

Device Monitoring

Overview

Device Monitoring provides comprehensive device monitoring for all devices along with current diagnostic capabilities.

- Responsive SNMP data collector that loads file-based configuration to customize the OIDs to poll per vendor, model, even specific device
- Support CPU and memory, with other metrics planned for future releases
- Many vendors and models are supported out-of-the-box by the built-in metric definition file
- Support for additional vendor and models can be added through additional metric definitions without need to upgrade LiveNX

The screenshot displays the LiveNX Device Monitoring dashboard. At the top, there are navigation tabs for 'Overview', 'Device Monitoring', and 'LiveAssurance'. Below the navigation, there is a search bar and a 'Type' dropdown menu. The main content area features a summary of device counts for various categories: Firewalls (3), Switches (2), Load Balancers (2), Routers (1), and SD-WAN (1). Below this summary is a table listing individual devices with columns for Device, IP Address, Site, Device Type, Vendor, OS, Model, and CPU/Memory.

Device	IP Address	Site	Device Type	Vendor	OS	Model	CPU/Memory
10.244.28.240	10.244.28.240		router	Cisco		asa5508-K9	(29% CPU, 80% Mem)
10.244.28.198	10.244.28.198	San Jose	Switch	PaloAlto		PA-205	(29% CPU, 80% Mem)
10.244.28.247	10.244.28.247		switch	HP		hp8100-1	(29% CPU, 80% Mem)
10.244.28.14	10.244.28.14		Load Balancer	F5		ipg4100-1	(29% CPU, 80% Mem)
10.244.28.245	10.244.28.245		switch	HP		ipg4100-1	(29% CPU, 80% Mem)
10.244.28.13	10.244.28.13		Load Balancer	F5		ipg4100-1	(29% CPU, 80% Mem)
10.244.28.100	10.244.28.100		Other	Non-SNMP		Non-SNMP	(29% CPU, 80% Mem)
10.244.28.45	10.244.28.45		switch	Aruba		4030	(29% CPU, 80% Mem)
10.244.28.102	10.244.28.102		Switch	CheckPoint		swa4700-1	(29% CPU, 80% Mem)
10.244.28.103	10.244.28.103		Switch	CheckPoint		swa4700-1	(29% CPU, 80% Mem)

Device Details Page

Device Monitoring / Network devices /

ISR_router01

1 Total

- Critical 1
- Error 0
- Warning 0
- Info 0

Hostname	ISR_router01	OS	IOS_XE 17.6.4
Management Address	10.254.254.240	Last Seen	-
Vendor	Cisco	Last Backup	-
Model	csr01/SR-4301	Up Time	-

System Interfaces

CPU

Name	Usage %	Average %	Min %	Max %	
Core 0 (Control Plane)		21	34	30	38
Core 1 (Data Plane)		10	45	40	52
Core 2 (SNMP Agent)		10	20	15	22
Core 3 (Logging)		12	21	18	24

Memory

Type	Usage	Used %
Available memory	13.92G / 139.08 (10%)	10
Buffers	18.312M / 121.8M (15%)	15
Physical memory	11.252G / 129.0G (8%)	25

Storage

Cloud Monitoring Enhancement

- Microsoft Azure NSG flow logs are going away. We now support VNET flow logs
- We now import VWAN and VHUBs from Azure
 - CM LiveNX Mapping
 - VWANS become sites
 - VHUBS become devices (contained within sites)
- Got rid of the CEC licensing
 - LiveNX still needs to be licensed
 - Need device licenses to handle the cloud "devices"

Server High Availability

Overview

LiveNX 25.2.0 adds a basic High Availability service to the LiveNX Server only, allowing a customer to sync Server state and settings from a "Primary" Server to a "Secondary" Server. The Secondary Server will not be running LiveNX processes until the customer manually promotes it to Primary Server.

Limitations

- Data loss from a Node failure is not prevented
- There are no alerts on failure of Primary Server
- There are no alerts if sync stops working
- Data loss due to human error or corruption is not prevented
- NFS filesystems <v4.2 or v4.2+ are not supported without xattr support enabled

Warnings

- It is possible that the synced configuration could be in a corrupt state at sync time. The Secondary Server is not guaranteed to work when promoted.
- When promoting the Secondary Server to Primary Server, Customer will be required to manually change the IP of the Secondary Server to the IP of the Primary Server. This requires deploying them in the same subnet.
- A license is not required to run HA sync. If a customer has a failure but has not acquired a license for the secondary server, LiveNX support turnaround time will affect how quickly they are back in normal operating mode.

Usage of hactl

The services and timers that enable the HA feature are masked (linked to `/dev/null`) when shipped to the customer. This reduces the risk of running them by mistake.

`hactl` is a python script included in the LiveNX image and available on the `$PATH`. It is used to setup sync, promote the secondary server, disable sync, disable the primary server, or reenble the primary server. It must be run via `sudo` or from the `root` user.

```
1 $ hactl --help
2 Usage: hactl [OPTIONS] COMMAND [ARGS]...
3
4 LiveNX HA Command Line Interface (CLI)
5
6 Options:
7   --help Show this message and exit.
8
9 Commands:
10  disable-primary Stop HA sync and LiveNX processes.
11  disable-sync    Disable HA sync.
12  promote         Promote Secondary Server to Primary
13  reenble-primary Restart LiveNX processes only.
14  setup          Set up HA sync to the secondary server.
15
16
17 $ sudo hactl setup --help
18 [sudo] password for admin:
19 Usage: hactl setup [OPTIONS]
20
21 Set up HA sync to the secondary server.
22
23 Options:
24   -s, --secondary-server TEXT      Hostname/IP of the secondary server.
25                                   [required]
26   -i, --interval-minutes INTEGER  Interval in minutes to run HA sync. Default:
27                                   60 minutes.
28   --help                            Show this message and exit.
```

Setup Sync

```
sudo hactl setup [-s, --secondary-server secondary-server] [-i, --interval-minutes sync-interval] (Run on Primary Server)
```

`setup` configures both the Primary and Secondary Servers, and starts the services on each Server that sync the data.

Promote Secondary

```
sudo hactl promote (Run on Secondary Server)
```

`promote` changes a Secondary Server into a Primary, and should be run when the Primary Server has failed. It stops the sync and starts LiveNX services.

Note Before running `sudo hactl promote`, sync should be disabled by running `sudo hactl disable-primary` on the Primary Server.

The Secondary Server is required to have the same IP that was previously used by the Primary Server. The Primary Server should either be shut down or have its IP changed before running `sudo hactl promote`. The Secondary Server IP can be changed by running `sudo network-setup`.

LiveNX should not be running on the Secondary Server prior to running this command. If it is

running while sync is active, file will be corrupted and LiveNX is unlikely to work at all.

If the customer does not have a LiveNX license installed on the Secondary Server, they will need to go through LiveNX Support to get a new license before they can actually use the Server.

