



Harmony Controller ADC App v3.6 Release Notes

for A10 Thunder® Series and AX™ Series

13 January 2021

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RELEASE NOTES FOR HARMONY CONTROLLER: ADC APP v3.6

The A10 Networks® Harmony Controller - ADC App v3.6 provides configuration management, visibility and analytics for your A10 Networks® ADC services and visibility and analytics for A10 Networks® WAF services.

The following topics are covered in this chapter:

- [Overview](#)
- [Release Chronology](#)
- [Supported Platforms](#)
- [ADC App v3.6 New Features and Enhancements](#)
- [Known Issues](#)
- [Fixed Issues](#)
- [Release Details](#)

Overview

The A10 Networks® Harmony Controller - ADC App v3.6 provides the following functional capabilities for the users:

- Configuration of shared service objects and service objects and ability to edit, save, compare, and deploy service configurations.
- Real-time visibility and actionable insights on into service operation and performance.
- Transactional level visibility for analytics and troubleshooting of ADC services.

Release Chronology

This section specifies the different release versions of Harmony Controller:

- A10 Networks® Harmony Controller ADC App v3.4
- A10 Networks® Harmony Controller ADC App 5.1.0-v3.2

Release Details

The following are the details regarding this release of A10 Networks® Harmony Controller ADC App v3.6:

- **Build Type:** GA
- **Version:** v3.6
- **Date:** December 20, 2020

Supported Platforms

ADC App v3.6 is compatible with the following ACOS and Harmony Controller versions:

ACOS

The supported ACOS versions and compatibility matrix is as follows:

<i>Harmony Controller</i>	<i>ACOS Version</i>	<i>Compatibility</i>	<i>Configuration Management</i>	<i>Analytics</i>
HC 5.3.0	5.2.1, 5.2.0, 5.1.0-P2, 5.0.0, 5.0-P1, 5.1.0, 5.2.0	Full support	Yes	Yes
HC 5.2.0	5.1.0-P2, 5.0.0, 5.0-P1, 5.1.0, 5.2.0	Full support	Yes	Yes
HC 5.1.0-P1	5.1.0-P2, 5.0.0, 5.0-P1, 5.1.0	Full support	Yes	Yes
HC 5.1.0-P1	4.1.4-GR1-P1 & P2	Full support	No	Yes

Harmony Controller

The supported Harmony Controller versions for ADC App v3.6 are as follows:

<i>Harmony Controller Version</i>
5.3.0
5.2.0
5.1.0-P1
5.1.0
5.0.0
4.2.1-P3

ADC App v3.6 New Features and Enhancements

This section provides a brief overview of the new features added in the ADC App v3.6 release. The v3.6 provides enhancements in the following areas:

- [DNS GSLB Analytics for ADC](#)
- [Additional Server Related Analytics](#)
- [Form fields Usability Enhancement](#)
- [Sync Tooltip Disabled](#)
- [Unlinked Charts](#)
- [Linked Cursor](#)
- [Chart Overlay Drill Down to Alert and Event Logs](#)
- [Drill Down From Chart Overlay to Event View Panel](#)
- [Object Configuration Usability Enhancement](#)
- [Contextualized Alerts, Events, and Audit Logs](#)

DNS GSLB Analytics for ADC

Comprehensive monitoring of DNS traffic is required as a component of cybersecurity. Content and information analysis is based on the fast stream of DNS queries.

ADC App now provides advanced analytics of the context, rate of queries, including the history of lookups, contents of the response and correlation with additional data sources.

Volumetric DNS analytics can be used to detect DNS rebinding attacks by characterizing common usage of IP addresses resolution and malicious usage.

The **ADC App > Analytics** page is enhanced to display DNS for GSLB statistics for TCP or UDP tenants.

The following DNS GSLB Key Performance Indicator statistics are displayed for ADC:

- **QPS percentage**
- **DNS Query Health percentage**
- **DNS Response Health in ms**
- **Average Latency in bytes or terabytes**
- **Average Query Size in bytes**
- **Average Response Size**

The following new widgets and statistics are displayed in Analytics page:

- **QPS With Query Types**
- **QPS With Response Codes**
- **DNS Health**
- **Average Latency**
- **Malformed DNS Query Rate**
- **Request By Source Port**
- **Top DNS Queries**

For details, see “ADC Harmony App 3.6 User Guide”.

