

# Configure the 32- and 56-Core Appliances Using the Browser-Based Wizard

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# **Appliance Configuration Overview**

You can deploy the 32- or 56-core appliance in your network in one of the following modes:

- Standalone: As a single node offering all the functions. This option is usually preferred for initial or test deployments and in smaller network environments. If you choose the Standalone mode for your initial deployment, this will be your first, or primary, node. Note that you can add more appliances later to form a cluster.
- Cluster: As a node that belongs to a three-node cluster. In this mode, all the services and data are shared among the hosts. This is the preferred option for large deployments. If you choose the Cluster mode for your initial deployment, be sure to finish configuring the primary node before configuring the secondary nodes.

To proceed, first configure the primary node in your cluster. Then, if you have installed three appliances and want to add the second and third nodes to your cluster, configure the secondary nodes.

# **Browser-Based Configuration Wizards**

Catalyst Center offers two browser-based wizards that you can use to configure your appliance. Read their descriptions to determine which of these wizards you should complete.

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Important

These wizards are available for use if you are configuring a new appliance that came with the latest 2.3.7.x release of Catalyst Center already installed. If you upgraded from a previous version and want to use these wizards, contact Cisco TAC for assistance.

#### Install Configuration Wizard

This wizard streamlines the appliance configuration process by setting default values for the Enterprise, Management, and Internet Access interfaces (which all reside on the appliance's Enterprise port) as well as the Intracluster interface. Use this wizard if you are okay with using the default interface settings and want to get your appliance up and running as quickly as possible. Note that you cannot use this wizard to configure a cluster's secondary nodes.

#### Advanced Install Configuration Wizard

This wizard provides access to all of the available appliance settings that you can modify. Use this wizard if you want to specify interface settings that are different from the default settings. Also use this wizard if you are configuring the second or third node in your cluster.

# **Browser-Based Wizard Prerequisites**

To use either of the browser-based wizards and ensure that it configures your appliance properly, complete the following tasks:

- Designate the Enterprise interface on your appliance to use the IP address, subnet mask, and default gateway that a DHCP server assigns to it. When you configure this interface in the wizard, you will not be able to change the IP address or subnet mask that have been assigned to it. You will only be able to change its default gateway. The topics in this chapter assume that the Enterprise interface was chosen for this purpose.
- Confirm that the IP address assigned by the DHCP server is reachable by the machine from which you will complete the wizard.
- For the Enterprise and Intracluster interfaces, verify that both interfaces are connected and in the **UP** state.

If you want to specify your own IP address, subnet mask, and default gateway for your appliance's Enterprise interface (and not use the values assigned by a DHCP server), ensure that you complete the Static IP Address Settings screen.

# **Configure an Appliance Using the Install Configuration Wizard**

Perform this procedure to configure either a three-node cluster's primary node or a standalone node using the Install configuration wizard. The wizard simplifies the configuration process by setting up the Enterprise, Management, and Internet interfaces on the same port using default settings. The following third-generation Catalyst Center appliances support configuration using this wizard:

- 32-core appliance: Cisco part number DN3-HW-APL
- 56-core appliance: Cisco part number DN3-HW-APL-L

Step 1

C) Important • You can only use this wizard to complete the initial configuration of a new Catalyst Center appliance. To reimage an appliance that's been configured previously, you will need to use the Maglev Configuration wizard (see Configure the Appliance Using the Maglev Wizard). • You cannot use this wizard to configure the second or third appliance in a three-node cluster. To do so, complete the steps that are described in Configure a Secondary Node Using the Advanced Install Configuration Wizard, on page 30. Also, you cannot use this wizard to enable LACP mode on your appliance's Enterprise and Intracluster interfaces. • Before you configure any of the appliances in a three-node cluster, ensure that you have logged out of those appliances. Otherwise, the Quick Start workflow (which you complete to discover your network's devices and enable telemetry) will not start after you have configured your cluster's appliances and log in to Catalyst Center for the first time. • Ensure that all of the IP addresses you enter while completing this procedure are valid IPv4 addresses with valid IPv4 netmasks. Also make sure that the addresses and their corresponding subnets do not overlap. Service communication issues can result if they do. Before you begin Ensure that you: Collected all of the information called for in Required IP Addresses and Subnets and Required Configuration Information. • Installed the appliance, as described in Appliance Installation Workflow. Configured Cisco IMC browser access on this appliance, as described in Enable Browser Access to the Cisco Integrated Management Controller. • Checked that the appliance's ports and the switches it uses are properly configured, as described in Execute Preconfiguration Tasks. • Are using a browser that is compatible with Cisco IMC and Catalyst Center. For a list of compatible browsers, see the Release Notes for the version of Catalyst Center that you are installing. • Enabled ICMP on the firewall between Catalyst Center and the DNS servers you will specify in the following procedure. This wizard uses Ping to verify the DNS server you specify. This ping can be blocked if there is a firewall between Catalyst Center and the DNS server and ICMP is not enabled on that firewall. When this happens, you will not be able to complete the wizard. Start the Install configuration wizard: a) Point your browser to the Cisco IMC IP address you set during the Cisco IMC GUI configuration you performed, then log in to the Cisco IMC GUI as the Cisco IMC user (see Enable Browser Access to the Cisco Integrated Management Controller).

After successful login, the appliance displays the **Cisco Integrated Management Controller Chassis Summary** window, with a blue link menu at the upper right, as shown below.



b) From the blue link menu, choose Launch KVM and then choose either Java based KVM or HTML based KVM. If you choose the Java-based KVM, you will need to launch the Java startup file from your browser or file manager in order to view the KVM console in its own window. If you choose the HTML-based KVM, it will launch the KVM console in a separate browser window or tab automatically.

Irrespective of the KVM type you choose, use the KVM console to monitor the progress of the configuration and respond to Maglev Configuration Wizard prompts.

- c) With the KVM displayed, reboot the appliance by making one of the following selections:
  - In the main Cisco IMC GUI browser window: Choose **Host Power Cycle**. Then switch to the KVM console to continue.
  - In the KVM console, choose **Power** > **Power Cycle System** (cold boot).

If asked to confirm your choice to reboot the appliance, click OK.

After displaying the reboot messages, the KVM console displays the Static IP Configuration screen.



Note the URL listed in the Web Installation field.

d) Do one of the following:

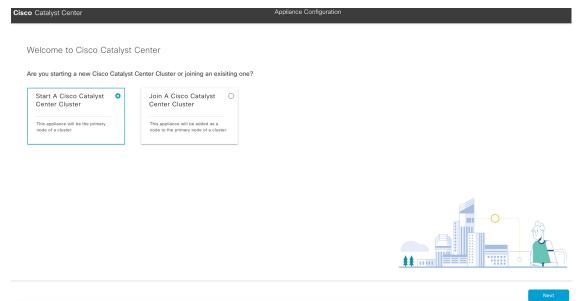
- If you want a DHCP server to assign an IP address, subnet mask, and default gateway to your appliance's Enterprise interface, click **Skip**.
- If you want to assign your own IP address, subnet mask, and default gateway to your appliance's Enterprise interface, enter the information described in the following table and then click **Configure**.
- **Note** You only need to specify an IP address, subnet mask, and default gateway for your appliance's Enterprise interface.

IPv6 Mode check box	If you want to configure an IPv6 address, check this check box.
IP Address field	Enter the static IP address that you want to use.
Netmask field	<ul> <li>Enter the netmask for the IP address you specified in the previous field:</li> <li>If you entered an IPv4 address, you can enter either a netmask or CIDR address.</li> <li>If you entered an IPv6 address, you can only enter a CIDR address.</li> </ul>
Default Gateway Address field	Specify the default gateway that will be used to route traffic.
Static Routes field	Enter one or more static routes in the following format, separated by spaces: <i><network>/<netmask>/<gateway></gateway></netmask></network></i> . This is usually required on the Management port only.

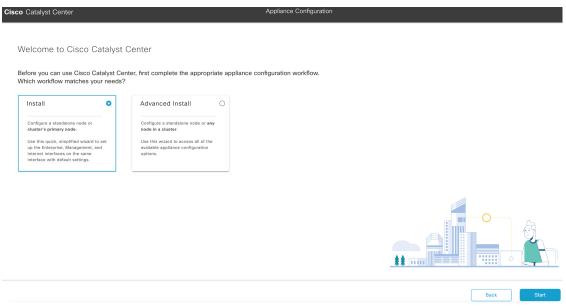
The KVM console displays the Maglev Configuration wizard welcome screen.



e) To bring up the **Appliance Configuration** screen, open the URL that was displayed in the **Static IP Configuration** screen.



f) Click the Start a Cisco Catalyst Center Cluster radio button, then click Next.



g) Click the Install radio button, then click Start.

The **Overview** slider opens. Click > to view a summary of the tasks that the wizard will help you complete.



h) Click Start Workflow to start the wizard.

The **Appliance Interface Overview** screen opens, providing a description of the four interfaces that are available on your Catalyst Center appliance:

Cisco Catalyst Center	Install
Appliance Interface Overview	
In order for Cisco Catalyst Center to operate properly, you need	d to configure four interfaces on your appliance:
1. Enterprise Network Interface: Connects your a	appliance to the Enterprise network.
2. Intracluster Link Interface: Connects your appr	opliance to your cluster.
3. Management Network Interface: (Optional) Act	ccesses the Cisco Catalyst Center GUI from your Management network.
4. Internet Access Interface: (Optional) Accesses	as the internet.
In this workflow, the Intracluster Link Interface is predefined. TI	The other 3 interfaces will be configured together on the Enterprise port.

