-S	2805	2805	—	—
XACT-BACKUP	911	911	—	—
X-BONE-CTL	265	265	—	—
XDMCP	177	177	—	—
XDTP	3088	3088	—	—
XFER	82	82	—	—
XFR	682	682	—	—
XNS-AUTH	56	56	—	—
XNS-CH	54	54	—	—
XNS-COURIER	165	165	—	—
XNS-MAIL	58	58	—	—
XNS-TIME	52	52	—	—
XVFTP	508	508	—	—
XYPLWX-MUX	173	173	—	—
YAK-CHAT	258	258	—	—
Z39.50	210	210	—	—
ZANNET	317	317	—	—
ZSERV	346	346	—	—





# IP Protocols

## Introduction

This chapter lists the IP protocols supported by Cisco SCA BB. For each protocol, the protocol index number in the IP header is provided.

**Table 3-1**      *IP Protocols*

IP Protocol Number	Protocol Name
0	HOPOPT
1	ICMP
2	IGMP
3	GGP
4	IP
5	ST
6	Generic TCP
7	CBT
8	EGP
9	IGP
10	BBN-RCC-MON
11	NVP-II
12	PUP
13	ARGUS
14	EMCON
15	XNET
16	CHAOS
17	Generic UDP
18	MUX
19	DCN-MEAS
20	HMP
21	PRM

**Table 3-1** IP Protocols (continued)

<b>IP Protocol Number</b>	<b>Protocol Name</b>
22	XNS-IDP
23	TRUNK-1
24	TRUNK-2
25	LEAF-1
26	LEAF-2
27	RDP
28	IRTP
29	ISO-TP4
30	NETBLT
31	MFE-NSP
32	MERIT-INP
33	SEP
34	3PC
35	IDPR
36	XTP
37	DDP
38	IDPR-CMTP
39	TP++
40	IL
41	IPv6-Over-IPv4
42	SDRP
43	IPv6-Route
44	IPv6-Frag
45	IDRP
46	RSVP
47	GRE
48	MHRP
49	BNA
50	ESP
51	AH
52	I-NLSP
53	SWIPE
54	NARP
55	MOBILE
56	TLSP
57	SKIP

**Table 3-1** IP Protocols (continued)

<b>IP Protocol Number</b>	<b>Protocol Name</b>
58	IPv6-ICMP
59	IPv6-NoNxt
60	IPv6-Opts
61	Any host internal protocol
62	CFTP
63	Any local network
64	SAT-EXPAK
65	KRYPTOLAN
66	RVD
67	IPPC
68	Any distributed file system
69	SAT-MON
70	VISA
71	IPCV
72	CPNX
73	CPHB
74	WSN
75	PVP
76	BR-SAT-MON
77	SUN-ND
78	WB-MON
79	WB-EXPAK
80	ISO-IP
81	VMTP
82	SECURE-VMTP
83	VINES
84	TTP
85	NSFNET-IGP
86	DGP
87	TCF
88	EIGRP
89	OSPFIGP
90	Sprite-RPC
91	LARP
92	MTP
93	AX.25

**Table 3-1** IP Protocols (continued)

IP Protocol Number	Protocol Name
94	IPIP
95	MICP
96	SCC-SP
97	ETHERIP
98	ENCAP
99	Any private encryption scheme
100	GMTP
101	IFMP
102	PNNI
103	PIM
104	ARIS
105	SCPS
106	QNX
107	A/N
108	IPComp
109	SNP
110	Compaq-Peer
111	IPX-in-IP
112	VRRP
113	PGM
114	Any 0-hop protocol
115	L2TP
116	DDX
117	IATP
118	STP
119	SRP
120	UTI
121	SMP
122	SM
123	PTP
124	ISIS
125	FIRE
126	CRTP



# Protocol Signatures

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## Introduction

This chapter lists the protocol signatures currently supported by Cisco SCA BB.

The below tables list the signature ID values for the separate Protocol Packs:

- [Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later](#)
- [Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later](#)
- [Signature ID Values for PP#04 and SCA-BB 3.0.3 and Later](#)
- [Signature ID Values for PP#05 and SCA-BB 3.0.4 and Later](#)
- [Signature ID Values for PP#06 and SCA-BB 3.0.5 and Later](#)
- [Signature ID Values for PP#07 and SCA-BB 3.0.6 and Later](#)
- [Signature ID Values for PP#08 and SCA-BB 3.1.0 and Later](#)
- [Signature ID Values for PP#09](#)
- [Signature ID Values for PP#10](#)
- [Signature ID Values for PP#11](#)
- [Signature ID Values for PP#12](#)
- [Signature ID Values for PP#13](#)
- [Signature ID Values for PP#14](#)
- [Signature ID Values for PP#15](#)
- [Signature ID Values for PP#16](#)
- [Signature ID Values for PP#17](#)
- [Signature ID Values for PP#18](#)
- [Signature ID Values for PP#19](#)
- [Signature ID Values for PP#20](#)
- [Signature ID Values for PP#21](#)
- [Signature ID Values for PP#22](#)
- [Signature ID Values for PP#23](#)
- [Signature ID Values for PP#24](#)
- [Signature ID values for PP#25](#)

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- Signature ID values for PP#26
- Signature ID values for PP#27
- Signature ID values for PP#28
- Signature ID values for PP#29
- Signature ID values for PP#30
- Signature ID Values for PP#31
- Signature ID Values for PP#32
- Signature ID Values for PP#33
- Signature ID Values for PP#34
- Signature ID Values for PP#35
- Signature ID Values for PP#36
- Signature ID Values for PP#37
- Signature ID Values for PP#38
- Signature ID Values for PP#39
- Signature ID Values for PP#40
- Signature ID Values for PP#41
- Signature ID Values for PP#42
- Signature ID Values for PP#43
- Signature ID Values for PP#44
- Signature ID Values for PP#45
- Signature ID Values for PP#46
- Signature ID Values for PP#47
- Signature ID Values for PP#48
- Signature ID Values for PP#49
- Signature ID Values for PP#50
- Signature ID Values for PP#51
- Signature ID Values for PP#52
- Signature ID Values for PP#53
- Signature ID Values for PP#54
- Signature ID Values for PP#55

**Note**

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The signature ID value created for a new protocol implemented in a Protocol Pack is a temporary value. The permanent signature ID value will be assigned in the next SCA-BB release. The permanent signature ID may be different from the temporary value assigned in the Protocol Pack

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**Review Draft - Cisco Confidential****Table 4-1 Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later**

<b>Signature Name</b>	<b>Signature ID</b>
BitTorrent	118095872
BitTorrent Aged Flow Continuation	118096640
BitTorrent File Transfer	118096384
BitTorrent Networking	118096128
DHCP	100794368
DingoTel	84541440
Direct Connect	117899264
Direct Connect Client	117899520
Direct Connect Servers	117899776
DNS	33685505
EDonkey	117833728
Fasttrack File Transfer non HTTP	117572096
Fasttrack File Transfer over HTTP	117572352
Fasttrack Networking	117571840
Filetopia File Transfer	118227456
Filetopia Networking	118227200
FTP	50462720
Generic	16777216
Gnutella 2 Networking	117506816
Gnutella File Transfer	117506560
Gnutella Networking	117506304
H323	84344832
Hotline File Transfer	117768704
Hotline Networking	117768448
Hotline over HTTP	117769216
Hotline Tracker	117768960
HTTP	50397184
IMAP	67239936
IRC	184614912
iTunes	134283520
iTunes Download	134283776
Manolito File Transfer	118030848
Manolito Networking	118030592
MGCP	84279296
MS MMS	50659328
Mute	118423552

**Review Draft - Cisco Confidential****Table 4-1 Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later (continued)**

<b>Signature Name</b>	<b>Signature ID</b>
Napster	134348800
Neonet Download	118620416
NNTP	67174400
Nodezilla	118489088
POP3	67305472
PTT Winphoria SIP	84213760
RTP	84082688
RTSP	50593792
Share	118292480
SIP	84148224
Skinny	84475904
Skype	84410368
SMTP	67371008
Soulseek File Transfer	118358528
Soulseek Networking	118358272
TFTP	50528256
Warez	118685696
Warez Download	118685952
Warez Networking	118686208
Waste	118554624
WINMX	117637120
Winnie 1	117702912
Winnie 2	117703168
Yahoo Messenger	184680448

**Table 4-2 Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later**

<b>Signature Name</b>	<b>3.0.1 and Later Signature ID</b>	<b>Protocol Pack #3 Signature ID</b>
BaiBao Download	118751232	201392152
BaiBao Networking	118751488	201392152
HTTP-Tunnel	234946560	201392153
Mobile MMS	50724864	—
NTP	100925440	201392150
POCO Download	118882560	201392146
POCO Networking	118882304	201392146
PPLive-P2P	118947840	201392147



**Review Draft - Cisco Confidential****Table 4-2 Signature ID Values for PP#03 and SCA-BB 3.0.1 and Later (continued)**

Signature Name	3.0.1 and Later Signature ID	Protocol Pack #3 Signature ID
PPStream Download	118816768	201392145
PPStream Networking	118817024	201392145
QQ Networking	184746240	201392151
QQ-IM	184745984	201392151
SSDP-P2P	100859904	201392144
Thunder Networking	119013376	201392149
UC Data	184811520	201392148
UC Networking	184811776	201392148
Yahoo VoIP	84606976	—

**Table 4-3 Signature ID Values for PP#04 and SCA-BB 3.0.3 and Later**

Signature Name	3.0.3 and Later Signature ID	Protocol Pack #4 Signature ID
Dijjer	119078912	201392144
Encrypted BitTorrent	118096896	118096384
Exosee	119275520	201392160
Furthur	119209984	201392208
Generic Download	16842752	—
Generic Non-Established TCP	16908288	—
Kontiki	119144448	201392224
PeerEnabler	119341056	201392176
Radius Access	100729088	—
Radius Accounting	100729344	—

**Table 4-4 Signature ID Values for PP#05 and SCA-BB 3.0.4 and Later**

Signature Name	3.0.4 and later Signature ID	Protocol Pack #5 Signature ID
AntsP2P	119406592	201392138
CUWorld	184942592	201392134
CUWorld over Jabber	184943104	201392134
CUWorld over RTP	184942848	201392134
GoogleEarth	251723776	201392133
Guruguru	119668736	201392129
Hopster	235012096	201392136
ICQ File Transfer	184877568	201392132
ICQ Networking	184877312	201392132
ICQ PTT	184877824	201392132

**Review Draft - Cisco Confidential****Table 4-4 Signature ID Values for PP#05 and SCA-BB 3.0.4 and Later (continued)**

Signature Name	3.0.4 and later Signature ID	Protocol Pack #5 Signature ID
ICQ VoIP	184878080	201392141
Jabber	185008128	201392135
Kuro	119603200	201392128
Rodi	119537664	201392140
Sling	50855936	201392139
Soribada	119799808	201392130
STUN	100990976	201392142
V-share	119734272	201392131

**Table 4-5 Signature ID Values for PP#06 and SCA-BB 3.0.5 and Later**

Signature Name	3.0.5 and Later Signature ID	Protocol Pack #06 Signature ID
DHT	101056512	201392132
EmuleEncrypted	117834240	201392133
Freenet	119930880	201392131
Primus	84672512	201392130
TVAnts	119865344	201392129

**Table 4-6 Signature ID Values for PP#07 and SCA-BB 3.0.6 and Later**

Signature Name	Protocol Pack #07 Signature ID	3.0.6 and Later Signature ID
Flash	201392130	251789312
Flash YouTube	201392131	251789568
Flash MySpace	201392132	251789824
Flash Yahoo	201392133	251790080
QQ-Live	201392129	120061952
Thunder Download	201392134	119013632

**Table 4-7 Signature ID Values for PP#08 and SCA-BB 3.1.0 and Later**

Signature Name	Protocol Pack #08 Signature ID	3.1.0 and Later Signature ID
Audio over HTTP	201392133	50398464
Binary over HTTP	201392134	50398976
Baidu Movie	201392135	134479872
Club Box	201392131	134414336
Feidian	201392129	120127488