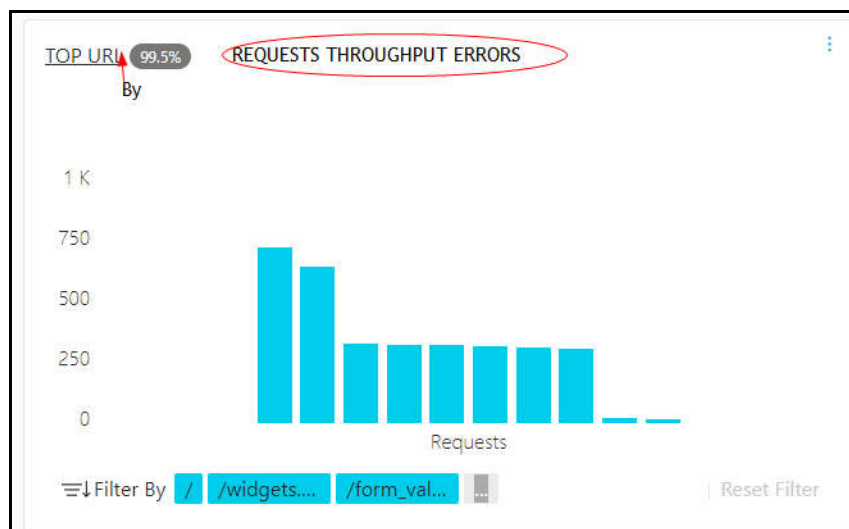
Additional Server Related Analytics

New charts and enhancements are provided to drill down and analyse Server issues. The applications and Thunders servers are key resources that can be monitored.

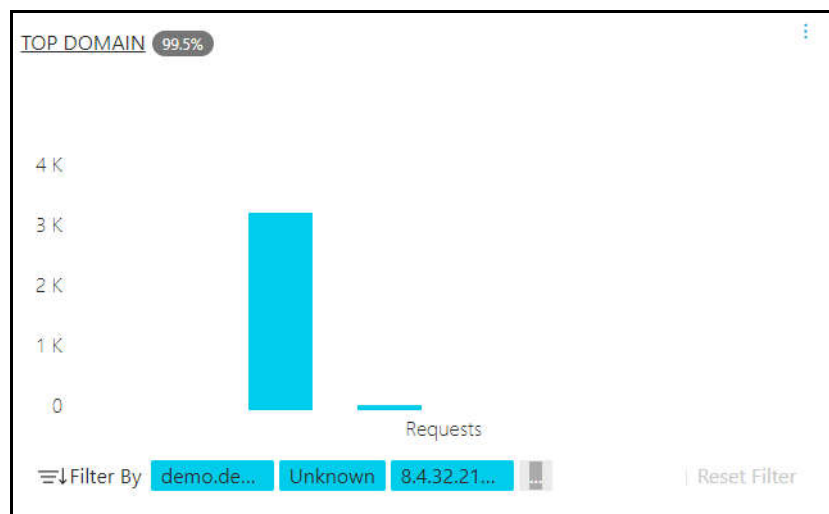
The following enhancements and additions are provided:

In **Applications Tab**:

