

# Cisco Crosswork Change Automation and Health Insights 3.2 Release Notes

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## Introduction

Cisco Crosswork Change Automation and Health Insights retrieves real-time information from the network, analyzes the data, and uses APIs to apply network changes automatically. The Cisco Crosswork Network Automation platform brings together streaming telemetry, big data, and model-driven application programming interfaces (APIs) to redefine service provider network operations.

Cisco Crosswork Change Automation and Health Insights enables service providers to quickly deploy intent-driven, closed-loop operations. The platform provides a ready-to-use solution supporting the following use cases:

- Monitor key performance indicators (KPIs) in real time.
- Intergration with other Crosswork products such as the Cisco Crosswork Situation Manager.
- Prepare network changes triggered by changes in KPIs and roll out these changes.
- Perform predictive maintenance.
- Automate change-impact and remediation.

To support the various use cases within the Cisco Crosswork Network Automation platform, consistent telemetry is required.

## Functionality added in Cisco Crosswork Change Automation and Health Insights 3.2

This section lists the new features/functionality delivered in Cisco Crosswork Change Automation and Health Insights 3.2.



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**Note** Features marked “BETA” provide limited functionality in this release. The intention is to fully support these features in the next release.

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## Install and Configuration

- Upgrade support from release version 3.1 to version 3.2.
- IPv6-only deployment mode support.

## Inventory Management

- TE Router ID added for device management.
- Zero Touch Provisioning capability added to allow for automated software download and configuration of new devices.

## Health Insights

- Support for alert forwarding to an IPv6 end point.
- Optical stock KPIs are updated with new sensor paths.

## Collection Services

- External data destination support for third party applications (Kafka) is secured with encryption.

## Release Dates

Cisco releases updated builds on the Cisco Support & Download site when needed.

**Table 1: Version 3.2.x Release Dates**

Version	Build	Filename	Date
3.2.0	28	cw-na-cahi-3.2.0-28-release-200401.ova	2020-04-03

## Compatibility Information

The following table lists hardware and software versions that have been tested and are known to be compatible with Cisco Crosswork Change Automation and Health Insights. For complete installation requirements, see the *Cisco Crosswork Change Automation and Health Insights Installation Guide*.



**Note** This release supports new deployments and migration from older versions of Cisco Crosswork Change Automation and Health Insights.

Hardware/Software	Supported Version
Hardware platform	Cisco Unified Computing System (UCS) B or C series <b>Note</b> The hardware requirements are unchanged from version 3.1. For more information, refer the <i>Cisco Crosswork Change Automation and Health Insights Installation Guide</i> .
Hypervisor and vCenter	<ul style="list-style-type: none"> <li>• VMware vCenter Server 6.7 Update 3b or later (ESXi 6.7 Update 1 installed on hosts).</li> <li>• VMware vCenter Server 6.5 Update 2d or later (ESXi 6.5 Update 2 installed on hosts)</li> </ul>

Hardware/Software	Supported Version
Cisco Network Services Orchestrator(Cisco NSO)	<ul style="list-style-type: none"> <li>• Version 5.2.0.3</li> <li>• IOS XR Network Element Driver (NED) version 7.13.9</li> <li>• IOS XE NED version 6.36</li> </ul>
Software platform	<ul style="list-style-type: none"> <li>• Cisco IOS XR 6.2.x or later (recommended 6.5.x or later)</li> <li>• Cisco IOS XE 16.10 or later (limited functionality)</li> <li>• Cisco NX-OS (N7K - 8.4(1), N9K - 7.0(3) I7(2))</li> </ul>
Cisco Crosswork Data Gateway	Version 1.1.2
Browsers	<ul style="list-style-type: none"> <li>• Google Chrome—70 or later</li> <li>• Mozilla Firefox—60 or later</li> </ul>

## Installation/Upgrade Paths

The following table lists the valid path for installing/upgrading to Cisco Crosswork Change Automation and Health Insights 3.2 from previous versions.

**Table 2:**

Current Cisco Crosswork Change Automation and Health Insights version	Install the following to upgrade to Cisco Crosswork Change Automation and Health Insights 3.2
Cisco Crosswork Change Automation and Health Insights 3.1	Cisco Crosswork Change Automation and Health Insights 3.1 > 3.2

See the relevant [installation guide](#) for installation prerequisites and procedures for Cisco Crosswork Change Automation and Health Insights versions.

