

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

**Course Duration: 32 Hours**

**Course Code: EENA v1.1**

## 1. Course Overview

The **Designing and Implementing Enterprise Network Assurance (ENNA) v1.0** course provides IT professionals with the skills to design, deploy, and implement enterprise-level network assurance solutions. This course focuses on network assurance principles, monitoring, analytics, and troubleshooting using advanced tools and techniques. Participants will gain practical experience in ensuring network performance, reliability, and security, enabling organizations to proactively address issues and optimize their IT infrastructure.

## 2. What You'll Learn?

By the end of this course, you will be able to:

- Understand the core concepts of network assurance and its role in enterprise networks.
- Design scalable and resilient enterprise network assurance architectures.
- Implement proactive monitoring and analytics using network assurance tools.
- Identify, analyze, and troubleshoot network performance and security issues.
- Apply automation and programmability for effective network assurance.

- Integrate assurance solutions with enterprise IT operations and security frameworks.

### 3. Target Audience

This course is ideal for:

- Network Engineers and Administrators
- Network Designers and Architects
- IT Operations Professionals
- System Engineers and Consultants
- Professionals preparing for advanced Cisco certifications
- Anyone responsible for monitoring, maintaining, or optimizing enterprise networks

### 4. Pre-Requisites

To get the most out of this course, learners should have:

- Understanding of enterprise networking concepts (routing, switching, protocols).
- Basic knowledge of network security and monitoring.
- Familiarity with Cisco networking solutions and tools.
- Experience with command-line interface (CLI) and basic network troubleshooting.

### 5. Course Content

#### **Module 1: Introduction to Network Assurance**

- Overview of enterprise network assurance

- Importance of proactive monitoring and visibility
- Cisco Digital Network Architecture (DNA) assurance capabilities

## **Module 2: Designing Enterprise Network Assurance**

- Network assurance design principles
- High availability and scalability considerations
- Integrating assurance in enterprise network designs

## **Module 3: Implementing Network Assurance Solutions**

- Deploying Cisco DNA Center Assurance
- Configuring telemetry and monitoring tools
- Implementing network analytics and visualization

## **Module 4: Troubleshooting with Network Assurance**

- Proactive issue detection and resolution
- Troubleshooting common performance issues
- Using AI/ML in network assurance

## **Module 5: Automation and Programmability in Assurance**

- APIs and programmability for network assurance
- Automating monitoring and reporting tasks
- Integration with ITSM tools

## **Module 6: Securing Enterprise Network Assurance**

- Security monitoring and policy validation
- Integrating assurance with cybersecurity frameworks
- Case studies and best practices

## **Module 7: Advanced Use Cases and Case Studies**

- Real-world network assurance deployments
- Performance optimization strategies

- Future trends in enterprise network assurance