#### Exit

The wizard will help you configure the Enterprise and Intracluster ports, which are required for Catalyst Center functionality. If the wizard fails to display either or both of these ports in the next screen, they may be non-functional or disabled. If you discover that they are non-functional, choose **Exit** to exit the wizard immediately. Be sure you have completed all of the steps provided in Execute Preconfiguration Tasks before resuming configuration or contacting the Cisco Technical Assistance Center (TAC).

- **Step 2** Complete the Install configuration wizard:
  - a) Click Next.

The Configure The Enterprise Port screen opens.

isco Catalyst Center	Install	
Configure the Enterprise Port		
In this workflow, the Management Network and Internet Access Interfac Network Interface, You can enter up to three DNS addresses. If you re access to these URLs and open these ports. If you are setting up a multim must reside in the same subtent as the primary node. $\pm$ Download the I	twork resides behind a firewall, you must allow ode cluster, the cluster's second and third nodes	
must reside in the same subject as the primary node Download the	Connected Disconnected LACP disabled	
I Enterprise & Management Network & Internet	I Intracluster Link Interface 🕕 生	
Access Interface	Interface Name cluster	
LACP Mode Disabled 0	LACP Mode Disabled ()	
IP Address 22.22.2192	IP Address 169.254.6.66	
Netmask 24	Subnet Mask 255.255.128	
Default Gateway 12.2.2.2		
Static Routes 2		
DNS*		
71.70.168.183 +		
Enter an IPv4 address		
Exit		Next

The configuration wizard sets up the Enterprise, Management, and Internet Access interfaces on the Enterprise port. The wizard also prepopulates values for almost all of the listed parameters.

If your network resides behind a firewall, do the following:

- Click the allow access to these URLs link to view a pop-up window that lists the URLs that Catalyst Center must be able to access.
- Click the **open these ports** link to view a pop-up window that lists the network service ports that must be available for Catalyst Center to use.
- b) In the DNS field, enter the IP address of the preferred DNS server.

To enter additional DNS servers, click the Add (+) icon.

- For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.
  - For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.
- c) Click Next.
- d) When prompted, click **Yes** to copy the Intracluster interface's IP address and subnet mask.

Did you save the Intracluster Link interface's information?

Download the Intracluster Link interface's IP address and Subnet Mask. You will need them to set up the other nodes in your cluster.

No Yes

You'll need this information when you configure your cluster's secondary nodes.

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Interface to Port Configuration** screen opens.

Cisco Catalyst Center	Install	
Interface to Port Configuration		
We are going to configure the following interfaces. Click Configure and wait for cor to the next step.	nfiguration to be done before proceeding	
	ARCENT DECOMPOSED LAGP Stables	
Enterprise & Management Network & Internet Access Interface ①	Intracluster Link Interface 📀 坐	
IP Address 22.22.192	Interface Name Cluster LACP Mode Disabled  IP Address 169.254.6.66	
Netmask     24       Default Gateway     12.2.2       Static Routes     2	Subnet Mask 255.255.255.128	
DNS* 71.70.168.183 Enter an IPv4 address +		
⊕ Exit		Next

- e) Click Next.
- f) Review the interface settings that have been set, then click Configure.
- g) After initial interface configuration has completed, click Next to proceed to the next wizard screen.

The Configure Proxy Server Information screen opens.

Cisco Catalyst Center	Install	
Configure Proxy Server Information		
Does your network use a proxy server to access the internet?		
Yes     No Proxy Server*  http://example.cisco.com      E.g. http://example.com  Pon*  8  Exter port number between 0 to 65535.		
Username		
Password		
-() Exit		Review Back Next

- h) Do one of the following, then click Next:
  - If your network does not use a proxy server to access the internet, click the No radio button.

• If your network does use a proxy server to access the internet, enter the values described in the following table:

Table 1: Primar	y Node Entries	for Proxy	Server Settings
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Proxy Server field	Enter the URL or host name of an HTTPS network proxy used to access the Internet.	
	<b>Note</b> Connection from Catalyst Center to the HTTPS proxy is supported only via HTTP in this release.	
Port field	Enter the port that your appliance used to access the network proxy.	
Username field	Enter the username used to access the network proxy. If no proxy login is required, leave this field blank.	
Password field	Enter the password used to access the network proxy. If no proxy login is required, leave this field blank.	

The wizard validates the information that you entered and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid, the wizard's **Advanced Appliance Settings** screen opens.

#### Advanced Appliance Settings

Cisco Catalyst Center

Exit				Review	Back
Turn On NTP Authentication					
Enter an IP address or	QDN				
ntp.esl.cisco.com	+				
NTP Server*					
NTP SERVER SETTINGS					
SHOW					
View Password Criteria Confirm Password*					
SHOW					
Password*					
Username* maglev					
CLI CREDENTIALS					
	JISE NEWOK				
Fully Qualified Domain Name (FQDN) Enter FQDN for Enter	orizo Network				
Enter an IPv4 ad		Enter an IPv4 address			
To access from Enterprise Network	For Intracluster Ac	ress			
you're using a single-node cluster, you can sl					
Virtual IP addresses are used for traffic betwee three-node clusters and for single-node clust					

i) Enter configuration values for your cluster, then click Next.

Table 2: Primary Node Entries for Advanced Appliance Settings

**Cluster Virtual IP Addresses** 

To access from Enterprise Network and For Intracluster Access fields	Enter the virtual IP address that will be used for traffic between the cluster and both the Enterprise and Intracluster interfaces on your appliance. This is required for single-node clusters that will be converted into a three-node cluster in the future. If you have a single-node cluster setup and don't plan to move to a three-node cluster setup, you can leave the fields in this section blank.	
	<b>Important</b> If you choose to configure a virtual IP address, you must enter one for each configured network interface. You will not be able to complete the wizard unless you do so. These addresses are tied to the cluster link's status, which must be in the <b>UP</b> state.	
Fully Qualified Domain Name (FQDN) field	Enter the fully qualified domain name (FQDN) for your cluster. Catalyst Center does the following with this hostname:	
	• It uses this hostname to access your cluster's web interface and the Representational State Transfer (REST) APIs used by devices in the enterprise network that Catalyst Center manages.	
	• In the Subject Alternative Name (SAN) field of Catalyst Center certificates, it uses the FQDN to the define the Plug and Play server that should be used for device provisioning.	
CLI Credentials		
Enter and confirm the password	for the maglev user.	
NTP Server Settings		
NTP Server field	Enter at least one NTP server address or hostname. To enter additional NTP server addresses or hostnames, click the <b>Add</b> (+) icon.	
	For a production deployment, Cisco recommends that you configure a minimum of three NTP servers.	
Turn On NTP Authentication check box	To enable the authentication of your NTP server before it's synchronized with Catalyst Center, check this check box and then enter the following information:	
	• The NTP server's key ID. Valid values range between 1 and 4294967295 (2^32-1).	
	This value corresponds to the key ID that's defined in the NTP server's key file.	
	• The SHA-1 key value associated with the NTP server's key ID. This 40-character hex string resides in the NTP server's key file.	

**Note** Ensure that you enter a key ID and key value for each NTP server that you configured in the previous field.

The wizard validates the information you have entered and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you entered are valid, the wizard's **Summary** screen opens.

Cisco Catalyst Center	Install
Summary Please review the settings that you have entered. If you need to make any changes, clic make the necessary updates. Download the generated configuration in JSON format here reference. When you are happy with your settings, click Start Configuration.	
<ul> <li>Enterprise Port Eat:</li> <li>Enterprise &amp; Management Network &amp; Internet</li> </ul>	ced Disconnected LACP disabiled
Access Interface  Interface Name enterprise LACP Mode Disabled  IP Address 22:22:22:192 Netmask 24 Default Gateway 12:2.2.2 Static Routes 2	Interface Name cluster Disabiled ① IP Address 169,254,8.66 Subnet Mask 255,255,255,128
Units routes 2 DNS Servers 71.70.168.183	Start Configuration

j) Scroll to the bottom of the screen and review all of the settings that you have entered while completing the wizard. If necessary, click the **Edit** link to open the wizard screen in which you can make updates.

**Note** To download the appliance configuration as a JSON file, click the relevant link.

k) To complete the configuration of your Catalyst Center appliance, click Start Configuration.

The wizard screen continuously updates during the process, indicating the tasks that are currently being completed and their progress, as well as any errors that have occurred. To save a local copy of this information as a text file, click the **Download** link.

Cisco Catalyst Center	Install
Appliance Configuration In Progress It should take about 30 minutes to configure the appliance. Do not press you page. The page will update after configuration completes.	r browser's back button or refresh this
Initializing the cluster using kubeadm 50% Started: 04/09/2020 12:15:36	
Download	
2024-03-22T16:04:38.088Z13   front-proxy-client.crt Apr 13 17:40:20 2020	
GMT Apr 13 17:40:20 2021 GMT	
2024-03-22T16:04:38.088Z14   kubelet.conf Apr 13 12:12:14 2020 GMT Apr	
13 17:40:21 2021 GMT	
2024-03-22T16:04:38.088Z15   admin.conf Apr 13 12:12:14 2020 GMT Apr	
13 17:40:21 2021 GMT	
2024-03-22T16:04:38.088Z16   scheduler.conf Apr 13 12:12:14 2020 GMT	
Apr 13 17:40:22 2021 GMT	
2024-03-22T16:04:38.088Z17   controller-manager.conf Apr 13 12:12:14	
2020 GMT Apr 13 17:40:22 2021 GMT	
2024-03-22T16:04:38.088Z18	

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**Step 3** After appliance configuration completes, click the copy icon in the **Cisco Catalyst Center - Admin Credential** area to copy the default admin superuser password.

sco Catalyst Center	Install
Appliance Configuration Complete!	
Important: Take note of the credentials displayed below. You car locally. You will use these credentials to log in to Cisco Catalyst Ce prompted to change the password.	
CISCO CATALYST CENTER - ADMIN CREDENTIAL Username admin password maglev1@3	
What's Next? Open Cisco Catalyst Center	

- **Important** Catalyst Center automatically sets this password when you complete the Install configuration wizard. Ensure that you click the copy icon before you proceed. Otherwise, you will not be able to log in to Catalyst Center for the first time.
- **Note** As a security measure, you'll be prompted to change this password after you log in. For more information, see Complete the Quick Start Workflow.

