

#### © 2020 A10 NETWORKS, INC. CONFIDENTIAL AND PROPRIETARY- ALL RIGHTS RESERVED

Information in this document is subject to change without notice.

#### PATENT PROTECTION

A10 Networks products are protected by patents in the U.S. and elsewhere. The following website is provided to satisfy the virtual patent marking provisions of various jurisdictions including the virtual patent marking provisions of the America Invents Act. A10 Networks' products, including all Thunder Series products, are protected by one or more of U.S. patents and patents pending listed at:

https://www.a10networks.com/company/legal-notices/a10-virtual-patent-marking

#### TRADEMARKS

A10 Networks trademarks are listed at:

https://www.a10networks.com/company/legal-notices/a10-trademarks

#### CONFIDENTIALITY

This document contains confidential materials proprietary to A10 Networks, Inc. This document and information and ideas herein may not be disclosed, copied, reproduced or distributed to anyone outside A10 Networks, Inc. without prior written consent of A10 Networks, Inc.

#### A10 NETWORKS INC. SOFTWARE LICENSE AND END USER AGREEMENT

Software for all A10 Networks products contains trade secrets of A10 Networks and its subsidiaries and Customer agrees to treat Software as confidential information.

Anyone who uses the Software does so only in compliance with the terms of the End User License Agreement (EULA), provided later in this document or available separately. Customer shall not:

- 1. Reverse engineer, reverse compile, reverse de-assemble, or otherwise translate the Software by any means.
- 2. Sub-license, rent, or lease the Software.

#### **DISCLAIMER**

This document does not create any express or implied warranty about A10 Networks or about its products or services, including but not limited to fitness for a particular use and non-infringement. A10 Networks has made reasonable efforts to verify that the information contained herein is accurate, but A10 Networks assumes no responsibility for its use. All information is provided "as-is." The product specifications and features described in this publication are based on the latest information available; however, specifications are subject to change without notice, and certain features may not be available upon initial product release. Contact A10 Networks for current information regarding its products or services. A10 Networks' products and services are subject to A10 Networks' standard terms and conditions.

### **ENVIRONMENTAL CONSIDERATIONS**

Some electronic components may possibly contain dangerous substances. For information on specific component types, please contact the manufacturer of that component. Always consult local authorities for regulations regarding proper disposal of electronic components in your area.

#### **FURTHER INFORMATION**

For additional information about A10 products, terms and conditions of delivery, and pricing, contact your nearest A10 Networks location, which can be found by visiting <a href="www.a10networks.com">www.a10networks.com</a>.

# Table of Contents

RELEASE NOTES FOR GIFW HARMONY APP 3.5	5
Overview	5
Release Chronology	
Latest/Current Release	<i>.</i>
Previous Release/Releases	
Release Details	
ACOS and Harmony Controller Compatibility	
Known Issues	
Limitations	8
Fixed Issues	10
Whats New?	
Sync Tooltip Disabled	
Unlinked Charts	
Linked Cursor	
Chart Overlay Drill Down to Alert and Event Logs	
Link Probe Tab	
Drill Downs from KPI Top Indicators	13
SUPPORT INFORMATION FOR GIFW HARMONY APP v3.5	15
Supported Products	
Technical and Customer Support	



## RELEASE NOTES FOR GIFW HARMONY APP 3.5

The A10 Networks® - GiFW Harmony App 3.5 provides visibility and analytics for your A10 Networks® GiFW services.

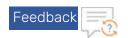
The following topics are covered in this chapter:

- Overview
- Release Chronology
- Known Issues
- Limitations
- Fixed Issues
- Whats New?

## Overview

The A10 Networks® - GiFW Harmony App 3.5 provides the following:

- Users with real-time actionable insights, link probe drilldown, providing detailed network traffic and firewall statistics, as well about the subscriber visibility.
- It provides detailed application visibility coupled with the enriched logs and GiFW analytics, to support faster and easier troubleshooting.



## Release Chronology

This section specifies the different release versions of Harmony Controller.

### Latest/Current Release

• A10 Networks® - GiFW Harmony App 3.5

## Previous Release/Releases

- A10 Networks® GiFW App 5.2.0-v3.3
- A10 Networks® GiFW App 5.1.0-v3.2
- A10 Networks® GiFW App 5.0.0-v3.1
- A10 Networks® GiFW App 4.1.4-v2.1
- A10 Networks® GiFW App v2.1
- A10 Networks® GiFW App 4.1.4-v1.0.0
- A10 Networks® GiFW App v1.0.0

### **Release Details**

The following are the details regarding this release of A10 Networks® - GiFW Harmony App 3.5 version:

• Build Type: GA

• Harmony Controller Version: (5.3.0)