To setup sync from the new Primary Server, provision a new Secondary LiveNX Server and run `sudo hactl setup` from this server.

Disable Sync

```
sudo hactl disable-sync (Run on Primary Server)
```

Run `sudo hactl setup` to set up sync again.

Disable Primary

```
sudo hactl disable-primary (Run on Primary Server)
```

Since the Primary Server IP is needed, shutting the Primary Server down or changing its IP via `sudo network-setup` should be done after running this.

Reenable Primary

```
sudo hactl reenable-primary (Run on Primary Server)
```

Troubleshooting and Logs

`livenx-ha-primary.service` and `livenx-ha-secondary.service` both log to the Systemd journal. Their logs can be accessed via `journalctl`:

- `sudo journalctl -u livenx-ha-primary.service`
- `sudo journalctl -u livenx-ha-secondary.service`

In LiveNX 24.2.0, Systemd journals are not persistent. If you need to read through logs after a reboot, look through `/var/log/syslog`:

- `sudo grep livenx-ha-secondary /var/log/syslog | less`

You can also use `systemctl` to determine status of the ha services and timers:

- Services: find out when they last ran, if they exited without error, etc.
 - `sudo systemctl status livenx-ha-primary.service`
 - `sudo systemctl status livenx-ha-secondary.service`
- Timers: find out if they are running, when they last triggered, when they will trigger next, etc.
 - `sudo systemctl status livenx-ha-primary.timer`
 - `sudo systemctl status livenx-ha-secondary.timer`
 - Example output:

```
1 $ sudo systemctl status livenx-ha-primary.timer
2 • livenx-ha-primary.timer - LiveNX HA Service, Primary Server Timer
3   Loaded: loaded (/lib/systemd/system/livenx-ha-primary.timer; enabled; vendor
4   Drop-In: /etc/systemd/system/livenx-ha-primary.timer.d
5           └─override.conf
6   Active: active (waiting) since Fri 2025-06-06 21:29:20 UTC; 13min ago
7   Trigger: Fri 2025-06-06 21:43:49 UTC; 1min 5s left
8   Triggers: • livenx-ha-primary.service
9
10 Jun 06 21:29:20 livenx systemd[1]: Started LiveNX HA Service, Primary Server Tim
```

LiveAssist Data Source – Device Inventory

Overview

Customers may want to ask LiveAssist questions about their inventory. This may be things like “what are my cisco devices?” or “how many WAN interfaces do I have?” If device inventory information is sent to LiveAssist, LiveAssist is now able to answer these questions.

Device Inventory Data

The information sent to LiveAssist includes the following:

- Devices
 - Name
 - Model
 - OS version
 - Tags
 - Site, WAN, etc
- Interfaces
 - Name
 - Tags
- Sites
 - Site IP mappings

Note The list is not comprehensive of all data sent to LiveAssist, it is just a subset.

Enabling the Data Source

A new **Device Inventory** check box has been added to the Network Configuration page. In addition, we have grouped all “NX Application Data” together to help users understand which data sources are related to LiveNX specifically and enable them all in a single button click.

- Inventory is sent on start up
- Inventory is resent every 5 minutes
- Inventory is sent up on configuration change

NETWORK CONFIGURATION

LiveNX REST API Token *

phq0VjF44ij/FPNCqK9jdBv8N40JmOrZrRACUb3RY9M=d

LiveAction Otel Configuration ⓘ

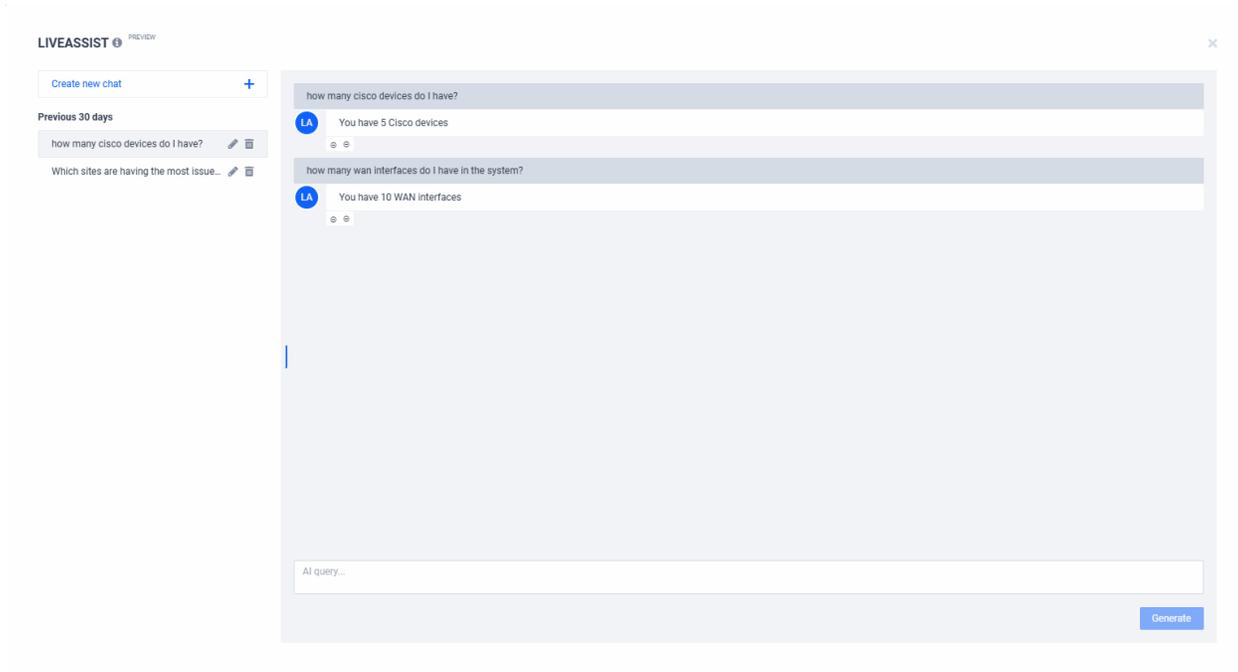
Findings

NX Application Data

Tags User Activity Alerts Root Cause Assist Device Inventory

LiveAssist

- Ask questions in LiveAssist!



LiveAssist – Easy Onboarding

Overview

Customers are now able to self-register for LiveAssist.