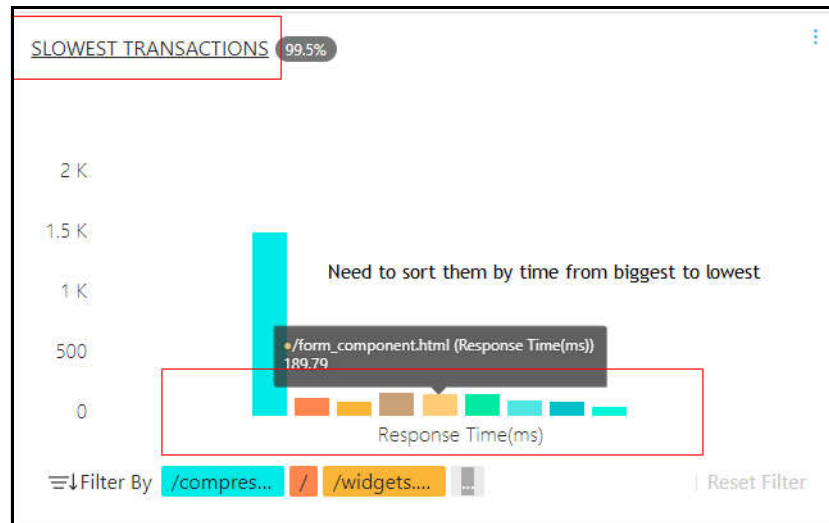
- TOP URL widget



- Top Domain widget



- Slowest Transactions



All the new widgets have drill down option per Server level, for example, the latest URL and most visited URL.

Form fields Usability Enhancement

The form field names and measurement values are enhanced for better usability. Some of the enhancements are as follows:

- The service objects have individual configuration pages with same look and feel as ACOS GUI for intuitive user experience. The configuration options are grouped according to functionality.
- Additional configuration options are synchronized between ACOS GUI, Harmony Controller GUI and Harmony Apps GUI for better integrated functionalities.
- For Virtual Server, vPorts or Virtual Port, Real Server, Server Port, TCP, TCP Proxy, UDP, a default template is used unless user configured template is added.
- Additional configuration options are provided for each type of virtual port.
- The **Service Objects > Servers > Add/Edit Server** and **Service Objects > VIPs > Add/Edit VIP** have the following template setup options. Option to add a Scaleout Template is also available:
 - **Template Virtual Server**
 - **Template Logging**
 - **Template Policy**

- **Template Scaleout**
- Additional options for ACL setup and vThunder and cThunder configurations in **Service Objects > VIPs > Add/Edit VIP** objects.
- The **+ Add a VIP / Edit a VIP > Advanced** configuration contains additional advanced options such as ARP, Suppress Internal Loopback, VRRP, and High Availability, configurations.

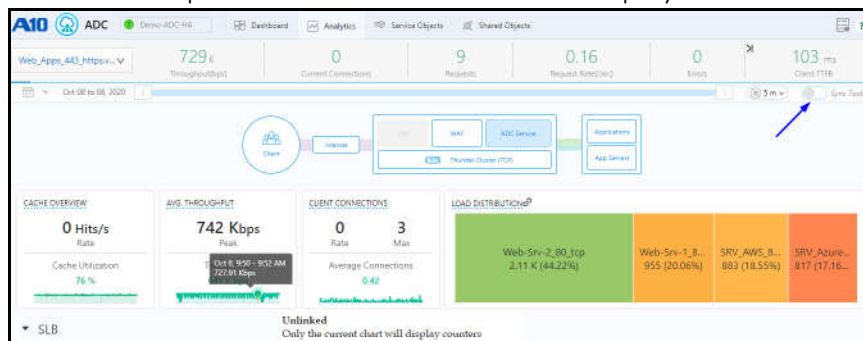
For details, see **ADC App v3.6 User Guide**.

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.



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.

