



Upgrade Cisco ISE

- [Cisco ISE Upgrade Overview, on page 1](#)
- [Upgrade Path, on page 2](#)
- [Supported Operating System for Virtual Machines, on page 2](#)

Cisco ISE Upgrade Overview



Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This document describes how to upgrade your Cisco Identity Services Engine (ISE) software on Cisco ISE appliances and virtual machines to Release 2.3.



Note Cisco ISE, Release 2.3 and later offer a new and enhanced **Policy Sets** window that replaces all the existing network access policies and policy sets. When you upgrade from an earlier release to Release 2.3 or later, all the network access policy configurations (including authentication and authorization conditions, rules, policies, profiles, and exceptions) are migrated to the new **Policy Sets** window in the Cisco ISE GUI. For more information on the new policy model, see the "New Policy Model" section in [Cisco Identity Services Engine Administrator Guide, Release 2.3](#)

Upgrading a Cisco ISE deployment is a multistep process and must be performed in the order that is specified in this document. Use the time estimates provided in this document to plan for an upgrade with minimum downtime. For a deployment with multiple Policy Service Nodes (PSNs) that are part of a PSN group, there is no downtime. If there are endpoints that are authenticated through a PSN that is being upgraded, the request is processed by another PSN in the node group. The endpoint is reauthenticated and granted network access after the authentication is successful.



Note If you have a standalone deployment or a deployment with a single PSN, you might experience a downtime for all authentications when the PSN is being upgraded.

Different Types of Deployment

- Standalone Node—A single Cisco ISE node assuming the Administration, Policy Service, and Monitoring persona.
- Multi-Node Deployment—A distributed deployment with several ISE nodes. The procedure to upgrade a distributed deployment is discussed in the following listed references.

Upgrade Path

Two-step Upgrade

If you are currently using a version earlier than Cisco ISE, Release 2.0, you must first upgrade to one of the releases that are listed above and then upgrade to Release 2.3.

Supported Operating System for Virtual Machines

Cisco ISE runs on the Cisco Application Deployment Engine operating system (ADEOS), which is based on Red Hat Enterprise Linux (RHEL). For Cisco ISE, Release 2.3, ADEOS is based on RHEL 7.0.

If you are upgrading Cisco ISE nodes on VMware virtual machines, after upgrade is complete, ensure that you change the Guest Operating System to supported version of Red Hat Enterprise Linux (RHEL). To do this, you must power down the VM, change the Guest Operating System to the supported RHEL version, and power on the VM after the change.

In general, Cisco ISE upgrades with RHEL (Red Hat Enterprise Linux) OS upgrades (later version of Red Hat) take longer time per ISE instance. Additionally, if there are changes in the Oracle Database version in ISE, the new Oracle package is installed during OS upgrade. This may take more time to upgrade. To minimize the time for upgrades, you need to know if the underlying OS is upgraded during ISE upgrades.