**Review Draft - Cisco Confidential****Table 4-7 Signature ID Values for PP#08 and SCA-BB 3.1.0 and Later (continued)**

Signature Name	Protocol Pack #08 Signature ID	3.1.0 and Later Signature ID
Google Talk	201392130	185073664
Video over HTTP	201392132	50397952

**Table 4-8 Signature ID Values for PP#09**

Signature Name	3.0.6 Protocol Pack #09 Signature ID	3.1.0 Protocol Pack #09 Signature ID	3.1.1 and Later Signature ID
Joost	201392138	201392132	120324096
Location Free	201392137	201392130	120258560
MS Push Mail	201392139	201392134	67502080
Poco		201392133	118882304
Windows Live Messenger	201392140	201392131	185139200
Zattoo	201392136	201392129	120193024

**Table 4-9 Signature ID Values for PP#10**

Signature Name	3.0.6 Protocol Pack #10 Signature ID	3.1.0 Protocol Pack #10 Signature ID	3.1.1 and Later Signature ID
Pando	201392141	201392135	134545408
KuGoo	201392142	201392136	120389632
ICQ Voice	201392143	201392137	84869120
Fring	201392144	201392138	85000192

**Table 4-10 Signature ID Values for PP#11**

Signature Name	3.0.6 Protocol Pack #11 Signature ID	3.1.0 Protocol Pack #11 Signature ID	3.1.1 and Later Signature ID	3.1.5 and Later Signature ID
MyJabber	201392145	201392139	201392130	185204736
BBC iPlayer	201392146	201392140	201392131	120520704
WebThunder	201392147	201392141	201392132	120455168
Winy Encrypted			201392129	117703424

**Review Draft - Cisco Confidential****Table 4-11 Signature ID Values for PP#12**

<b>Signature Name</b>	<b>3.0.6 Protocol Pack #12 Signature ID</b>	<b>3.1.0 Protocol Pack #12 Signature ID</b>	<b>3.1.1 Protocol Pack #12 Signature ID</b>	<b>3.1.5 Protocol Pack #12 and Later Signature ID</b>
Deluge BitTorrent	201392148	201392143	201392131	118097408
BBBroadcast	201392149	201392142	201392130	120586240
PacketiX	201392150	201392144	201392132	120651776
Second Life	201392152	201392146	201392146	185270272
Vivox	201392153	201392147	201392147	85065728

**Table 4-12 Signature ID Values for PP#13**

<b>Signature Name</b>	<b>3.0.6 Protocol Pack #13 Signature ID</b>	<b>3.1.0 Protocol Pack #13 Signature ID</b>	<b>3.1.1 Protocol Pack #13 Signature ID</b>	<b>3.1.5 Protocol Pack #13 and Later Signature ID</b>
Behavioral VoIP	201392154	201392148	201392148	84934656
Behavioral RTP	201392155	201392149	201392149	84934912
Behavioral Skype VoIP	201392156	201392150	201392150	84935168
Behavioral SkypeIN	201392157	201392151	201392151	84935424
Behavioral SkypeOUT	201392158	201392152	201392152	84935680
Angle Media	201392159	201392153	201392153	120717312
SopCast	201392160	201392154	201392154	120782848
Pptp	201392161	201392155	201392155	101122048
Tor	201392162	201392156	201392156	120848384
Tor Over HTTP	—	—	—	120848640
Tor Over HTTP—Unidirectional Client Request	—	—	—	120848896

**Table 4-13 Signature ID Values for PP#14**

<b>Signature Name</b>	<b>3.0.6 Protocol Pack #14 Signature ID</b>	<b>3.1.0 Protocol Pack #14 Signature ID</b>	<b>3.1.1 Protocol Pack #14 Signature ID</b>	<b>3.1.5 and Above Protocol Pack #14 Signature ID</b>
BabelGum	201392163	201392157	201392157	218103808
RTMP	201392164	201392158	201392158	218169344
Hulu	201392165	201392159	201392159	218234880
Ventrilo	201392166	201392160	201392160	85131264

**Review Draft - Cisco Confidential****Table 4-13 Signature ID Values for PP#14 (continued)**

Signature Name	3.0.6 Protocol Pack #14 Signature ID	3.1.0 Protocol Pack #14 Signature ID	3.1.1 Protocol Pack #14 Signature ID	3.1.5 and Above Protocol Pack #14 Signature ID
TeamSpeak	201392167	201392161	201392161	85196800
BBC IPlayer over RTMP	201392168	201392162	201392162	120521984

**Table 4-14 Signature ID Values for PP#15**

Signature Name	3.0.6 Protocol Pack #15 Signature ID	3.1.1 Protocol Pack #15 Signature ID	3.1.5 and Above Protocol Pack #15 Signature ID
TVUPlayer	201392169	201392163	134610944
PPFilm	201392171	201392168	134676480
ABC iView	201392174	201392174	218235136
Naver Phone	201392176	201392176	185335808
NateOn	201392178	201392180	185401344
GMail	201392180	201392166	67567616

**Table 4-15 Signature ID Values for PP#16**

Signature Name	3.1.1 Protocol Pack #16 Signature ID	3.1.5/3.1.6/3.1.6S/3.1.7 Protocol Pack #16 Signature ID	3.5.0 Protocol Pack #16 Signature ID
NNTP Download	Not supported	Not supported	67174656
Telepresence	201392184	85393408	85393408
HyppTV	201392188	218300416	218300416
Vagaa	Not supported	120913920	120913920

**Table 4-16 Signature ID Values for PP#17**

Signature Name	3.1.6/3.1.6S/3.1.7/3.5.0 Protocol Pack #17 Signature ID
YouTube HD	50403072
YouTube Normal	50403584
Yahoo General Login	184683264

**Review Draft - Cisco Confidential****Table 4-17 Signature ID Values for PP#18**

<b>Signature Name</b>	<b>3.1.7/3.5.0/3.5.5 Protocol Pack #18 Signature ID</b>
Quake3 Gaming Server	268566528
Truphone over SIP	85458944
Maple Story Data	268501248
Maple Story Data - Unidirectional Server Response	268501504
Maple Story Control	268501760
Maple Story Control - Unidirectional Server Response	268502016
IPSec over tcp	167903744
Encapsulated ESP	167904000
isakmp	167903488
Flash YouTube HQ	50404096
Flash YouTube HQ Unidirectional Client Request	50404352
Internet Video Youtube RTMP	218365952
Fileguri over HTTP	120979712
Fileguri over HTTP - Unidirectional Client Request	120979968
Fileguri HTTP Like over UDP	120980224
TomatoPang over TCP	121045248
TomatoPang over TCP - Unidirectional Client Request	121045504
Songsari over HTTP	121110784
Songsari over HTTP - Unidirectional Client Request	121111040
Songsari over TCP	121111296
Songsari over TCP - Unidirectional Server Response	121111552
Songsari over UDP	121111808

**Table 4-18 Signature ID Values for PP#19**

<b>Signature name</b>	<b>3.1.7/3.5.0/3.5.5 Protocol Pack #19 Signature ID</b>
Google Voice over HTTPS	85524480
BitTorrent File Transfer DNA	118099200
BitTorrent Networking DNA	118098688
BitTorrent Networking DNA - Uni Client Request	118098944
BitTorrent File Transfer DNA - Uni Client Request	118099456
Steam Downlaod	268636160

**Review Draft - Cisco Confidential****Table 4-18 Signature ID Values for PP#19 (continued)**

Steam Friends	268640256
Certificate-Based OpenVPN over TCP	167969280
Certificate-Based OpenVPN over UDP	167969024
Credentials-Based OpenVPN over UDP	167969536
Credentials-Based OpenVPN over TCP	167969792
PSK-Based OpenVPN over TCP	167970048
PSK-Based OpenVPN over UDP	167970304
Lottofile over TCP	121176320
Lottofile over TCP - Unidirectional Client Request	121176576
Monkey3 over TCP	121241856
Monkey3 over TCP - Unidirectional Client Request	121242112
SSL	167837696
SSL Aged Flow Continuation	167837952

**Table 4-19 Signature ID Values for PP#20**

<b>Signature name</b>	<b>3.1.7/3.5.0/3.5.5 Protocol Pack #19 Signature ID</b>
Citrix over TCP	285278720
Citrix over TCP - Unidirectional Client Request	285278464
Einy SSL	121307392
Google Talk Voice RTP	185075712
LapLink over SSL	285344512
LapLink over TCP	285344000
LapLink over TCP - Unidirectional Client Request	285344256
RTMPE	218170112
StreetFighterIV	268697600

**Table 4-20 Signature ID Values for PP#21**

<b>Signature name</b>	<b>3.1.7/3.5.5/3.6.0 Protocol Pack #21 Signature ID</b>
ICICI over SSL	302055680
Etrade over SSL	302055936
India Infoline over SSL	302056192
SMTP TLS	67372032
SkeedReceiver over TCP	121438464
UGLive2	121504000
RayV	218431744
WebEx over SSL	85590272

**Review Draft - Cisco Confidential****Table 4-20 Signature ID Values for PP#21 (continued)**

MS Exchange Data Traffic	67633408
MS Exchange Control Traffic	67633664
Windows Update over SSL	101187840
Windows Update over HTTP (V3.1.7 only)	101188096
Windows Update over HTTP - Uni Client Request (V3.1.7 only)	101188352

**Table 4-21 Signature ID Values for PP#22**

<b>Signature name</b>	<b>3.1.7/3.5.5/3.6.0/3.6.1 Protocol Pack #22 Signature ID</b>
Newcamd over TCP	218497024
CCcam over TCP	218562560
GBox over TCP	218628096
Dial070 over TCP	85656064
Dial070 over TCP - Unidirectional Client Request	85656320
Dial070 login over TCP	85656576
Dial070 login over TCP - Unidirectional Client Request	85656832
Dial070 over UDP	85655808
Skype Chat-Voip-Ft	84411904
ooVoo Networking	185467136
ooVoo Voice	185467392
ooVoo Chat for split Initiator	185467648
ooVoo Chat	185467904
ActiveSync Gmail	101253120
JaJah YahooPhoneOut	84607744
xbox Call Of Duty	268763136

**Table 4-22 Signature ID Values for PP#23**

<b>Signature name</b>	<b>3.5.5/3.6.0/3.6.1 Protocol Pack #23 Signature ID</b>
Wow-Gaming	268828672
uucall-login	85721344
uucall-voice	85721600
Net2Phone Voice	85786880
Net2Phone Voice - Unidirectional Client Request	85787136
Net2Phone Networking	85787392
Net2Phone Networking - Unidirectional Client Request	85787648



**Review Draft - Cisco Confidential****Table 4-22 Signature ID Values for PP#23 (continued)**

<b>Signature name</b>	<b>3.5.5/3.6.0/3.6.1 Protocol Pack #23 Signature ID</b>
Headcall Voice	85852416
Headcall Voice - Unidirectional Client Request	85852672
Netflix-Networking	218759168
Ustream	218693632
CCTV_Video_Stream_UDP	218759424
SVTPlay	218824704
Pandora	251789312
Pandora Audio	251789568
Generic P2PSuspected	118099712

**Table 4-23 Signature ID Values for PP#24**

<b>Signature name</b>	<b>3.5.5/3.6.1/3.6.5 Protocol Pack #24 Signature ID</b>
Daum-login	67698944
FunshionTCP Buffering	218890240
FunshionTCP Buffering - Unidirectional Client Request	218890496
FunshionUDP Playing	218890752
FunshionUDP Playing - Unidirectional Client Request	218891008
Gadu-login-chat	185532672
Gadu-FT	185532928
Gadu-Radio	185533184
Viber ControlFlow Over TCP	85917952
Viber ControlFlow Over TCP - Unidirectional Client Request	85918208
Viber DataFlow Over UDP	85918464
Yahoo Messenger VoIP_JaJah Call Setup	84608512
Yahoo VoIP UDP	84609536
JaJah YahooPhoneOut UDP	84608768
Skype-VoIP-Mobile-To-PC	84412160
Gmail Video TCP	85525504
Gmail Video UDP	85525760
Gmail Video SSL	85526016
Gmail VOIP TCP	85526272
Gmail VOIP SSL	85526528
Temp Gmail Video TCP	85524992