FIGURE 1 : CGN App > Sync Tooltip > Enable/ Disable Link Cursor

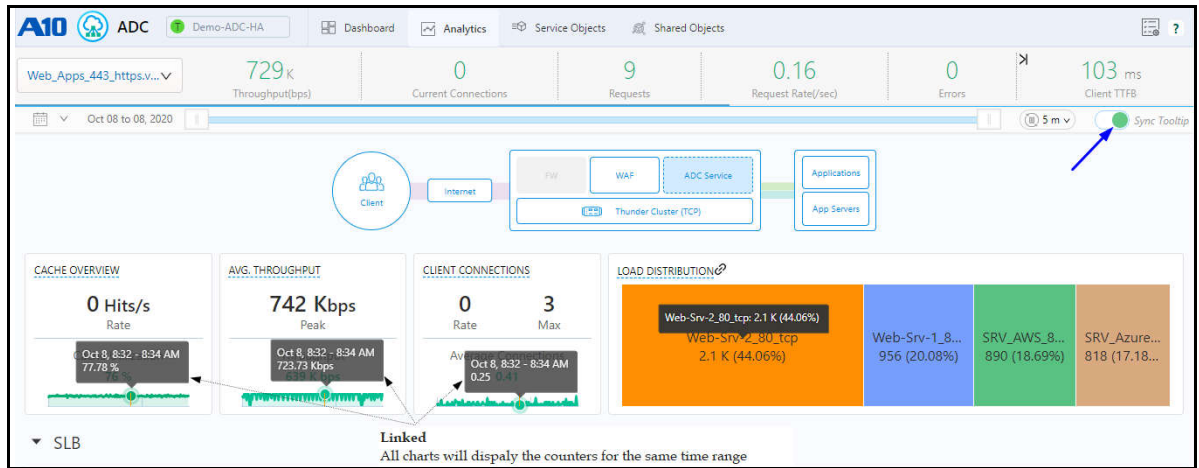


Chart Overlay Drill Down to Alert and Event Logs

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.

Service Object Configuration Usability Enhancement

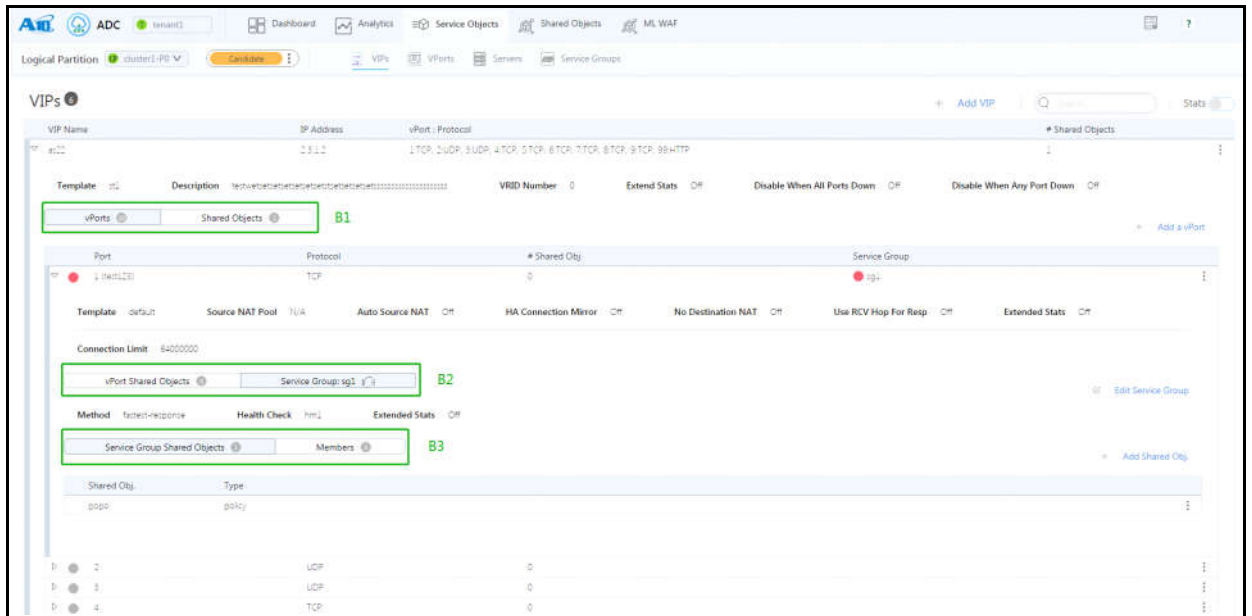
[Ref: GUI-4123]

The **ADC App > Service Object** page has been enhanced for simplified usage and reduced granularity including text and space reduction. The additional levels of details have been consolidated to provide important options for quicker configuration setup. User can drill-down to get further details.

