



# ADC Plugin Version 2\_57\_1318 Release Note

**Release Date:** September 30, 2020

**Last Updated:** October 26, 2021

## Introduction

This Release Note identifies all changes and issues related to this ADC Plugin Release for the StarOS™ based Application Detection Control (ADC) in-line service, formerly known as Peer-to-Peer Detection.

## Feature and Behavior Changes

This section identifies the enhancements and behavior changes in this release:

### CSCvt17905: Support for Mvfst/GQUIC in p2p

#### Feature Changes

Support is provided to improve detection of the following applications to align towards QUIC IETF based protocols in p2p:

- YouTube- Improved performance detection when YouTube moves to GQUIC version 49 and 50.
- Facebook and Instagram: Improved performance detection when Facebook and Instagram move towards MVFST (Move FAST).

#### Command Changes

Use the following configuration command to enable the Youtube, Facebook, and Instagram.

##### **configure**

```
active-charging service service_name  
p2p-detection debug-param protocol-param p2p_quic_ietf_decrypt 1  
end
```

##### **Notes:**

The feature is CLI controlled and by default it is disabled. The CLI needs to be entered manually to boot configuration as plugin CLI is not part of show/save configuration.

## CSCvu25761: Add Support for Google Duo in ADC

### Feature Changes

#### ADC Support for Google Duo

With this release, the support for detection and classification of “Google Duo” application is added.

Detection accuracy: 95.08% (Chat and File transfer are classified as android messages).

Google Duo (Android): 94.0.32

Google Duo (iOS): 99.0.16835

### Command Changes

#### Enabling p2p-detection protocol

This command enables detection of peer-to-peer (P2P) protocols. With this release, the **googleduo** keyword is added to this command.

```
configure
  active-charging service service_name
    [ no ] p2p-detection protocol googleduo
  end
```

#### Configuring p2p protocol and corresponding traffic type under ruledef

This command configures detection of peer-to-peer (P2P) protocols. With this release, the **googleduo** keyword is added to this command.

```
configure
  active-charging service service_name
    ruledef ruledef_name
      [ no ] p2p protocol = googleduo
      [ no ] p2p traffic-type = unclassified
      [ no ] p2p traffic-type = audio
    end
```

#### clear active-charging analyzer statistics

A new keyword **googleduo** is added to this command to clear the analyzer statistics of the Google Duo protocol.

```
clear active-charging analyzer statistics name p2p application googleduo
```

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### Feature and Behavior Changes

#### show active-charging analyzer statistics name p2p

This command displays statistical information for protocol analyzers. With this release, the **googleduo** keyword is added to the P2P list.

```
show active-charging analyzer statistics name p2p application p2p_list
```

#### show active-charging flows type p2p

This command displays the information for the active charging flows. With this release, the **googleduo** keyword is added to the P2P list.

```
show active-charging flows type p2p application p2p_list
```

#### show active-charging sessions summary

This command displays statistics for Active Charging Service (ACS) sessions. With this release, the **googleduo** keyword is added to the P2P list:

```
show active-charging sessions summary type p2p application p2p_list
```

## Performance Indicator Changes

### P2P Schema

New ADC bulk statistics are available in the P2P schema for Google Duo as part of the plugin. If detection of the Google Duo P2P protocol is enabled, bulk statistics for that protocol will be automatically generated using the Dynamic Software Upgrade plugin installed on the chassis.

The following bulk statistics are added to the P2P schema:

- p2p-googleduo-uplnk-bytes
- p2p-googleduo-dwlnk-bytes
- p2p-googleduo-uplnk-pkts
- p2p-googleduo-dwlnk-pkts
- p2p-googleduo-duration
- p2p-googleduo-unclassified-uplnk-bytes
- p2p-googleduo-unclassified-dwlnk-bytes
- p2p-googleduo-unclassified-uplnk-pkts
- p2p-googleduo-unclassified-dwlnk-pkts
- p2p-googleduo-unclassified-duration
- p2p-googleduo-audio-uplnk-bytes
- p2p-googleduo-audio-dwlnk-bytes
- p2p-googleduo-audio-uplnk-pkts
- p2p-googleduo-audio-dwlnk-pkts
- p2p-googleduo-audio-duration

#### show active-charging analyzer statistics name p2p application googleduo verbose

This command displays Active Charging protocol analyzer statistics for the P2P protocol analyzer.