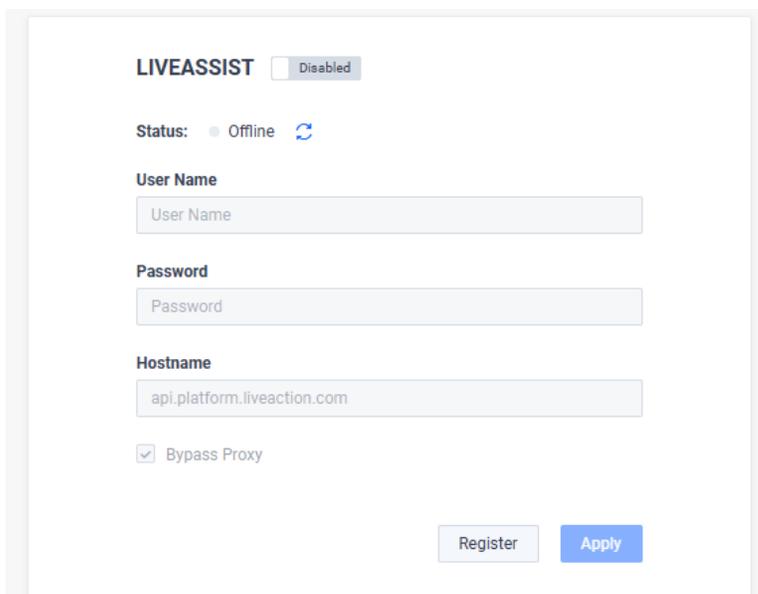
Requirements

A customer must have the following in order to register for LiveAssist:

- A valid LiveNX **license**
- An **email** address
- Be an **admin** within LiveNX

Workflow

Any **admin** can navigate to the **LiveAssist** configuration page to register for LiveAssist.



The screenshot shows the LiveAssist configuration interface. At the top, there is a toggle switch for 'LIVEASSIST' which is currently 'Disabled'. Below this, the 'Status' is set to 'Offline' with a refresh icon. The form contains three input fields: 'User Name' (empty), 'Password' (empty), and 'Hostname' (pre-filled with 'api.platform.liveaction.com'). There is a checked checkbox for 'Bypass Proxy'. At the bottom right, there are two buttons: 'Register' and 'Apply'.

1. Click "Register"
2. Fill out form with **email** and **company**.
3. The **hostname** can be skipped. It is pre-populated with the correct value.
 - Only in edge cases will this value need to be changed.
4. The **bypass proxy** only matters for customers who have a proxy configured.
 - If no proxy is configured the setting does not matter.
5. "Submit" the inputs
 - A successful response message will be returned on successful submission

- On failure (e.g., invalid license, an error message will be displayed)

REGISTER ✕

Email *

Confirm Email *

Company *

Hostname *

Bypass Proxy

Once submitted, LiveAction will provision a system for the customer and email them the appropriate credentials via the email that they have provided.

The email will have all the necessary artifacts to use LiveAssist such as:

- User name
- Password
- Token
- OTEL LiveAssist endpoint URI
- Customer ID

Firewall Configurations

The following **hostnames** must be reachable from the LiveNX appliance:

- The **hostname** specified during registration (default: `api.platform.liveaction.com:443`)
- OTEL configuration `telemetry.platform.liveaction.com:443`

Internal Workflow

Behind the scenes, action must be taken by BlueCat employee to provision an instance.

Caveats

- Users who have already registered will see the **Register** button on the credential page if their connection is invalid.
- There is currently no way to check the status of the registration request. Users will need to wait for the email with info.

LiveAssist RCA Status Message Improvements

Overview

Messaging about the status of root cause assists (RCA) has been improved.

Enhanced Status

Additional status states to root cause assists (RCA) have been added. This help customers to better understand the current state of their RCA rather than always seeing a generic "Root cause assist in progress... Please check back later for the results." message.

State	Meaning	Example Message
UNKNOWN	LiveAssist has no information about the alert ID in question. Possibly because the alert data has not been sent from LiveNX.	The system cannot determine the current status of this alert.
PENDING	There is information for the alert but no RCA has been attempted yet. This could be due to waiting for the timer task to trigger or the platform not having enough resources to tackle this yet.	The alert is queued and waiting to be processed.
FAILED	RCA has attempted to run but has failed. This could be due to insufficient information.	The alert processing has failed due to lack of data.
SUCCESS	RCA is completed.	The alert was successfully processed without any errors.
NOT_APPLICABLE	The alert ID in question should not have an RCA.	The alert does not require processing based on its configuration.

Examples

▲ Application Performance - App Delay ×

Status & Time

Status: Active ▼

Time opened: 18 Jun 2025, 11:19 PM

Active for: less than a minute

Source Info

Site: [Micro](#)

Device: [MICRO-CSR-15.sd.liveaction.com](#)

Conversation: [TCP 10.2.101.25:445 to 192.168.2.208](#)

Server Site: Unspecified

Client Site: Unspecified

Event: [Report](#)

Description

MICRO-CSR-15.sd.liveaction.com. had 61.00 ms application delay for the application cifs

Details

Configured Threshold: 50.00 ms

Latest Average Application Flow Delay: 61.00 ms

AI Analysis Levels: Basic Analysis, Root Cause Assist

Average: 10.0

Configured σ Multiplier: 5.0

Initial Average Application Flow Delay: 61.00 ms

Application: cifs

AI Diagnostics ⓘ

Summary: The alert is queued and waiting to be processed.

Cross Launch

Packet Inspection: [LiveWire](#) 

Notes

Notes

LiveAssist Enhancements

Overview

This page goes over enhancements made in relation to LiveAssist.

Sending Additional Information to LiveAssist

We are now sending **user** and **session** information in all queries to LiveAssist. This will enable us to do the following in the future:

- Chats are unique per user

Improved Filtering

The **AI Diagnostics** column has been improved to have four states:

- **All** - All alerts regardless of
- **None** - Only show alerts without a RCA
- **Pending** - Show alerts that are waiting for their RCA to be complete
- **Complete** - Show alerts that have a completed RCA

The screenshot shows the LiveAssist interface. At the top, there are filter dropdowns for 'PARTY...' and 'AI DIAGNOST...'. The 'AI DIAGNOST...' dropdown is set to 'All'. Below the filters is a table of alerts. The table has columns for SEVERITY, SITE, DEVICE, DESCRIPTION, TIME OPENED, ACTIVE FOR, CATEGORY, TYPE, THIRD PARTY, and AI DIAGNOST. The AI DIAGNOST column shows various states like 'All', 'None', 'Pending', and 'Complete'.

