



Dynatrace Training Plan

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

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 s 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 s 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 s Alerts

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

31. Autosys Integration s 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 s 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