With this release, the following fields have been added to the output of this command:

- Googleduo unclassified:
  - Total Uplink Bytes

- Total Downlink Bytes
- Total Uplink Pkts
- Total Downlink Pkts
- Googleduo audio:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Googleduo:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

`show active-charging analyzer statistics name p2p protocol-group verbose`

With this release, the following fields have been added to the output of this command:

- Communicator-googleduo:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

## CSCwv00006: Add Support for Microsoft Teams in ADC

### Feature Changes

#### ADC Support for Microsoft Teams

With this release, the support for detection and classification of “Microsoft Teams” application is added.

Detection accuracy: 95.47%.

Microsoft Teams (Android): 1416.1.0.0.2020062901

Microsoft Teams (iOS): 2.0.18

## Command Changes

### Enabling p2p-detection protocol

This command enables detection of peer-to-peer (P2P) protocols. With this release, the **msteams** keyword is added to this command.

```
configure
    active-charging service service_name
        [ no ] p2p-detection protocol msteams
    end
```

### Configuring p2p protocol and corresponding traffic type under ruledef

This command configures detection of peer-to-peer (P2P) protocols. With this release, the **msteams** keyword is added to this command.

```
configure
    active-charging service service_name
        ruledef ruledef_name
            [ no ] p2p protocol = msteams
            [ no ] p2p traffic-type = audio
            [ no ] p2p traffic-type = video
            [ no ] p2p traffic-type = unclassified
        end
```

### clear active-charging analyzer statistics

A new keyword **msteams** is added to this command to clear the analyzer statistics of the Microsoft Teams protocol.

```
clear active-charging analyzer statistics name p2p application msteams
```

### show active-charging analyzer statistics name p2p

This command displays statistical information for protocol analyzers. With this release, the **msteams** keyword is added to the P2P list.

```
show active-charging analyzer statistics name p2p application p2p_list
```

### show active-charging flows type p2p

This command displays the information for the active charging flows. With this release, the **msteams** keyword is added to the P2P list.

```
show active-charging flows type p2p application p2p_list
```

### show active-charging sessions summary

This command displays statistics for Active Charging Service (ACS) sessions. With this release, the **msteams** keyword is added to the P2P list:

```
show active-charging sessions summary type p2p application p2p_list
```

## Performance Indicator Changes

### P2P Schema

New ADC bulk statistics are available in the P2P schema for Microsoft Teams as part of the plugin. If detection of the Microsoft Teams P2P protocol is enabled, bulk statistics for that protocol will be automatically generated using the Dynamic Software Upgrade plugin installed on the chassis.

The following bulk statistics are added to the P2P schema:

- p2p-msteams-uplnk-bytes
- p2p-msteams-dwlnk-bytes
- p2p-msteams-uplnk-pkts
- p2p-msteams-dwlnk-pkts
- p2p-msteams-duration
- p2p-msteams-unclassified-uplnk-bytes
- p2p-msteams-unclassified-dwlnk-bytes
- p2p-msteams-unclassified-uplnk-pkts
- p2p-msteams-unclassified-dwlnk-pkts
- p2p-msteams-unclassified-duration
- p2p-msteams-audio-uplnk-bytes
- p2p-msteams-audio-dwlnk-bytes
- p2p-msteams-audio-uplnk-pkts
- p2p-msteams-audio-dwlnk-pkts
- p2p-msteams-audio-duration
- p2p-msteams-video-uplnk-bytes
- p2p-msteams-video-dwlnk-bytes
- p2p-msteams-video-uplnk-pkts
- p2p-msteams-video-dwlnk-pkts
- p2p-msteams-video-duration

```
show active-charging analyzer statistics name p2p application msteams verbose
```

This command displays Active Charging protocol analyzer statistics for the P2P protocol analyzer.