### What to do next

As you are deploying this appliance in standalone mode, continue by performing the first-time setup: First-Time Setup Workflow.

# Configure the Primary Node Using the Advanced Install Configuration Wizard

Perform the following steps to configure the first installed appliance as the primary node using the Advanced Install configuration wizard. You must always configure the first appliance as the primary node, whether it will operate standalone or as part of a cluster.

Important	• The following third-generation Catalyst Center appliances support configuration using this wizard:			
	• 32-core appliance: Cisco part number DN3-HW-APL			
	• 56-core appliance: Cisco part number DN3-HW-APL-L			
	• You can only use this wizard to complete the initial configuration of a new Catalyst Center appliance. To reimage an appliance that's been configured previously, you will need to use the Maglev Configuration wizard (see Configure the Appliance Using the Maglev Wizard).			
	• Before you configure the appliances in a three-node cluster, ensure that you have logged out of those appliances. Otherwise, the Quick Start workflow (which you complete to discover your network's device and enable telemetry) will not start after you have configured your cluster's appliances and log in to Catalyst Center for the first time.			
• Ensure that all of the IP addresses you enter while completing this procedure are valid valid netmasks. Also make sure that the addresses and their corresponding subnets do not communication issues can result if they do.				
prim Wiza	u are configuring the installed appliance as a secondary node for an existing cluster that already has a ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead.			
prim Wizz Befo	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b>			
prim Wiza Befo Ensu	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b> are that you:			
prim Wiza Befo Ensu	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b>			
prim Wiza Befo Ensu •	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b> ure that you: Collected all of the information called for in Required IP Addresses and Subnets and Required			
prim Wiza Befo Ensu •	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b> ure that you: Collected all of the information called for in Required IP Addresses and Subnets and Required Configuration Information.			
prim Wiza Befo Ensu • •	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b> Ire that you: Collected all of the information called for in Required IP Addresses and Subnets and Required Configuration Information. Installed the first appliance, as described in Appliance Installation Workflow. Configured Cisco IMC browser access on the primary node, as described in Enable Browser Access to			
prim Wiza Befo Ensu • •	ary node, follow the steps in Configure a Secondary Node Using the Advanced Install Configuration ard, on page 30 instead. <b>re you begin</b> Ire that you: Collected all of the information called for in Required IP Addresses and Subnets and Required Configuration Information. Installed the first appliance, as described in Appliance Installation Workflow. Configured Cisco IMC browser access on the primary node, as described in Enable Browser Access to the Cisco Integrated Management Controller. Checked that the primary node's ports and the switches it uses are properly configured, as described in			

Step 1 St

> a) then log in to the Cisco IMC GUI as the Cisco IMC user (see Enable Browser Access to the Cisco Integrated Management Controller).

After successful login, the appliance displays the **Cisco Integrated Management Controller Chassis Summary** window, with a blue link menu at the upper right, as shown below.



b) From the blue link menu, choose Launch KVM and then choose either Java based KVM or HTML based KVM. If you choose the Java-based KVM, you will need to launch the Java startup file from your browser or file manager in order to view the KVM console in its own window. If you choose the HTML-based KVM, it will launch the KVM console in a separate browser window or tab automatically.

Irrespective of the KVM type you choose, use the KVM console to monitor the progress of the configuration and respond to Maglev Configuration Wizard prompts.

- c) With the KVM displayed, reboot the appliance by making one of the following selections:
  - In the main Cisco IMC GUI browser window: Choose **Host Power Cycle**. Then switch to the KVM console to continue.
  - In the KVM console: Choose **Power** > **Power Cycle System** (cold boot).

If asked to confirm your choice to reboot the appliance, click OK.

After displaying reboot messages, the KVM console displays the Static IP Configuration screen.

STEP #None	STATIC IP CONFIGURATION
<ul> <li>Welcome to the Maglev Configuration Wizard!</li> <li>Please Enter Static IP Information for Enterprise Interface Configuration, Static IP is configured as an alternative to DHCP for web UI Configuration.</li> <li>Click Configure after entering Information for configuring IP which will be configured on Enterprise Interface</li> <li>Click Skip to move to config wizard</li> <li>NOTE: Default Configuration mode is IPv4, Please select IPv6 mode for Ipv6 Configuration</li> </ul>	IPv6 mode IP Address: Netmask: Default Gateway Address: Static Routes:
	Web installation: https://10.106.172.47:9004/ < cancel > skip >> configure >>

Note the URL listed in the Web Installation field.

- d) Do one of the following:
  - If you want a DHCP server to assign an IP address, subnet mask, and default gateway to your appliance's Enterprise interface, click **Skip**.
  - If you want to assign your own IP address, subnet mask, and default gateway to your appliance's Enterprise interface, enter the information described in the following table and then click **Configure**.
  - **Note** You only need to specify an IP address, subnet mask, and default gateway for your appliance's Enterprise interface.

IPv6 Mode check box	If you want to configure an IPv6 address, check this check box.		
IP Address field	Enter the static IP address that you want to use.		
Netmask field	<ul> <li>Enter the netmask for the IP address you specified in the previous field:</li> <li>If you entered an IPv4 address, you can enter either a netmask or CIDR address.</li> <li>If you entered an IPv6 address, you can only enter a CIDR address.</li> </ul>		
Default Gateway Address field	Specify the default gateway that will be used to route traffic.		

Static Routes field	Enter one or more static routes in the following format, separated by spaces:
	<network>/<netmask>/<gateway>. This is usually required on the Management</gateway></netmask></network>
	port only.
1	

The KVM console displays the Maglev Configuration wizard welcome screen.

Welcome to the Maglev Configuration Wizard!			
The wizard will walk you through the steps to configure this host. Select one of the options below to specify how you would like to configure this host:			
Start a Cisco DNA Center Cluster			
Join a Cisco DNA Center Cluster			
< exit >			

e) To bring up the **Appliance Configuration** screen, open the URL that was displayed in the **Static IP Configuration** screen.

Cisco Catalyst Center	Appliance Configuration
Welcome to Cisco Catalyst Center Are you starting a new Cisco Catalyst Center Cluster or joining	an exisiting one?
Start A Cisco Catalyst Center Cluster This applance will be the primary node of a cluster.	d as a

f) Click the Start a Cisco Catalyst Center Cluster radio button, then click Next.

isco Catalyst Center		Appliance Configuration
Welcome to Cisco Catalyst C Before you can use Cisco Catalyst Cent Which workflow matches your needs?		riate appliance configuration workflow.
Install Configure a standalone node or cluster's primary node.	Advanced Install Configure a standalone node or any node in a cluster. Use this wizard to access all of the available appliance configuration options.	
		Back Start

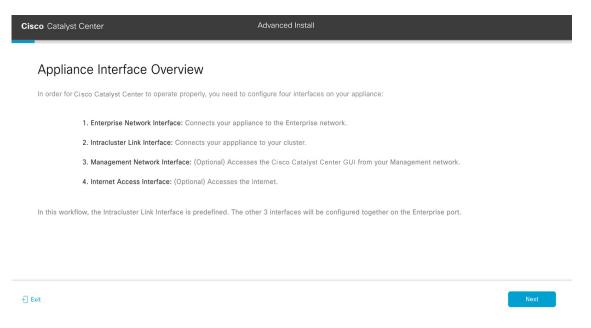
g) Click the Advanced Install radio button, then click Start.

The **Overview** slider opens. Click > to view a summary of the tasks that the wizard will help you complete.

Overview	
Complete the basic tasks required to configure your appliance for use with Cisco Catalyst Center.	
• • • • •      •     •     • • • •	
Start Workflow	

### h) Click Start Workflow to start the wizard.

The **Appliance Interface Overview** screen opens, providing a description of the four appliance interfaces that you can configure.



Important At a minimum, you must configure the interfaces on your appliance's Enterprise and Cluster ports, as they are required for Catalyst Center functionality. If the wizard fails to display either or both of these ports during the course of configuration, they may be non-functional or disabled. If you discover that they are non-functional, choose **Exit** to exit the wizard immediately. Be sure you have completed all of the steps provided in Execute Preconfiguration Tasks before resuming configuration or contacting the Cisco Technical Assistance Center (TAC).

**Step 2** Complete the Advanced Install configuration wizard:

## a) Click Next.

The How would you like to set up your appliance interfaces? screen opens.

Cisco Catalyst Center	Advanced Install		
How would you like to set up your appliance interface	es?		
Both Enterprise Network and Intracluster Link Interfaces have their own designated port. You c a separate dedicated port for either Management Network Interface and Internet Access Interf reserve the IP addresses necessary for configuration. If your network resides behind a firewall these URLs and open these ports.	ace. Before you start,		
	Disconnected LACP disabled		
Enterprise Network Interface 📀	Intracluster Link Network ()		
The Enterprise Network Interface and Intracluster Link Interface will be configured usin shown above.	g the two 10-Gbps ports as		
Would you like to have a dedicated Management Network Interface?			
• Yes O No			
Would you like to have a dedicated Internet Access Interface?			
• Yes O No			
€ Exit		Back	Next

If your network resides behind a firewall, do the following:

- Click the allow access to these URLs link to view a pop-up window that lists the URLs that Catalyst Center
  must be able to access.
- Click the **open these ports** link to view a pop-up window that lists the network service ports that must be available for Catalyst Center to use.
- b) Indicate whether you want to configure dedicated Management and Internet Access interfaces, then click Next.

