

Designing and Implementing Enterprise Network Assurance (ENNA) v1.0

Course Description

The **Designing and Implementing Enterprise Network Assurance** training is designed to enrich and expand your knowledge and skills in the realm of enterprise network assurance and management. This training is structured into four different tracks, collectively encompassing a broad spectrum of network assurance and monitoring aspects. As a participant, you will first overview different Cisco assurance products, followed by two tracks focused on Cisco ThousandEyes solution, and one dedicated to Meraki Insight. You will acquire the skills not just to utilize these solutions effectively, but also to deploy, configure, and manage them in your network environments. This includes learning about the initial setup, fine-tuning for optimal performance, and conducting day-to-day (Day 2) operations that ensure continuous, seamless network assurance.

This training prepares you for the 300-445 Designing and Implementing Enterprise Network Assurance exam. If passed, you earn the Enterprise Network Assurance Specialist certification and satisfy the concentration exam requirement for the Cisco Certified Networking Professional (CCNP) Enterprise certification. This training also earns you 32 Continuing Education (CE) credits toward recertification.

How You'll Benefit

This training will help you:

- Position different assurance products from Cisco portfolio
- Install, configure, and manage Cisco ThousandEyes solution
- Utilize Cisco ThousandEyes to perform network troubleshooting
- Configure and leverage Meraki Insight and available dashboard tools to manage network assurance in Meraki environments

Who Should Enroll

- Network Administrators
- System Engineers
- Network Analysts
- NOC Operators

- IT Professionals

What to Expect in the Exam

300-445 ENNA: Designing and Implementing Enterprise Network Assurance is a 90-minute exam associated with the Enterprise Network Assurance Specialist certification and satisfies the concentration exam requirement for the CCNP Enterprise certification.

The multiple-choice format tests your knowledge of network assurance design and implementation, including:

- Platforms and architecture
- Data collection and implementation
- Data analysis
- Insights and alerts

Course Objectives

- Examine Cisco ThousandEyes solution and its high-level use cases
- Learn to effectively use Cisco Catalyst Center Assurance for at-a-glance health monitoring, metrics calculation, and data analysis, covering overall network, device, client, service, and application health
- Gain valuable insights for troubleshooting and issue resolution, ensuring a reliable user experience in your network environment
- Gain an introductory understanding of Cisco AppDynamics, Cisco Catalyst Software-Defined Wide Area Network (SD-WAN) Assurance, and Cisco ThousandEyes

Course Prerequisites

The knowledge and skills you are expected to have before attending this training are:

- Basic understanding of network fundamentals
- Basic understanding of Internet Control Message Protocol (ICMP), User Datagram Protocol (UDP), Transmission Control Protocol (TCP), Hypertext Transfer Protocol Secure (HTTPS), Secure Sockets Layer (SSL), and Domain Name System (DNS) protocol
- Basic familiarity with Cisco Catalyst SD-WAN
- Basic familiarity with Cisco Catalyst Center

The knowledge you are recommended to have before attending this training is:

- Basic familiarity with Cisco Meraki

These skills can be found in the following Cisco Learning Offerings:

- Implementing and Administering Cisco Solutions- CCNA
- Implementing and Operating Cisco Enterprise Network Core Technologies-ENCOR

Course Outline

1. Enterprise Network Assurance Overview
2. Introduction to Cisco Catalyst Center Assurance
3. Introduction to Cisco AppDynamics
4. Introduction to Cisco Catalyst SD-WAN Assurance
5. Introduction to Cisco ThousandEyes
6. Enterprise Agents Deployment
7. BGP, Network, DNS, and Voice Tests Configuration
8. Web Tests Configuration
9. Endpoint Agent
10. System Administration
11. Network Troubleshooting with Cisco ThousandEyes
12. Internet Insights
13. Alerts and Dashboards Configuration
14. Monitoring Solutions
15. Cisco Meraki Network Assurance
16. Cisco Meraki Insights

Lab Outline

1. Explore Cisco Catalyst Assurance
2. Schedule a Test
3. Deploy Enterprise Agent
4. Configure Network, DNS, and Voice Tests
5. Configure Web Tests
6. Deploy and Configure an Endpoint Agent
7. Configure Account Administration
8. Examine Internet Insights
9. Configure Alerts
10. Build a Dashboard
11. Enable Alerts and Configure Monitoring and Reporting
12. Examine Cisco Meraki Insights