With this release, the following fields have been added to the output of this command:

- Msteams unclassified:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Msteams audio:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Msteams video:

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### Feature and Behavior Changes

- Total Uplink Bytes
- Total Downlink Bytes
- Total Uplink Pkts
- Total Downlink Pkts
- Msteams:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

`show active-charging analyzer statistics name p2p protocol-group verbose`

With this release, the following fields have been added to the output of this command:

- Communicator-msteams:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

## CSCv34917: Add Support for file transfer subclassification for WhatsApp in ADC

### Feature Changes

#### ADC Support for WhatsApp

With this release, the support for detection and sub-classification type File transfer of “**WhatsApp**” application is added.

Detection accuracy: 96%

WhatsApp (Android): 2.20.200.20

WhatsApp (iOS): 2.20.100

### Command Changes

#### Enabling p2p-detection protocol

This command enables detection of peer-to-peer (P2P) protocols. With this release, the **whatsapp** keyword is added to this command.

**configure**

```

active-charging service service_name

    [ no ] p2p-detection protocol whatsapp

end

```

#### Configuring p2p protocol and corresponding traffic type under ruledef

This command configures detection of peer-to-peer (P2P) protocols. With this release, the **whatsapp** keyword is added to this command.

```

configure

    active-charging service service_name

        ruledef ruledef_name

            [ no ] p2p protocol = whatsapp

            [ no ] p2p traffic-type = unclassified

            [ no ] p2p traffic-type = audio

            [ no ] p2p traffic-type = video

            [ no ] p2p traffic-type = file-transfer

        end

```

#### clear active-charging analyzer statistics

A new keyword **whatsapp** is added to this command to clear the analyzer statistics of the WhatsApp protocol.

```

clear active-charging analyzer statistics name p2p application whatsapp

```

#### show active-charging analyzer statistics name p2p

This command displays statistical information for protocol analyzers. With this release, the **whatsapp** keyword is added to the P2P list.

```

show active-charging analyzer statistics name p2p application p2p_list

```

#### show active-charging flows type p2p

This command displays the information for the active charging flows. With this release, the **whatsapp** keyword is added to the P2P list.

```

show active-charging flows type p2p application p2p_list

```

#### show active-charging sessions summary

This command displays statistics for Active Charging Service (ACS) sessions. With this release, the **whatsapp** keyword is added to the P2P list:

```

show active-charging sessions summary type p2p application p2p_list

```



## Performance Indicator Changes

### P2P Schema

New ADC bulk statistics are available in the P2P schema for WhatsApp as part of the plugin. If detection of the WhatsApp P2P protocol is enabled, bulk statistics for that protocol will be automatically generated using the Dynamic Software Upgrade plugin installed on the chassis.

The following bulk statistics are added to the P2P schema:

- p2p-whatsapp-uplnk-bytes
- p2p-whatsapp-dwlnk-bytes
- p2p-whatsapp-uplnk-pkts
- p2p-whatsapp-dwlnk-pkts
- p2p-whatsapp-duration
- p2p-whatsapp-unclassified-uplnk-bytes
- p2p-whatsapp-unclassified-dwlnk-bytes
- p2p-whatsapp-unclassified-uplnk-pkts
- p2p-whatsapp-unclassified-dwlnk-pkts
- p2p-whatsapp-unclassified-duration
- p2p-whatsapp-audio-uplnk-bytes
- p2p-whatsapp-audio-dwlnk-bytes
- p2p-whatsapp-audio-uplnk-pkts
- p2p-whatsapp-audio-dwlnk-pkts
- p2p-whatsapp-audio-duration
- p2p-whatsapp-video-uplnk-bytes
- p2p-whatsapp-video-dwlnk-bytes
- p2p-whatsapp-video-uplnk-pkts
- p2p-whatsapp-video-dwlnk-pkts
- p2p-whatsapp-video-duration
- p2p-whatsapp-file-transfer-uplnk-bytes
- p2p-whatsapp-file-transfer-dwlnk-bytes
- p2p-whatsapp-file-transfer-uplnk-pkts
- p2p-whatsapp-file-transfer-dwlnk-pkts
- p2p-whatsapp-file-transfer-duration

`show active-charging analyzer statistics name p2p application whatsapp verbose`

This command displays Active Charging protocol analyzer statistics for the P2P protocol analyzer.