## Usage Guidelines and Important Notes

This section provides guidelines and important notes to consider when using Cisco Crosswork Change Automation and Health Insights.

### Installation and Configuration

For configuration and installation procedures, see the *Cisco Crosswork Change Automation and Health Insights Installation Guide*.

- It is recommended to deploy Cisco Crosswork Change Automation and Health Insights on a highly available cluster (vSphere HA) with shared storage.
- Use VMware vCenter and vSphere Web Client (flash mode) for OVA deployment.
- Managed devices, VM host and the VMs should use the same NTP source to avoid time synchronization issues.

- Confirm that the DNS and NTP servers are properly configured.
- If the UI does not appear within 30 minutes after installation, log into the VM and check the installation logs for configuration errors. If necessary, collect logs to give to Cisco TAC (see the "Perform Administrative Tasks" chapter of the *Cisco Crosswork Change Automation and Health Insights User Guide*).
- Use Terminal Access-Control System Plus (TACACS+), Lightweight Directory Access Protocol (LDAP) or Role-Based Access Control (RBAC) for auditing purposes.
- During configuration, note the Cisco Crosswork Change Automation and Health Insights UI and CLI user names and passwords. Due to added security, the only way to recover the administrator password is to re-install the software.
- In situations where Cisco Crosswork Change Automation and Health Insights is expected to work with SR-PCE (SR-PCE is used for L3 topology discovery) we recommend the use of dual SR-PCEs.

## Health Insights

For information on how to use Health Insights, see the "Monitor Network Health and KPIs" chapter in the *Cisco Crosswork Change Automation and Health Insights User Guide*.

- Group the KPIs within a KPI Profile for monitoring relevant device metrics. For best results, limit to adding 10 KPIs per KPI Profile. Maximum number of KPIs that can be supported within a KPI profile is 50.
- For optimal performance, enable a KPI Profile in batches of no more than 50 devices.
- Link the playbook with KPI before enabling the corresponding KPI Profile on a device.
- For best system performance, use the default KPI cadence.

## Change Automation

For information on how to use Change Automation, see the "Automate Network Changes" chapter in the *Cisco Crosswork Change Automation and Health Insights User Guide*.

- Use the scheduling feature to perform planned maintenance operations.
- Use the Install and Uninstall packages to upgrade or downgrade software patches.
- When using dynamic tags to run a playbook on a set of devices the playbook will be executed on groups of 20 devices at a time until the playbook has been run on all of the tagged devices.

## Collection Services

- Mapping of devices to Cisco Crosswork Data Gateway is recommended to be done in batches of no more than 250 devices to ensure optimal performance.
- Use tags to select a group of devices when enabling collection jobs for better operational efficiency.

## Monitor and Troubleshoot

For administrative and monitoring tasks see the "Perform Administrative Tasks" chapter in the *Cisco Crosswork Change Automation and Health Insights Installation Guide*.

- Contact the Cisco Customer Experience team to when troubleshooting Cisco Crosswork Change Automation and Health Insights, before restarting services (via UI or CLI).
- Monitor and view application state, health, performance, and summary details from the **Crosswork Manager** window.
- Use custom certificates signed by your local CA to avoid browser warning messages. To manage certificates, go to the **Certificate Management** application.

## Known Issues and Limitations

The following are known issues, limitations, and workarounds in Cisco Crosswork Change Automation and Health Insights.

### Upgrade

- Dual stack deployment modes are not supported in version 3.2. Only single stack deployment modes (IPv4 only or IPv6 only) are supported.
- Without adequate resources (storage, memory and disk), the upgrade operation cannot load the services successfully, and will fail in the first boot.
- After upgrade to version 3.2, all historical alerts will be available only for an hour. Future alerts will be available once devices are mapped to Cisco Crosswork Data Gateway for the enabled KPIs.

### Change Automation

- Sometimes, under certain load conditions, the execution of a Playbook times out. If it continues to fail for a specific device, try changing the time out for the job, or changing the device state to DOWN and UP again.
- While scheduling playbooks across a dynamic group tag, the corresponding job set screen for the job in the Job History page will not display the relevant devices, until the job is scheduled for execution.

