

Implementing and Troubleshooting Networks using Cisco ThousandEyes

Durée: 180 Jours **Réf de cours: ENTEIT** **Version: 1.0** **Méthodes d'apprentissage: E-learning**

Résumé:

The **Implementing and Troubleshooting Networks Using Cisco ThousandEyes (ENTEIT)** course is designed to introduce you to Cisco® ThousandEyes. Through a combination of lectures and hands-on experience, you will learn to install and configure the Cisco ThousandEyes agents with different test types and perform root cause analysis when troubleshooting.

This course will help you:

- Describe and define Cisco ThousandEyes
- Integrate, implement, and deploy Cisco ThousandEyes solutions
- Configure Cisco ThousandEyes agents
- Perform root cause analysis when troubleshooting
- Customize dashboard and reports
- Monitor solutions
- Administer the system

Public visé:

Network Administrators, network engineers, network managers and system engineers involved in the installation, configuration and usage of the Cisco ThousandEyes solution.

Objectifs pédagogiques:

- **After completing this course, you should be able to:**
- Describe the Cisco ThousandEyes solution and its high-level use cases
- Identify different types of ThousandEyes agents and supported tests
- Describe different Enterprise Agent deployment options, requirements, and procedures for agent deployment
- Describe different ThousandEyes test types
- Compare Thousand Eyes web layer tests
- Describe the role of an Endpoint Agent
- Deploy and Configure an Endpoint Agent
- Utilize ThousandEyes when performing the root cause analysis
- Discuss the challenges that ThousandEyes Internet Insights can address
- Describe the role and configuration of default and custom alerts
- Distinguish between usability of dashboards and reports
- Utilize ThousandEyes to monitor solutions end-to-end
- Describe how to perform system administration

Pré-requis:

Attendees should meet the following pre-requisites:

- Basic understanding of network fundamentals
- Basic understanding of Internet Control Message Protocol (ICMP), User Datagram Protocol (UDP), Transmission Control Protocol (TCP), HTTP, SSL, and DNS protocol
- CCNA - Mettre en oeuvre et administrer des solutions réseaux Cisco

Test et certification

Recommended as preparation for the following exams:

- There are no exams currently aligned to this course

Contenu:

Introducing Cisco ThousandEyes

- Modern Network Challenges
- Cisco ThousandEyes Overview
- See Inside-Out Use Case
- See Outside-In Use Case
- WAN Experience Use Case
- How Cisco ThousandEyes Does It
- Cisco ThousandEyes Visibility
- Modern IT Visibility Architecture

Introducing Cisco ThousandEyes Agents and Tests

- Cisco ThousandEyes Cloud Agents
- Cisco ThousandEyes Enterprise Agents
- Cisco ThousandEyes Endpoint Agents
- Cisco ThousandEyes Tests
- Agent Test Capabilities
- Agent Locations

Deploying Enterprise Agents

- Enterprise Agent Operation
- Enterprise Agent Firewall Requirements
- Enterprise Agent Network Utilization
- Enterprise Agent Deployment Options
- Enterprise Agent on Cisco IOS XE Platforms
- Virtual Appliance Setup
- Custom Virtual Appliance
- Embedded Enterprise Agent CLI Deployment
- Embedded Enterprise Agent Deployment with Cisco DNA Center
- Enterprise Agent Deployment in Proxy Environments
- Agent Labels
- Enterprise Agent Utilization
- Enterprise Agent Clusters

Describing ThousandEyes Routing, Network, DNS and Voice Tests

- Routing BGP Test
- BGP Test - Configuration
- Network Tests
- Agent-to-Server Network Test - Data Collection
- Agent-to-Agent Network Test - Data Collection
- Network Test - Path Visualization View
- Agent-to-Server Network Test- Configuration
- Agent-to-Agent Network Test - Configuration
- DNS Tests
- DNS Test - Metrics
- DNS Test - Configuration
- Voice Tests
- Voice Tests - Metrics
- Voice Tests - Configuration

Describing Cisco ThousandEyes Web Tests

- Web Layer Tests

Introducing Endpoint Agents

- Endpoint Agent Overview
- Browser Session Monitoring - Monitored Domains and Monitored Networks
- Endpoint Agent Use Cases - Last Mile Monitoring
- Endpoint Agent Use Cases - Performance Troubleshooting
- Endpoint Agent Use Cases - Application Experience Monitoring
- Endpoint Agent - Collected Data

Deploying Endpoint Agents

- Endpoint Agent System Requirements
- Endpoint Agent Installation
- Endpoint Agent Operation
- Endpoint Agent Configuration
- Endpoint Agent Proxy Configuration
- Endpoint Agent Views

Troubleshooting with Cisco ThousandEyes

- Practice Activity - Scenario A
- Troubleshooting Analysis - Scenario A
- Practice Activity - Scenario B
- Troubleshooting Analysis - Scenario B
- Practice Activity - Scenario C
- Troubleshooting Analysis - Scenario C
- Share Links and Saved Events
- Multi-Service Views

Using Internet Insights

- Challenges with Internet Monitoring
- Internet Insights Packages
- Internet Insights Dashboard
- Internet Insights View

Configuring Alerts

- Alerts Overview
- Notification Triggers
- Alert Rule Configuration
- Dynamic Baselines
- Alert Views
- Alert Suppression Window
- Enterprise Agent Notifications

Customizing Dashboards and Reports

- Data Retention
- Dashboards and Reports Comparison
- Report Snapshots
- Baseline Metrics with Reports
- Data Aggregation
- Widget Configuration
- Dashboard Examples

Monitoring Solutions

- Microsoft 365 Solution Monitoring
- Microsoft 365 Test Targets
- Microsoft 365 Service Level Metrics
- Cisco Webex Monitoring
- Cisco Webex Web Zone Testing
- Cisco Webex CB and MMP Testing
- Cisco Webex Test Targets
- Cisco Webex Service Level Metrics
- SD-WAN Monitoring
- SD-WAN Overlay Monitoring
- SD-WAN Underlay Monitoring
- SD-WAN Service-Level Metrics

Administrating the System

- Role Based Access Control
- Account Groups
- User Account Settings
- Organization Settings
- Time Zone Settings
- Activity Log
- Cisco ThousandEyes Billing
- Unit Calculator

Labs

- Schedule a Test
- Deploy Enterprise Agent
- Configure Network, DNS, and Voice Tests
- Configure Web Tests
- Deploy and Configure an Endpoint Agent
- Examine Internet Insights
- Configure Alerts
- Build a Dashboard and Report
- Account Administration

- HTTP Server Test - Metrics
 - HTTP Server Test - Configuration
 - Page Load Test - Metrics
 - Page Load Test - Configuration
 - Transaction Test - Metrics
 - Transaction Test - Configuration
 - Transaction Test - ThousandEyes Recorder
 - Web Layer Tests - Proxy Metrics
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