The Configure Your Enterprise Network Interface screen opens.

Cisco Catalyst Center	Advanced Install
Configure Your Enterprise N	Jetwork Interface
Enterprise Network Interface O	Connected     Disconnected     LACP disables
LACP Mode Disabled () Hot IV Address* 22,22,23,192 Enter an IPv4 address Subnet Mask* 24 Enter an IPv4 address 22,22,22,1 Enter an IPv4 address 23,33,212,22 Enter an IPv4 address Add/Edit Static Route (2) ()	+
] Exit	Back Next

c) Enter configuration values for the Enterprise interface, then click Next.

As explained in Interface Cable Connections, this is a required interface used to link the appliance to the enterprise network. See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.

LACP Mode slider	Choose one of the following network interface controller (NIC) bonding modes for the Enterprise interface:		
	• Active-Backup mode: This mode provides fault tolerance by aggregating two Ethernet interfaces into a single logical channel. When the interface that's currently active goes down, the other interface takes its place and becomes active.		
	• LACP mode: This mode aggregates two Ethernet interfaces that share the same speed and duplex settings into a single logical channel. This provides load balancing and higher bandwidth.		
	For more information about Catalyst Center's implementation of NIC bonding, see NIC Bonding Overview.		
Host IP Address field	Enter the IP address for the Enterprise port. This is required.		

Table 3: Primary Node Entries for the Enterprise Interface

Subnet Mask field	Enter the netmask for the port's IP address. This is required.		
Default Gateway IP Address field	Enter a default gateway IP address to use for the port.		
	Important	Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.	
	Note	You designated this interface to use the default gateway assigned to it by a DHCP server. Complete the following steps to specify a different gateway:	
		1. Delete the IP address that is currently listed in this field and then click <b>Exit</b> .	
		This will bring you back to the first wizard screen.	
		2. Return to the Enterprise port's wizard screen and enter the gateway IP address you want to use.	
DNS field	Enter the IP	address of the preferred DNS server.	
	To enter additional DNS servers, click the Add (+) icon.		
	Important	• For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.	
		• For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.	

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Intracluster Interface** screen opens.

	• Catalyst Center Configure Your Intracluster Interfa	Advanced Install	
Interface Name     enterprise       ILACP Mode     Disabled ①       ILACP Mode     Disabled ①       IPAdress     169.254.6.66       Subnet Mask     24       Default Gateway     22.22.212       DS Servers     23.33.212.22	10GB 10GB 10GB 10		
	Interface Name enterprise LACP Mode Disabled IP Address 22.22.2192 Subnet Mask 24 Default Gateway 22.22.21	LACP Mode Disabled () Hott IP Address* 169.254.6.66 Enter an IPv4 address Subnet Mask* 255.255.225.128	
		Enter an IPv4 address or a number from 1 - 32	

d) Enter configuration values for your Intracluster interface, then click Next.

As explained in Interface Cable Connections, this required port is used to link the appliance to your cluster. See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.

- If you opted to configure the Enterprise and Internet Access interfaces on the same port, complete this step and then proceed to Step 2e (which describes how to configure your Management interface).
  - If you opted to configure the Enterprise and Management interfaces on the same port, complete this step and then skip ahead to Step 2f (which describes how to configure your Internet Access interface).
  - If you opted to configure the Enterprise, Management, and Internet Access interfaces on the same port, complete this step and then skip ahead to Step 2g.

LACP Mode slider	Choose one of the following NIC bonding modes for the Intracluster interface:
	• Active-Backup mode: This mode provides fault tolerance by aggregating two Ethernet interfaces into a single logical channel. When the interface that's currently active goes down, the other interface takes its place and becomes active.
	• <b>LACP mode</b> : This mode aggregates two Ethernet interfaces that share the same speed and duplex settings into a single logical channel. This provides load balancing and higher bandwidth.
	For more information about Catalyst Center's implementation of NIC bonding, see NIC Bonding Overview.
Host IP Address field	Enter the IP address for the Cluster port. This is required. Note that you cannot change the address of the Cluster port later.

Table 4: Primary Node Entries for the Intracluster Interface

Note

Subnet Mask field	Enter the netmask for the port's IP address. This is required.
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The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Management Network Interface** screen opens.

Cisco Catalyst Center		Advanced Install		
Configure Your Manag	ement Network Interface			
	Connected	Disconnected 🗾 LACP disa	abled	
Enterprise Network Interface O	tion ison ison ison ison ison ison ison i	Intracluster Link	Network 0	
Interface Name enterprise LACP Mode Disabled ① IP Address 22.22.22.192 Subnet Mask 24 Default Gateway 22.22.22.1 DNS Servers 223.33.212.22 Static Routes 2	Host IP Address* 123.223.23.1 Enter an IPv4 address Subnet Maak* 255.255.255.0 Enter an IPv4 address Default Gateway IP Address Default Gateway already configured in Enterprise Network DNS Enter an IPv4 address Add/Edit Static Route (0) ①	Interface Name IP Address Subnet Mask Static Routes	cluster Disabled ① 169,254,6.66 255,255,255,128 2	

e) (Optional) Enter configuration values for the Management port, then click Next.

As explained in Interface Cable Connections, this port is used to access the Catalyst Center GUI from your management network. If you chose to configure a dedicated Management interface, enter the information described in the following table. (See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.)

**Note** If you opted to configure the Enterprise and Internet Access interfaces on the same port, complete this step and then skip ahead to Step 2g.

Host IP Address field	Enter the IP address for the Management port.		
Subnet Mask field	Enter the netmask for the port's IP address.		
Default Gateway IP Address field	Enter a default gateway IP address to use for the port.		
	Important	Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.	

Table 5: Primar	y Node Entries f	for the M	lanagement Port
-----------------	------------------	-----------	-----------------

DNS field	Enter the IP	address of the preferred DNS server.
	To enter add	itional DNS servers, click the Add (+) icon.
	Important	• For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.
		• For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Internet Access Interface** screen opens.

Cisco Catalyst Center	А	Advanced Install
Interface Name enterprise LACP Mode Disabled  IP Address 22.22.22.192	ccess Interface	Interface Name cluster Interface Name cluster
Subnet Mask 24 Default Gateway 22.22.22.1 DNS Servers 223.33.212.22 Static Routes 2 Management Network Interface 0	255.255.255.0 Enter an IPv4 address or a number from 1 - 32 Default Gateway IP Address Default Gateway already configured in Enterprise Network DNS +	Subnet Mask 255.255.128 Static Routes 2
Interface Name management IP Address 123.223.223.1 Subnet Mask 255.255.0	Enter an IPv4 address	
Exit		Back Next

### f) (Optional) Enter configuration values for the Internet Access interface, then click Next.

As explained in Interface Cable Connections, this is an optional port used to link the appliance to the Internet when you cannot do so through the Enterprise port. If you chose to configure a dedicated Internet Access interface, enter the information described in the following table. (See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.)

Host IP Address field	Enter the IP address for the Internet Access port.		
Subnet Mask field	Enter the netmask for the port's IP address. This is required if you entered an IP address in the previous field.		
Default Gateway IP Address field	Enter a default gateway IP address to use for the port.		
	Important	Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.	

I

DNS field	Enter the IP	address of the preferred DNS server.
	To enter add	itional DNS servers, click the Add (+) icon.
	Important	• For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.
		• For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Interface to Port Configuration** screen opens.

co Catalyst Center		Auvanced instan	
Interface to Port Conf	iguration		
We are going to configure the followin to a minute to configure.	g Interfaces. Clicking Next will begin the confi		
Enterprise Network Interface 🕥	Internet Network Interface ()	Intracluster Link Network ()	
Interface Name enterprise ILACP Mode Disabled ① IP Address 22.22.22.192 Subnet Mask 24 Default Gateway 22.22.21. DNS Servers 223.33.212.22	Interface Name Internet IP Address 212.34.21.2 Subnet Mask 255.255.255.0 Edit	Interface Name cluster LACP Mode Disabled  IP Address 169.254.6.66 Subnet Mask 255.255.255.128 Static Routes 2 Edit	
Static Routes 2 Edit	Management Network Interface ⊙		
	Interface Name management IP Address 123.223.223.1 Subnet Mask 255.255.255.0 Edit		
xit			Back

g) Review the settings that you have entered for the primary node's interfaces.

If you need to make any changes, click the Edit link for the relevant interface.

h) When you are happy with the interface settings, click Next.

After initial interface configuration has completed, the Configure Proxy Server Information screen opens.

Cisco Catalyst Center	Advanced Install			
Configure Proxy Server	r Information			
Does your network use a proxy server to				
• Yes 🔿 No				
Proxy Server*				
E.g: http://example.com				
Enter port number between 1 to 65535.				
Username				
Password				
Exit		Review	Back	Next
1 EAN		Review	Васк	Next

- i) Do one of the following and then click Next:
  - If your network does not use a proxy server to access the internet, click the No radio button.
  - If your network does use a proxy server to access the internet, enter the values described in the following table:

Proxy Server field	Enter the URL or host name of an HTTPS network proxy used to access the Internet.
	<b>Note</b> Connection from Catalyst Center to the HTTPS proxy is supported only via HTTP in this release.
Port field	Enter the port your appliance used to access the network proxy.
Username field	Enter the user name used to access the network proxy. If no proxy login is required, leave this field blank.
Password field	Enter the password used to access the network proxy. If no proxy login is required, leave this field blank.