### Inventory Management

Sometimes, NETCONF reachability times out for IOS XE devices. To recover, try increasing the NETCONF reachability timer to a higher timeout value (for example, 120 seconds).

### Health Insights

- Setting the alert flag as ON for an enabled KPI Profile is not displayed on the corresponding Health Insights job details page as the update operation is an internal system transaction. If the job completes successfully, the alerts triggered can be viewed on the alert dashboard.
- After a KPI Profile is enabled, editing cadence & threshold parameter for any of the associated KPIs can be achieved using one of the three procedures detailed below:
  - Create a custom KPI with the required cadence & threshold parameters and associate with the existing KPI Profile.
  - Create a new KPI Profile with the relevant KPIs associated. Update the cadence & alert parameters before enabling this new KPI Profile.

- Disable the KPI Profile & perform the modifications on relevant associated KPIs and re-enable the KPI Profile.
- For custom KPIs:
  - Only one gather path should be specified when creating custom KPIs.
  - All leaf sensor paths are reserved for that KPI use only.
  - Multiple KPIs cannot use the same sensor path. Therefore, custom KPIs cannot share a sensor path with each other or with an existing default KPI that is active on a device.
- Any Health Insights job stuck in the processing state and does not complete within the stipulated time out of 60 minutes, will fail.

## Network Visualization

- L2 links are discovered on topology utilizing either Customer Data Platform (CDP) or Link Layer Discovery Protocol (LLDP).
- Point-to-point CDP or LLDP is supported in topology.
- PCE is required for L3 link topology mapping.
- Enable traps on routers to receive L2 link down and up status changes quickly. Otherwise, it may take one SNMP poll cadence (default is 5 minutes) to see the L2 link status change.

## Collection Services

- The collection job creation can be less than optimal on a system that contains more than 250 devices due to the increase in the number of notifications.

## Admin

- The JSON Web Token is only valid up to 8 hours.

## Smart Licensing

In rare cases, after the successful registration, the License Authorization Status in the Smart Licensing page is not changed and will continue to display as being in EVALUATION mode. As a consequence, the evaluation timer will be started and incorrect messages will be displayed to the user. As a workaround, please de-register and register the product again.

## Cisco Bug Search Tool

You can use the Cisco Bug Search Tool to search for a specific bug or to search for all bugs in a release.

1. Go to the [Cisco Bug Search Tool](#).
2. Enter your registered Cisco.com username and password, and click **Log In**.

The Bug Search page opens.



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**Note** If you do not have a Cisco.com username and password, you can [register here](#).

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3. Use any of these options to search for bugs, and then press Enter (Return) to initiate the search:
  - To search for a specific bug, enter the bug ID in the Search For field.
  - To search for bugs based on specific criteria, enter search criteria, such as a problem description, a feature, or a product name, in the Search For field.
  - To search for bugs based on products, enter or choose the product from the Product list. For example, enter **Cisco Crosswork Change Automation** or **Cisco Crosswork Health Insights**.
  - To search for bugs based on releases, in the Releases list choose whether to search for bugs affecting a specific release, bugs that were fixed in a specific release, or both. Then enter one or more release numbers in the Releases field.
4. When the search results are displayed, use the filter tools to narrow the results. You can filter the bugs by status, severity, and so on.



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**Tip** To export the results to a spreadsheet, click **Export Results to Excel**.

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## Open Source

A list of open source software used in Cisco Crosswork can be found in [Open Source Used in Cisco Crosswork Change Automation and Health Insights](#).

## Related Documentation

For related documentation, see the [Cisco Crosswork Change Automation and Health Insights Documentation Roadmap](#).

## Accessibility Features

All product documents are accessible except for images, graphics and some charts. If you would like to receive the product documentation in audio format, braille, or large print, contact the [Cisco Accessibility Team](#) on the Web or send email to [accessibility@cisco.com](mailto:accessibility@cisco.com).

## Obtain Documentation and Submit 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](#).

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the What's New in [Cisco Product Documentation RSS feed](#). The RSS feeds are a free service.

