



# Dynatrace Training Plan

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## Course Overview

This 5-day hands-on training program covers end-to-end Dynatrace capabilities, including architecture, APM, RUM, AI-driven insights, cloud monitoring, and security integrations. Participants will gain proficiency in deploying, configuring, and leveraging Dynatrace for full-stack observability and performance optimization.

## Course Objectives

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

- Deploy and configure Dynatrace components (OneAgent, ActiveGate, Cluster).
- Monitor infrastructure, applications, databases, and cloud environments.
- Utilize DAVIS AI for automated problem detection and root cause analysis.
- Create dashboards, custom alerts, and reports for actionable insights.
- Integrate Dynatrace with third-party tools and APIs.
- Apply best practices for governance, security, and scaling.

## Participant Prerequisites

- Basic knowledge of IT infrastructure, networking, and cloud platforms.
- Familiarity with application monitoring concepts.
- Experience with Linux/Windows environments is beneficial.

## Target Audience

- IT Operations and DevOps Engineers
- Application and Infrastructure Architects
- SREs and Performance Engineers
- Cloud and Security Professionals

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## Day-wise Course Outline

### Day 1

#### Introduction, Architecture & Core Components

##### 1. Dynatrace Overview & Value Proposition

- What is Dynatrace?
- Capabilities overview: APM, Infra, RUM, AI, etc.
- Monitoring modern apps: microservices, containers, cloud, etc.

##### 2. Dynatrace Architecture

- Key architectural components (OneAgent, ActiveGate, Cluster)
- Communication flow, data processing

- Deployment Models: SaaS vs. Managed
- High-Level Cluster Architecture
- Cluster sizing, availability, and scaling
- 3. Dynatrace Deployment on Azure**
  - Azure-specific considerations
  - Integration with Azure Monitor, AKS
  - Cloud-native monitoring practices
- 4. Cluster Management Console**
  - Overview of CMC
  - Node management, licensing
  - Cluster health & updates
- 5. ActiveGates**
  - What is an ActiveGate?
  - Use cases: DMZ, cloud integrations, routing
  - Deployment options and scenarios
- 6. OneAgents**
  - Deep dive into OneAgent capabilities
  - Supported technologies
  - Installation, auto-updates, and configuration
- 7. User Management - Managed**
  - Access management via CMC
  - Role-Based Access Control (RBAC)
  - Federation/SSO integration options
- 8. Organizing Your Environment**
  - Entity hierarchy: Hosts, Services, Processes
  - Tagging: auto-tag rules, manual tags
  - Management Zones: scoping access and views

## Day 2

### Dynatrace UI, Smartscape, & Real User Monitoring (RUM)

- 9. Dynatrace UI Fundamentals**
  - Navigating the UI
  - Global search, menus, entity drilldowns
  - Workflow best practices
- 10. Smartscape**
  - Real-time topology mapping
  - Horizontal (tier) and vertical (dependency) views
  - Visualizing host-process-service relationships
- 11. Traversing Your Stack**
  - Drilldowns from user to code to infrastructure
  - Linking telemetry across layers
- 12. Application Performance Monitoring (APM) – Java & .NET**
  - Code-level visibility
  - Method hotspots, CPU profiling
  - Web request tracing & service flow
  - Messaging Queue Monitoring (JMX/Java)

### **13. Real User Monitoring (RUM) Overview**

- JavaScript injection model
- RUM vs. Synthetic
- Benefits and visibility scope

### **14. RUM – Web Applications**

- Page performance (Visually complete, TTI)
- JavaScript errors, 3rd-party content
- Geo/user/device breakdowns

### **15. RUM – User Sessions**

- Session & action analysis
- Behavior metrics and conversion tracking
- Funnel and crash analytics

### **16. RUM – Mobile Applications**

- Mobile agent SDK integration (iOS, Android, tvOS)
- Crash analysis, gestures, custom actions

## **Day 3**

### **AI, Database, Synthetic, Cloud & Dashboards**

#### **17. Database Monitoring**

- DB visibility via OneAgent
- Top queries, slow transactions
- DB service overview and tuning

#### **18. Synthetic Monitoring**

- HTTP and browser monitors
- Setting up tests, locations
- Use cases (availability, SLA)

#### **19. URL Monitoring (via Synthetic)**

- Specific endpoints/transaction checks
- Validations, error reporting

#### **20. DAVIS AI – Foundation**

- AI engine overview
- Problem cards, event correlation
- Root cause analysis automation

#### **21. DAVIS AI – Advanced Use**

- Davis Assistant (chat/voice)
- Custom event rules & thresholds
- Anomaly detection tuning

#### **22. Dashboards**

- Dashboard creation and tiles
- Custom charts and filters
- Dashboards for different stakeholders (Ops, Dev, Mgmt)

#### **23. Cloud Monitoring**

- Azure integrations
- Cloud service visibility
- Tag-based discovery and monitoring

## **24. Licensing & Consumption**

- Dynatrace licensing models (DPS, Host Units, DEM units)
- Licensing strategies and cost control

## **25. Deployment Status Monitoring**

- Tracking deployment of OneAgents, ActiveGates
- Troubleshooting connectivity and deployment failures

## **Day 4**

### **Advanced Monitoring & Integration**

## **26. Network Monitoring**

- Flow analysis and traffic inspection
- Network dependencies and latency insights

## **27. Log Monitoring Using Dynatrace**

- Log ingestion methods (OneAgent, external sources)
- Log processing and analytics
- Log Management Best Practices

## **28. Log Analytics**

- Searching logs, extracting fields
- Building log-based metrics and alerts

## **29. Diagnostic Tools**

- Memory dumps, CPU sampling
- Thread and heap analysis
- Problem investigation with PurePath

## **30. Reports & Alerts**

- Custom alerts and problem thresholds
- Alerting profiles and routing
- Scheduled and ad hoc reports

## **31. Autosys Integration & Monitoring**

- Use cases for Autosys monitoring
- Job-level visibility and correlation

## **32. Automation with APIs**

- Configuration API overview
- Automating tagging, dashboarding, alerting

## **33. Extending Dynatrace**

- Custom extensions (SDK)
- Integration with third-party systems (e.g., ServiceNow, Splunk)

## **Day 5**

### **Settings, AppSec, SLOs & Best Practices**

## **34. Monitoring Settings**

- General monitoring configurations
- Network zones, data retention

## **35. Web & Mobile Settings**

- Privacy controls

- Masking, user tracking policies

#### **36. Process Group Settings**

- Optimizing PG detection rules
- PG naming and custom metadata

#### **37. Server-side Services Settings**

- Custom service detection
- Additional service monitoring

#### **38. DAVIS AI Assistant Deep Dive**

- Using Davis Assistant in workflows
- Integrating with chat tools (Slack, MS Teams)

#### **39. AppSec (Application Security Monitoring)**

- Vulnerability detection in runtime
- Security overview dashboard
- DevSecOps use cases

#### **40. SLOs & SLIs**

- Defining service-level objectives and indicators
- Setting thresholds and tracking compliance
- Shift-left strategies for performance

#### **41. Best Practices & Wrap-up**

- Governance, monitoring strategy
- Scaling Dynatrace in large environments
- Training resources and certifications