SEVERITY	SITE	DEVICE	DESCRIPTION	TIME OPENED	ACTIVE FOR	CATEGORY	TYPE	THIRD PARTY	AI DIAGNOST
Info	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 44.00 ms network delay for the application akamai	18 Jun 2025, 10:20 PM	less than a min...	Application	Application Performance - Network Delay	Third Party Ir	All
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 56.00 ms network delay for the application espn-browsing	18 Jun 2025, 10:20 PM	less than a min...	Application	Application Performance - Network Delay	Third Party Ir	None
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 411.00 ms network delay for the application espn-browsing	18 Jun 2025, 10:13 PM	6 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 90.00 ms network delay for the application flashtalking	18 Jun 2025, 10:01 PM	18 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 68.20 ms network delay for the application skype	18 Jun 2025, 09:56 PM	24 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 79.20 ms network delay for the application windows-azure	18 Jun 2025, 09:49 PM	30 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 52.65 ms network delay for the application google-services	18 Jun 2025, 09:45 PM	34 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 51.79 ms network delay for the application youtube	18 Jun 2025, 09:45 PM	35 minutes	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 64.60 ms network delay for the application inovoid	18 Jun 2025, 09:20 PM	about 1 hour	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 143.53 ms network delay for the application cws.comviva	18 Jun 2025, 08:42 PM	about 2 hours	Application	Application Performance - Network Delay	Third Party Ir	Pending
Critical	Micro	MICRO-CSR-15.sd.livea...	MICRO-CSR-15.sd.liveaction.com. had 141.55 ms network delay for the application vision-fr-pz	18 Jun 2025, 08:39 PM	about 2 hours	Application	Application Performance - Network Delay	Third Party Ir	Pending
Warning	Heaven	ASR1001.liveaction.com	Drop Rate was 2039 91 Kbps for ASR1001.liveaction.com on interface Tunnel1 in the Output direct...	18 Jun 2025, 08:31 PM	about 2 hours	Device, Interface	QoS Class Drop	Third Party Ir	Pending
Warning	Heaven	ASR1001.liveaction.com	QigabitEthernet0/0/2 on ASR1001.liveaction.com had a drop rate of 7900 17pps in the Output dire...	18 Jun 2025, 08:31 PM	about 2 hours	Device, Interface	QoS Interface Drop	Third Party Ir	Pending

Alerting Dynamic Threshold Updates

Additional Alert Support

The following alerts were updated to add support for dynamic thresholds.

- Voice/Video Performance - Jitter Max
- Voice/Video Performance - Jitter Average
- Voice/Video Performance - Packet Loss

Example Screenshot

The screenshot displays the LiveNX interface with a list of alerts on the left and a configuration window for 'Voice/Video Performance - Jitter Avg' on the right.

Alert Name	Category
Interface Reachability	Device, Interface
IPSLA Test	Network
IPSLA Video Test	Network
IPSLA Voice/Jitter Test	Network
Line Card Operational State	Device, Interface
LiveNX CPU Utilization	System
LiveNX Disk Utilization	System
LiveNX Memory Utilization	System
LiveNX Node Connectivity	System
LiveWire Disk Operational State	Network
Low WAN Interface Utilization	Device, Interface
Power Supply Operational State	Device, Interface
QFP Throughput Level	Device, Interface
QoS Class Default Drop	Device, Interface
QoS Class Drop	Device, Interface
QoS Interface Drop	Device, Interface
Routing Adjacency State Change	Network
Routing Polling Error	Network
Site Reachability	Network
Spanning Tree Topology Change	Network
System Config Backup	System
Voice Traffic Classification and Marking	Application
Voice, Video Applications Performance	Application
Voice/Video Performance - Jitter Avg	Application
Voice/Video Performance - Jitter Max	Application
Voice/Video Performance - Packet Loss	Application
VRRP Operational State	Network

The configuration window for 'Voice/Video Performance - Jitter Avg' shows the following details:

- Instance Name:** New Alert
- Alert Source:** Application: rtp, rtp-video, rtp-audio
- Time Window Setting:** For sites without business hours configured this setting will be ignored. Alerts can be triggered at any time of day.
- Thresholds:**
 - For at Least: 0 min
 - Automatic Resolution Time: Manual
 - Dynamic threshold selected
 - CRITICAL: Standard Deviation ~ 10
 - WARNING: Standard Deviation ~ 5
 - INFO: Standard Deviation ~ 1

Dynamic Threshold Visibility

To help users better understand why an alert was triggered when using a dynamic threshold, we've added more visibility into the values involved. With this update, alerts that support dynamic thresholds will now display the configured multiplier as well as the average value which are the values used to calculate the dynamic threshold.

▲ Voice/Video Performance - Jitter Avg

×

Status & Time

Status: Active ▼

Time opened: 10 Jun 2025, 01:56 PM

Active for: about 8 hours

Source Info

Site: Unspecified

Device: SD-ISP-METRO-NET.lab.liveaction.com

Conversation: [UDP 192.168.2.211:63406 to 10.2.101.141:5004](#)

Source Site: Unspecified

Destination Site: Unspecified

Event: [Report](#)

Description

SD-ISP-METRO-NET.lab.liveaction.com running application rtp-audio had 27.30 ms of jitter for traffic with a DSCP value of 46 (EF)

Details

Configured Threshold: 6 ms

Latest Jitter Avg: 27.30 ms

AI Analysis Levels: Basic Analysis, Root Cause Assist

Average: 1.2

Initial Jitter Avg: 27.48 ms

DSCP: 46 (EF)

Configured σ Multiplier: 5.0

Application: rtp-audio

Root Cause Assist Summary: Root cause assist in progress... Please check back later for the results.

AI Diagnostics ⓘ

Summary: Root cause assist in progress... Please check back later for the results.

Notes

Notes

Batching of Alerts in Emails

Overview

Customers do not want to be bombarded with emails. When many alerts are occurring, having a single summary email is more useful than one email per alert.

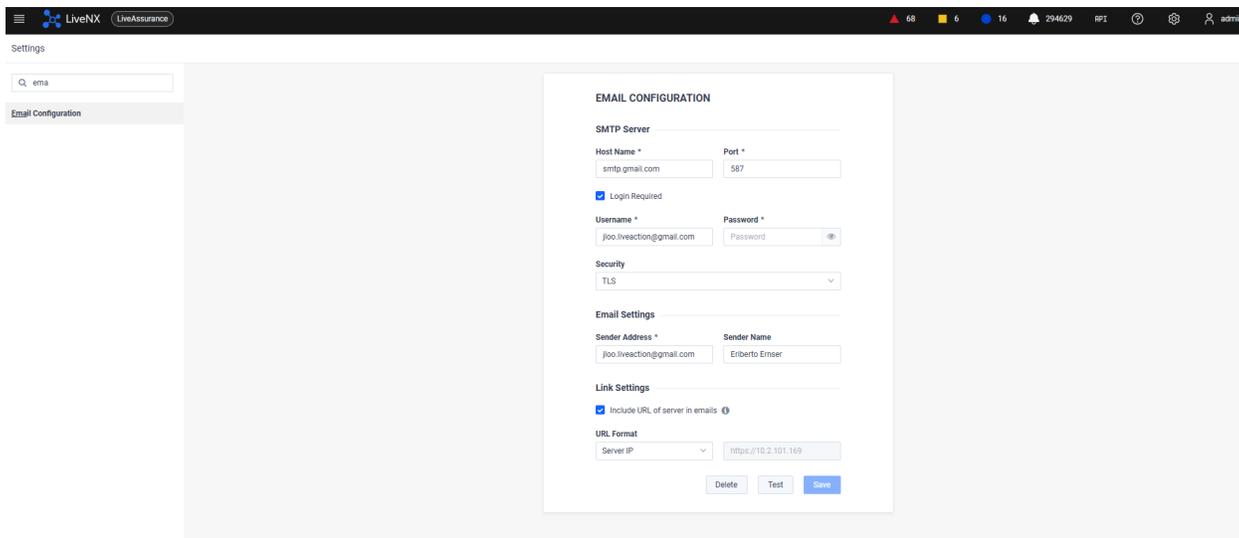
Configuration

There are two aspects to configuration for batch email alerts, email and alert.