**Review Draft - Cisco Confidential****Table 4-23 Signature ID Values for PP#24 (continued)**

<b>Signature name</b>	<b>3.5.5/3.6.1/3.6.5 Protocol Pack #24 Signature ID</b>
Temp Gmail Video SSL	85525248
Alicall over UDP	101711872
Alicall over TCP	101712128
Alicall Callback	101712640
Alicall Control(TCP/UDP call)	101712896
SSH over TCP	168034560

**Table 4-24 Signature ID values for PP#25**

<b>Signature name</b>	<b>3.5.5/3.6.5/3.6.6 Protocol Pack #25 Signature ID</b>
Facebook Video Record	218955776
Google Call Phone UDP	85526784
Google Call Phone TCP	85527040
Google Call Phone SSL	85527296
Youku Video Streaming	50404608
Youku Video Streaming-Unidirectional Client Request	50404864
Tango Video Calls Data Flow	85983488
Tango Video Calls control Flow	85983232
Viber ControlFlow Over TCP	85917952
JustVoIP PC TO PC UDP	86114304
Skype Video	84412416
Alicall over UDP	86245376
Alicall Login	86245632
Alicall Callback	86245888
Alicall Control(TCP/UDP call)	86246144
MyPeople Voice Over SIP	86179840
MyPeople Video Call	86180096
Shareman-download	118226944
NexTV over TCP	219021312
NexTV over UDP	219021568
Netflix Movie Data	218759680
Netflix Movie Data-Unidirectional Client Request	218759936
Starcraft2-Login-TCP flow	268894208
Starcraft2-Multiplayer Gaming-UDP flow	268894464
Rift_Tcp flow	269025280

**Review Draft - Cisco Confidential****Table 4-24 Signature ID values for PP#25 (continued)**

Signature name	3.5.5/3.6.5/3.6.6 Protocol Pack #25 Signature ID
Minecraft-Login-SSL flow	268960000
Minecraft-Gameplay-TCP flow	268960256
UUSee TCP	121569536
UUSee UDP	121569792

**Table 4-25 Signature ID values for PP#26**

Signature name	3.6.1/3.6.6/3.7.0 Protocol Pack #26 Signature ID
WhatsApp Message flow	185598720
WhatsApp Data Transfer	185598208
WhatsApp jabber flow	185598464
SpiralKnights TCP-control flow	269091072
SpiralKnights UDP-Game flow	269091328
gPlex Data Flow-UDP	86311168
gPlex Control Flow-UDP	86311424
TeamViewer TCP	285409536
TeamViewer UDP	285409792
Dropbox upload/download	134742016
Olive Phone over TCP	185599232
Olive Phone over UDP	185599488
MagicJack login SSL	86376704
MagicJack call	86376960
iTel dataflow udp	86442240
iTel control flow udp	86442496

**Table 4-26 Signature ID values for PP#27**

Signature name	3.6.5/3.7.0/3.7.1/3.7.2 Protocol Pack #27 Signature ID
Apple iMessage text	187695360
Apple iMessage Image and Video	187695616
ChampionsOnlineTCP	269156608
COD BlackOps TCP	269287680
COD BlackOps UDP	269287936
Facetime Data Flow UDP	86507776
Generic-IPV6	16973824
Generic-IPV6-Non Established	16974592

**Review Draft - Cisco Confidential****Table 4-26 Signature ID values for PP#27 (continued)**

Nimbuzz over Jabber	186646784
Nimbuzz over Jabber-Unidirectional Client Request	186647040
Nimbuzz over RTP	186647296
ooVoo Voice SSL	185468160
ooVoo IM	185468416
Qvod over TCP	219087104
Qvod over UDP	219087360
Qvod over HTTP	219087872
Qvod over http split initiator	219087616
Spotify Networking	121372928
Spotify Music P2P	121373440
Spotify Networking-Unidirectional Client Request	121373184
Spotify Music P2P-Unidirectional Client Request	121373696
TeamForstress2 TCP	269353216
TeamFortress2 UDP	269353472
TELNET SPLIT INITIATOR	101319168
TELNET SPLIT INITIATE	101319242
Warcraft3_Login	269222144
Warcraft3_Tcp	269222400

**Table 4-27 Signature ID values for PP#28**

Signature name	3.6.5/3.7.0/3.7.1/3.7.2/3.7.5 Protocol Pack #28 Signature ID
Hyves Desktop Chat	188743680
Hyves Desktop Chat - Unidirectional Client Request	188743936
SDGCFighterTCP	269418752
SDGCFighterUDP	269419008
SuspectedRTMPE	218170368
LotusDominoTCP	68157696
Skype-IM	84412672

**Table 4-28 Signature ID values for PP#29**

Signature name	3.7.0/3.7.1/3.7.2/3.7.5 Protocol Pack #29 Signature ID
AmazonCloud	251920384

**Review Draft - Cisco Confidential****Table 4-28 Signature ID values for PP#29 (continued)**

AmazonCloud Drive	251920640
AmazonCloud Player	251920896
AndroidMarketDataFlow	134807808
icloud	251854848
JabberSSL	185008640
LoveFilm	50405376
Mumble Chat	86573312
Mumble Voice	86573568
Teredo Generic	16909056

**Table 4-29 Signature ID values for PP#30**

<b>Signature Name</b>	<b>3.7.0/3.7.1/3.7.2/3.7.5 Protocol Pack #30 Signature ID</b>
Download	134284544
Download-Unidirectional Client Request	134284800
BBC iplayer WatchLive over RTMP	120522240
BBC iplayer ListenLive over RTMP	120522496
Dropbox signature	134742016
eBuddy XMS	189792512
Gadu Gadu Login New	185533440
Gadu Gadu Chat-Photo-FT New	185533696
GoogleGoggles	50409472
GoogleDrive	251985920
LINE SIP	2265129760
LINE SSL	2265129060
Opera Mobile signature	50413568
SpeedyShare-Download	1346392352

**Table 4-30 Signature ID Values for PP#31**

<b>Signature name</b>	<b>3.7.0/3.7.1/3.7.2/3.7.5 Protocol Pack #31 Signature ID</b>
DailyMotionWebcamUpload	219152640
Daum MyPeople Voice	87097600
Facebook Messenger Chat	87036160
Instagram Login or Share	121635072

**Review Draft - Cisco Confidential****Table 4-30 Signature ID Values for PP#31 (continued)**

<b>Signature name</b>	<b>3.7.0/3.7.1/3.7.2/3.7.5 Protocol Pack #31 Signature ID</b>
Kakao Chat	88080640
Kakao Ring	88080896
Kakao Call	88081152
LogMeInIgnition	285474816
NateonTalkcall	87040000
NateonTalkSSL	87040256
NateonTalkFileTransfer	87040512
Origin Login	269484288
Origin Chat	269484800
saavn	190841088
SkyDrive	252051712
SkyDriveNetDnld	252051968
Soundcloud_HTTPS	50417920
UbuntuoneLogin	191889664
UbuntuoneFT	191889920
UbuntuoneStreaming	191890176
VopiumSSL	89128960
Vopium_WebIM_Call	89194496
Vopium_Call	89260032

**Table 4-31 Signature ID Values for PP#32**

<b>Signature name</b>	<b>3.7.1/3.7.2/3.7.5/3.8.0 Protocol Pack #32 Signature ID</b>
BOX	50426112
GameCenter	50422016
GuildWars2_TCP	269549824
Kindle Download	134873344
TuMe_UDP	87044352
TuMe_SSL	87044608
TextPlusInternational_SSL	192938240
Tuenti	50429952
TuentiVideoChat	50430208
Yahoo Voice and Video	84609792
VNC Viewer	285540352

**Review Draft - Cisco Confidential****Table 4-32 Signature ID Values for PP#33**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5 Protocol Pack #33 Signature ID</b>
Adobe Reader Cloud	252182784, 252183040
Bebo	50860032, 50860288, 50860544
ChatON	193986816
CloudME	252055808
eBay	302317824
Facebook Over HTTPS	252117248
FourSquare	252313856, 252314112
GroupMe	195035648
Google Maps	190844928
Google Talk SSL	185075968
PutIo	252248320
RapidShare	252379392
Watchitoo	219349248
WazeGPS	50434304
WeChat	87048448, 87048704

**Table 4-33 Signature ID Values for PP#34**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5 Protocol Pack #34 Signature ID</b>
Carbonite	285737216
Cubby	193990912
Facebook HTTP	252117504
Hootsuite	252444928
Hotspot Shield	168038656, 168038912
Justcloud	252383488, 252384000, 252384256, 252384512
MEGA	121639168
Metacafe	219218176
Snapchat	195039488
Socialcam	219283712
Talkray	86049024, 86049280
Twitter	252510464

**Review Draft - Cisco Confidential****Table 4-34 Signature ID Values for PP#35**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5/4.0.0 Protocol Pack #35 Signature ID</b>
Bump	121647360
Comm	87056640, 87056896
HTTP POST	50438144
Gmail Video	85526544
Icq Voice	184879616
Iperf	285802752, 285803008
LinkedIn	252576000
Mailru	87060992, 87061504, 87060736,87061248
MediaFire	252641280, 252641536
Qik	87052544, 87052800, 87053056
QQ	184745984, 184746240, 184747008,184747776
Qvod	219087104, 219087872, 219088128
Remote Desktop Connection	286261504
Shoutcast	121643264
Tango	85983232, 85983488, 85983744, 85984000
Ultrasurf	121651456
Vk	252707072

**Table 4-35 Signature ID Values for PP#36**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5/4.0.0 Protocol Pack #36 Signature ID</b>
Crashplan	254804224
Facebook voip	87036416
iFone Platinum	87068928, 87069184
iMessage	187695872
Line Voip	87032576
Megacloud	253755648
Mozy	50864384
Nimbuzz	186647296
NymGo	87064832
Tor obfuscation	120849152
Satellite Direct	219545856



**Review Draft - Cisco Confidential****Table 4-35 Signature ID Values for PP#36 (continued)**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5/4.0.0 Protocol Pack #36 Signature ID</b>
TotalMovie	219480320, 219480576
Vimeo	219414784

**Table 4-36 Signature ID Values for PP#37**

<b>Signature name</b>	<b>3.7.2/3.8.0/3.8.5/4.0.0 Protocol Pack #37 Signature ID</b>
BitLord torrent client	118096384, 118096896
CinapolisKlic	219742464, 219742720
clipfish.de	219676928
Dailymotion	219152896
Dial91	87073024
GoogleMaps	190845184
Line Voice	87032576
Lovefilm	50405376
Mailru	87060992, 87060736, 87061248
NowTV	219611648
Onlive	269615360, 269615616
QQ_Android	184748544, 184748800
StromMedia	121655552, 121655808
Viber	85918464
Yandex.disk	255852800, 255853056

**Table 4-37 Signature ID Values for PP#38**

<b>Signature name</b>	<b>3.7.2/3.8.5/4.0.0 Protocol Pack #38 Signature ID</b>
ARD Mediathek	220332288
BitTorrent Sync	118099968
BR Mediathek	220397824
BT Sport	220463360
ChatON	193986816
Crackle	220266752
Eyebeam	87077120

**Review Draft - Cisco Confidential****Table 4-37 Signature ID Values for PP#38 (continued)**

<b>Signature name</b>	<b>3.7.2/3.8.5/4.0.0 Protocol Pack #38 Signature ID</b>
Google Hangout	85525760, 85526016, 85526528, 85526544, 185075456
Hike	195100928
Instagram Video	121635328, 121635584
MessageMe	195043600
OpenDrive	255918336
RTL Now	220201216
Skype	84412160
SpiderOak Hive	252772608
Viddy	219349504
WhatsApp	185598208, 185598720

