



# Cisco Crosswork Data Gateway 1.1.3 Release Notes

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## Cisco Crosswork Data Gateway 1.1.3 Release Notes

This document describes the features, limitations, and bugs for Cisco Crosswork Data Gateway 1.1.3.

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## Introduction

Cisco Crosswork Data Gateway is a model-driven scalable data collection platform that enables real-time data collection from multi-protocol capable devices, thereby reducing the need for multiple collection points for multiple applications requiring data from the network.

Cisco Crosswork Data Gateway is not a standalone product and needs to be deployed with one of the following Crosswork options:

1. Crosswork Cloud (Crosswork Trust Insights and Crosswork Network Insights)
2. Crosswork On Premise Applications (Crosswork Change Automation and Health Insights and Crosswork Optimization Engine)

Cisco Crosswork Data Gateway offers central visibility into services collecting data and type of data being collected. It can also be used to feed external data destinations (such as, an external Kafka or gRPC server) apart from Crosswork applications.

## New Features, Enhancements, and Requirements

New features and enhancements provided in the Cisco Crosswork Data Gateway 1.1.3 release include:

- [Option to deploy Cisco Crosswork Data Gateway with either 1, 2, or 3 NICs configurations](#)
- [Option to change the MTU of vNIC1 when deployed with 3 vNICs](#)
- [Option to test SSH connection \(Cloud only\)](#)

## Release Dates

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

**Table 1: Cisco Crosswork Data Gateway 1.1.3 Release Dates**

Version	Build	Filename	Date
1.1.3	50	cw-na-dg-1.1.3-50-release-20200627.ova	2020-07-06

## Compatibility Information

- Cisco Crosswork Data Gateway 1.1.3 supports both Crosswork On Premise and Crosswork Cloud applications.
- Cisco Crosswork Data Gateway 1.1.3 can currently be used with a single Crosswork application. Customers wishing to use a combination of applications (Cisco Crosswork Change Automation and Health Insights and Cisco Crosswork Optimization Engine) would need to deploy duplicate instances of Cisco Crosswork Data Gateway.
- Cisco Crosswork Data Gateway release 1.1.3 has been validated in conjunction with the following Crosswork applications:
  - Cisco Crosswork Change Automation and Health Insights 3.2.2
  - Cisco Crosswork Optimization Engine 1.2.1

You can deploy Cisco Crosswork Data Gateway as a VM on a host that meets the following minimum requirements:

Table 2: Cisco Crosswork Data Gateway VM requirements

Requirement	Description																
Hypervisor	<ul style="list-style-type: none"> <li>VMware vCenter Server 6.7 Update 3g 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>																
Memory	32 GB																
Disk space	50 GB																
vCPU	8 vCPUs																
Interfaces	Minimum: 1 Maximum: 3  Cisco Crosswork Data Gateway 1.1.3 can be deployed with either 1, 2, or 3 interfaces as per the combinations below:																
	<table border="1"> <thead> <tr> <th>Combination #</th> <th>vNIC0</th> <th>vNIC1</th> <th>vNIC2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td> <ul style="list-style-type: none"> <li>Management Traffic</li> <li>Device Access Traffic</li> <li>Control/Data Traffic</li> </ul> </td> <td>—</td> <td>—</td> </tr> <tr> <td>2</td> <td> <ul style="list-style-type: none"> <li>Management Traffic</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Device Access Traffic</li> <li>Control/Data Traffic</li> </ul> </td> <td>—</td> </tr> <tr> <td>3</td> <td> <ul style="list-style-type: none"> <li>Management Traffic</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Device Access Traffic</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Control/Data Traffic</li> </ul> </td> </tr> </tbody> </table>	Combination #	vNIC0	vNIC1	vNIC2	1	<ul style="list-style-type: none"> <li>Management Traffic</li> <li>Device Access Traffic</li> <li>Control/Data Traffic</li> </ul>	—	—	2	<ul style="list-style-type: none"> <li>Management Traffic</li> </ul>	<ul style="list-style-type: none"> <li>Device Access Traffic</li> <li>Control/Data Traffic</li> </ul>	—	3	<ul style="list-style-type: none"> <li>Management Traffic</li> </ul>	<ul style="list-style-type: none"> <li>Device Access Traffic</li> </ul>	<ul style="list-style-type: none"> <li>Control/Data Traffic</li> </ul>
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<ul style="list-style-type: none"> <li>Management traffic: for accessing the UIs and command line and passing Control/Data information between servers (for example, Cisco Crosswork Change Automation and Health Insights to Cisco Crosswork Data Gateway or NSO).</li> <li>Device access traffic: for device configuration and management (NSO or Cisco Crosswork Change Automation and Health Insights to the devices as a result of KPI configuration or playbook execution) and telemetry data being forwarded to the Cisco Crosswork Data Gateway.</li> <li>Control/Data traffic: for data and configuration transfer between Cisco Crosswork Data Gateway and Cisco Crosswork Change Automation and Health Insights and other data destinations.</li> </ul>																	

