



# 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 s Core Components

##### 1. Dynatrace Overview s 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 C 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, s Real User Monitoring (RUM)

#### G. 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 s .NET**
  - Code-level visibility
  - Method hotspots, CPU profiling
  - Web request tracing C 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 C 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 s 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 C 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
- Agent Version upgrade
- Reporting
- Filtering and Querying
- Integrating API with Scripting Language
- Setting Schema

## 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 s 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)

### **3G. AppSec (Application Security Monitoring)**

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

### **40. SLOs s SLIs**

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

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

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