**Table 4-38 Signature ID Values for PP#39**

<b>Signature name</b>	<b>3.7.2/3.8.5/4.0.0/4.1.0 Protocol Pack #39 Signature ID</b>
Akamai	255983872
	134938880, 134939136, 134939392
Final Fantasy	269680896, 269681152
Fring	85000192
Fring VOIP	85000448
Imgur	252903680
Keek	256049408
Knight Online	269943040
League of Legends	269877504, 269877760
Line Camera	87032832
SilkRoad (Game)	269746432
SPDY	167838208
TuneIn Radio	220594432
Ubisoft Uplay	269811968
Viber	85918720
Wetransfer	252838144
Xbox One	268763392, 268763648
Yahoo Screen	220528896

**Review Draft - Cisco Confidential****Table 4-39 Signature ID Values for PP#40**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #40 Signature ID</b>
AppleMaps	50868224
BitCoin	121659648
Bitmessage	195166464
Dota2	270008576
DroidVPN	168046848, 168047104
GoogleEarthSSL	251724544
Myvideo.de	220733696, 220733952
NDRMediathek	220790784
SAT1	220664064
SinaWeibo	220667904
SpeedTest	50872576, 50872832, 55067392, 55067648
TeamViewer	285409536, 285409792
TencentWeibo	285806592
Tivibu	220659712
Tor	120848384
TTNET Muzik	252969216
TunnelBear	168042752, 168043008, 168043264
Viber	85918976
Wuakity	220598272
Youtube	50403072, 50403584, 50404096, 50404352
ZDF Mediathek	253034752

**Table 4-40 Signature ID Values for PP#41**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #41 Signature ID</b>
Ameba.jp	253100288
ArteMediathek	220856576
Candy Crush Saga	270012672
Deezer	—
GooglePlayMovies	—
iOS OTA Update	—
iTunes Radio	134285056
My-video.de	220734208
Microsoft OneDrive	252051712
Pandora Audio, Pandora_SSL, Pandora	251789568, 251789824, 251789312

**Review Draft - Cisco Confidential****Table 4-40 Signature ID Values for PP#41 (continued)**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #41 Signature ID</b>
Play Station4	270074112
Starcraft2	268894208, 268894464, 268894720
Supercell-Clash of Clans	270020608, 270020864
Titan-Fall	270016768
Windows Store	134942976, 134943232
Windows Update	101187840
Xbox_Video/Browsing	220672256, 220672512, 220672768, 220673024
YouTube HTTPS	221249536, 50372608, 50372864

**Table 4-41 Signature ID Values for PP#42**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #42 Signature ID</b>
Carousel	NA
FacebookVoip	87036416
FoxTube	220987648
Flash YouTube (YouTube Audio)	221249792
Google search	256180480, 256180736
iQIYI- TV Box Application	221319424, 221319680, 221319936
iTube	221184256
Line File Transfer	87033088
Line Voice	87032576
Mac	134947072
MacOsUpdate	134947328
My_Com-MyMail	67830272, 67830016
NBColympics	221118720, 256114688
Netflix	218759168, 218759680, 218759936, 2187560192
Prosieben	220922112, 220922368
Snapchat	195039744
Tor	120848384, 120849152
Tudou	221053184, 221053440, 221053696, 221053952
Twitch tv	256184320, 256184576, 221323520, 256188416, 221327616
Ultrasurf	121651712, 121651968, 121652224
Viber	85919232, 85923328, 85919488, 85923584, 85919744

**Review Draft - Cisco Confidential****Table 4-41 Signature ID Values for PP#42 (continued)**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #42 Signature ID</b>
Windows Update	101187840, 101188096
Zenmate	168050944

**Table 4-42 Signature ID Values for PP#43**

<b>Signature name</b>	<b>4.0.0/4.1.0/4.2.0/5.0.0 Protocol Pack #43 Signature ID</b>
AmazonInstantVideo	221335808 , 221336064
Facebook Slingshot	195235840
Google Plus	256200704
Hike Messengerq	195100928
iQIYI TV	221319424, 221319680, 221319936, 221320192, 221320448, 221320704, 221320960
ITV Player	221356288, 221356544, 221356800, 221357056
Joyn	87081216, 87081472
LeTV	221331712, 221331968
LINE	87032064, 87032570, 356
mychat	195232000,195232256, 87061504
PPStv (PPStream)	118821120
Proxpn VPN	168055040
Sohu TV	221339904, 221340160
Tencent Weibo	285806848
Togic TV	NA
TunnelBear	NA
Twitter	252510464
UNBLOCKUS	168058880
VGTV and VGDirekte	25619512, 221344000, 256192768, 221348096, 256196864
Viber Message	85920000, 85921792, 85922048
Watchever	221352192
ZONA	121663744

**Review Draft - Cisco Confidential****Table 4-43 Signature ID Values for PP#44**

<b>Signature name</b>	<b>4.0.0/4.1.0/4.2.0/5.0.0 Protocol Pack #44 Signature ID</b>
ACESTream	118104064
Amazon Appstore	134873856
AmazonAppDownload	134873600
Baidu Appstore	134959616
Baidu	134959872, 134960128, 134960384
Cbox	218760448
Facebook_SPDY	87036672, 252117760, 255984128
Getflix	168063232
Google_SPDY	251724800, 134808576, 256180992, 221315072, 50373120, 50373376, 256201216, 256201472, 67568384, 251986176
Kakao Talk	88081408, 88081664
Kakao Talk Message Count	88081920, 88082176, 88082432
Line Message Count	87033344, 87033600, 87033856
MediaHint	168067328
Proxy-based OpenVPN	167970560
SCTP Protocol	17039360
SkyStore UK	221360384, 221360640
Tencent App Gem	134955264, 134955520
Twitter_SPDY	252510720
Wandoujia Appstore	134951424
Wandoujia	134951680, 134951936, 134952192
Wechat Message Count	87048960, 87049216, 87049472
Xunlei Kankan	121667840, 121668096
Windows Store AppDownload	134943488, 134943744

**Table 4-44 Signature ID Values for PP#45**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #45 Signature ID</b>
AdobeCloud	252183040, 252183000
Amazon Instant Video	NA
Apple IMessage	187695616
ESPN Streaming	221368320, 221368576, 221368832
HBO Streaming	221364224, 221364480, 221364736
Hike Message Counting	195101184, 195101440, 195101696, 195101952

**Review Draft - Cisco Confidential****Table 4-44 Signature ID Values for PP#45 (continued)**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #45 Signature ID</b>
iheart Radio	256,212,992,256,213,000,000,000,000
iMessage count	NA
IPSEC	167903488
iTunes Radio	134285312
KSVOD4TV	NA
Rdio	256209152, 256208896
Slacker Radio	256204800, 256205056
Sound Cloud	50417920, 50418170
SPDY	167838208
Spotify	121373952, 121374208, 121374464
Tango Message count	85985024, 85984256, 85984512, 85984768
WhatsApp Message Count	185598720

**Table 4-45 Signature ID Values for PP#46**

<b>Signature name</b>	<b>4.0.0/4.1.0 Protocol Pack #45 Signature ID</b>
AccuRadio	256237568, 256237824
Blackplanet	256229376
Crypto	86118400, 86122496
Fun Call	87089152,87089407,87089664,87089920
Grooveshark	256221184
Int call	87089152,87089407,87089664,87089920
MaskMyNumber	256241920
Radio Paradise	256233472, 256233728
Rhapsody	256225536,256225000
Songza	256217088, 256217344, 256217600
Tracebust	87085312
Windows Mobile software update	101388288

**Table 4-46 Signature ID Values for PP#47**

<b>Signature name</b>	<b>Protocol Pack #47 Signature ID</b>
Facebook Lite	87036928
Hotmail(Outlook)	67838208
Meerkatapp	221376512
More TV	221372416

**Review Draft - Cisco Confidential****Table 4-46 Signature ID Values for PP#47 (continued)**

<b>Signature name</b>	<b>Protocol Pack #47 Signature ID</b>
Skype	84414464
SSTP	87093248
Twitter	252510976
Viber Encrypted	85922304 85922560
Wanhuatong	NA
Webrtc-Firefox Hello	87162880, 87163392, 87163136
WhatsApp	185603328 185603584
Yahoo Mail	67834368

**Table 4-47 Signature ID Values for PP#48**

<b>Signature name</b>	<b>Protocol Pack #48 Signature ID</b>
Bleep by Bittorrent	195239936, 195240192
Facebook Messenger	87036160
Line	87032064,87033088,87032576,87032832
Periscope	221380608, 221380000
QUIC	256181248
SMPP	87228672
Snapchat	195039744, 195040000
Tinder	252514304
Yikyak	256245760

**Table 4-48 Signature ID Values for PP#49**

<b>Signature name</b>	<b>Protocol Pack #49 Signature ID</b>
Dubsmash	221446144
Live Stream	221389056
Oupeng	50414080,50413824
Slack	195244032
Viber	85919232,85923328,85919488, 85923584 & 85919744
Vine	221384960
XBOX_ONE	268763392, 268763648
Yahoo Livetext	87294208, 87294464



**Review Draft - Cisco Confidential****Table 4-49 Signature ID Values for PP#50**

<b>Signature name</b>	<b>Protocol Pack #50 Signature ID</b>
BurnNote	195256576
Jott Messenger	195260416
Liphone	87359488, 87359744
Popcornflix	NA
Showmax	221392896
Textsecure	195248128, 195248384, 195248640
Uber	256311296
Upptalk	195252224, 195252736, 195252992, 195253248, 195252480
Yelp	134963456, 134963000

**Table 4-50 Signature ID Values for PP#51**

<b>Signature name</b>	<b>Protocol Pack #51 Signature ID</b>
Bubbly	256249856, 256250112
Frilp	256253952
HALO5	270077952, 27007800
Kik Messenger	195264768
Meetup	195297280
Mindset	256258048
Tinychat	195268864, 195268608
Twitter	252510464
Whatsapp	185598208 185598464 185598720 185599232 185599488

**Table 4-51 Signature ID Values for PP#52**

<b>Signature name</b>	<b>Protocol Pack #52 Signature ID</b>
Aptoide	134967552
Bitcomet	118108160
Dropbox	134742016

**Review Draft - Cisco Confidential****Table 4-51 Signature ID Values for PP#52**

<b>Signature name</b>	<b>Protocol Pack #52 Signature ID</b>
last.fm	256262144
MT4	270082048
Netflix	218759168
Smule	256266240
Tapatalk	256270336
Whatsapp	185598720,185598976

**Table 4-52 Signature ID Values for PP#53**

<b>Signature Name</b>	<b>Protocol Pack #53 Signature ID</b>
Amazon Appstore	134873856
Aptoide Appcount	134967808, 134968064
Clash of Clans	270020864, 270020000
Google Drive	251985920
Google Generic apis	67842816
Google Generic clients_google	67843328
Google Generic gstatic	67842560
Google Generic mtalk	67842048, 67842304
Google Generic usercontent	67843072
Google Hangouts Voip	85525248, 85525760, 85526016, 85526528, 85526544, 185075456, 185073920, 87367680, 87367936
IMO	87363840, 87363584
Quic	256181248
True Caller	256274432

**Table 4-53 Signature ID Values for PP#54**

<b>Signature Name</b>	<b>Protocol Pack #54 Signature ID</b>
Google Generic accounts	67843584
Google Photos	67846144
Quora	256282624
Spotify	121372928,256278528,121373440, 121373184,121373696

**Review Draft - Cisco Confidential****Table 4-53 Signature ID Values for PP#54**

<b>Signature Name</b>	<b>Protocol Pack #54 Signature ID</b>
Threema	195305472
	195305728
	195305984
Untappd	256278528
Viber	85917952,85918208
	85918464,85918720
	85918976
Wickr	195301376
Youtube	50403072, 50403584, 50404096, 50404352

**Table 4-54 Signature ID Values for PP#55**

<b>Signature Name</b>	<b>Protocol Pack #55 Signature ID</b>
DailyMotion	219152896
	219153152
Globo	50380800
GooglePlayMusic	121671936
STAN	221396992
Waze	50434304
Wikipedia	256286720

***Review Draft - Cisco Confidential***



## General Information

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### Introduction



**Note**

This section is aligned with Protocol Pack #14 and later. In previous Protocol Packs, the classification methods might be different.