Email Configuration

Having email configured is a prerequisite for this feature. Email configuration can be done by an **admin** user via the *Settings > Email Configuration* page.

The *link settings* are used to determine how links in any email will reach the LiveNX instance. Users may need to configure a publicly reachable address for the URL format.

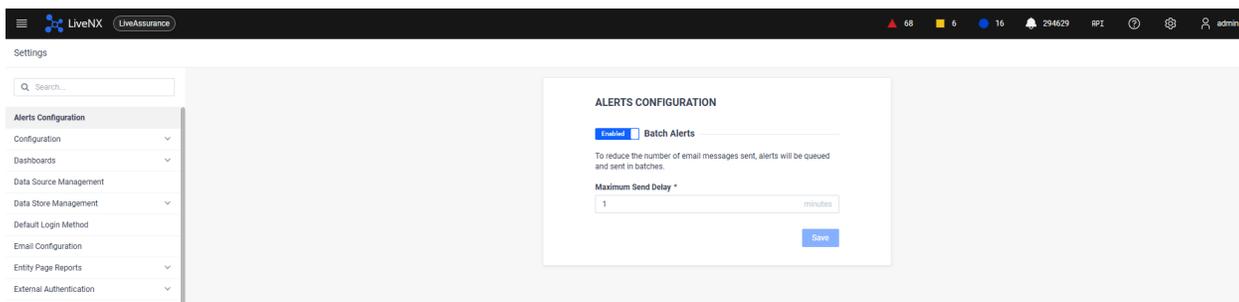


The screenshot shows the 'EMAIL CONFIGURATION' page in the LiveNX interface. The page is divided into several sections: 'SMTP Server', 'Login Required', 'Email Settings', and 'Link Settings'. The 'SMTP Server' section includes fields for 'Host Name' (smtp.gmail.com) and 'Port' (587). The 'Login Required' section has a checked checkbox and fields for 'Username' (joo.liveaction@gmail.com) and 'Password'. The 'Email Settings' section includes fields for 'Sender Address' (joo.liveaction@gmail.com) and 'Sender Name' (Eriberto Emser). The 'Link Settings' section has a checked checkbox for 'Include URL of server in emails' and a 'URL Format' section with a 'Server IP' dropdown and a text input field containing 'https://10.2.101.169'. At the bottom, there are 'Delete', 'Test', and 'Save' buttons.

Alert Configuration

Any **admin** user can configure batch alerting via *Settings > Alert Configuration*.

Note The batching configuration applies to all alerts. There is no way to have some alerts be batched and others sent individually.



The screenshot shows the 'ALERTS CONFIGURATION' page in the LiveNX interface. The page has a toggle switch for 'Batch Alerts' which is currently turned on. Below the toggle, there is a text box explaining that batching is used to reduce the number of email messages sent. There is a 'Maximum Send Delay' field with a value of '1' and a unit of 'minutes'. At the bottom, there is a 'Save' button.

- **Batch alerts** - Toggle on whether to batch all alert events into a single email. Disabled by default.
- **Maximum Send Delay** - The amount of time to wait until sending the alert batch email. Must be greater than 0, there is upper bound. The default value is 5 minutes.

Once batching is enabled, any alert that should be delivered via email will honor the batching.

Example Email

The email template includes all of the same information found in the alert on the LiveNX Operations Dashboard as well as a link to open the alert in the application.

Alerts will be numbered in chronological order, with the most recent on top.

Row Number	Time Opened	Severity	Status	Source Info	Alert Type	Description	Details	Link	Notes
1	Tuesday, June 10, 2025, 4:47:13 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:13.911Z)	Critical	Resolved	Site : Unspecified Device : PA-CSR1K.228	Device Reachability (PA-CSR1K.228)	PA-CSR1K.228 reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
2	Tuesday, June 10, 2025, 4:47:04 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:04.712Z)	Critical	Resolved	Site : LondonEdge Device : LDN-SwitchV1	Device Reachability (LDN-SwitchV1)	LDN-SwitchV1 reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
3	Tuesday, June 10, 2025, 4:47:04 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:04.696Z)	Critical	Resolved	Site : Barcelona Device : Barcelona	Device Reachability (Barcelona)	Barcelona reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
4	Tuesday, June 10, 2025, 4:47:04 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:04.696Z)	Critical	Resolved	Site : Pacific Device : PA-CSR-04.liveaction.com	Device Reachability (PA-CSR-04.liveaction.com)	PA-CSR-04.liveaction.com reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
5	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.886Z)	Critical	Resolved	Site : PaloAlto Device : PaloAlto	Device Reachability (PaloAlto)	PaloAlto reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
6	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.884Z)	Critical	Resolved	Site : Unspecified Device : AP2	Device Reachability (AP2)	AP2 reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
7	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.884Z)	Critical	Resolved	Site : MoscowVedge1 Device : MoscowVedge2	Device Reachability (MoscowVedge2)	MoscowVedge2 reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
8	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.884Z)	Critical	Resolved	Site : Toulouse Device : Toulouse	Device Reachability (Toulouse)	Toulouse reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
9	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.884Z)	Critical	Resolved	Site : HUB Device : HUB1_232.liveaction.com	Device Reachability (HUB1_232.liveaction.com)	HUB1_232.liveaction.com reachability alert updated by user	Previous Device Status : Down Device Status : Down	Alert Page Link	
10	Tuesday, June 10, 2025, 4:47:03 PM Hawaii-Aleutian Standard Time (2025-06-11T02:47:03.884Z)	Critical	Resolved	Site : Unspecified Device : AP1	Device Reachability (AP1)	AP1 reachability alert updated by user	Previous Device Status : Down	Alert Page Link	

FAQ

- Is batching enabled by default?
 - No. On upgrade batching will not be enabled until manually activated by an admin.
- Batching is done per email address?
 - Yes. Each email address will only receive alerts that are targeted to them as per alert configuration.
- Are emails to all recipients sent at same time?
 - It depends. When the delay time has been reached, all emails will be sent to all recipients. Therefore it is recommended to use an email alias when sending to many recipients to reduce the number of outbound emails from LiveNX. Emails can also be sent individually if a single recipient has more than the maximum batch size (default 500).
- How does modifying the alert delay affect the next outgoing batch email?
 - If delay time is changed, a batch email will be sent immediately. Once that email is sent, the next batch email will be sent after the configured delay time has passed.
- Can I get both batched and single alert emails?
 - No. If batching is enabled all alerts will be sent batched, there is no way to select which alerts to batch.
- When I change the delay, when will the next email be sent?
 - Changing settings will force the queue to be emptied. All alerts that have not been sent will immediately be sent. Following that, the next batch email will send at the newly appointed time.
- Is there a limit to how many alerts can be in a single email?
 - Yes. The default batch size is 500 alerts per email. This can be increased by modifying the application property alert.email.batch-size on the server and restarting the livenx-server process.
- What happens when the batch limit is reached?
 - When the batch size limit is reached (default is 500), the email will be sent immediately, regardless of scheduled batch time.