#### Table 7: Primary Node Entries for Proxy Server Settings

The wizard validates the information you have entered and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Advanced Appliance Settings** screen opens.

isco Catalyst Center	Advanced Install			
Advanced Appliance Settin	igs			
CLUSTER VIRTUAL IP ADDRESSES				
Virtual IP addresses are used for traffic between the c three-node clusters and for single-node clusters that you're using a single-node cluster, you can skip the V	might be converted to three node later. If			
To access from Enterprise Network	For Intracluster Access			
Enter an IPx4 address	Error on IPv4 address			
To access from Management Network	For Internet Access			
Enter an IP+4 address	Erter an DA4 address			
Fully Qualified Domain Name (FQDN)				
Enter FQDN for Enterprise Net-	vork			
CLI CREDENTIALS	CISCO CATALYST GENTER ADMIN CREDENTIALS			
Username*	Username*			
maglev	admin			
Password*	Passion*			
View Password Criteria	Vex Proved Citri			
Confirm Password*	Confirm Password*			
5×0W	510W			
NTP SERVER SETTINGS				
NTP Server*				
ntp.esl.cisco.com	+			
Enter an IP address or FQDN				
Turn On NTP Authentication				
SUBNET SETTINGS				
Cisco Catalyst Center requires a dedicated, nonroute				
services. The following subnets are recommended, bu doesn't conflict with or overlap any other subnet.				
Container Subnet*	Claster Subort*			
169.254.32.0/20	169.254.48.0/20			
Minimum subnet size is 21 bits. Stash notation is allow	ved. Minimum subnet size is 21 bits. Slath netation is allowed.			
Exit		Review	Back	Next

j) Enter configuration values for your cluster, then click Next.

#### Table 8: Primary Node Entries for Advanced Appliance Settings

Ē

Cluster	Cluster Virtual IP Addresses				
Network To acces	ss from Enterprise , For Intracluster Access, ss from Management , and For Internet Access If you configured the Management or Internet Access interface on the same port as the Enterprise interface, its corresponding field is not displayed in this section.	the interfact for both the a three-not	irtual IP address that will be used for traffic between the cluster and tees that you have configured on your primary node. This is required ree-node clusters and single-node clusters that will be converted into le cluster in the future. If you have a single-node cluster setup and to move to a three-node cluster setup, you can leave the fields in this nk. If you choose to configure a virtual IP address, you must enter one for each configured network interface. You will not be able to complete the wizard unless you do so. These addresses are tied to the cluster link's status, which must be in the <b>UP</b> state.		
Fully Qualified Domain Name (FQDN) field		does the fo It uses Repre enterp In the it uses	ally qualified domain name (FQDN) for your cluster. Catalyst Center llowing with this hostname: s this hostname to access your cluster's web interface and the sentational State Transfer (REST) APIs used by devices in the orise network that Catalyst Center manages. Subject Alternative Name (SAN) field of Catalyst Center certificates, s the FQDN to the define the Plug and Play server that should be used vice provisioning.		

# **CLI Credentials**

Enter and confirm the password for the maglev user.

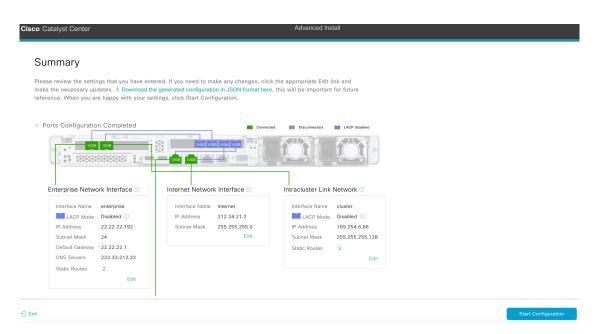
### **Cisco Catalyst Center Admin Credentials**

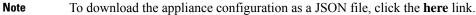
Enter a password for the default admin superuser, used to log in to Catalyst Center for the first time.

### NTP Server Settings

Enter at least one NTP server address or hostname. To enter additional NTP server addresses or hostnames, click the <b>Add</b> (+) icon.		
For a production deployment, Cisco recommends that you configure a minimum of three NTP servers.		
To enable the authentication of your NTP server before it's synchronized with Catalyst Center, check this check box and then enter the following information		
• The NTP server's key ID. Valid values range between 1 and 4294967295 (2^32-1).		
This value corresponds to the key ID that's defined in the NTP server's key file.		
• The SHA-1 key value associated with the NTP server's key ID. This 40-character hex string resides in the NTP server's key file.		
<b>Note</b> Ensure that you enter a key ID and key value for each NTP server that you configured in the previous field.		
A dedicated, non-routed IP subnet that Catalyst Center uses to manage internal services. By default, this is already set to <b>169.254.32.0/20</b> , and we recommend that you use this subnet.		
A dedicated, non-routed IP subnet that Catalyst Center uses to manage internal cluster services. By default, this is already set to <b>169.254.48.0/20</b> , and we recommend that you use this subnet.		

The wizard validates the information you have entered and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid, the wizard's **Summary** screen opens.





- k) Review all of the settings that you have entered while completing the wizard. If necessary, click the appropriate Edit link to open the wizard screen in which you want to make updates.
- 1) To complete the configuration of your Catalyst Center appliance, click Start Configuration.

The wizard screen continuously updates during the process, indicating the tasks that are currently being completed and their progress, as well as any errors that have occurred. To save a local copy of this information as a text file, click the download icon.

co Catalyst Center	Advanced Install				
Appliance Configuration In Progress It should take about 30 minutes to configure the appliance. Do not press your by page. The page will update after configuration completes.	owser's back button or refresh this				
Initializing the cluster using kubeadm Started: 04/09/2020 12:15:36					
Download					
2024-03-22T16:04:38.088Z13   front-proxy-client.crt Apr 13 17:40:20 2020					
GMT Apr 13 17:40:20 2021 GMT					
2024-03-22T16:04:38.088Z14   kubelet.conf Apr 13 12:12:14 2020 GMT Apr					
13 17:40:21 2021 GMT					
2024-03-22T16:04:38.088Z15   admin.conf Apr 13 12:12:14 2020 GMT Apr					
13 17:40:21 2021 GMT					
2024-03-22T16:04:38.088Z16   scheduler.conf Apr 13 12:12:14 2020 GMT					
Apr 13 17:40:22 2021 GMT					
2024-03-22T16:04:38.088Z17   controller-manager.conf Apr 13 12:12:14					
2020 GMT Apr 13 17:40:22 2021 GMT					
2024-03-22T16:04:38.088Z18					

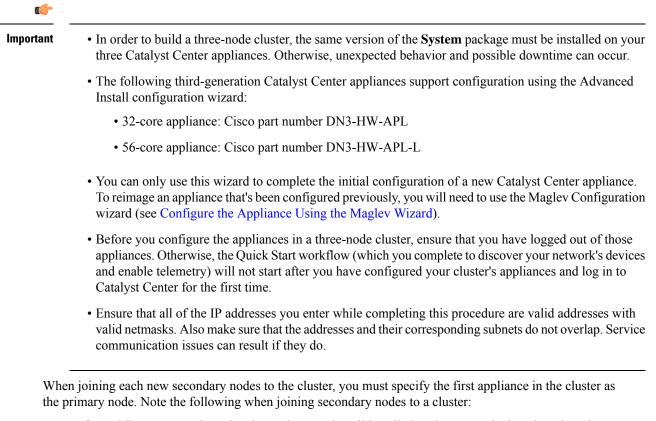
#### What to do next

When this task is complete:

- If you are deploying this appliance in standalone mode only, continue by performing first-time setup: First-Time Setup Workflow.
- If you are deploying this appliance as the primary node in a cluster, configure the second and third installed appliances in the cluster: Configure a Secondary Node Using the Advanced Install Configuration Wizard, on page 30.

# Configure a Secondary Node Using the Advanced Install Configuration Wizard

Perform the following steps to configure the second and third nodes in the cluster using the Advanced Install configuration wizard.



• Before adding a new node to the cluster, be sure that all installed packages are deployed on the primary node. You can check this by using Secure Shell to log in to the primary node's Catalyst Center Management port as the Linux user (*maglev*) and then running the command maglev package status. All installed packages should appear in the command output as DEPLOYED.

