



# IBNTRN

## Transforming to a Cisco Intent-Based Network

Duration: 5 Days

### Course Overview:

This 5-day course, Transforming to a Cisco Intent-Based Network (IBNTRN), 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.

### Prerequisites:

The knowledge and skills that the learner should have before attending this course are as follows:

- 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).

## Who Should Attend:

The primary audience for this course is as follows:

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

## Course Objectives:

Upon completing this course, the learner will be able to meet these overall objectives:

- 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



## Course 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 Outline:

- Labs are designed to assure learners a whole practical experience, through the following practical activities:
- 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