Syslog TLS Support

Overview

TLS support for communication with Syslog servers has been added in LiveNX 25.2.0.

Configuration

Syslog settings can be configured via *Syslog > Settings*. *TLS* has been added as a **protocol** option.

Note Only publicly trusted certificates that are recognized by the current version of Java will work with TLS. Self-signed certificates are not supported.

The screenshot displays the Syslog configuration interface. It is divided into two main sections: "General Settings" and "Syslog Message Format".

General Settings

- Facility:** A dropdown menu with "Local 0" selected.
- Address of Syslog Server *:** A text input field containing "1.2.3.2".
- Protocol:** A dropdown menu with "TLS" selected.
- Port *:** A text input field containing "514".

Syslog Message Format

- Application Name *:** A text input field containing "%LIVEACTION".
- Hostname:** A dropdown menu with "Hostname" selected.
- Timestamp:** A dropdown menu with "UTC" selected.
- Process ID:** A dropdown menu with "Device hostname" selected.

At the bottom of the form, there are two buttons: "Delete" and "Save".

Automatic Alert Resolution

Overview

Alert enhancements have been added to ensure that irrelevant alerts are automatically cleaned up.

Disabling an Alert Instance

Alerts are automatically resolved when an alert instance is disabled. Disabling an alert identifier means that the alert is no longer relevant. We should resolve alerts associated with a disabled identifier to clean up the systems state and remove alerts the user thinks are not important.

FAQ

- Will re-enabling an alert identifier reopen alerts that were closed by the disable?
 - No. No alerts will be re-opened or recreated when enabling an alert identifier. Users must wait for a new alert to be created.
- Is there a way to disable all alerts for a given alert type?
 - No. The functionality is only per identifier today.
- I disabled the instance but the alert is re-opened. Why?
 - It is likely that a different identifier is now the source of the alert. Please ensure no other identifiers match the alert criteria.

Moving Devices between Nodes

When a device is moved from one node to another it does not make sense to keep the alert on the original node. This is because the alerts are calculated per-node. If there is no device, no data will come in and the alert will never be automatically resolved. Similarly, an alert with the same device name can appear on the new node since each node handles its own alert processing.

Note If a node is down when a device is moved, no alerts will be resolved on that node. When the node becomes online and reconnects to the server, alerts related to the migrated device will still be there.

Shared Dashboard Management

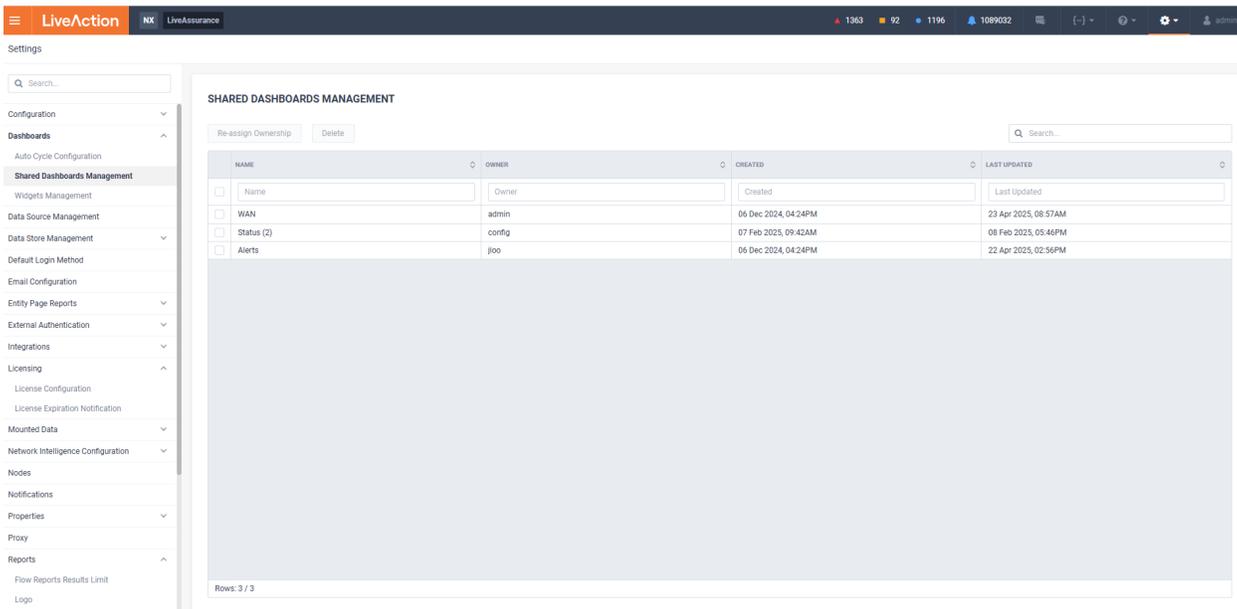
Overview

A shared dashboard allows inexperienced users to rely on an advanced LiveAction user to create an ideal set of reports that can be viewed on demand. If the advanced LiveAction user leaves, those dashboards can never be updated. This has been fixed in LiveNX 25.2.0 by allowing users the ability to transfer dashboard ownership.

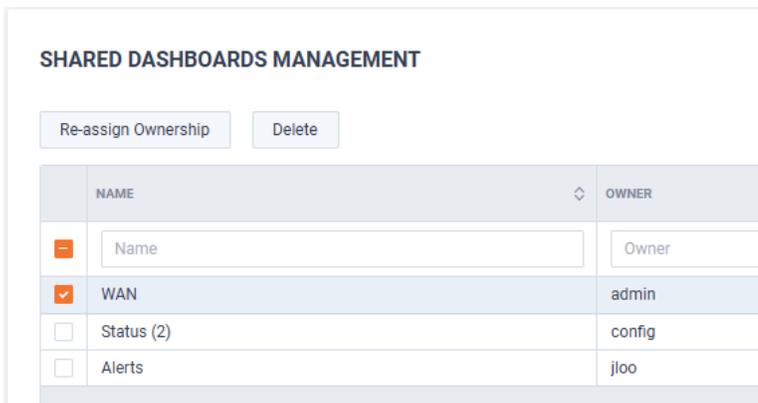
Workflow

The work flow is similar to the shared dashboard management and therefore hopefully familiar. Any **admin** user can re-assign dashboard ownership via *Settings > Dashboards > Shared Dashboards Management*.