---

### HTTP Download - URL-based Signatures

For URL-based HTTP protocol signatures (Video / Audio / Binary over HTTP), the following file extension conditions are looked up in the HTTP request URL header:

- VIDEO\_OVER\_HTTP file extensions:  
asfv1, asf, wmv, wvx, avi, mov, asx, mp4, mpg, mpeg, qt, rm, rv, ogm, mkv, m4v, mvb, div, divx, 3gp, 3g2.
- AUDIO\_OVER\_HTTP file extensions:  
aac, aa3, aif, aiff, ape, mpa, m4a, m4b, m4p, midi, mid, mp3, ogg, oma, omg, ra, spx, wav, wma, ram, wax.
- BINARY\_OVER\_HTTP file extensions:  
zip, iso, rar, gz, pkg, pps, ppt, doc, exe.

### Flash-based Signatures

The following information describes the classification conditions for HTTP Flash-based signatures.

**Flash:**

- HTTP URL field: “.swf”, “.flv” extension or “/get\_video”, “/videoplayblack”, or “/generate” prefix  
Upon Flash signature detection, the following additional signatures are checked in order to get a more granular classification.

**Flash YouTube:**

- Host field: “youtube” or “youtube.com” or “yting.com” suffix
- Referrer field: “youtube.com”suffix

- Request Line URL field: “youtube.com” suffix

**Flash MySpace:**

- Host field: “myspace.com” suffix

**Flash Yahoo:**

- Host field: “yahoo.com” suffix

## 31SMS

In Protocol Pack #26, classification of network-side SMS retrieval traffic is not supported. But when you apply a block policy, the functionality of the 31SMS application is blocked.

## Skype Signatures and Support Matrix

Protocol packs prior to PP #22 did not provide effective and reliable classification of Skype TCP. A tunable (GT\_PL\_BLOCK\_SKYPE\_ALL\_FEATURES) was introduced in PP #22 that allows you to control Skype protocol classification. This mechanism is based on the following two concepts:

- Blocking Skype UDP: The tunable mechanism applies only to Skype TCP. Skype communication changes to TCP when Skype UDP is fully blocked by a device such as the SCE platform.
- Limiting Skype bandwidth: The system does not discriminate between different Skype flavors, such as IM, VoIP and FT. However, by limiting the total Skype bandwidth, VoIP and FT are effectively blocked, whereas IM gets through since it requires very little bandwidth.

The following section is applicable to Releases Protocol Pack #22 to Protocol Pack #27.



**Note**

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Skype IN and Skype OUT signatures, which point to the Skype PC to MOBILE calls IN and OUT respectively, have not been updated in recent protocol packs. Therefore, this may not work for newer versions of Skype.

---



**Note**

---

When GT\_PL\_BLOCK\_SKYPE\_ALL\_FEATURES is set to TRUE, there is no subservice classification (such as VoIP or FT) available under Skype services. All TCP Skype traffic is classified to the specific signature called “skype\_chat\_ft\_voip” under the service called “Other Skype”.

---

To set the tunable, use the following CLI command sequence:

```
enable 15
config
interface LineCard 0
tunable GT_PL_BLOCK_SKYPE_ALL_FEATURES value TRUE
end
```

To keep the tunable set to TRUE across reboot, use following command.

```
copy running-config startup-config
```

The following table summarizes the results of setting this tunable when PP #22 is installed.

	tunable set to TRUE	tunable set to FALSE (default)
<b>Classification</b>	Accurate granular classification of each of the Skype services is lost, since all Skype services will be classified as Skype.	Accurate granular classification of each of the Skype protocol suite (VoIP, FT). Skype Video will be classified as VoIP.
<b>Block Action</b>	A blocking policy can be set to force Skype to move to TCP communication, which can be effectively blocked for the whole protocol suite (VoIP, FT and IM) without dedicated classification.	Blocking is not effective.
<b>Rate limiting</b>	Skype can be rate limited for the whole protocol suite (recommended limit is <b>5Kbps</b> ). Since IM requires only a small bandwidth, it will get through, while Voice and FT will suffer from extreme jitter and disconnections.	Effective only for Skype over UDP. Set rates as follows: <ul style="list-style-type: none"> <li>• <b>5 Kbps</b> for Skype FT.</li> <li>• <b>3 Kbps</b> for Skype VoIP.</li> </ul> Rate limiting of Skype VoIP and FT for Skype over TCP is not effective.

The following section is applicable to Releases PP #28 and later.

**Table 5-1 Skype Support Matrix for Service/TCP (PP #28 Onwards)**

Service/TCP	Classification	Rate limiting as a means for block
IM	Supported	Not Supported
FT(PC-PC)	Supported	Supported
Voice(PC-PC)	Supported	Supported
Voice(PC-Mobile)	Supported	Supported
Voice(PC-Non-Skype Mobile)	Supported	Supported
Voice(PC-Non-Skype Landline)	Supported	Supported
Video(PC-Mobile)	Supported	Supported
Video(PC-PC)	Supported	Supported



**Note**

Skype Support Matrix for Service/UDP (PP #28 Onwards) is detailed in the below table.

**Table 5-2 Skype Support Matrix for Service/UDP (PP #28 Onwards)**

Service/TCP	Classification	Rate limiting as a means for block
IM	Not available (seeing only TCP traffic for IM)	
IM(Mobile-Mobile)	Supported	Not Supported
FT(PC-PC)	Supported	Supported

**Table 5-2 Skype Support Matrix for Service/UDP (PP #28 Onwards)**

FT(Mobile-Mobile)	Supported	Supported
Voice(PC-PC)	Supported	Supported
Voice(PC-Mobile)	Supported	Supported
Voice(PC-Non-Skype Mobile)	Supported	Supported
Voice(PC-Non-Skype Landline)	Supported	Supported
Voice(Mobile-Mobile)	Supported	Supported
Video(PC-Mobile)	Supported	Supported
Video(PC-PC)	Supported	Supported
Video(Mobile-Mobile)	Supported	Supported

- Skype Sub service Classification accuracy is at 80%.
- SSL and HTTP Skype flows are not supported.
- Blocking of Skype: Configuration guideline.

To make FT, Voice and Video Skype services as unusable, do the following:

- Set the tunable `GT_PL_BLOCK_SKYPE_ALL_FEATURES` to `TRUE`.
- Set the tunable `RST_OTHER_SKYPE_FLOWS_FROM_SUBSCRIBER` to `TRUE`.

When `GT_PL_BLOCK_SKYPE_ALL_FEATURES` is set to `TRUE`, there is no subservice classification. From PP #28 onwards, all TCP/UDP Skype traffic is classified to the *Skype-IM* protocol under the service *Other Skype*.

Applying rate limit to approximately 5 kbps makes all the Skype services unusable. Depending on the network conditions, the rate limit value may be tuned it to a value between 3 and 6 kbps.

Starting from PP#34, to allow the Skype IM and make all the other Skype services unusable with 3 kbps rate-limiting, set the value of `GT_PL_ALLOWIM_BLOCK_OTHERS` and `GT_PL_BLOCK_SKYPE_ALL_FEATURES` tunables as `TRUE`.

## Viber Unidirectional Flow Classification



### Note

This feature is applicable only on Cisco SCE 8000.

Starting from Protocol Pack #42, you can enable classification of Viber Voip unidirectional flows.

To achieve this, enable the tunable `GT_PL_VIBERCALL_UNIDIRECTIONAL_FEATURE` and set the value of `GT_PL_VIBERCALL_NUM_PACKETS_TO_CHECK` tunable to 40 or above.

## Messaging Counting Support for Viber

Starting from Protocol Pack #43, SCE supports message counting.



To achieve this, enable the tunable `GT_PL_VIBER_MESSAGE_COUNT_ENABLE` and set the value of `GT_PL_VIBERMSGCNT_NUM_PACKETS_TO_CHECK` tunable to 15 and above. Also, the accuracy for message counting is 80% and above.

## Tunable Support for Few Android Appstore

Starting from Protocol Pack #44, SCE supports tunable for few Android Appstore.

Enable the tunable `GT_PL_BWT_APPLICATION_DO_CLASSIFY` towards classification and Appstore count for Baidu, TencentGem, and Wandoujia applications.

## Getflix Application Support for Mobile Devices

Getflix unblocks the blocked websites and it is available in PC (Web Browse), Android and iOS platforms. Starting from Protocol Pack #44, SCE supports Getflix application on mobile devices too.

Getflix application must be configured to be enabled on mobile devices. The following configurations are available:

- [Android-based Configuration](#)
- [iOS-based Configuration](#)

## Alicall Signatures and Support Matrix

Alicall voice traffic can be over TCP or UDP, based on the server selected during initial setup.

Signature Name	Signature ID	Comments
Alicall over UDP	101711872	Alicall voice UDP traffic, from PC to Mobile.
Alicall over TCP	101712128	Alicall voice TCP traffic, from PC to Mobile
Alicall Callback	101712640	Signature support for callback feature of Alicall, where Alicall initiates calls for Mobile to Mobile communication.
Alicall Control (TCP/UDP call)	101712896	Signature support for Call Control flow during call initiation

### Blocking Alicall

To block Alicall irrespective of L4 protocol, apply a block policy on the Protocol ID: “Alicall Control (TCP/UDP call)”.

# Gmail Video and VoIP Signatures Support

In the PP #24 release, only Gmail Video chat was supported.

However, because Google is providing voice and video services through Gtalk, Gmail VoIP, and Gmail Video applications, the following information clarifies the support matrix and expected signatures.

## Gmail Video Signature Details

Gmail Video chatting generates both video and voice traffic.

### Gmail Video - Video traffic

Gmail video traffic is by default UDP based. If UDP is blocked, it moves to TCP based, followed by SSL. Signatures are provided for all three different types of traffic.

### Gmail Video - Voice traffic

Gmail video traffic is by default UDP based. If UDP is blocked, it moves to TCP based, followed by SSL. Signatures are provided for all three different types of traffic.

- TCP-based traffic of Gmail Video-Voice and Gmail VoIP are classified to the new signatures Gmail VoIP (such as 85526272 and 85526528).
- UDP-based traffic of Gmail Video-Voice and Gmail VoIP are classified to existing Gtalk VoIP signature.

Signature Name	Signature ID	Comments
Gmail Video TCP	85525504	This signature is to support TCP-based video traffic of Gmail Video chat.
Gmail Video UDP	85525760	This signature is to support UDP-based video traffic of Gmail Video chat.
Gmail Video SSL	85526016	This signature is to support SSL-based video traffic of Gmail Video chat.
Gmail VoIP TCP	85526272	This signature is to support TCP-based voice traffic of Gmail Video chat and Gmail VoIP.
Gmail VoIP SSL	85526528	This signature is to support SSL-based voice traffic of Gmail Video chat and Gmail VoIP.
Temp Gmail Video TCP	85524992	Temporary signature for early detection of video traffic.
Temp Gmail Video SSL	85525248	Temporary signature for early detection of video traffic.

## Blocking Gmail Video

To block Gmail Video UDP traffic, apply a rate limit of 5 Kbps.

Other traffic flows can be blocked based on their respective signatures.

The following set of tunables that were already in PP #23 for Gtalk classification was not supported in PP #24.

- GT\_PL\_STUN\_TOTAL\_PACKETS\_SKIPPED
- GT\_PL\_STUN\_NUM\_PACKETS\_AFTER\_EACH\_SKIP

To enable you to control the classification of both Gmail and Gtalk traffic, the following tunables were introduced in PP # 24 instead of the tunables that were supported in PP #23:

- GT\_PL\_STUN\_TOTAL\_PACKETS\_SKIPPED\_FOR\_GMAIL\_GTALK\_TCP  
Default value set to 1020.
- GT\_PL\_STUN\_TOTAL\_PACKETS\_SKIPPED\_FOR\_GMAIL\_GTALK\_UDP  
Default value set to 1000.
- GT\_PL\_STUN\_NUM\_PACKETS\_AFTER\_EACH\_SKIP\_FOR\_GMAIL\_GTALK  
Default value set to 10.



