



Install Cisco ISE-PIC

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Download and Run the ISO Image

Before you begin

Before you install Cisco ISE-PIC on any of the supported appliances, ensure you have:

1. Created and accessed the virtual machine correctly.
2. Complied with all firmware and virtual machine requirements as follows:
 - Virtual Machine—install an OVA template prior to ISE-PIC installation and ensure your virtual machine server is configured correctly.
 - Linux KVM—ensure all virtualization technology and hardware requirements are met.

For more information about requirements, see *Cisco ISE-PIC Administrator Guide*, *Cisco Secure Network Server Data Sheet*, and *Cisco Identity Services Engine Installation Guide*.

Step 1 Boot the virtual machine on which to install ISE-PIC.

- a) Map the CD/DVD to an ISO image. A screen similar to the following one appears. The following message and installation menu are displayed.

Example:

```
Please wait, preparing to
boot.....
.....
```

The following options appear:

- ```
[1] Cisco ISE-PIC Installation (Keyboard/Monitor)
[2] Cisco ISE-PIC Installation (Serial Console)
[3] System Utilities (Keyboard/Monitor)
[4] System Utilities (Serial Console)
```

**Step 2** At the boot prompt, press **2** and **Enter** to install Cisco ISE-PIC using a serial console.

The following message appears.

```

Please type 'setup' to configure the appliance

```

**Step 3** At the prompt, type **setup** to start the Setup program. See [#unique\\_9](#) for details about the Setup program parameters.

**Step 4** After you enter the network configuration parameters in the Setup mode, the appliance automatically reboots, and returns to the shell prompt mode.

**Step 5** Exit from the shell prompt mode. The appliance comes up.

**Step 6** Continue with [Verify the Installation Process, on page 5](#).

## Run the Setup Program of Cisco ISE

This section describes the setup process to configure the ISE-PIC server.

The setup program launches an interactive command-line interface (CLI) that prompts you for the required parameters. An administrator can use the console or a dumb terminal to configure the initial network settings and provide the initial administrator credentials for the ISE-PIC server using the setup program. This setup process is a one-time configuration task.



**Note** If you are integrating with Active Directory (AD), it is best to use the IP and subnet addresses from a dedicated Site created specifically for ISE. Consult with the staff in your organization responsible for AD and retrieve the relevant IP and subnet addresses for your ISE nodes prior to installation and configuration.



**Note** It is not recommended to attempt offline installation of Cisco ISE as this can lead to system instability. When you run the Cisco ISE installation script offline, the following error is shown:

**Sync with NTP server failed' Incorrect time could render the system unusable until it is re-installed.  
Retry? Y/N [Y]:**

Choose **Yes** to continue with the installation. Choose **No** to retry syncing with the NTP server.

It is recommended to establish network connectivity with both the NTP server and the DNS server while running the installation script.

To run the setup program:

**Step 1** Turn on the appliance that is designated for the installation.

The setup prompt appears:

```
Please type 'setup' to configure the appliance
localhost login:
```

**Step 2** At the login prompt, enter **setup** and press **Enter**.

The console displays a set of parameters. You must enter the parameter values as described in the table that follows.

**Note** The eth0 interface of ISE must be statically configured with an IPv6 address if you want to add a Domain Name Server or an NTP Server with an IPv6 address.

**Table 1: Cisco ISE-PIC Setup Program Parameters**

| Prompt                                   | Description                                                                                                                                                          | Example                                                                                         |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Hostname</b>                          | Must not exceed 19 characters. Valid characters include alphanumeric (A–Z, a–z, 0–9), and the hyphen (-). The first character must be a letter.                      | isebeta1                                                                                        |
| <b>(eth0) Ethernet interface address</b> | Must be a valid IPv4 or Global IPv6 address for the Gigabit Ethernet 0 (eth0) interface.                                                                             | 10.12.13.14/<br>2001:420:54ff:4::458:121:119                                                    |
| <b>Netmask</b>                           | Must be a valid IPv4 or IPv6 netmask.                                                                                                                                | 255.255.255.0/<br>2001:420:54ff:4::458:121:119/122                                              |
| <b>Default gateway</b>                   | Must be a valid IPv4 or Global IPv6 address for the default gateway.                                                                                                 | 10.12.13.1 / 2001:420:54ff:4::458:1                                                             |
| <b>DNS domain name</b>                   | Cannot be an IP address. Valid characters include ASCII characters, any numerals, the hyphen (-), and the period (.).                                                | example.com                                                                                     |
| <b>Primary name server</b>               | Must be a valid IPv4 or Global IPv6 address for the primary name server.                                                                                             | 10.15.20.25 / 2001:420:54ff:4::458:118                                                          |
| <b>Add/Edit another name server</b>      | Must be a valid IPv4 or Global IPv6 address for the primary name server.                                                                                             | (Optional) Allows you to configure multiple name servers. To do so, enter <b>y</b> to continue. |
| <b>Primary NTP server</b>                | Must be a valid IPv4 or Global IPv6 address or hostname of a Network Time Protocol (NTP) server.<br><br><b>Note</b> Ensure that the primary NTP server is reachable. | <b>clock.nist.gov</b> / 10.15.20.25 /<br>2001:420:54ff:4::458:117                               |
| <b>Add/Edit another NTP server</b>       | Must be a valid NTP domain.                                                                                                                                          | (Optional) Allows you to configure multiple NTP servers. To do so, enter <b>y</b> to continue.  |