With this release, the following fields have been added to the output of this command:

- Whatsapp unclassified:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Whatsapp audio:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts

- Total Downlink Pkts
- Whatsapp video:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Whatsapp file-transfer:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts
- Whatsapp:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

`show active-charging analyzer statistics name p2p protocol-group verbose`

With this release, the following fields have been added to the output of this command:

- Communicator-whatsapp:
  - Total Uplink Bytes
  - Total Downlink Bytes
  - Total Uplink Pkts
  - Total Downlink Pkts

## CSCwv81890: CLI Support to Enable or Disable voip Subtype

### Behavior Changes

- **Previous Behavior:** In a VOIP call from Facebook/Viber applications, the first 300 packets will always remain in slow path to subclassify audio and video flows.
- **New Behavior:** Only if the CLI `p2p-detection debug-param protocol-param voip_subtype_detection 1` is enabled the audio and video subtype detection will be differentiated. If the CLI is disabled audio and video subtype detection remains unclassified and flow is offloaded.

**Important:** The feature is CLI controlled and by default it is disabled. The CLI needs to be entered manually to boot configuration as plugin CLI is not part of show/save configuration. Range is 0 to 1, 0 indicates disabled.

Enhanced Protocols and Applications Support

- **Customer Impact:** If the CLI **p2p-detection debug-param protocol-param voip\_subtype\_detection 1** is enabled, the performance of audio and video subtype detection is impacted as the first 300 packets remain in slow path. If the CLI is disabled, audio and video subclassification does not happen for Facebook/Viber VOIP calls.

## Enhanced Protocols and Applications Support

This section lists the enhancements added to support new clients/versions for the existing protocols/applications.

CDETS ID	CDETS Headline/Change Summary
CSCv37965	<p>New Version Testing for Snapchat</p> <p><b>Change Summary:</b> Added Dtls support.</p> <p>Detection Percentage: 95%            snapchat (Android): 11.1.1.66            snapchat (iOS): 11.1.0.65</p>
CSCv67476	<p>New Version Testing for YouTube</p> <p><b>Change Summary:</b> The parsing logic is changed to parse the SNIs properly.</p> <p>Detection Percentage: 95.107%            YouTube            (Android): 15.35.41            YouTube            (iOS): 15.35.2</p>
CSCv68399	<p>New Version Testing for Itunes</p> <p><b>Change Summary:</b> New SNIs added to improve Itunes detection.</p> <p>Detection Percentage: 99.48%            Itunes (Android): 3.3.2            Itunes (iOS): —</p>
CSCv68399	<p>New Version Testing for Iheartradio,</p> <p><b>Change Summary:</b> New SNIs added to improve Iheartradio detection.</p> <p>Detection Percentage: 95.87%            Iheartradio (Android): 9.21            Iheartradio (iOS): —</p>
CSCv68748	<p>New Version Testing for Skype</p> <p><b>Change Summary:</b> New SNIs added to improve Skype detection.</p> <p>Detection Percentage: 91%            Skype (Android): 8.61.0            Skype (iOS): —</p>
CSCv70271	<p>New Version Testing for TuneIn Radio</p> <p><b>Change Summary:</b> New SNIs added to improve TuneIn Radio detection.</p> <p>Detection Percentage: 90.02%            TuneIn Radio (Android): 25.0.1            TuneIn Radio (iOS): 19.0</p>
CSCv70561	<p>New Version Testing for Tiktok</p> <p><b>Change Summary:</b> New SNIs added for Tiktok.</p> <p>Detection Percentage: 99%            Tiktok (Android): 17.3.4            Tiktok (iOS): 17.3.0</p>