**Tip**

The tunable GT\_PL\_STUN\_NUM\_PACKETS\_AFTER\_EACH\_SKIP\_FOR\_GMAIL\_GTALK should always be greater than 0 to support both Gmail video and VoIP as well as Gtalk applications. When this is set to 0, TCP traffic of Gmail video and VoIP is not classified.



**Tip**

The tunable GT\_PL\_STUN\_TOTAL\_PACKETS\_SKIPPED\_FOR\_GMAIL\_GTALK\_TCP should always be multiples of 60 to have a granular classification.

To set the tunable, use the following CLI command sequence:

```
SCE>enable 15
SCE#>config
SCE(config)#>interface LineCard 0
SCE(config if)#>tunable GT_PL_STUN_TOTAL_PACKETS_SKIPPED_FOR_GMAIL_GTALK_TCP value 1080
SCE(config if)#>end
```

To keep the tunable same across reboot, use following command.

```
SCE#>copy running-config startup-config
```

## Effective Blocking of Yahoo Messenger VoIP Services

Blocking call setup traffic of Yahoo Messenger triggers more flows and bypasses the blocking. To address this issue, call setup traffic has been separated by the protocol ID “Yahoo Messenger Call Setup” in PP #24. It is recommended not to apply a block policy on this protocol. For effective blocking, apply a block policy on the protocol Yahoo Messenger VoIP and JaJah YahooPhoneOut, while permitting “Yahoo Messenger Call Setup” traffic.

## MSN VoIP Traffic Blocking

Starting with PP #22, MSN VoIP Classification is supported for the latest MSN Messenger (version 14.0 as of PP #22)). MSN VoIP changes to TCP when it is fully blocked by a device such as the SCE platform.



**Tip**

To effectively block MSN VoIP traffic, apply rate-limiting at 3 Kbps, upstream and downstream.

## Thunder Service: Blocking Thunder Download

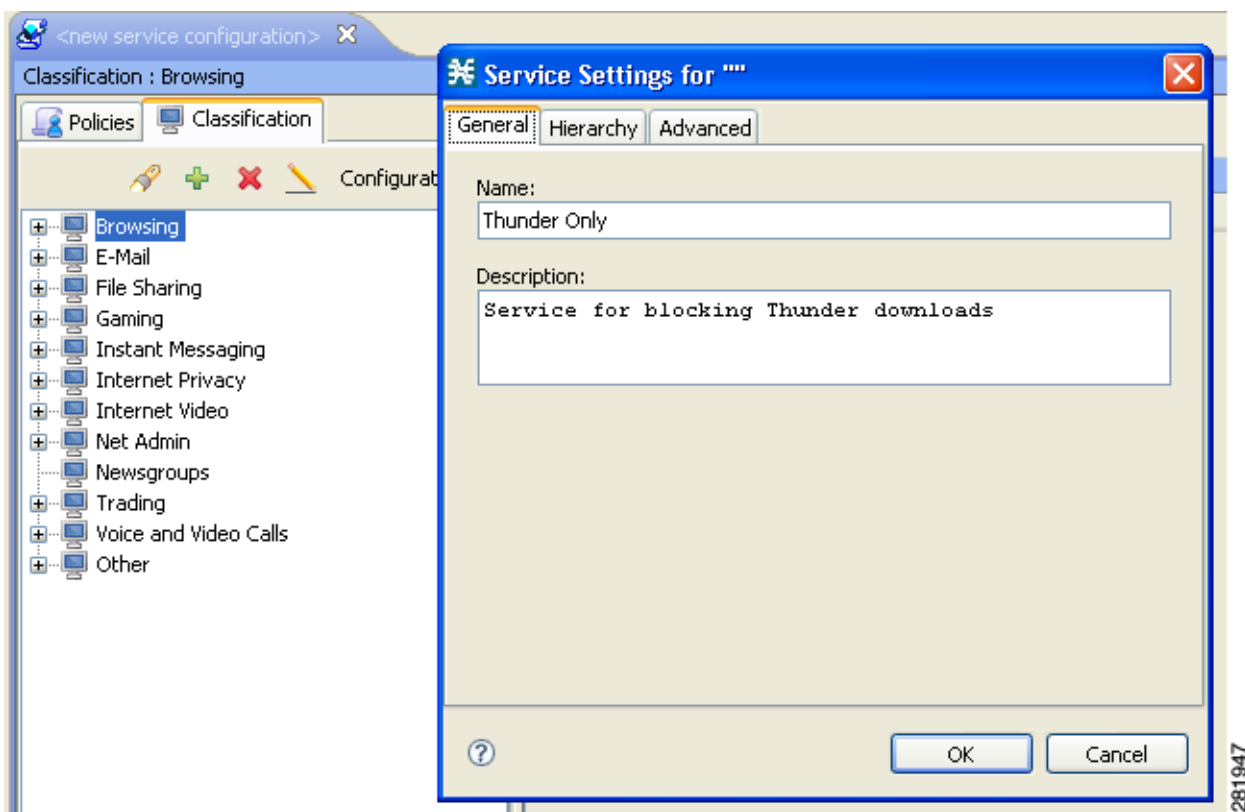
You can block Thunder download traffic by creating a new service and moving the Thunder service elements from the Other P2P service to the new service. You can then block the Thunder service without affecting other P2P protocols.

Add the WebThunder signature to the independent Thunder service.

To block Thunder download traffic, complete the following steps:

- Step 1** Create a new service. Give the service a name indicating that this service will be used to block Thunder download. (The name used in the example is 'Thunder Only'.)

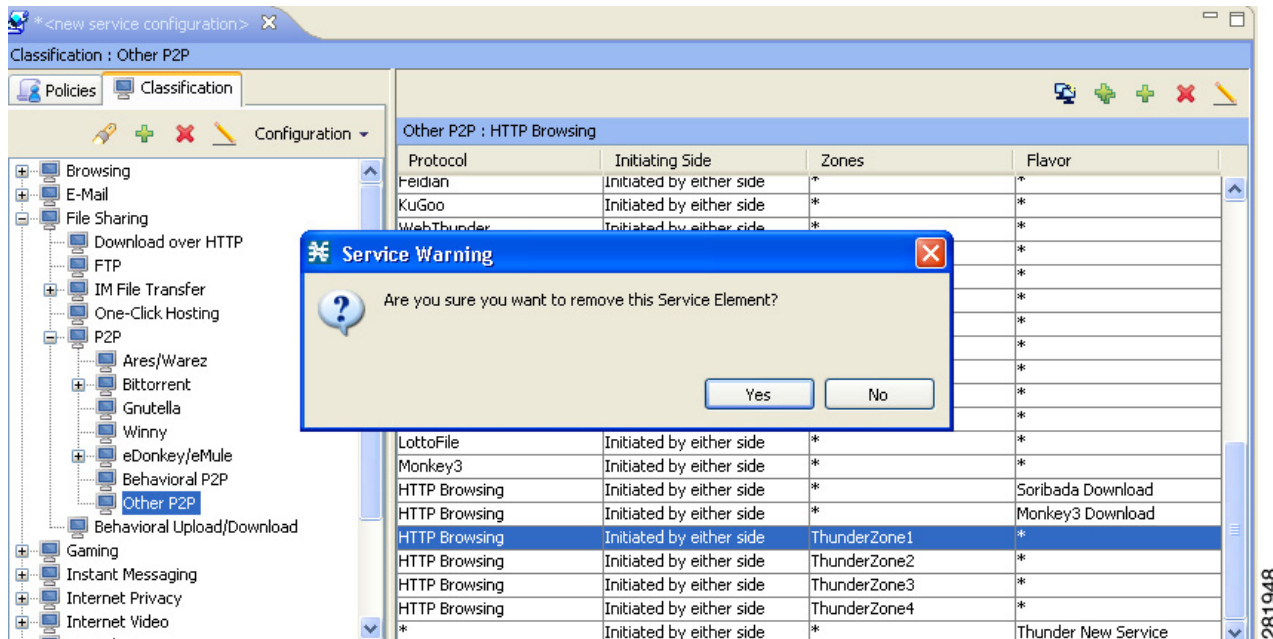
**Figure 5-1** Creating a Service



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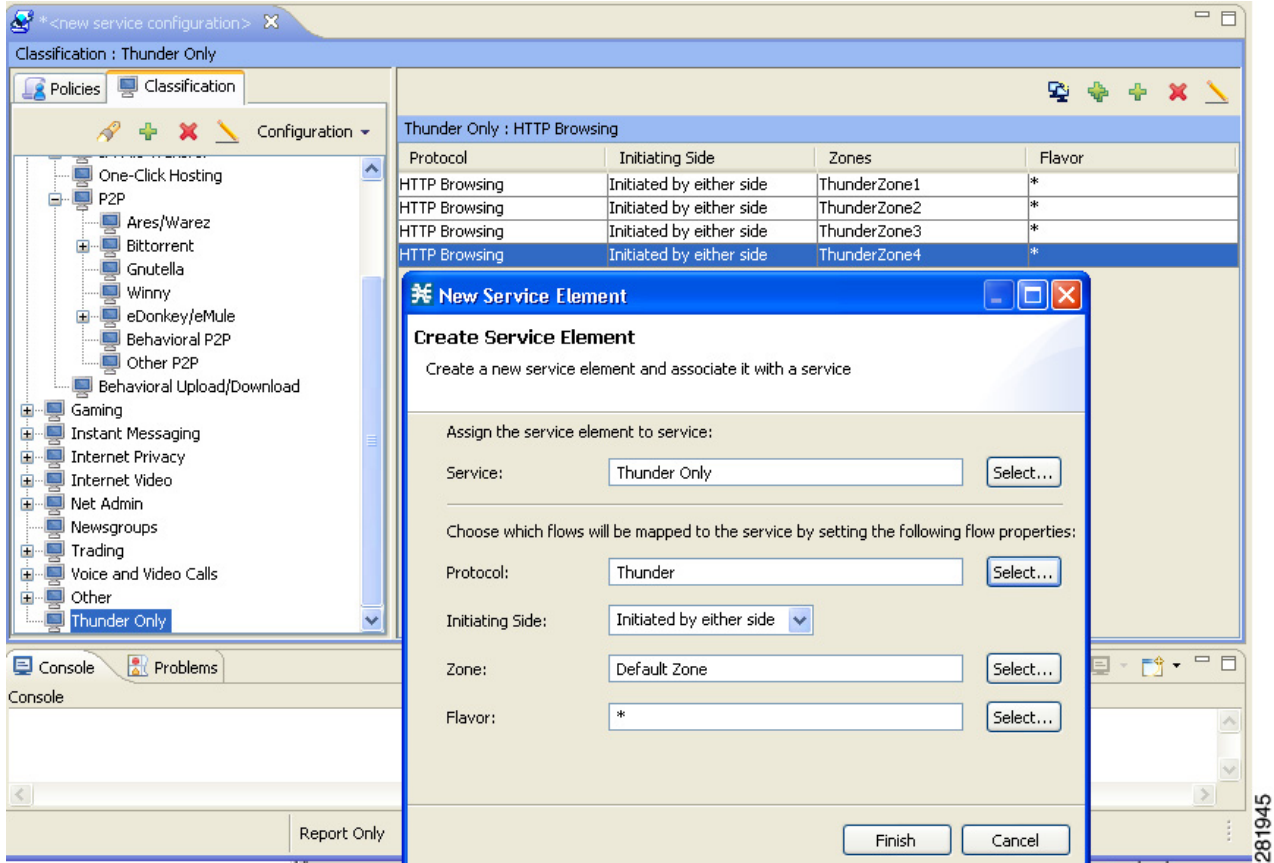
- Step 2** Remove the following elements from the 'Other P2P' service:
- Zones: ThunderZone1, ThunderZone2, ThunderZone3, and ThunderZone4
  - Flavor: Thunder New Service
  - Protocol: Thunder