• Date: Dec 20, 2020



**ACOS** and Harmony Controller Compatibility

The supported ACOS versions and compatibility matrix is as follows:

CGN App Version	Harmony Controller Version	ACOS Version	Qualification
GiFW App v3.5	5.3.0	5.2.1, 5.2.0	Limited support
		5.1.0-P2	Limited support
		5.0.0-P1	Limited support
		4.1.4-GR1-P1 & P2	Limited support
		4.1.1-P8-P12	Limited support

## **Known Issues**

Feedback

The following table lists the Known Issues in ACOS, Harmony Controller (HC), Harmony GiFW App, v3.5:

Tracking ID	ACOS Tracking ID	System Area	Severity	Description	Version Reported
GUI-4757	NA	GiFW App	High	When Thunder is registered to Harmony Controller. Provision and associate to <b>GiFW App &gt; Analytics &gt; Applications</b> , the page keeps downloading contents in widgets Application Traffic Distribution, Lists Manager, Applications By Categories, And Applications By Watchlist.	HC 5.2.0
GUI-4576	NA	GiFW App	Medium	Top indicator: IPv6 UDP FW sessions have no throughput/Packet Rate trends	HC 5.2.0
GUI-4568	NA	GiFW App	Medium	Top indicator: When top trend is selected and user moves back to home page, auto refresh does not function correctly and always displays as OFF.	HC 5.2.0
GUI-4482	NA	GiFW App	Medium	For chassis system, CPU and memory information of the blade is not shown	HC 5.3.0



Tracking ID	ACOS Tracking ID	System Area	Severity	Description	Version Reported
GUI-4456	526439	GiFW App	Medium	The ACOS Log NAT Session Logs, display throughput from Blade, but no logs are displayed for Blade sessions.	ACOS 5.1.0-P4
GUI-4428	NA	GiFW App	Medium	GiFW App cannot be launched when the CPS is high, the log-rate reaches 10000, and GiFW app services are greyed out in Harmony Controller.	HC 5.2.0
GUI-4381	NA	GiFW App	High	The Log Panel > NAT'D SESSION LOGS are not displaying correctly, and refreshing too slow when only GiFW LSN traffic is running.	HC 5.2.0
GUI-4346	NA	GiFW App	Medium	User cannot select <b>Rule Resource Alert</b> , in Application Firewall instance when <b>Firewall Alert</b> is created.	HC 5.2.0
GUI-4165	NA	GiFW App	Highest	Analytics > TOP 10 IPs BY Throughput/Session under IP Traffic section displays 400 response and no data in charts.	HC 5.2.0
GUI-3974	NA	GiFW App	Medium	The values on <b>Current Session</b> and <b>Session Rate</b> are displaying null or 0 value after drilling down to <b>Sessions</b> page and back to <b>Dashboard</b> page.	HC 5.2.0
GUI-3855	NA	GiFW App	Medium	The values for <b>Total Subscribers</b> and <b>Conn Rate / sec</b> in <b>CGNAT Service KPIs</b> on page 2 in generated Reports are 0.	HC 5.2.0
GUI-3882	NA	CGN/GiFW App	High	There is a burst in Traffic and Throughput on GiFW App just after Harmony Controller gets ready and during reboot.	HC 5.2.0
GUI-3875	NA	CGN/GiFW App	High	GiFW App > Analytics > IP Traffic page displays "No Data Available" for widgets "TOP 10 IPS BY THROUGHPUT", "TOP 10 IPS BY SESSIONS" and "TRANSPARENT FIREWALL TRAFFIC IPv4 vs IPv6", due to Bad Request issue.	HC 5.2.0
GUI-3823	NA	CGN/GiFW App	High	Thunder stops functioning once Deleting a v6 <b>Fixed-NAT</b> configuration, no output once running command "show cpu" in 10 minutes	ACOS 5.2.0
GUI-1866	NA	GiFW App	Low	IP Traffic > Throughput and Packet widgets are cut or not displayed correctly when browser zoom is changed to 80% or 90%.	HC 5.3.0



## Limitations

The following are the limitations with this release:

Tracking ID	ACOS Bug ID	System Area	Severity	Description	Version Reported
GUI-4570	NA	GiFW App	Medium	Top indicator: packet rate was displaying incorectly for CGN LSN traffic flow.	HC 5.2.0
GUI-3497	NA	GIFW App	Major	The app_svc_id for NAT-64 and LSN, that causes no error log or error log display for NAT-64 service.	HC 5.1.0



## **Fixed Issues**

The following issues are fixed now on GiFW App:

