

Red Hat Agile Integration Technical Overview

Course Duration: 4 Hours

Course code DO040

1. Course Overview

The Red Hat Agile Integration Technical Overview course provides an introduction to designing, developing, and managing integration solutions using Red Hat Fuse, Red Hat 3scale API Management, and Red Hat AMQ. This course focuses on modern, agile integration practices that allow enterprises to connect applications, data, and devices across hybrid cloud environments. Participants will gain a foundational understanding of APIs, messaging, and integration patterns to enable faster, more scalable, and more secure enterprise integrations.

2. What you'll learn?

This course aims to provide learners with a high-level understanding of agile integration concepts using Red Hat's open-source technologies. Participants will explore how containerized integration, distributed integration architectures, and API management enable faster and more flexible integration solutions. By the end of the course, learners will be able to explain the value of agile integration, describe core Red Hat integration components, and understand how to build modern, scalable, and resilient integration infrastructures.

3. Target Audience

- Integration architects and solution architects
- Enterprise application developers
- DevOps professionals
- IT operations engineers
- Middleware administrators

4. Pre-Requisites

Participants should have:

While there are no strict prerequisites, having a background in application development, middleware, or system administration is highly beneficial. Familiarity with container platforms such as Red Hat OpenShift and basic knowledge of enterprise integration patterns will help participants get the most out of this technical overview.

- Basic understanding of enterprise application development
- Familiarity with middleware technologies (recommended)
- Awareness of containerization concepts and Red Hat OpenShift (helpful but not mandatory)

5. Course content

Module 1: Introduction to Agile Integration

- What is agile integration?
- Benefits of an agile integration architecture
- Key challenges in modern enterprise integration

Module 2: Core Red Hat Integration Products

- Overview of Red Hat Fuse (application integration)
- Overview of Red Hat 3scale API Management (API gateway and monetization)
- Overview of Red Hat AMQ (messaging and event streaming)

Module 3: Integration Architecture and Patterns

- API-led connectivity approach
- Event-driven architecture (EDA)
- Microservices and service mesh in integration scenarios

Module 4: Red Hat Fuse

- Building integration solutions with Camel routes
- Connecting applications and services
- Deploying Fuse applications on OpenShift

Module 5: Red Hat 3scale API Management

- Designing, securing, and publishing APIs
- Applying usage policies and analytics
- API monetization and developer portal usage

Module 6: Red Hat AMQ

- Introduction to AMQ Streams and AMQ Broker
- Messaging patterns for asynchronous integration
- Event streaming and integration with Kafka

Module 7: Hybrid Cloud Integration

- Integrating on-premise and cloud workloads
- Secure connectivity between environments
- Scaling integration solutions across hybrid and multi-cloud setups