**Figure 5-2** Removing the Thunder Service Elements from Other P2P Service



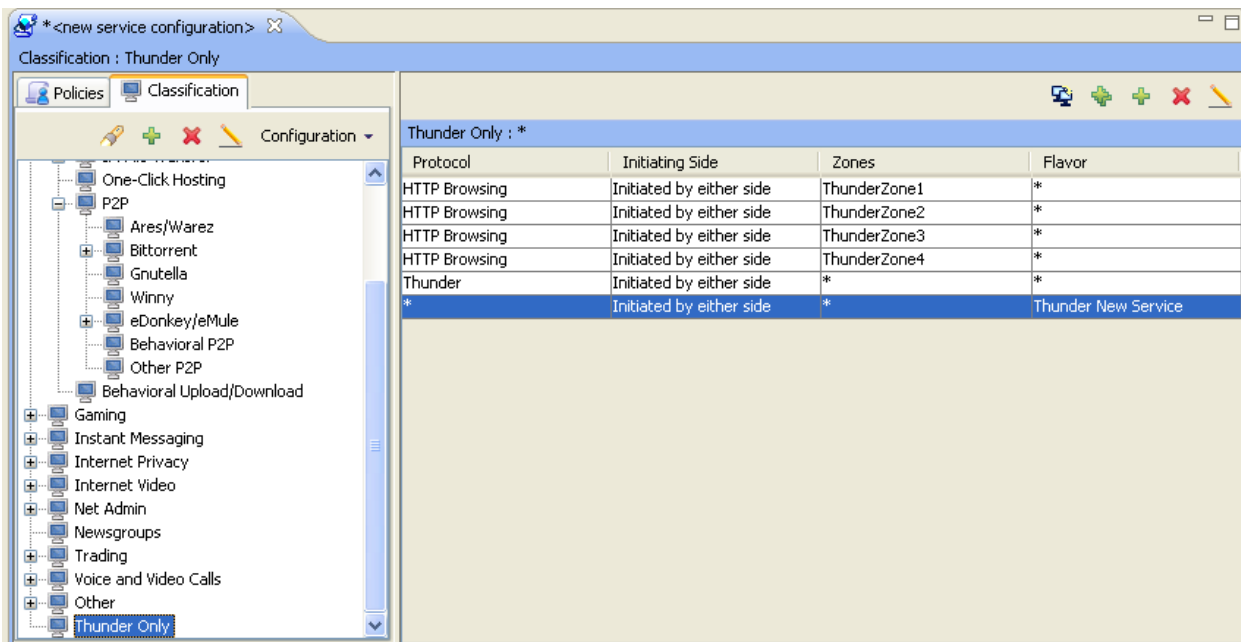
- Step 3** Add the following service elements (which you removed from the 'Other P2P' service) to the new service you created:
- Four service elements assigning ThunderZone1, ThunderZone2, ThunderZone3, and ThunderZone4 as the zones.
  - A service element assigning 'Thunder New Service' as the Flavor.
  - A service element assigning 'Thunder' as the protocol.

Figure 5-3 Adding a Service Element to the New Service



281945

Figure 5-4 Thunder Only Service Configuration



281949

- Step 4** Apply a block policy against the newly created service to block Thunder download traffic.

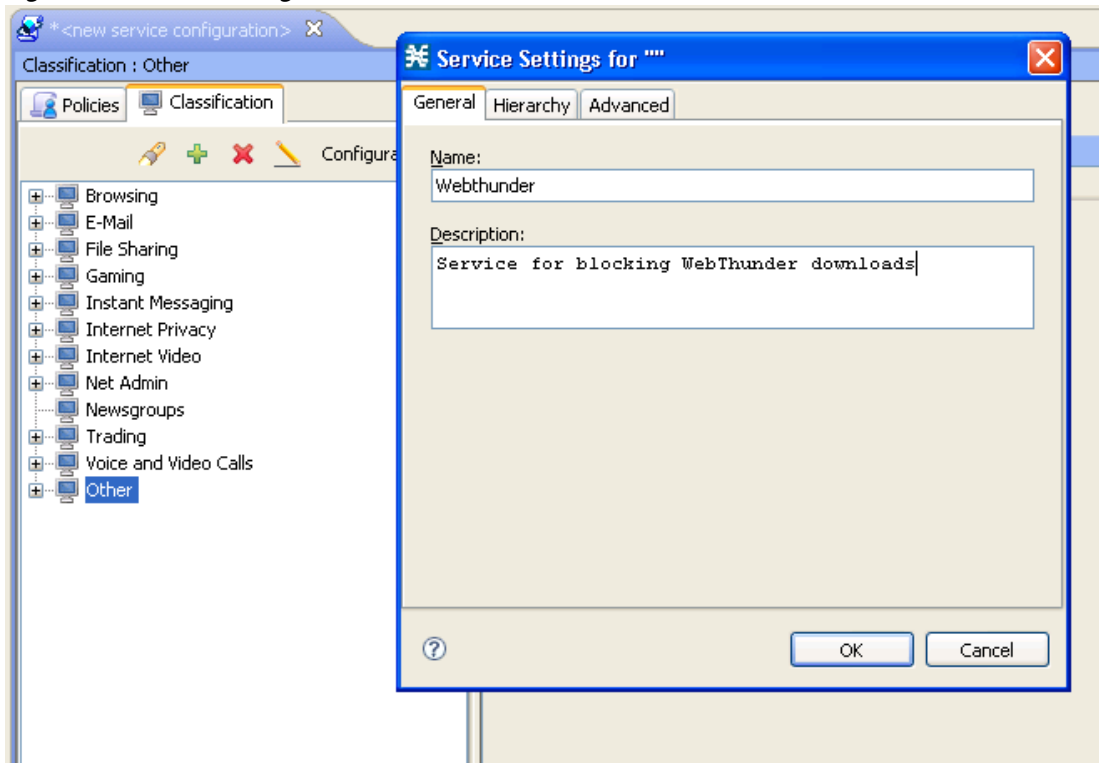
## Thunder Service: Blocking WebThunder Download

You can block WebThunder download traffic by creating a new service and deleting the WebThunder service element from the Other P2P service.

To block WebThunder download traffic, follow these steps:

- Step 1** Create a new service and enter an appropriate name indicating that this service is used to block WebThunder download.

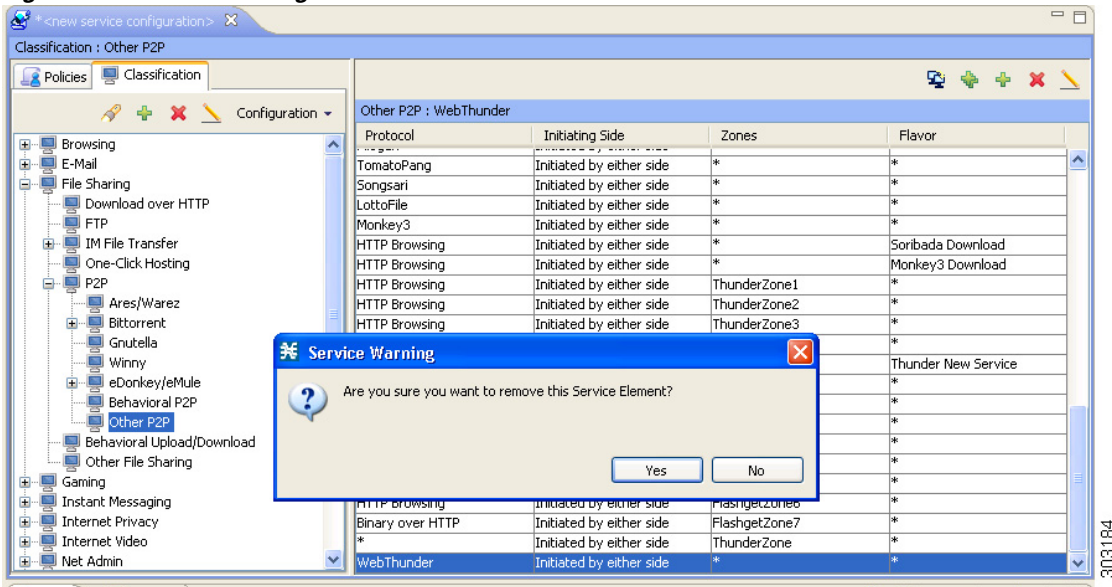
**Figure 5-5** Creating a WebThunder Service



## Thunder Service: Blocking Thunder Download

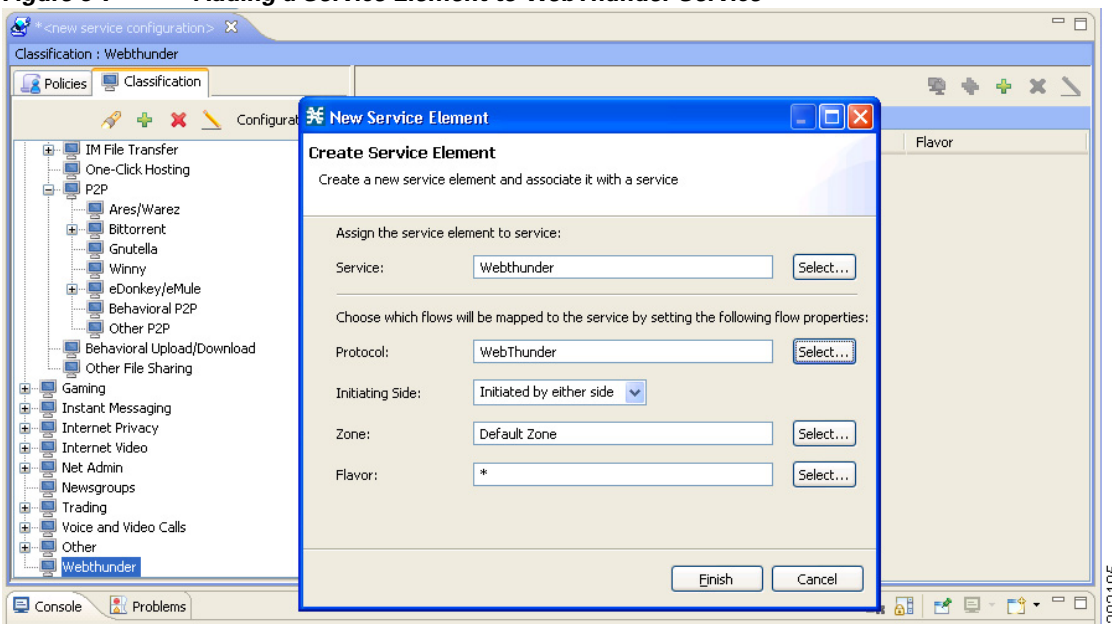
**Step 2** Click the **Other P2P** service and from the right pane, remove the protocol named WebThunder.

**Figure 5-6** Removing the WebThunder Service Elements from Other P2P Service



**Step 3** Add WebThunder service element to the new service you created.

**Figure 5-7** Adding a Service Element to WebThunder Service





## Generic P2PSuspected (Not supported in release PP #27 and later)

- The Generic P2PSuspected signature is based on the P2P traffic behavior reported by a customer. When an unknown application causes high levels of “Other UDP” traffic in the customer site, we assume that the traffic belongs to a P2P application.
- By default, the Generic P2PSuspected signature is under the “Other UDP” service. However, if this traffic is suspected to be P2P traffic, you must bring it under a “P2P” service.
- By default, the Generic P2PSuspected signature is turned off. The tunable that can be used to turn it on is GT\_PL\_GENERIC\_P2PSUSPECTED\_DO\_CLASSIFY.

**Note**

GT\_PL\_GENERIC\_P2PSUSPECTED\_DO\_CLASSIFY code is removed from PP#27 and later and the tunable is removed from 3.8.5 and later.

## HeadCall

Classification of Headcall traffic requires you to set the tunable GT\_PL\_HEADCALL\_DO\_CLASSIFY to true. By default, this tunable is set to false.

