

Cisco CCNP Designing and Implementing Enterprise Network Assurance with ThousandEyes (300-445 ENNA)

This intermediate 300-445 ENNA training prepares network engineers to monitor, analyze, troubleshoot, optimize and secure enterprise networks using Cisco tools, ensuring reliable network performance.

[CBT Nuggets course material](#) →

WEEK 1

Explore the ThousandEyes Platform

Network Assurance and Visibility
Introducing ThousandEyes
ThousandEyes Demo
Accessing ThousandEyes

Describe ThousandEyes Platform Elements

Cloud and Enterprise Agents
Endpoint Agents
Tests
Bringing it Together

Describe ThousandEyes Platform Architecture

Alerts and Events
Labels
Active and Passive Monitoring
Other Cisco Solutions
ThousandEyes Big Picture Challenge

Deploy ThousandEyes Endpoint Agents

Endpoint Agents
Endpoint Agent Components

WEEK 2

Endpoint Agent Data Collection
Deploy Endpoint Agents
Endpoint Agent Challenge

Perform Endpoint Agent Tests

Domain Monitoring
Endpoint Scheduled Tests
Endpoint Dynamic Tests
Endpoint Testing
Endpoint Test Challenge

Explain ThousandEyes Cloud and Enterprise Agents

Cloud Agents
Cloud Agent Demo
Enterprise Agents
Cisco Device Support for Enterprise Agents
Agent Quiz Challenge

Deploy ThousandEyes Enterprise Agents

Demo Setup and SSD Install
Catalyst 9K Initial Config
IOS-XE App Hosting Architecture
ThousandEyes Agent Installation
Configuration Challenge

Manage ThousandEyes Enterprise Agents

Changing Agent Configuration

WEEK 3

Troubleshooting the Agent
Enterprise Agent Management
Other Devices
Configuration Challenge

Configure ThousandEyes Internet Insights

Internet Insights
Packages and Providers
Initial Configuration
Dashboards and Affected Tests
Configuration Challenge

Review ThousandEyes Platform and Agents

Intro
ThousandEyes Platform Quiz
ThousandEyes Agent Quiz
IOS-XE Agent Deployment Quiz

Explain ThousandEyes Alerts

Alert Rules
Alert Configuration and Test
Integrations
Challenge

Deploy ThousandEyes Alert Conditions

Alert Rule Conditions

WEEK 4

Setting Thresholds
POSIX Regular Expressions
Alert Rule Challenge

Trigger ThousandEyes Alerts and Events

Agent Detection
Agent Activation

Event Detection
Agent Detection Challenge

Manage ThousandEyes Alerts

Configure an Alert Rule with Adaptive Alert Detection and a threshold of Medium. Create this as a Network alert rule that checks for Latency and Jitter.
BGP, Device, and WAN Alerts
Adaptive Alert Detection
Alert Suppression
Clearing Alerts
Alert Challenge

Deploy Dashboards on ThousandEyes

Dashboards and Widgets
Using Dashboards
Time Intervals

WEEK 5

Create Dashboards
Dashboard Creation Challenge

Utilize ThousandEyes Widgets

Tests and Alerts
Data Breakdown
Data Tables
Data Cards
Time Series
Maps
Widget Challenge

Perform Web Tests on ThousandEyes

Testing Layers (Review)
HTTP Server Tests
Page Load Tests
Transaction Tests
FTP Server and API Tests
Configuration Challenge

Interpret ThousandEyes Web Test Results

HTTP Page Load Breakdown
Page Load Metrics
Interpreting Waterfall Charts
Web Test Results

WEEK 6

Results Challenge

Perform Network Tests on ThousandEyes

Network Tests
Agent-to-Server Test Options
Agent-to-Agent Test Options
Configure Network Tests
Interpreting Path Visualization
Network Test Challenge

Perform Routing Tests on ThousandEyes

BGP and ASNs
BGP Testing in ThousandEyes
Inside-Out Monitoring
Configure Routing Tests

Interpreting BGP Results

Routing Test Challenge

Perform DNS and Voice Tests on ThousandEyes

DNS Operation

Configure DNS Tests

RTP and SIP

Configure Voice Tests

DNS and Voice Test Challenge

Manage ThousandEyes Users and Accounts

Organizations and Account Groups

WEEK 7

Users and Roles

User Demo

Organization Management

Lab Challenge

Perform ThousandEyes Administration

Sharing Data with Snapshots

Managing Snapshots

Units and Licensing

Usage and Billing Configuration

Unit Calculator

Lab Challenge

ENNA Architecture Review

Review Quiz (1-5)

Review Quiz (6-10)

Review Quiz (11-15)

Review Quiz (16-20)

ENNA Configuration Review

Review Quiz (1-5)

Review Quiz (6-10)

WEEK 8

Review Quiz (11-15)

Review Quiz (16-20)

ENNA Challenge - Agents and Alerts

Intro

Lab Challenge 1 - Endpoint Agents

Lab Challenge 2 - IOS-XE Agent Configuration

Lab Challenge 3 - Alert Configuration

ENNA Challenge - Tests and Views

Lab Challenge 4 - Test Configuration

Lab Challenge 5 - Interpreting Results

Lab Challenge 6 - System Administration