CSCwv72048	<p>New Version Testing for epicgames,</p> <p><b>Change Summary:</b> New SNIs added to improve p2p detection of epicgames</p> <p>Detection Percentage: 98.51%  epicgames (Android): —  epicgames (iOS): —</p>
CSCwv72634	<p>New Version Testing for imo</p> <p><b>Change Summary:</b> Added updated UDP logic based on new patterns.</p> <p>Detection Percentage: 72.8%  imo (Android): 2020.08.2061  imo (iOS): 2020.9.1</p>
CSCwv73749	<p>New Version Testing for facetime</p> <p><b>Change Summary:</b> SIP/UDP based detection logic is updated for facetime.</p> <p>Detection Percentage: 97.24%  facetime (Android): NA  facetime (iOS): 13.7</p>
CSCwv77836	<p>New Version Testing for PUBG</p> <p><b>Change Summary:</b> New SNIs added to improve PUBG detection.</p> <p>Detection Percentage:92%  PUBG (Android):1.0  PUBG (iOS): 1.0.0</p>

## Related Documentation

For more information pertaining to changes in this release, refer to the *ADC Administration Guide*, *Command Line Interface Reference*, and *Statistics and Counters Reference* at <http://www.cisco.com/c/en/us/support/wireless/asr-5000-series/products-installation-and-configuration-guides-list.html>.

**NOTE:** The changes identified in this release may not be available in the latest version of the *ADC Administration Guide*, *Command Line Interface Reference*, and *Statistics and Counters Reference* at the time of the ADC Plugin release.

## Installation and Upgrade Notes

This Release Note does not contain installation and upgrade instructions. Refer to the existing installation documentation for specific installation and upgrade considerations.

## Open and Resolved Bugs

### Bugs Open in this Release

CDETS ID	CDETS Headline
CSCvv62684	Re-configure ADC QUIC support after each GW reload
CSCvu93282	Telegram traffic is partially detected on the latest Telegram app version.

### Bugs Resolved in this Release

The table below highlights the known bugs that are resolved in this specific release. For a summary of all resolved issues in earlier releases, see the *Previously Resolved Issues* section. Additional information for all bugs resolved in this release is available in the [Cisco Bug Search Tool](#).

CDETS ID	CDETS Headline
CSCvv83479	Fix for googleapis.com traffic mis-categorized as YouTube.
CSCvv23553	Partial Discord application detection for audio and video sub-classification improvement.
CSCvv83552	Improve Geforcenow detection accuracy.
CSCvv46545	Performance Enhancements in p2p.
CSCvv70033	Shahid TV ADC Plugin Customization.
CSCvv60553	Crash at plugin_p2p_api_inspect due to corrupted packet setting flow to NULL.
CSCvv46434	Sessmgr restart at libp2p-2.51.1246.so/ipoque_int_search_bittorrent_tcp_zero()
CSCvv67779	Sessmgr restarted from shoutcast p2p plugin.

## Operator Notes

### ADC Plugin Version Numbering System

This section explains the version-numbering scheme for ADC Plugin releases running on the ASR 5x00 or Cisco Virtualized Packet Core platform. The version numbering is different for the ADC Plugin release as this release is independent of StarOS software releases.

The fields of the version number as reflected in the ADC Plugin are in the form of INTERFACE.MAJOR.BUILD (e.g., 1.140.514).

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### Obtaining Documentation and Submitting a Service Request

- The INTERFACE number indicates the identifier between ASR5x00 and Plugin. This number indicates backward compatibility and only increments when a change will introduce a compatibility issue. This field may increment by '1' when necessary.
- The MAJOR version number indicates a contiguous sequential number that represents incremental changes between releases. This number increments by '1' for each plugin release.
- The BUILD version number indicates the build number that increments with each new build. This is a unique, sequential number across all ADC builds.

## 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*, at: <http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>.

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