The usability of the following components in Service Object page has been enhanced:

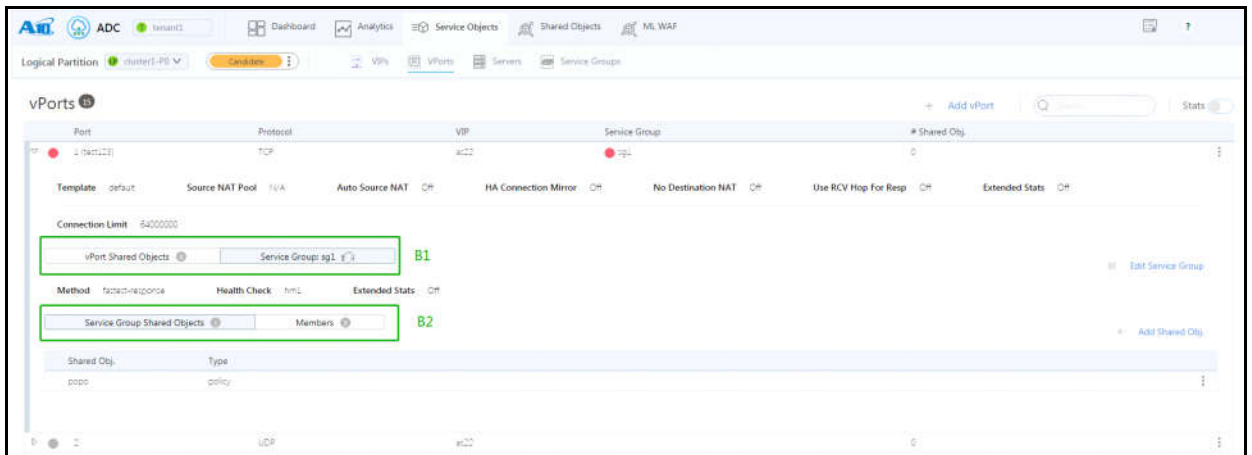
- **VIPs**

FIGURE 2 : Enhanced **Service Objects > VIP** GUI interface



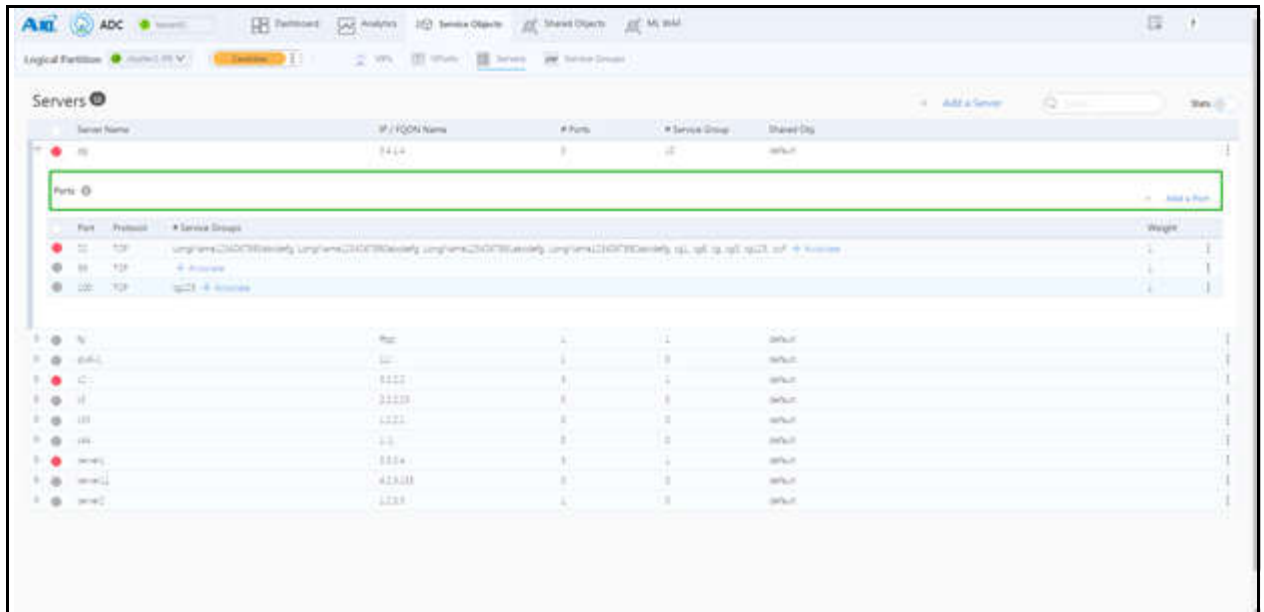
- **vPorts**

FIGURE 3 : Enhanced **Service Objects > vPorts** GUI interface



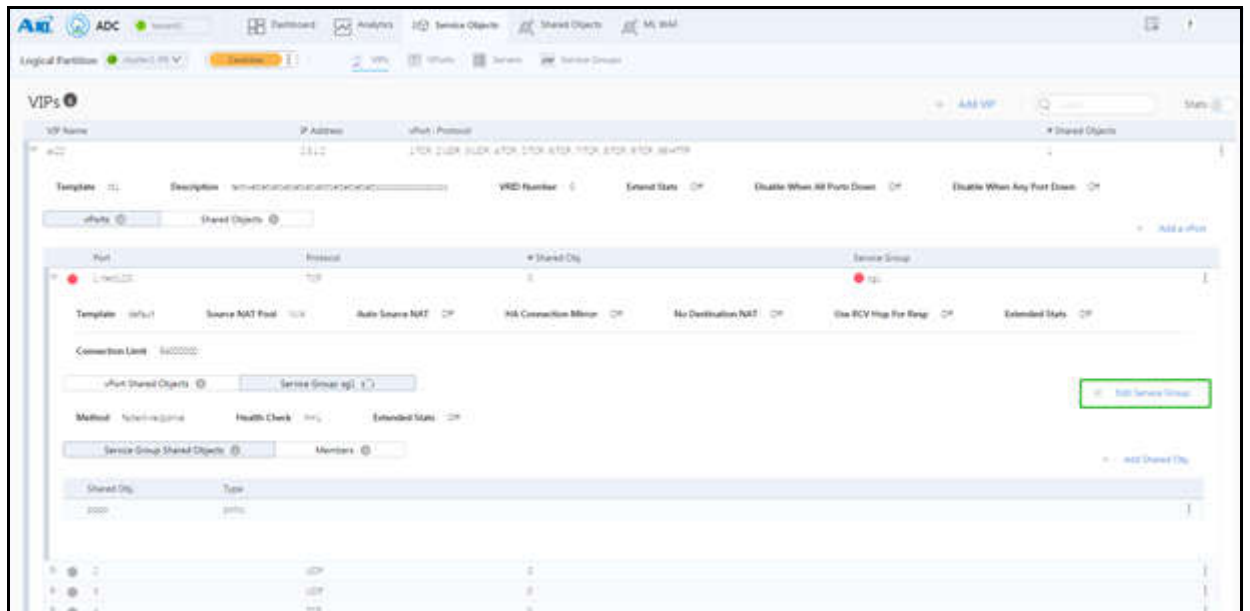
- **Servers**

FIGURE 4 : Enhanced **Service Objects > Servers** GUI interface



- **Service Group**

FIGURE 5 : Enhanced **Service Objects > Service Groups** GUI interface



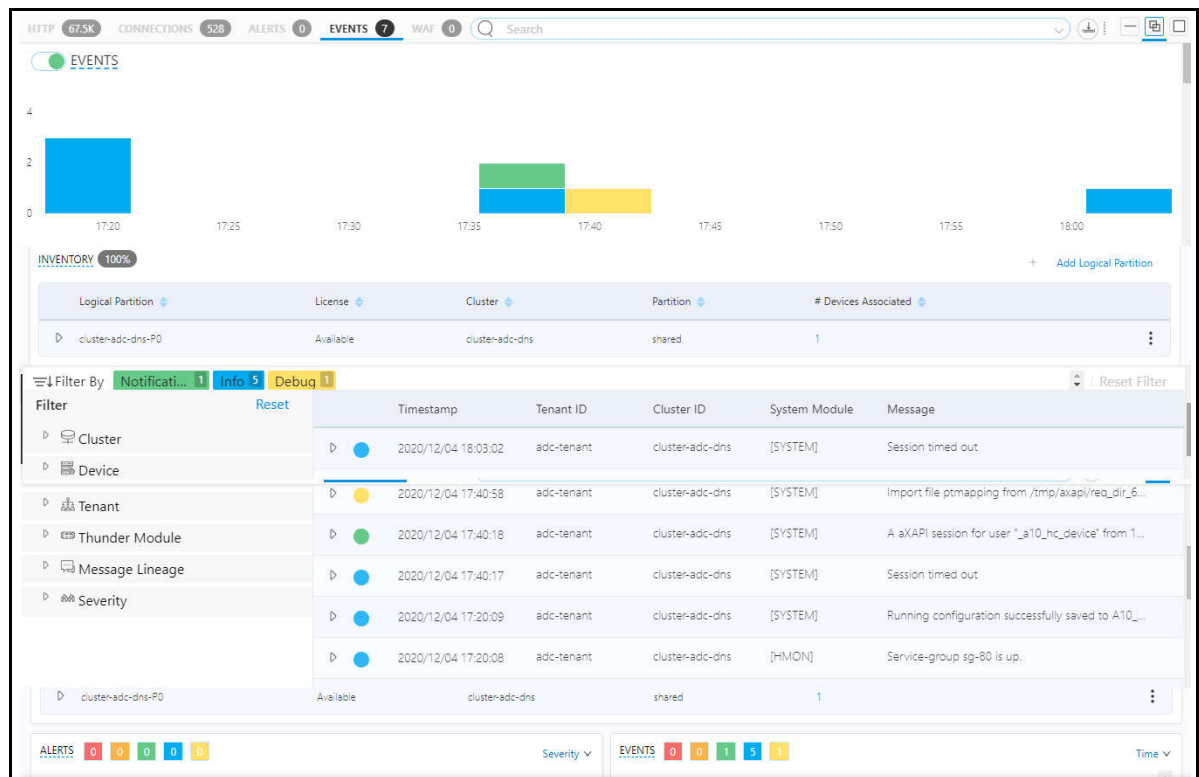
For details, see **ADC App v3.6 User Guide**.

Contextualized Alerts, Events, and Audit Logs

The **ADC App > Log View** panel displays the following new Contextualized Alerts, Events, and Audit Logs in the following tabs:

- Alerts
- Events

FIGURE 6 : Log View > Events tab