| Prompt                  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Example         |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>System Time Zone</b> | <p>Must be a valid time zone. For example, for Pacific Standard Time (PST), the System Time Zone is PST8PDT (or Coordinated Universal Time (UTC) minus 8 hours).</p> <p><b>Note</b> Ensure that the system time and time zone match with the CIMC or Hypervisor Host OS time and time zone. System performance might be affected if there is any mismatch between the time zones.</p> <p>You can run the <b>show timezones</b> command from the Cisco ISE-PIC CLI for a complete list of supported time zones.</p> | UTC (default)   |
| <b>Username</b>         | Identifies the administrative username used for CLI access to the Cisco ISE-PIC system. If you choose not to use the default (admin), you must create a new username. The username must be three to eight characters in length and comprise of valid alphanumeric characters (A–Z, a–z, or 0–9).                                                                                                                                                                                                                   | admin (default) |
| <b>Password</b>         | Identifies the administrative password that is used for CLI access to the Cisco ISE-PIC system. You must create this password in order to continue because there is no default password. The password must be a minimum of six characters in length and include at least one lowercase letter (a–z), one uppercase letter (A–Z), and one numeral (0–9).                                                                                                                                                            | MyIseYPass2     |

**Note** When you create a password for the administrator during installation or after installation in the CLI, do not use the \$ character in your password, unless it is the last character of the password. If it is the first or one of the subsequent characters, the password is accepted, but cannot be used to log in to the CLI.

If you inadvertently create such a password, reset your password by logging into the console and using the CLI command, or by getting an ISE CD or ISO file. Instructions for using an ISO file to reset the password are explained in the following document: <https://www.cisco.com/c/en/us/support/docs/security/identity-services-engine/200568-ISE-Password-Recovery-Mechanisms.html>

After the setup program is run, the system reboots automatically.

Now, you can log in to Cisco ISE-PIC using the username and password that was configured during the setup process.

## Verify the Installation Process

To verify that you have correctly completed the installation process:

- Step 1** Once the system automatically reboots after installation, enter the username you configured during the setup at the login prompt, and press **Enter**.
- Step 2** At password prompt, enter the password you configured during setup, and press **Enter**.
- Step 3** Verify that the application has been installed properly by entering the **show application** command, and press **Enter**.
- Step 4** Check the status of the ISE-PIC processes by entering the **show application status ise** command, and press **Enter**. The following message is displayed:

```
ise-server/admin# show application status ise
```

| ISE PROCESS NAME                    | STATE   | PROCESS ID   |
|-------------------------------------|---------|--------------|
| Database Listener                   | running | 5072         |
| Database Server                     | running | 90 PROCESSES |
| Application Server                  | running | 9117         |
| AD Connector                        | running | 14187        |
| Certificate Authority Service       | running | 9947         |
| M&T Session Database                | running | 6408         |
| M&T Log Collector                   | running | 10166        |
| M&T Log Processor                   | running | 10057        |
| pxGrid Infrastructure Service       | running | 22303        |
| pxGrid Publisher Subscriber Service | running | 22575        |
| pxGrid Connection Manager           | running | 22516        |
| pxGrid Controller                   | running | 22625        |
| PassiveID WMI Service               | running | 10498        |
| PassiveID Syslog Service            | running | 11483        |
| PassiveID API Service               | running | 12176        |
| PassiveID Agent Service             | running | 13046        |
| PassiveID Endpoint Service          | running | 13557        |
| PassiveID SPAN Service              | running | 13993        |

```
snsbu-c220-ORX/admin#
```