Requirement	Description
IP Addresses	1, 2, or 3 IPv4/IPv6 addresses based on the number of interfaces you choose to use.  <b>Note</b> Crosswork does not support dual stack configurations. Therefore, ALL addresses for the environment must be either IPv4 or IPv6.
NTP Servers	The IPv4/IPv6 addresses or host names of the NTP servers you plan to use. If you want to enter multiple NTP servers, separate them with spaces. These should be the same NTP servers you use to synchronize devices, clients, and servers across your network. Confirm that the NTP IP address or host name is reachable on the network or installation will fail.  Also, the ESXi hosts that will run the Cisco Crosswork Change Automation and Health Insights and Cisco Crosswork Data Gateway VM must have NTP configured, or the initial handshake may fail with "certificate not valid" errors.
DNS Servers	The IPv4/IPv6 addresses of the DNS servers you plan to use. These should be the same DNS servers you use to resolve host names across your network.
DNS Search Domain	The search domain you want to use with the DNS servers (for example, cisco.com). You can only have one search domain.
Destination Networks	For live deployments, we recommend one virtual switch for the Data Network (connection between the Cisco Crosswork Change Automation and Health Insights VM and the Cisco Crosswork Data Gateway VM) and second virtual switch for all the management traffic (vms to dns, ntp and the network you will use to access and manage the applications).

### Tested Cisco OS



**Note** The below table lists only the software versions with which Cisco Crosswork Data Gateway 1.1.3 was tested. Cisco Crosswork Data Gateway allows you to expand device coverage by means of custom packages (see Section *Manage Custom Software Packages* in respective On Premise application user guide with which you plan to use Cisco Crosswork Data Gateway).

OS	Software Version	Collection Protocols	MDT Encoding
IOS-XR*	6.4.1, 6.4.2, 6.5.1, 6.5.2, 6.5.3, 6.6.2, 6.6.3, 7.0.1	MDT CLI SNMP	KVGPB/TCP
IOS-XE	16.9.2, 16.10, 17.1.1	SNMP	NA
NX-OS	7.0(3).7(2), 8.4(0).SK(1)	CLI	NA

\*For MDT configuration via NSO on IOS-XR, use NSO XR NED 7.18.3 or 7.21.

## Features and Enhancements in Cisco Crosswork Data Gateway 1.1.3

This section lists the features/functionality delivered in Cisco Crosswork Data Gateway 1.1.3:

Feature	Description
<b>Collectors</b> <ul style="list-style-type: none"> <li>• CLI</li> <li>• SNMP and SNMP Traps</li> <li>• MDT</li> </ul>	Supports multiple data collection methods: <ul style="list-style-type: none"> <li>• CLI-based collection</li> <li>• SNMP v1.0, v2c, v3.0 Collector with OID, MIB Walk, and Table support</li> </ul> Also, enables handling SNMP traps. <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• SNMP v2 and v3 are supported only for traps.</li> <li>• SNMP v3 traps support is limited to no auth and no priv.</li> </ul> <ul style="list-style-type: none"> <li>• MDT-based collection from network devices using the following transport mode:               <ul style="list-style-type: none"> <li>• TCP Dial-out Mode</li> </ul> </li> </ul>
<b>Collection Optimization</b>	Optimizes collection requests to reduce redundant data collections.
<b>External Data Destinations Support for third party application access to network data</b> <ul style="list-style-type: none"> <li>• Kafka</li> <li>• gRPC</li> </ul>	Cisco Crosswork Data Gateway supports Kafka and gRPC servers to be used as external data destinations for collected data.
<b>Secure communication between Cisco Crosswork Data Gateway and specified data destination</b>	Cisco Crosswork Data Gateway allows you to enable secure communication between itself and the specified data destination i.e., a Crosswork application or external Kafka.
<b>Accessing SCP server via a custom port</b>	Cisco Crosswork Data Gateway allows you to use a custom port instead of the default SCP Port 22. <p>You can specify the port as a part of the SCP command. For example,</p> <pre>-P55 user@host:path/to/file</pre> <p>where 55 is a custom port.</p>
<b>SNMP Column Walk</b>	Cisco Crosswork Data Gateway allows you to provide either a Table OID or a Column OID for TABLE operation.
<b>Collection Job Monitoring</b>	Cisco Crosswork Data Gateway provides central visibility into services collecting data and type of data being collected.