Users can select the type of overlay alerts and events on the charts from the dropdown menu next to the **Auto Refresh** duration selection button.

The overlay data is displayed on the charts as red dots. On hover on any of the overlay point, a tooltip displays what category of event/alert occurred at that timestamp.

Known Issues

The following table lists the Known Issues in Harmony ADC App v3.6.

<i>Tracking ID</i>	<i>ACOS Bug ID</i>	<i>System Area</i>	<i>Severity</i>	<i>Description</i>	<i>Version Reported</i>
GUI-513	NA	HC	Medium	The Object Explorer > ADC > IP Source NAT > Health Monitor:DNS method option Response Code is not validating on Harmony Controller side.	HC-5.3.0
GUI-5299	NA	ADC App	Medium	Shared Objects > Templates > Edit Client SSL Template page is not showing the certificate & key settings of the template scanned from ACOS device.	HC-5.3.0
GUI-5276	NA	ADC App	Medium	Even after re-launching the ADC App portal, ADC > Service Objects , the server status and service-group stays as unknown. However, the virtual port status can be changed to UP.	HC-5.3.0
GUI-5275	NA	ADC App	Medium	When servers are force-deleted, the service-group is unaware of the deletion.	HC 5.3.0
GUI-5254	NA	ADC App	Medium	In Analytics > ADC Service > SSL Client , current SSL connections are displaying twice the actual value from ACOS.	HC-5.3.0
GUI-5252	NA	ADC App	Medium	Configuration Events and Alerts are not functioning correctly in Harmony Controller > Analytics > Cluster page.	HC-5.3.0
GUI-5246	NA	ADC App	Medium	ADC App > Analytics > Cache Entry graph is displaying incorrect values.	HC-5.3.0
GUI-5133	NA	ADC App	Medium	In ADC App > Analytics > DNS GSLB analytics, the average latency displayed in AVG > Avg Latency chart does not match the value at the top of the page.	HC-5.3.0
GUI-5129	NA	ADC App	Medium	In ADC App > Analytics > DNS GSLB there is no data displayed in some charts of DNS TCP analytics page.	HC-5.3.0