NAME	DISPLAY_NAME	DEPLOYED	AVAILABLE	STATUS	PROGRESS
access-control-applicati	on Access Control Application AI Network Analytics Application Hosting Application Policy Application Registry ervice Application Visibility Service Assurance - Base NCP - Service - Sease Vial-coton - case	-	2.1.369.60050	NOT_DEPLOYED	
ai-network-analytics	AI Network Analytics	-	2.6.10.494	NOT_DEPLOYED	
app-hosting	Application Hosting	-	1.6.6.220124172	3 NOT DEPLOYED	
application-policy	Application Policy	-	2.1.369.170033	NOT DEPLOYED	
application-registry	Application Registry	-	2.1.369.170033	NOT DEPLOYED	
application-visibility-s	ervice Application Visibility Service		2.1.369.17	0033 NOT_DEPLOYED	
ssurance	Assurance - Base	2.2.2.485	-	DEPLOYED	
automation-core	NCP - Services	2.1.368.60015	2.1.369.60050	DEPLOYED	
ase-provision-core	Automation - Base	2.1.368.60015	2.1.369.60050	DEPLOYED	
loud-connectivity-conte	Automation - Base Xual-content Cloud Connectivity - Context hub Cloud Connectivity - Data Hub ring Cloud Connectivity - Tethering Cloud Device Provisioning Application Command Runner Device Onboarding Disaster Recovery Network Experience Platform Cisco DNA Center Platform Cisco DNA Center Platform Cisco DNA Center Global Search AI Endpoint Analytics tics Group-Based Policy Analytics Automation - Intelligent Capture Image Management Machine Reasoning NCP - Base Network Data Platform - Base Analytics	tual Content 1.3	.1.364 -	DEPLOYED	
loud-connectivity-data-	hub Cloud Connectivity - Data Hub	1 6 0 380	_	DEPLOYED	
loud-connectivity-tethe	ring Cloud Connectivity - Tethering	2 12 1 2	-	DEPLOYED	
loud-provision-core	Cloud Device Provisioning Application	-	2 1 369 60050	NOT DEPLOYED	
command-runner	Command Runner	2 1 368 60015	2 1 369 60050	DEPLOYED	
levice-onboarding	Device Onhoarding	2 1 368 60015	2 1 369 60050	DEPLOYED	
isaster-recovery	Disaster Recovery	2.1.500.00015	2 1 367 360196	NOT DEPLOYED	
ina_core_apps	Network Experience Platform - Core	2 1 368 60015	2 1 369 60050	DEPLOYED	
inac_platform	Cisco DNA Center Platform	1 5 1 180	1 5 1 182	DEPLOYED	
inac-search	Cisco DNA Center Global Search	1 5 0 466	1. 5. 1. 102	DEPLOYED	
andpoint_analytics	AT Endpoint Analytics	1.5.0.400	1 4 375	NOT DEPLOYED	
roup-based-policy-apaly	tics Group-Based Policy Analytics		2 2 1 401	NOT DEPLOYED	
ican-automation	Automation - Intelligent Canture		2 1 369 60050	NOT DEPLOYED	
rcap-auconactor	Automation - interrigent capture	2 1 269 60015	2.1.309.00030	NOT_DEPLOYED	
mage-management	Image Management	2.1.308.00013	2.1.369.00030	DEPLOYED	
lach me-reasoning	Machine Reasoning	2.1.300.21001/	2.1.309.210024	DEPLOYED	
icp-system	NCF - Dase Network Data Distform - Base Analytics	1 6 1029	1 6 1021	DEPLOYED	
iup-base-analytics	Network Data Platform - Base Analytics	1.6.506	1.0.1031	DEPLOYED	
idp-placiorni	Network Data Platform - Core	1.6.543	-	DEPLOYED	
lap-ul	Network Data Platform - Manager	2 1 368 60015	2 1 360 60050	DEPLOYED	
letwork-visibility	Network Controller Platform	2.1.308.00013	2.1.369.60030	DEPLOYED	
ath-trace	Path Trace	2.1.508.00013	2.1.509.00030	DEPLOYED	
lattorm-ui	Cisco DNA Center UI	1.0.2.440	1.0.2.448	DEPLOYED	
bac-extensions	RBAC Extensions	2.1.368.1910001	2.1.369.1910003	DEPLOYED	
ogue-management	Rogue and aWIPS	-	2.2.0.51	NOT_DEPLOYED	
access	SD Access	-	2.1.369.60050	NOT_DEPLOYED	
ensor-assurance	Assurance - Sensor	-	2.2.2.484	NOT_DEPLOYED	
sensor-automation	Image Management Machine Reasoning NCP - Base Network Data Platform - Base Analytics Network Data Platform - Core Network Data Platform - Manager Network Controller Platform Path Trace Cisco DNA Center UI RBAC Extensions Rogue and aWIPS SD Access Assurance - Sensor Automation - Sensor Stealthwatch Security Analytics System System Commons Cisco Umbrella Wide Area Bonjour		2.1.369.60050	NOT_DEPLOYED	
sa	Stealthwatch Security Analytics	2.1.368.1091226	2.1.369.1091317	DEPLOYED	
system	System	1.6.594		DEPLOYED	
system-commons	System Commons	2.1.368.60015	2.1.369.60050	DEPLOYED	
umbrella	Cisco Umbrella	-	2.1.368.592066	NOT_DEPLOYED	
wide-area-boniour	Wide Area Boniour	-	2.4.368.75006	NOT_DEPLOYED	

maglev-1 [main - https://kong-frontend.maglev-system.svc.cluster.local:443]

[Wed Nov 30 15:45:08 UTC] maglev@192.0.2.1 (maglev-master-192.0.2.1) ~

- Be sure to join only a single node to the cluster at a time. Do not attempt to add multiple nodes at the same time, as doing so will result in unpredictable behavior.
- Expect some service downtime during the cluster attachment process for each secondary node. Services will need to be redistributed across the nodes and the cluster will be down for periods of time during that process.

### Before you begin

Ensure that you:

- Configured the first appliance in the cluster, following the steps in Configure the Primary Node Using the Advanced Install Configuration Wizard, on page 13.
- Collected all of the information called for in Required IP Addresses and Subnets and Required Configuration Information.
- Installed the second and third appliances, as described in Appliance Installation Workflow.
- Have done the following:
- 1. Ran the maglev package status command on the first appliance.

You can also access this information from the Catalyst Center GUI by clicking the **Help** icon (**(**)) and choosing **About** > **Packages**.

- 2. Contacted the Cisco TAC, gave them the output of this command, and asked them to point you to the ISO that you should install on your second and third appliances.
- Configured Cisco IMC browser access on both secondary nodes, as described in Enable Browser Access to the Cisco Integrated Management Controller.
- Checked that both secondary nodes' ports and the switches they use are properly configured, as described in Execute Preconfiguration Tasks.

- Are using a compatible browser. For a list of compatible browsers, see the Release Notes for the version of Catalyst Center you are installing.
- Enabled ICMP on the firewall between Catalyst Center and both the default gateway and the DNS server you specify in the following procedure. The wizard uses ping to verify the gateway and DNS server you specify. This ping might get blocked if a firewall is in place and ICMP is not enabled on that firewall. When this happens, you will not be able to complete the wizard.
- **Step 1** Start the Advanced Install configuration wizard:
  - a) Point your browser to the Cisco IMC IP address you set during the Cisco IMC GUI configuration you performed, then log in to the Cisco IMC GUI as the Cisco IMC user (see Enable Browser Access to the Cisco Integrated Management Controller).

After successful login, the appliance displays the **Cisco Integrated Management Controller Chassis Summary** window, with a blue link menu at the upper right, as shown below.

	<b>↓</b> ✓ 0	admin@	5.131.	- C220	-WZP	FF	۲ ۲	¢
Refresh Host	Power Launch vKVN	/ Ping	CIMC Ret	ooot   L	ocator LED		?	0
	Java based KVM							
	HTML based KVM							

b) From the blue link menu, choose Launch KVM and then choose either Java based KVM or HTML based KVM. If you choose the Java-based KVM, you will need to launch the Java startup file from your browser or file manager in order to view the KVM console in its own window. If you choose the HTML-based KVM, it will launch the KVM console in a separate browser window or tab automatically.

Irrespective of the KVM type you choose, use the KVM console to monitor the progress of the configuration and respond to Maglev Configuration Wizard prompts.

- c) With the KVM displayed, reboot the appliance by making one of the following selections:
  - In the main Cisco IMC GUI browser window: Choose **Host Power Cycle**. Then switch to the KVM console to continue.
  - In the KVM console: Choose Power > Power Cycle System (cold boot).

If asked to confirm your choice to reboot the appliance, click OK.

After displaying reboot messages, the KVM console displays the Static IP Configuration screen.

STEP #None	STATIC IP CONFIGURATION
<ul> <li>Welcome to the Maglev Configuration Wizard!</li> <li>Please Enter Static IP Information for Enterprise Interface Configuration, Static IP is configured as an alternative to DHCP for web UI Configuration.</li> <li>Click Configure after entering Information for configuring IP which will be configured on Enterprise Interface</li> <li>Click Skip to move to config wizard</li> <li>NOTE: Default Configuration mode is IPv4, Please select IPv6 mode for Ipv6 Configuration</li> </ul>	IPv6 mode IP Address: Netmask: Default Gateway Address: Static Routes:
	Web installation: https://10.106.172.47:9004/
	<pre>&lt; cancel &gt; skip &gt;&gt; configure &gt;&gt;</pre>

Note the URL listed in the Web Installation field.

- d) Do one of the following:
  - If you want a DHCP server to assign an IP address, subnet mask, and default gateway to your appliance's Enterprise interface, click **Skip**.
  - If you want to assign your own IP address, subnet mask, and default gateway to your appliance's Enterprise interface, enter the information described in the following table and then click **Configure**.

IPv6 Mode check box	If you want to configure an IPv6 address, check this check box.
IP Address field	Enter the static IP address you want to use.
Netmask field	<ul> <li>Enter the netmask for the IP address you specified in the previous field:</li> <li>If you entered an IPv4 address, you can enter either a netmask or CIDR address.</li> <li>If you entered an IPv6 address, you can only enter a CIDR address.</li> </ul>
Default Gateway Address field	Specify the default gateway that will be used to route traffic.
Static Routes field	Enter one or more static routes in the following format, separated by spaces: <i><network>/<netmask>/<gateway></gateway></netmask></network></i> . This is usually required on the Management port only.

The KVM console displays the Maglev Configuration wizard welcome screen.



e) To bring up the **Appliance Configuration** screen, open the URL that was displayed in the **Static IP Configuration** screen.

co Catalyst Center		Appliance Configuration	
Welcome to Cisco Catalyst	Center		
Are you starting a new Cisco Catalyst	Center Cluster or joining an exisiting one?		
Start A Cisco Catalyst O Center Cluster	Join A Cisco Catalyst O Center Cluster		
This appliance will be the primary node of a cluster.	This appliance will be added as a node to the primary node of a cluster.		

f) Click the Join a Cisco Catalyst Center Cluster radio button, then click Next.

Cisco Catalyst Center		Appliance Configuration	
Welcome to Cisco Ca	talyst Center alyst Center, first complete the appropriate .	lan a se formation un dérus	
Which workflow matches you Advanced Install Configure a standalone node or any node in a cluster. Use this wizard to access all of the	•	appirance configuration worknow.	
available appliance configuration options.			
			Back

g) Click the Advanced Install radio button, then click Start.