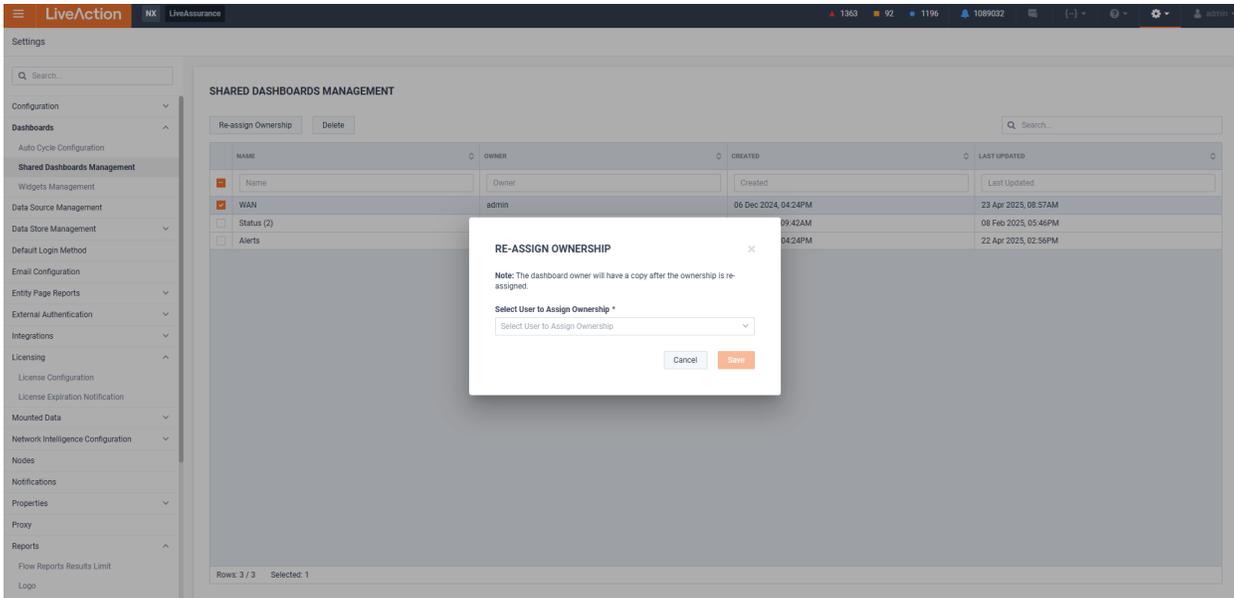
1. Navigate to the shared dashboard management page.



2. Select dashboard(s) that should be reassigned and click "Re-assign Ownership" which brings up a dialog.



3. Select the user who should become the new owner of all selected dashboards.



Migration Behavior

- Dashboards will be transferred to the new user with the same name.
- If a dashboard is added to new owner, it will not be activated

Here are additional details to know, broken down per user types:

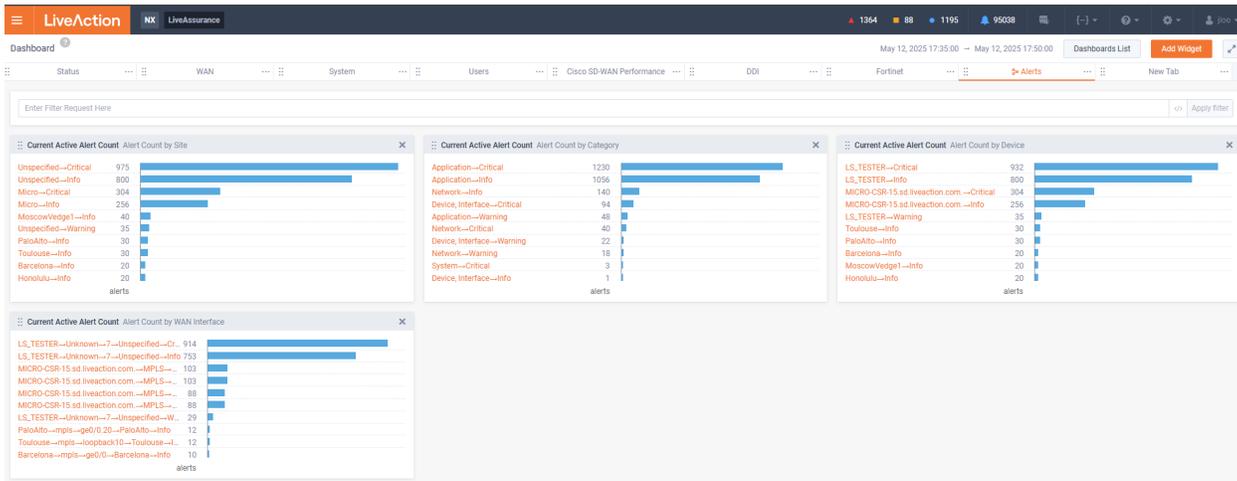
- **Original dashboard owner**
 - The dashboard becomes an *add* dashboard (copy by reference). Any changes the new owner makes to the dashboard will be reflected on their copy of the dashboard.
- **New dashboard owner**
 - If user was a consumer of original dashboard via "add" - The dashboard is now editable. Any changes made will be reflected to all consumers of the dashboard.
 - If user was not a consumer of original dashboard - A new dashboard will be added to the "dashboard list". The dashboard is not active by default.
- **All other users**
 - If user was a consumer of original dashboard via "add" - No change. Changes made by the new owner will continue to be reflected in the dashboard.
 - If was not a consumer of original dashboard - Not applicable. Dashboard changes do not affect this user.

Defining what copy and add dashboards are:

- **Add** - A dashboard that was added by pressing "add". This is a reference to the original dashboard. Any changes made to the original will be reflected on any dashboard that was added via "add".
- **Copy** - A dashboard that was added by pressing "copy". This is considered a snapshot of the dashboard at the time the copy was made. There is no connection to the original dashboard, the user who pressed "copy" is the owner of the dashboard.