Feature	Description
<b>Custom Device Package Support</b>	Allows third party device data collection by means of custom device packages. Lets you deploy three types of custom packages: <ol style="list-style-type: none"> <li>1. CLI Device Package</li> <li>2. SNMP MIB Package</li> <li>3. SNMP Device Package</li> </ol>
<b>Collection Vitals</b>	Exposes vitals of its services allowing you to monitor overall health of Cisco Crosswork Data Gateway The vitals include Base VM performance metrics and reachability if each instance.
<b>Load Monitoring</b>	Cisco Crosswork Data Gateway provides report of its available bandwidth and performance. This includes Network I/O, Disk I/O, Memory, and CPU utilization.
<b>Centralized logging</b>	Lets you use an external syslog server.
<b>Enhanced support in CLI Device Packs for third party</b>	Enhanced support for 3rd party devices. CLI reachability uses custom device packages to check the reachability of devices with different protocols, such as SSH, TELNET, SNMP, and NETCONF.
<b>Deploy Cisco Crosswork Data Gateway with either 1, 2, or 3 NICs configurations</b>	You can choose to use either 1, 2, or 3 vNICs as per the following combinations: <ol style="list-style-type: none"> <li>1. Send all traffic through vNIC0.</li> <li>2. Send management traffic through vNIC0 and all data traffic through vNIC1.</li> <li>3. Send management traffic through vNIC0, Southbound data through vNIC1, and Northbound data on vNIC2.</li> </ol>
<b>Option to change the MTU of vNIC1 when deployed with 3 vNICs</b>	Cisco Crosswork Data Gateway provides you the option to change the MTU of vNIC1 when you deploy it with 3 NICs.
<b>Test SSH Connection</b>	Cisco Crosswork Data Gateway allows you to test the SSH connection between itself and a remote host.

## Usage Guidelines and Important Notes

### Installing Cisco Crosswork Data Gateway

For information on how to install and configure Cisco Crosswork Data Gateway for a Crosswork application, refer the respective guide:

To install Cisco Crosswork Data Gateway for...	Refer...
Cisco Crosswork Change Automation and Health Insights 3.2.2	<i>Cisco Crosswork Change Automation and Health Insights 3.2.2 Installation Guide</i>

To install Cisco Crosswork Data Gateway for...	Refer...
Cisco Crosswork Optimization Engine 1.2.1	<i>Cisco Crosswork Optimization Engine 1.2.1 Installation Guide</i>

### Using Cisco Crosswork Data Gateway

For information on how to use Cisco Crosswork Data Gateway for a Crosswork application, refer the respective guide:

For information on how to use Cisco Crosswork Data Gateway for...	Refer...
Cisco Crosswork Change Automation and Health Insights 3.2.2	<i>Cisco Crosswork Change Automation and Health Insights 3.2.2 User Guide</i>
Cisco Crosswork Optimization Engine 1.2.1	<i>Cisco Crosswork Optimization Engine 1.2.1 User Guide</i>

## Known Issues and Limitations in Cisco Crosswork Data Gateway 1.1.3

The following are known issues, limitations, and workarounds in Cisco Crosswork Data Gateway.

Caveat ID Number	Description
None.	

## 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 Data Gateway**.

— 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 Data Gateway](#).

## Related Documentation

For related documentation, see the *Cisco Crosswork Data Gateway 1.1.3 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 [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.