Tracking ID	ACOS Tracking ID	System Area	Severity	Description	Version Reported
GUI-4576	NA	GiFW App	Medium	IPv6 UDP Firewall sessions do not display <b>Throughput</b> and <b>Packet Rate</b> trends.	HC 5.2.0
GUI-4555	NA	GiFW App	Medium	Top indicator drill down issues are resolved.	HC 5.2.0
GUI-4437	NA	GiFW App	Medium	No data is displayed for Source IPs in widget APPLICATION TRAFFIC DISTRIBUTION in GiFW App GUI.	HC 5.2.0



## Whats New?

GiFW Harmony App v3.5 has the following new features and enhancements:

- Sync Tooltip Disabled
- Unlinked Charts
- Linked Cursor
- Chart Overlay Drill Down to Alert and Event Logs
- NHLD Link Probe Tab
- <u>Drill Downs from KPI Top Indicators</u>

## Sync Tooltip Disabled

The **Sync Tooltip** option is disabled by default for faster loading of analytics on **Dashboard** and **Analytics** pages.

### **Unlinked Charts**

Tool sync tip functionality provides option for user to turn ON/OFF the sync of cursors in multiple charts. When "**Sync Tooltip**" is turned off and the cursor is moved into a chart, only the current chart will show tooltip and line where the cursor is displayed

FIGURE 1: Sync Tooltip.



### **Linked Cursor**

All charts in ADC App **Dashboard** and **Analytics** tab widgets have Linked Cursor for the charts. The linked chart option is enabled when you click **Sync Tooltip** button.



The tooltips of the charts are linked together. Once user moves the cursor into one of the charts, it displays the tooltip and line at the cursor point. All related charts display tooltips and lines at the points with the same timestamp.

A new switch button **Sync Tooltip** is available on the right of **Time Bar**. It is used to enable or disable the **Linked Cursor**. The cursor links the charts together to easily contrast data among the different charts.

## Chart Overlay Drill Down to Alert and Event Logs

ADC App has **Events** tabs in the **Log View** panel. It displays all the events for ADC App service and system and infrastructure level alerts as well.

Overlay is displayed on all charts in ADC App widget if **Sync Tooltip** is enabled and **Alerts** and **Events** are enabled in the ":" menu next to "Sync Tooltip". All charts are synced and a red dot represents the time selection cursor. The total count is displayed for the log timestamps near the time of the clicked red point on the chart.

The following event counters are displayed in overlay:

- System Events
- Configuration Events
- Anomalies

When you click any one of the event logs in Overlay or tooltip, the related events logs detail drilldown is displayed in **Log View > Events** tab.

The various categories of alerts are displayed in tooltip are:

- Service Alerts.
- Infrastructure Alerts.

Click any alert category in overlay and tooltip to open Log View > Alerts tab automatically.



### NHLD Link Probe Tab

Harmony GiFW App v3.5 has introduced a new **Analytics > Link Probe** tab.

Link probe uses Sticky NAT for outbound Next Hop Load Distributor (NHLD) configuration. This setup can be used to probe the behavior of the network.

The **Link Probe** tab provides a detailed view of:

- round trip time of valid samples.
- count of invalid samples for servers in each domain.

Statistics will be displayed in line chart form and table form in the following widgets:

- **Internet Sites**: When Link Probe is configured, this widget displays the round trip time from Thunder to the configured Internet sites through next-hop. It also collects data about invalid sample counts or errors.
- Table of Quality Indicators with Internet Servers: Displays the round trip time and probe loss from Thunder to the configured Internet sites with various indication parameters.

For details, see "GiFW Harmony App 3.5 User Guide"

## Drill Downs from KPI Top Indicators

Harmony GiFW App v3.5 has introduced the following drilldown KPI pages for **Analytics > Top Indicators**:

- **Permit/Deny:** Current number of firewall permit and deny actions.
- Reset/Drop: Current number of firewall reset and unmatched drop actions.
- **Sessions/Rate:** Current number of firewall average active sessions and session creation rate.
- Packet Rate (pps): Current Uplink and Downlink packet rate in packets per second.
- Throughput (bps): Current Uplink and Downlink Throughput in bits per second.
- Control CPU / Data CPU / Memory: Current CPU, Data CPU and memory usage.

NOTE:

Click back arrow in the top left corner the KPI page, if you need to go back and view the main Analytics page with all KPIs.



For details, see "GiFW Harmony App 3.5 User Guide"

## SUPPORT INFORMATION FOR GIFW HARMONY APP V3.5

## **Supported Products**

The A10 Networks® technical and customer support team is available at your service on phone, email and web channels if you have any queries about GiFW Harmony App v3.5.

## **Technical and Customer Support**

To know more about A10 Networks® Harmony Controller and A10 Networks® , refer the following:

- Contact: https://www.a10networks.com/company/contact-us
- Support: https://www.a10networks.com/support
- *Call (International):* 1-408-325-8676
- Call (Toll-Free USA & Canada): 1-888-TACS-A10