Known Issues

<i>Tracking ID</i>	<i>ACOS Bug ID</i>	<i>System Area</i>	<i>Severity</i>	<i>Description</i>	<i>Version Reported</i>
GUI-4830	NA	ADC App	Medium	In ADC App > Service Objects , even after re-launching the ADC App portal after VRRP-A cluster configuration, the status of the server and service-group stays as unknown, although the virtual port status can be updated into UP.	HC-5.3.0
GUI-4753	NA	ADC App	Medium	In ADC App > Analytics > ADC SERVICE > SSL Server current SSL connection value is displaying twice the actual value from ACOS.	
GUI-3037	NA	HC	Medium	1xx response logs are not sent to HC some times. Hence, data in Log Panel > HTTP is not same as on chart display.	HC 5.1-P2
GUI-2807	NA	ACOS	High	ADC App > Cache charts and REQUEST_REQUEST RATE values always display 0 for ACOS 4.1.1-P12	HC 5.1-P1
GUI-2753	NA	HC	High	No data is displayed on ADC App analytics for device instances with ACOS 4.1.1-P12 and HC 5.1-P1.	HC 5.3
GUI-2695	NA	HC	High	The Network-LAN:trunk-group configuration is not displaying correct values in the the Shared Objects > Logical Partitions > Compare page when the configuration sent to the ACOS device.	HC 5.3
GUI-1995	NA	HC	Medium	For dynamic RBAC functionality, Harmony Controller > Dashboard . the Deployment locations are displaying all the devices on the HC under different tenant and clusters, only display one device related to the tenant or cluster.	HC 5.3

Limitations

The limitations for release ADC App v3.6 are as follows:

<i>Tracking ID</i>	<i>ACOS Bug ID</i>	<i>System Area</i>	<i>Severity</i>	<i>Description</i>	<i>Version Reported</i>
GUI-4110		ADC App	High	The HTTP-policy configuration created by update policy through violation in WAF log push to ACOS is not functioning correctly.	HC 5.2.0

Fixed Issues

The fixed issues for release ADC App v3.6 are as follows:

<i>Tracking ID</i>	<i>ACOS Bug ID</i>	<i>System Area</i>	<i>Severity</i>	<i>Description</i>	<i>Version Reported</i>
GUI-4320		ADC App	High	The event counters always display as 0 even when there are event logs displayed.	HC 5.2.0
GUI-4108	NA	ACOS	Medium	The update of WAF template in shared_objects is functioning. Clicking save, and pushing the configuration to ACOS is now functioning.	HC 5.2.0
GUI-3316	NA	ADC App	High	When user creates server SSL template with cert_key_Passphrase input, the communication error with ADC App > Health Monitor for Logical partition (for example Radius and database) processes pop up is now resolved.	HC 5.2.0

GUI 3269	NA	ADC App	High	The functionality to push health monitor with method POP3/IMAP/RADIUS/LDAP/DATABASE/TACPLUS/KERBERS-KDC/HTTPS/HTTP/FTP into Thunder, was not functioning if username/password was present in the payload.	HC 5.2.0
GUI-4129	NA	ADC App	High	Update policy is not functioning for certain special WAF template configurations. For example, when user performs ADC_APP> WAF LOG > Choose the Violation and perform +Update WAF policy , it results in an error and the update in WAF policy is not configured.	HC 5.2.0

Release Details

The following are the details regarding this release of Harmony Controller - CGN App 4.1.4-v2.1 version:

- **Build Type:** GA
- **Version:** (v3.5)
- **Date:** October 20, 2020.

SUPPORT INFORMATION FOR HARMONY CONTROLLER: ADC APP v3.6

The A10 Networks® technical and customer support team is available at your service on phone, email and web channels:

Technical and Customer Support

To know more about A10 Networks® Harmony Controller and ADC App v3.5, 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

