

Transforming to a Cisco Intent-Based Network (IBNTRN) v1.0

What you'll learn in this course

The **Transforming to a Cisco Intent-Based Network (IBNTRN) v1.0** course teaches you how the functionality of Cisco® SD-Access fits into Cisco Digital Network Architecture (Cisco DNA™). Through a combination of lessons and hands-on learning, you will practice operating, managing, and integrating Cisco DNA Center, programmable network infrastructure, and Cisco SD-Access fundamentals. You will learn how Cisco delivers intent-based networking across the campus, branch, WAN, and extended enterprise and ensures that your network is operating as intended.

Course duration

- Instructor-led training: 5 days in the classroom
- Virtual instructor-led training: 5 days of web-based classes
- E-learning: Equivalent of 5 days of instruction with videos, practice, and challenges

How you'll benefit

This class will help you:

- Configure an open, software-driven approach that makes the network simpler, more agile, and responsive to business needs
- Leverage the functionality of Cisco DNA Center to streamline operations, reduce costs, detect and contain threats, and continuously align the network to business needs

Who should enroll

- Channel partners and resellers
- Network administrators
- Network engineers
- Sales engineers
- System engineers
- Technical architects
- Technical support personnel

Technology areas

- Networking

Course details

Objectives

After taking this course, you should be able to:

- Identify the Cisco Digital Network Architecture solution by describing the vision, strategy, general concepts, and components.
- Describe the Cisco DNA Center design application, hierarchical network design, and basic network settings, and describe the integration of Cisco DNA Center with Cisco Identity Services Engine (Cisco ISE) for Automation and Assurance.
- Describe the Cisco DNA Center Inventory and the available mechanisms for discovering and adding network devices, and explore the device compatibility with Cisco DNA Center and SD-Access.
- Describe the Cisco DNA Center automation features such as configuration templates, software image maintenance, and Plug and Play (PnP) device onboarding.
- Explore the Cisco DNA Center user interface, the available workflows for onboarding devices, and how to design and manage a network.
- Introduce Cisco SD-Access, describe the different node types in the fabric and the two-level segmentation provided by the solution, and take a deep dive into the control and data plane protocols used in Cisco SD-Access.
- Describe the Cisco DNA Center workflow for deploying Cisco SD-Access, defining all the prerequisite network settings and profiles, defining the required policies, creating fabric domains and sites, and provisioning fabric nodes.
- Create and manage fabric domains and sites, provision fabric devices, and onboard your endpoints in a single site or distributed fabric campus network.
- Describe the features available for automating and monitoring wireless networks with Cisco DNA Center, and describe the available deployment models with their benefits and limitations, such as wireless Over-the-Top (OTT) and SD-Access Wireless.
- Describe the Cisco SD-Access Extension for IoT solution, its architecture and components, and the benefits and limitations of the solution
- Describe the use cases and migration scenarios for migrating users from traditional campus to SD

Prerequisites

To fully benefit from this course, you should have the following knowledge:

- Understanding of network routing and switching principles equivalent to a CCNP[®] Enterprise level
- Experience with Cisco Unified Wireless Network technologies
- Experience with Cisco ISE, 802.1x, and Cisco TrustSec
- Understanding of segmentation technologies such as VLANs and Virtual Routing and Forwarding (VRF)
- Basic understanding of overlay technologies such as Virtual Extensible LAN (VXLAN)

- Basic understanding of Locator ID Separation Protocol (LISP).

Recommended Cisco courses that may help you meet these prerequisites:

- **Implementing and Operating Cisco Enterprise Network Core Technologies (ENCOR)**
- **Configuring Cisco ISE Essentials for SD-Access (ISESDA)**
- **Understanding Cisco Wireless Foundations (WLFNDU)**

Outline

- Introducing Cisco DNA Architecture
- Cisco DNA Center Design
- Cisco DNA Center Inventory
- Cisco DNA Center Automation
- Explore Cisco DNA Center and Automating Network Changes
- Introducing Cisco Software-Defined Access
- Deploying Cisco Software-Defined Access
- Deploy Wired Fabric Networks with Cisco DNA Center
- Cisco SD-Access for Wireless
- Cisco SD-Access Extension for IoT
- Deploy Brownfield and Fabric Wireless Network with Cisco DNA Center
- Migrating to Cisco SD-Access
- Cisco SD-Access Multicast
- Integrating Cisco DNA Center
- Deploy SD-Access Layer 2 Borders and Multicast and Integrate Cisco DNA Center with External Services or Applications
- Understanding Programmable Network Infrastructure
- Operating and Managing Cisco DNA Infrastructure
- Test Drive Cisco DNA Center APIs

Lab Exercises

- Explore Cisco DNA Center and Automate Network Changes
- Deploy Wired Fabric Networks with Cisco DNA Center
- Deploy Brownfield and Fabric Wireless Network with Cisco DNA Center
- Deploy SD-Access Layer 2 Borders and Multicast and Integrate Cisco DNA Center with External Services or Applications

Course content is dynamic and subject to change without notice.