



Installation Requirements

You can deploy Crosswork Data Gateway either on VMware or on Cisco Cloud Services Platform (Cisco CSP) hosts. This section provides information about the general guidelines and minimum requirements for installing Crosswork Data Gateway on either platform.

This section contains the following topics:

- [VM Requirements, on page 1](#)
- [Ports Used, on page 3](#)

VM Requirements

The requirements are same for both VMware and Cisco CSP, unless stated otherwise.

Table 1: Cisco Crosswork Data Gateway VM Requirements

Requirement	Description
Data Center	VMware <ul style="list-style-type: none">• VMWare vCenter 7.0, ESXi 7.0 installed on the hosts• VMWare vCenter Server 6.7 (Update 3g or later), ESXi 6.7 Update 1 installed on hosts Cisco CSP <ul style="list-style-type: none">• Cisco CSP 2.8.0.276 or later Allowed_hardware_list = ['CSP-2100', 'CSP-2100-UCSD', 'CSP-2100-X1', 'CSP-2100-X2', 'CSP-5200', 'CSP-5216', 'CSP-5228', 'CSP-5400', 'CSP-5436', 'CSP-5444', 'CSP-5456']
Memory	32 GB
Disk space	74 GB
vCPU	8

Requirement	Description																
Interfaces	<p>Minimum: 1</p> <p>Maximum: 3</p> <p>Crosswork Data Gateway can be deployed with either one, two or three interfaces as per the combinations below:</p>																
	<table border="1"> <thead> <tr> <th>No. of NICs</th> <th>vNIC0</th> <th>vNIC1</th> <th>vNIC2</th> </tr> </thead> <tbody> <tr> <td>1</td> <td> <ul style="list-style-type: none"> • Management Traffic • Control/Data Traffic • Device Access Traffic </td> <td>—</td> <td>—</td> </tr> <tr> <td>2</td> <td> <ul style="list-style-type: none"> • Management Traffic </td> <td> <ul style="list-style-type: none"> • Control/Data Traffic • Device Access Traffic </td> <td>—</td> </tr> <tr> <td>3</td> <td> <ul style="list-style-type: none"> • Management Traffic </td> <td> <ul style="list-style-type: none"> • Control/Data Traffic </td> <td> <ul style="list-style-type: none"> • Device Access Traffic </td> </tr> </tbody> </table>	No. of NICs	vNIC0	vNIC1	vNIC2	1	<ul style="list-style-type: none"> • Management Traffic • Control/Data Traffic • Device Access Traffic 	—	—	2	<ul style="list-style-type: none"> • Management Traffic 	<ul style="list-style-type: none"> • Control/Data Traffic • Device Access Traffic 	—	3	<ul style="list-style-type: none"> • Management Traffic 	<ul style="list-style-type: none"> • Control/Data Traffic 	<ul style="list-style-type: none"> • Device Access Traffic
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<ul style="list-style-type: none"> • Management traffic: for accessing the Interactive Console and troubleshooting the Crosswork Data Gateway VM. • Control/Data traffic: for data and configuration transfer between Crosswork Data Gateway and Crosswork applications and other external data destinations. • Device access traffic: for device management and telemetry data. 																	
IP Addresses	<p>One, two or three IPv4/IPv6 addresses based on the number of interfaces you choose to use.</p> <p>Note Crosswork does not support dual stack configurations. Therefore, ALL addresses for the environment must be either IPv4 or IPv6.</p>																
NTP Servers	<p>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.</p> <p>The Cisco Crosswork Data Gateway host and virtual machine must be synchronized to an NTP server or the enrollment with Crosswork Cloud may not go through.</p>																
DNS Servers	<p>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.</p>																

Requirement	Description
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.



Note The Cisco Crosswork Data Gateway application is bundled with Ubuntu Server 20.04.2. Cisco will provide updates as need to address security and other fixes.

In Cloud deployments, Cisco Crosswork Data Gateway must connect to the Internet via TLS, and a proxy server may be required. If there is a proxy server in the network, it needs to be configured either during the installation process or from the Interactive Console of the Crosswork Data Gateway VM after installation. See:

- [Configure Control Proxy](#)
- [Verify the Crosswork Data Gateway Connectivity](#)

Ports Used

The following table shows the minimum set of ports needed for Cisco Crosswork Data Gateway to operate correctly.



Note This is only to enable the base Cisco Crosswork Data Gateway functionality. Additional ports may be used depending on the application that is running in the Cisco Crosswork Data Gateway.



Note The SCP port can be configured.

Table 2: Ports to be opened for Management Traffic

Port	Protocol	Used for...	Direction
22	TCP	SSH server	Inbound
22	TCP	SCP client	Outbound
123	UDP	NTP Client	Outbound
53	UDP	DNS Client	Outbound
443	TCP	Crosswork Controller	Outbound