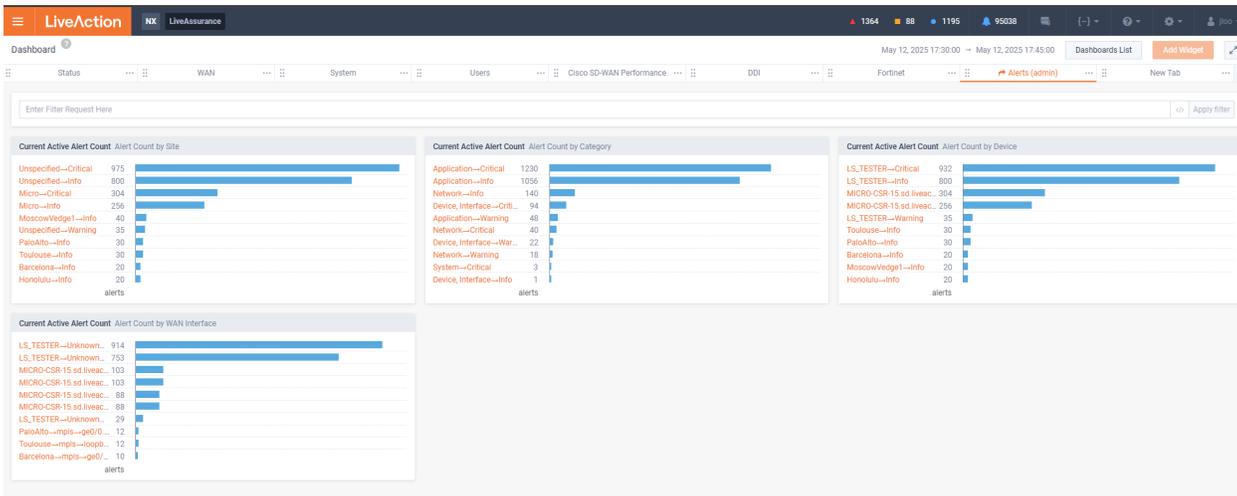
Before

Before "alerts" dashboard is reassigned to "admin" user



After

After "Alerts" dashboard is reassigned to "admin" user.



Notes

- Changes are not reflected on "dashboard" page until user refreshes page (or navigates away and comes back)
- Only shared dashboards can be reassigned owners. Standard dashboards cannot be reassigned

Custom Device Refresh Time

Overview

Customers want the ability to determine when their devices will be polled for a device refresh. This ensures that the sync occurs at the proper time and is not using extra resources on the device at inopportune times.

Feature

Users can now specify what time of day the device refresh will occur. Whereas before users could only specify the **frequency** of the refresh, now the **time of day** can always be specified.

DEVICE AUTO-REFRESH Enabled

LiveNX will auto-refresh device and interface details (bandwidth, IP address, IOS version, etc.).

Refresh Time Interval * days

Refresh Time :

Time Zone DST ⓘ

The ability to customize the refresh time has been added to the existing menu on the *Settings > Device Auto-Refresh* menu. Any admin user can edit this.

Similar to reporting, users can specify the time of day and the time zone that they wish the refresh to occur. The **DST** checkbox is only there to determine if DST should be honored when DST is in effect.

Previous Month Time Range

Overview

A new time range has been added for "previous month". This will always run from midnight of 1st day to midnight of the last day of the previous month (for example, If the current date is June 14 then the previous month is May). The time range will honor the time zone parameter chosen.

Users should make sure they have at least two months of data retention if they want to use this feature consistently. It is also still recommended to use monthly scheduled reports since the report execution may take a while.

CREATE REPORT

GENERAL SETTINGS

Name: Enter report group name...

Presentation Mode: Standard

Footnote: Enter report group description...

Time Zone: (GMT-10:00) Pacific/Honolulu

Time Range: Last Fifteen Minutes, Last Day, Last Week, Last Thirty Days, Today, Yesterday, **Previous Week**, **Previous Month**, Custom

File Format: Enter an email address or AD entity...

REPORT LIST

Application (Flow) Fast

Add New Report

REPORT DETAILS

Report Name: Enter custom report name...

Flow Type: Basic Flow

Report Description: Enter report description...

Execution Type: Time Series

Devices: All WAN Devices

Sort By: Bit Rate

Interfaces: All WAN Interfaces

Business Hours: All Hours

Flex Search: Ex: site=Honolulu & wan & flow.app=http

Bin Duration: Auto

Report Data Source: Auto

Display Filter: No Display Filtering

Direction: Outbound

Long Term Flow Store v2
Due to the report options selected, this report will utilize the Long Term v2 datastore (faster). To override this behavior and use a different data source, manually select the desired Report Data Source.

Cancel Save As Template Execute

Note When daylight savings time toggles, the month will have an extra hour at the beginning/end (depending on if adding or removing an hour).

OVA Sizing

Overview

The OVA sizes have been updated for LiveNX 25.2.0. The small size and POC/custom size are no longer being produced, and the memory, CPU, and disk space have all been increased for medium and large.

The table below summarizes the new system requirements for LiveNX.

Items	Minimum Requirements for New Medium OVA	Minimum Requirements for New Large OVA
FPS (K)	100K	150K
CPU	32 vCPU Xeon	64 vCPU Xeon
RAM	128 GB	256 GB
Data Disk	8 TB	16 TB

InfluxDB Removal

Overview

Over the past several releases ClickHouse has become the replacement for data that had previously been stored in InfluxDB. InfluxDB has remained in place to allow historical data to be migrated into ClickHouse. With LiveNX 25.2.x, InfluxDB is no longer installed with LiveNX.

Note If upgrading from LiveNX 24.2.x or a previous release to LiveNX 25.2.0, historical data will not be migrated. Please first upgrade to LiveNX 24.3.x or LiveNX 25.1.x to have the data migrated.

Note The InfluxDB data is not automatically purged after upgrading. The data will appear in the *Other Store* category on the Data Store management page. To free up disk space, manually, go to LiveAdmin and run the `delete-influxdb-data` service.

Notes

1. The data stored in InfluxDB is no longer migrated into ClickHouse. Please first upgrade to either 24.3.x or 25.1.x to perform data migration.
2. The data stored in InfluxDB will appear as `Other Data Store` in the Data Store management page.
3. The data stored in InfluxDB will not automatically be purged in this release. A later release may automatically purge it but for now the data must be manually deleted. As a convenience, there is a LiveAdmin service called `delete-influxdb-data` that can be run as a one-time service to purge the data. Subsequent attempts to run this service will have no effect.
4. Several application properties will no longer have an effect. The deprecated application properties are listed below.

Deprecated Application Properties

- *Deprecated Application Properties*
- `clickhouse.migration.vmanage.enabled`
- `clickhouse.migration.vmanage.window-millis`
- `clickhouse.migration.vmanage.batch-size`
- `clickhouse.migration.snmp.enabled`
- `clickhouse.migration.snmp.window-millis`
- `clickhouse.migration.snmp.batch-size`
- `clickhouse.reporting.vmanage.enabled`
- `influxdb.host`
- `influxdb.port`
- `influxdb.timeout.read.seconds`
- `influxdb.timeout.write.seconds`
- `influxdb.timeout.connect.seconds`
- `influxdb.log-queries.enabled`
- `influx.reportstore.application.disabled`
- `influx.reportstore.dscp.disabled`
- `influx.reportstore.applicationdscp.disabled`
- `influx.reportstore.bandwidthutilizations.disabled`

-
- *influx.reportstore.topconversations.enabled*
 - *influx.reportstore.application.migrate.days*
 - *influx.reportstore.dscp.migrate.days*
 - *influx.reportstore.applicationdscp.migrate.days*
 - *influx.reportstore.bandwidthutilizations.migrate.days*
 - *influx.reportstore.topconversations.migrate.days*