The **Overview** slider opens. Click > to view a summary of the tasks that the wizard will help you complete.

	X
Overview	
Complete the basic tasks required to configure your appl with Cisco Catalyst Center.	ance for use
• • • • •      •	
Start Workflow	

h) Click Start Workflow to start the wizard.

The **Appliance Interface Overview** screen opens, providing a description of the four appliance interfaces that you can configure.

Cisco Catalys	t Center Advanced Install
Applia	nce Interface Overview
In order for	Cisco Catalyst Center to operate properly, you need to configure four interfaces on your appliance:
	1. Enterprise Network Interface: Connects your appliance to the Enterprise network.
	2. Intracluster Link Interface: Connects your apppliance to your cluster.
	3. Management Network Interface: (Optional) Accesses the Cisco Catalyst Center GUI from your Management network.
	4. Internet Access Interface: (Optional) Accesses the internet.
In this work	flow, the Intracluster Link Interface is predefined. The other 3 interfaces will be configured together on the Enterprise port.
<	Next
portant	At a minimum, you must configure the interfaces on your appliance's Enterprise and Cluster port they are required for Catalyst Center functionality. If the wizard fails to display either or both of

- they are required for Catalyst Center functionality. If the wizard fails to display either or both of these ports during the course of configuration, they may be non-functional or disabled. If you discover that they are non-functional, choose **Exit** to exit the wizard immediately. Be sure you have completed all of the steps provided in Execute Preconfiguration Tasks before resuming configuration or contacting the Cisco Technical Assistance Center (TAC).
- **Step 2** Complete the Advanced Install configuration wizard:
  - a) Click Next.

The How would you like to set up your appliance interfaces? screen opens.

Cisco Catalyst Center	Advanced Install		
How would you like to set up your appliance interface	s?		
Both Enterprise Network and Intracluster Link Interfaces have their own designated port. You ca a separate dedicated port for either Management Network Interface and Internet Access Interfa reserve the IP addresses necessary for configuration. If your network resides behind a firewall, these URLs and open these ports.	ce. Before you start,		
	Disconnected LACP disabled		
Enterprise Network Interface	│ Intracluster Link Network ☉		
The Enterprise Network Interface and Intracluster Link Interface will be configured using shown above.	the two 10-Gbps ports as		
Would you like to have a dedicated Management Network Interface?			
• Yes O No			
Would you like to have a dedicated Internet Access Interface?			
• Yes O No			
⊕ Exit		Back	Next

b) Indicate whether you want to configure dedicated Management and Internet Access interfaces, then click Next.

o Catalyst Center	Advanced Install	
Configure Your Enterprise I	Jetwork Interface	
	Connected     Implemented     Implemented       Roos (stas) (stas) (stas)     Implemented     Implemented	
Enterprise Network Interface   LACP Mode Disabled   Host IP Address*  2.22.22.194  Enter an IPv4 address		
Enter an II-V4 address Subnet Mask* 24 Enter an II-V4 address or a number from 1 - 32 Default Gateway IP Address 22.22.22.1		
Enter an IPv4 address DNS 223.33.212.22 Enter an IPv4 address	+	
Add/Edit Static Route (2) ①		
t		Back Next

The Configure Your Enterprise Network Interface screen opens.

c) Enter configuration values for the Enterprise interface, then click Next.

As explained in Interface Cable Connections, this is a required interface used to link the appliance to the enterprise network. See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.

Table 9: Secondary Node Entries for the Enterprise Interface
--

LACP Mode slider	Choose one of the following network interface controller (NIC) bonding modes for the Enterprise interface:
	• Active-Backup mode: This mode provides fault tolerance by aggregating two Ethernet interfaces into a single logical channel. When the interface that's currently active goes down, the other interface takes its place and becomes active.
	• LACP mode: This mode aggregates two Ethernet interfaces that share the same speed and duplex settings into a single logical channel. This provides load balancing and higher bandwidth.
	For more information about Catalyst Center's implementation of NIC bonding, see NIC Bonding Overview.
Host IP Address field	Enter the IP address for the Enterprise port. This is required.
Subnet Mask field	Enter the netmask for the port's IP address. This is required.

Default Gateway IP Address field	Enter a defa	ault gateway IP address to use for the port.		
	Important	Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.		
	Note	You designated this interface to use the default gateway assigned to it by a DHCP server. Complete the following steps to specify a different gateway:		
		1. Delete the IP address that is currently listed in this field and then click <b>Exit</b> .		
		This will bring you back to the first wizard screen.		
		2. Return to the Enterprise port's wizard screen and enter the gateway IP address you want to use.		
DNS field	Enter the IP	address of the preferred DNS server.		
	To enter additional DNS servers, click the Add (+) icon.			
	Important	<ul> <li>For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.</li> <li>For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.</li> </ul>		
		Contor and your ivit server.		

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Intracluster Interface** screen opens.

Interface Name     enterprise       Interface Name     enterprise       Interface Name     Disabiled       IP Address     22.22.22.114       Subnet Mask*     Enter an IPV4 address       Default Gateway     22.22.22.12       Dis Servers     223.32.12.22	LACP Mode Disabled () Host IP Address* 169.254.6.68 Enter an IPv4 address Subnet Mask* 255.255.255.128	Interface Name     enterprise       LACP Mode     Disabled       LACP Mode     Disabled       P Address     Host IP Address*       169.254.6.68     Enter an IPv4 address       Subnet Mask     2       Default Gateway     22.22.21       DS Servers     23.33.212.22
LACP Mode         Disable ①         Host IP Address*           IP Address         22.22.22.194         169.254.6.68           Subnet Mask         24         Enter an IPV4 address           Default Gateway         22.22.22.1         255.255.255.128	Host IP Address* 169.254.6.68 Enter an IPv4 address Subnet Mask* 255.255.255.128	LACP Mode         Disabled ①         Host IP Address *           IP Address         22.2.2.194         169.254.6.68           Subnet Mask         24         Enter an IPV4 address           Default Gateway         22.2.2.1         215.255.255.128           DNS Servers         22.3.33.212.22         Enter an IPV4 address or a number from 1 - 32
LACP Mode         Disable ①         Host IP Address*           IP Address         22.22.22.194         169.254.6.68           Subnet Mask         24         Enter an IPv4 address           Default Gateway         22.22.22.13         255.255.128	Host IP Address* 169.254.6.68 Enter an IPv4 address Subnet Mask* 255.255.128	LACP Mode         Disabled ①         Heat IP Address*           IP Address         22,22,21,94         159,254,6.68           Subnet Mask         24         Enter an IP-V4 address           Subnet Mask         2,22,22,1         255,255,255,128           DNS Servers         23,33,212,22         Enter an IIP-V4 address or a number from 1 - 32
Productives         22.2.2.2.194         Enter an IP-V4 address           Subnet Mask         24         Subnet Mask*           Default Gateway         22.2.2.2.1         255.255.128	Enter an IPv4 address Subnet Mask* 255.255.128	P Address         22.2.2.2.194         Enter an IPv4 address           Subnet Mask         Subnet Mask*           Default Gateway         22.2.22.1         255.255.28           DNS Servers         223.33.212.22         Enter an IPv4 address or a number from 1 - 32
Subnet Mask         24         Subnet Mask*           Default Gateway         22.2.22.1         255.255.128	Subnet Mask* 255.255.255.128	Subnet Mask         24         Subnet Mask*           Default Gateway         22.2.2.1         255.255.128           DNS Servers         223.33.212.22         Enter an IPv4 address or a number from 1 - 32
Default Gateway 22.22.22.1 255.255.128	255.255.255.128	Default Gateway         22.2.2.2.1         255.255.255.128           DNS Servers         223.33.212.22         Enter an IPv4 address or a number from 1 - 32
DNS Servers 223.33.212.22 Enter an IPv4 address or a number from 1 - 32	Enter an IPv4 address or a number from 1 - 32	
		Static Routes 2
Static Routes 2		

d) Enter configuration values for your Intracluster interface, then click Next.

As explained in Interface Cable Connections, this required port is used to link the appliance to your cluster. See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.

Note

- If you opted to configure the Enterprise and Internet Access interfaces on the same port, complete this step and then proceed to Step 2e (which describes how to configure your Management interface).
  - If you opted to configure the Enterprise and Management interfaces on the same port, complete this step and then skip ahead to Step 2f (which describes how to configure your Internet Access interface).
  - If you opted to configure the Enterprise, Management, and Internet Access interfaces on the same port, complete this step and then skip ahead to Step 2g.

LACP Mode slider	Choose one of the following NIC bonding modes for the Intracluster interface:
	• Active-Backup mode: This mode provides fault tolerance by aggregating two Ethernet interfaces into a single logical channel. When the interface that's currently active goes down, the other interface takes its place and becomes active.
	• <b>LACP mode</b> : This mode aggregates two Ethernet interfaces that share the same speed and duplex settings into a single logical channel. This provides load balancing and higher bandwidth.
	For more information about Catalyst Center's implementation of NIC bonding, see NIC Bonding Overview.
Host IP Address field	Enter the IP address for the Cluster port. This is required. Note that you cannot change the address of the Cluster port later.
Subnet Mask field	Enter the netmask for the port's IP address. This is required.

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Management Network Interface** screen opens.

		Dis	LACP dia			
Interfrace Name enterprise Network Interface  Interface Name enterprise Interface Name Disabled  IP Address 22.22.22.194 Subnet Mask 24 Default Gateway 22.22.22.1 DNS Servers 22.33.3.212.22 Static Routes 2	Management Network Interface Heat IP Address* 123.223.23.5 Subnet Mask* 255.255.0 Enter an IPv4 address Default Gateway IP Address Default Gateway IP Address Default Gateway IP Address Enter an IPv4 address Add/Edit Static Route (0) ①	+	Intracluster Link	cluster Disabled ① 169.254.6.68 255.255.128 2		

e) (Optional) Enter configuration values for the Management port, then click Next.