To set the tunable, use the following CLI command sequence:

```
enable 15
config
interface LineCard 0
tunable GT_PL_HEADCALL_DO_CLASSIFY value TRUE
end
```

To keep the tunable set to TRUE across reboot, use following command.

```
copy running-config startup-config
```

## P2P Throttling

If an issue is seen with P2P throttling at desirable bandwidth, configure the following Cisco SCABB advanced configuration settings:

- Step 1** From the Service Configuration Editor, choose **Configuration > Policies > System Settings...**
- Step 2** Click **Advanced Options** tab.
- Step 3** Click the **Advanced Service Configuration Options...** button.
- Step 4** In the Bandwidth Management area, change the value of the property **Level of BWC enforcement on networking flows on networking flows of P2P and IM applications** to **SCE to use relevant P2P or IM Service BWCs**.

## Popcorn-Time

Popcorn-Time is an application to watch movies streamed over BitTorrent. The application flows of this application is classified as BitTorrent.

## Behavioral Upload Download Signature Updates

In some geographical locations, unknown gaming traffic is identified as Behavioral Upload/Download and in turn to BitTorrent because of the behavior of the user.

Behavioral upload/download signatures are updated such a way that unknown gaming traffic will cease to be identified as BitTorrent.

By default these signature changes are disabled. To enable these signature changes, configure the following on the line card of the box:

```
SCE2000#> configure
SCE2000(config)#> interface LineCard 0
SCE2000(config if)#> tunable GT_PL_BITTORRENT_SKIP_BEHAVIORAL_BT_DO_CLASSIFY value TRUE
SCE2000(config if)#> exit
SCE2000(config)#> exit
SCE2000#> copy running-config-application startup-config-application
```

To revert to the default disabled signature changes, configure the following on the line card of the box:

```
SCE2000#> configure
SCE2000(config)#> interface LineCard 0
SCE2000(config if)#> tunable GT_PL_BITTORRENT_SKIP_BEHAVIORAL_BT_DO_CLASSIFY value FALSE
SCE2000(config if)#> exit
SCE2000(config)#> exit
SCE2000#> copy running-config-application startup-config-application
```



### Note

The tunable change will persist through reboots/policy apply/PP upgrades. It does not persist after PQI installation which is used in version upgrade.

## Service Tree and HTTP Browsing

As part of the SCOS Release 3.6.5 requirements, the following two services were introduced in SCA BB Release 3.6.5:

- ClickStream-New Page
- ClickStream-New Site

This affects any configuration that refers to the “HTTP Browsing” Protocol ID. As of Release 3.6.5, wherever HTTP Browsing is referred to, you might need to include these two new ClickStream services.

For example:

- Pre 3.6.5—“HTTP Browsing” is the only Protocol ID for Content filtering configuration.
- Post 3.6.5—In addition to “HTTP Browsing” Protocol Service, you must include the two ClickStream services for Content filtering configuration.

For more information, see [Release Notes for Cisco Service Control Application for Broadband \(SCA BB\), Release 3.6.x](#).

## Teredo

The global tunable “GT\_PL\_TUNNELED\_IPV6\_ENABLED” has to be enabled. By default this tunable is false in sce2000 and true in sce8000.

## BBC iPlayer

To classify the RTMPT traffic of BBC iPlayer using the BBC iPlayer over RTMP signature, you must set the tunable GT\_PL\_BBC\_RTMP\_DO\_CLASSIFY to TRUE. By default, this tunable is set to FALSE.

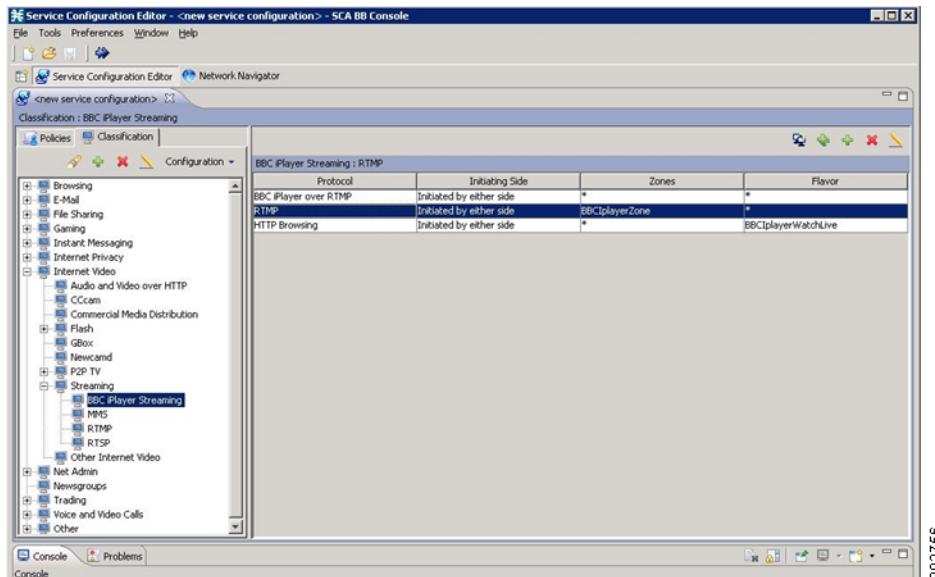
To set the tunable, use the following CLI command sequence:

```
SCE2000#> configure
SCE2000(config)#> interface LineCard 0
SCE2000(config if)# tunable GT_PL_BBC_RTMP_DO_CLASSIFY value TRUE
SCE2000(config if)# end
```

To maintain the tunable value to TRUE across reboots, copy the running configuration to the startup configuration using the **copy running-config startup-config** command after you set the tunable value to TRUE.

There are RTMPT flows that lack deterministic patterns. As a fall-back option, Zone support is included for RTMPT flows. Service element based on zone is added under “BBC iPlayer Streaming” service. A zone called “BBCIplayerZone” with five IP address is available. If you observe more zones, add them under BBCIplayerZone to improve the classification accuracy for RTMPT flows.

**Figure 5-8** Zone Configuration for BBC iPlayer



## STUN

STUN flows may not be usable if you configure a rate limit of 5 kbps with the default tunable value.

## YouTube Blocking

From Release PP31, a separate tunable is available to classify and block YouTube Flash video without impacting the non-YouTube HTTP traffic. You need to configure the tunable `GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_YOUTUBE` to block YouTube Flash video. The recommended value is 5.

To set the value of the tunable to 5, use the following CLI command sequence:

```
SCE2000#>configure
SCE2000(config)#>interface LineCard 0
SCE2000(config if)#> tunable
GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_YOUTUBE value 5
SCE2000(config if)#> end
```

## Flash youtube

The tunable `GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_YOUTUBE` is added to define HTTP GET request parameter specifically for youtube. By default tunable value is set to 1 and it shall be set to 5 in case of flash youtube blocking/classification is required.

## FourSquare

The `GT_PL_FOURSQUARE_MAPS_DO_CLASSIFY` tunable is added to classify the maps in foursquare application. By default, the value of the tunable is set to FALSE, but to classify the maps in foursquare it should be set to TRUE.

## Skype

The `GT_PL_ALLOWIM_BLOCK_OTHERS` tunable is enabled to allow Skype-IM and make all the other Skype services unusable.

## SpiderOak Hive

The default aging time for `PL_AGING_SPIDEROAKHIVE_PC` is 1200.

To support the flows with aging time longer than 1200, increase the aging time of tunable `PL_AGING_SPIDEROAKHIVE_PC` to 11000.

## Tor obfuscation (obfsproxy)

Classification of Tor obfuscation (obfsproxy) traffic requires you to set the tunable `GT_PL_TOR_OBFSPROXY_DO_CLASSIFY` to true. By default, this tunable is set to false.

To set the tunable:

```
SCE#> configure
SCE(config)#> interface LineCard 0
SCE(config if)#> tunable GT_PL_TOR_OBFSPROXY_DO_CLASSIFY value TRUE
SCE(config if)#> exit
SCE(config)#> exit
```

To keep the tunable set to TRUE across SCE reboot, use following command.

```
SCE#> copy running-config-application startup-config-application
```

## Dailymotion

Classification of Dailymotion traffic requires you to set the tunable `GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_DAILYMOTION` to 2 or 3. By default, this tunable is set to 1.

To set the tunable:

```
SCE#> configure
SCE(config)#> interface LineCard 0
SCE(config if)#> tunable
GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_DAILYMOTION value 2
SCE(config if)#> exit
SCE(config)#> exit
```

To keep the tunable set to a specific value across SCE reboot, use following command.

```
SCE#> copy running-config-application startup-config-application
```

To classify in iOS, set the value of the tunable `GT_PL__DO_CLASSIFY` to TRUE. By default, the value is FALSE.

## Ubisoft Uplay

To classify Uplay, set the value of the tunable `GT_PL_UPLAY_DO_CLASSIFY` to TRUE and the value of the global tunable

`GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_UPLAY` to 2.

By default, the value of the tunable `GT_PL_UPLAY_DO_CLASSIFY` is FALSE and the value of the tunable `GT_PL_MAXIMAL_INSPECTED_HTTP_TRANSACTIONS_PER_FLOW_FOR_UPLAY` is 1.

## Google Services

- For default block and allow Google Services, configure the following Google Zones through Cisco SCA BB:

- 64.18.0.0/20
- 64.233.160.0/19
- 66.102.0.0/20
- 66.249.0.0/20
- 72.14.192.0/15
- 74.125.0.0/16
- 173.194.0.0/16
- 207.126.144.0/20
- 209.83.126.0/17
- 216.219.32.0/19
- To classify Google service such as Google maps and Google play, create zones using the URLs listed in the previous bullet point.
- When the URLs listed in the previous bullet point are used in Cisco SCA BB, some of the Google Services are classified to Google Zone.

## DroidVPN

To classify the DroidVPN TCP traffic, set the tunable `GT_PL_DROIDVPN_DO_CLASSIFY` to `TRUE`. By default, the value of this tunable is set to `false`.

To set the tunable, use the following CLI command sequence:

```
SCE2000#> configure
SCE2000(config)#> interfaceLineCard0
SCE2000(configif)#> tunable GT_PL_DROIDVPN_DO_CLASSIFY value TRUE
SCE2000(config if)#>
SCE2000(config)#> exit
```

To keep the tunable set to `TRUE` across SCE reboot, use the following command:

```
SCE#2000> copy running-config-application startup-config-application
```

## Methods of Blocking Applicable only to Protocol Pack #36

### iFone Platinum

To block iFone Platinum traffic, both data and control signature should be used together.

### Nymgo

To block Nymgo traffic, use rate-limiting at 3kbps.

## Methods of Blocking Applicable only to Protocol Pack #37

### Globo Video

Only free videos are supported.

**GoogleMaps**

To block Nymgo traffic, use rate-limiting at 2kbps.

**WDR-Mediatheken**

To block WDR-Mediatheken traffic, use rate-limiting at 2kbps.

## Methods of Blocking (Protocol Pack #38)

**OpenDrive**

To block OpenDrive traffic, use rate-limiting at 3kbps.

**Gmail Video**

Block Google Talk Voice signature along with Gmail Video service.

## Setting the Content Filtering Category Preference (Protocol Pack #39)

Configure the `GT_HTTP_PREFER_CONTENT_FILTERING_CATEGORY` tunable to set the preference to Content Filtering Category.

With the Content Filtering Enabled, when the incoming HTTP traffic matches both Content Filtering Category and HTTP Flavors configured in Cisco SCA BB, the `GT_HTTP_PREFER_CONTENT_FILTERING_CATEGORY` tunable is used to set the preference to Content Filtering Category.

The tunable is used when the value of the `GT_CLS_ENABLE_CONTENT_FILTERING_PERFORMANCE_ENHANCEMENT` tunable is `FALSE` or when none of the HTTP Flavors matches the incoming HTTP traffic.

Possible values are `TRUE` and `FALSE`.

When the value is set to `TRUE`, the Category is preferred. But, if no matching Category ID is found, then HTTP Flavor is considered for filtering.

If the value is set to `False`, the HTTP Flavor configured in Cisco SCA BB is preferred. By default, the value is set to `FALSE`.

## Methods of Blocking (Protocol Pack #42)

**Ultrasurf**

To block Ultrasurf traffic, use rate-limiting at 3kbps.