As explained in Interface Cable Connections, this port is used to access the Catalyst Center GUI from your management network. If you chose to configure a dedicated Management interface, enter the information described in the following table. (See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.)

**Note** If you opted to configure the Enterprise and Internet Access interfaces on the same port, complete this step and then skip ahead to Step 2g.

Host IP Address field	Enter the IP address for the Management port. This is required.
Subnet Mask field	Enter the netmask for the port's IP address. This is required.
Default Gateway IP Address field	Enter a default gateway IP address to use for the port.
	<b>Important</b> Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.
DNS field	Enter the IP address of the preferred DNS server.
	To enter additional DNS servers, click the Add (+) icon.
	<ul> <li>Important</li> <li>For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.</li> </ul>
	• For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Configure Your Internet Access Interface** screen opens.

Cisco Catalyst Center	А	dvanced Install
Configure Your Internet	Access Interface	
Enterprise Network Interface O	Connected Discon	Intracluster Link Network
Interface Name enterprise LACP Mode Disabled ① IP Address 22,22,22,194 Subnet Mask 24 Default Gateway 22,22,22,1 DNS Servers 223,33,212,22 Static Routes 2	Hote Recreation Reference Control Produces* 212.34.21.6 Enter an IPv4 address Subnet Mask* 255.255.255.0 Enter an IPv4 address Default Gateway IP Address Default Gateway IP Address Default Gateway IP Address	Interface Name cluster LACP Node Disabled IP Address 169.254.6.88 Subnet Mask 255.255.128 Static Routes 2
Management Network Interface Interface Name management IP Address 123.223.23.5 Subnet Mask 255.255.0	DNS Enter an IPv4 address + Add/Edit Static Route (0) ①	
Exit		Back

f) (Optional) Enter configuration values for the Internet Access interface, then click Next.

As explained in Interface Cable Connections, this is an optional port used to link the appliance to the Internet when you cannot do so through the Enterprise port. If you chose to configure a dedicated Internet Access interface, enter the information described in the following table. (See Required IP Addresses and Subnets and Required Configuration Information for a more detailed description of the values you need to enter.)

Host IP Address field	Enter the IP address for the Internet Access port.		
Subnet Mask field	Enter the netmask for the port's IP address. This is required if you enter an IP address.		
Default Gateway IP Address field	Enter a default gateway IP address to use for the port.		
	<b>Important</b> Ensure that you enter a default gateway IP address for at least one of your appliance's interfaces. Otherwise, you will not be able to complete the configuration wizard.		
DNS field	Enter the IP address of the preferred DNS server.		
	To enter additional DNS servers, click the Add (+) icon.		
	Important• For each node in your cluster, configure a maximum of three DNS servers. Problems can occur if you configure more than three DNS servers for an appliance.		
	• For NTP, ensure port 123 (UDP) is open between Catalyst Center and your NTP server.		

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid and the port is up, the wizard's **Interface to Port Configuration** screen opens.

Cisco Catalyst Center		Advanced Install	i .
Interface to Port Config	guration Interfaces. Clicking Next will begin the cont of the control of the control of the control of the control of the control of the control of the cont	nfiguration process. This may take up	
Subiet Mask 24 Default Gateway 22,22,22,1 DNS Servers 223,33,212,22 Static Routes 2 Edit	Edit Management Network Interface Interface Name management IP Address 123.223.5 Subnet Mask 255.255.255.0 Edit	Subnet Mask 255.255.258 Static Routes 2 Edit	
] Exit			Back

g) Review the settings that you have entered for the secondary node's interfaces.

If you need to make any changes, click the Edit link for the relevant interface.

h) When you are happy with the interface settings, click Next.

After initial interface configuration has completed, the Configure Proxy Server Information screen opens.

Configure Proxy Server Information			
Does your network use a proxy server to access the internet?			
• Yes 🔿 No			
Proxy Server* E.g: http://example.com			
Port* Enter port number between 1 to 65535.			
Username			
Password			
Exit		Review	Back

• If your network does not use a proxy server to access the internet, click the No radio button.

I

• If your network does use a proxy server to access the internet, enter the values described in the following table:

#### Table 13: Secondary Node Entries for Proxy Server Settings

Proxy Server field	Enter the URL or host name of an HTTPS network proxy used to access the Internet.	
	<b>Note</b> Connection from Catalyst Center to the HTTPS proxy is supported only via HTTP in this release.	
Port field	Enter the port your appliance used to access the network proxy.	
Username field	Enter the user name used to access the network proxy. If no proxy login is required, leave this field blank.	
Password field	Enter the password used to access the network proxy. If no proxy login is required leave this field blank.	

The wizard validates the information you have entered and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid, the wizard's **Primary Node Details** screen opens.

isco Catalyst Center	Advanced Install			
Primary Node Details				
This appliance is getting added as a node for the multi-node setup with used when you need to log into the Maglev CLI.	software version $N/A$ . This information will be			
Primary Node IP*				
IP should be within Intra-Cluster's 169.254.6.66/25				
CLI Username				
maglev				
CLI Password*				
Enter CLI Password				
Exit		Rev	iew Back	Next

j) To establish a connection with your cluster's primary node, enter its IP address and login credentials, and then click **Next**.

The Advanced Appliance Settings screen opens.

Review Back

Cisco Catalyst Center	Advanced Install
Advanced Appliance Settings	
CLI CREDENTIALS	
Gar Green Integer	
moglev	
Password"	
Passacor	
View Password Criteria	
Confirm Password*	
940W	
NTP SERVER SETTINGS	
NTP Server	
ntp.esl.cisco.com	
Enter an IP address or FQDN	
Turn On NTP Authentication	

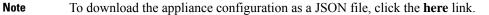
k) Enter configuration values for your cluster, then click Next.

#### Table 14: Secondary Node Entries for Advanced Appliance Settings

NTP Server Settings		
NTP Server field	Enter at least one NTP server address or hostname. To enter additional NTP server addresses or hostnames, click the <b>Add</b> (+) icon.	
	For a production deployment, Cisco recommends that you configure a minimum of three NTP servers.	
Turn On NTP Authentication check box	To enable the authentication of your NTP server before it's synchronized with Catalyst Center, check this check box and then enter the following information	
	• The NTP server's key ID. Valid values range between 1 and 4294967295 (2^32-1).	
	This value corresponds to the key ID that's defined in the NTP server's ke file.	
	• The SHA-1 key value associated with the NTP server's key ID. This 40-character hex string resides in the NTP server's key file.	
	<b>Note</b> Ensure that you enter a key ID and key value for each NTP server that you configured in the previous field.	

The wizard validates the information you have entered, confirms that the port is up, and notifies you of any settings that need to be changed before you can proceed with the wizard. If the settings you have entered are valid, the wizard's **Summary** screen opens.

tisco Catalyst Center		Advanced Install	
Summary Please review the settings that you have entere make the necessary updates. & Download the g	generated configuration in JSON format here,		
Ports Configuration Completed	rgs, click Start Configuration.	Disometed LACP diabled	
Enterprise Network Interface () Interface Name enterprise LACP Mode Disabled () IP Addres 22.22.21 Default Gateway 22.22.21 DNS Servers 22.33.212.22 Static Routes 2 Edit	Internet Network Interface  Interface Name internet IP Address 212.34.21.6 Subnet Mask 255.255.255.0 Edit	Intracluster Link Network Interface Name cluster LACP Mode Disabled IP Address 169,254,6.68 Subnet Mask 255,255,255.128 Static Routes 2 Edit	
] Exit			Start Configuration



- Review all of the settings that you have entered while completing the wizard. If necessary, click the appropriate Edit link to open the wizard screen in which you want to make updates.
- m) To complete the configuration of your Catalyst Center appliance, click Start Configuration.

The wizard screen continuously updates during the process, indicating the tasks that are currently being completed and their progress, as well as any errors that have occurred. To save a local copy of this information as a text file, click the download icon.

co Catalyst Center	Advanced Install
Appliance Configuration In Progress It should take about 30 minutes to configure the appliance. Do not press your to page. The page will update after configuration completes.	prowser's back button or refresh this
Initializing the cluster using kubeadm 50% Started: 04/09/2020 12:15:36 Download	
Download PhpT1117740120 2000 GM1 2024-03-22T16:04:38.088213   front-proxy-client.crt Apr 13 17:40:20 2020 GMT Apr 13 17:40:20 2021 GMT 2024-03-22T16:04:38.088215   admin.conf Apr 13 12:12:14 2020 GMT Apr 13 17:40:21 2021 GMT 2024-03-22T16:04:38.088216   scheduler.conf Apr 13 12:12:14 2020 GMT Apr 13 17:40:22 2021 GMT 2024-03-22T16:04:38.088217   controller-manager.conf Apr 13 12:12:14 2020 GMT Apr 13 17:40:22 2021 GMT 2024-03-22T16:04:38.088217   controller-manager.conf Apr 13 12:12:14 2020 GMT Apr 13 17:40:22 2021 GMT 2024-03-22T16:04:38.088218	

#### What to do next

When this task is complete:

- If you have an additional appliance to deploy as the third and final node in the cluster, repeat this procedure.
- If you are finished adding nodes to the cluster, continue by performing first-time setup: First-Time Setup Workflow.

# **Upgrade to the Latest Catalyst Center Release**

For information about upgrading your current release of Catalyst Center, see the *Cisco Catalyst Center Upgrade Guide*.