Welcome To Anypoint Platform Architecture: Application Networks

LaTeX

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Contents

Chapter 1

Introduction

1.1 Integration architecture and Platform architecture

- Anypoint Platform Architecture: **Application Networks** and MuleSoft Certified **Platform Architect** - Level 1
  - Define and be responsible for an organization's Anypoint Platform strategy
  - Direct the emergence of an effective application network out of individual integration solutions following API-led connectivity across an organization
- Anypoint Platform Architecture: **Integration Solutions** and MuleSoft Certified **Integration Architect** - Level 1
  - Drive and be responsible for an organization's Anypoint Platform implementation and the technical quality, governance (ensuring compliance), and operationalization of the integration solutions.
  - Work with technical and non-technical stakeholders to translate functional and non-functional requirements into integration interfaces and implementations

1.2 Prerequisites for Anypoint Platform architecture

Experience with Anypoint Platform and its constituent components

- *Getting Started* with *Anypoint Platform*
- *Anypoint Platform Development*: Fundamentals
- *MuleSoft.U development Fundamentals*
- *API-Led connectivity Workshop* by MuleSoft Presales upon request

The *target audience* of this course are architects, especially Enterprise Architects and Solution Architects, new to Anypoint Platform, API-led connectivity and the application network approach, but experienced in other

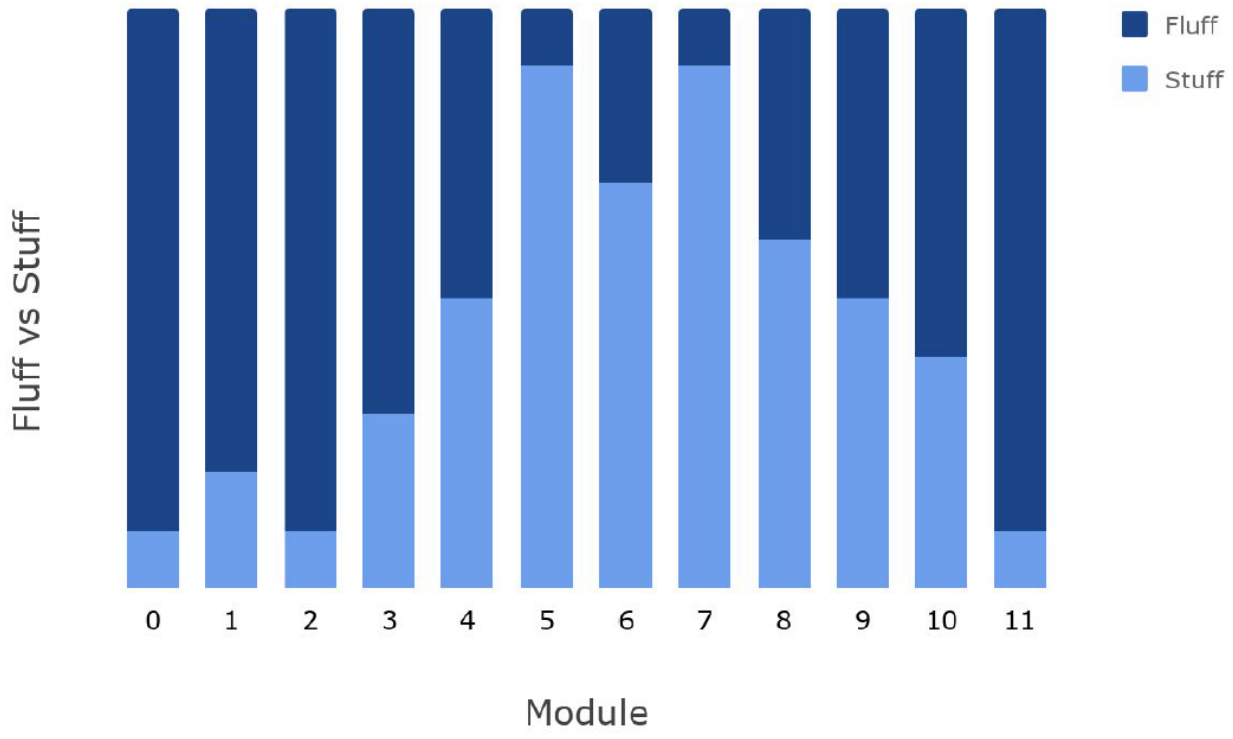
1.3 Goals

- **Direct** the emergece of an effective **application network** out of individual integration solutions following API-led connectivity, working **with all relevant stakeholders** on all levels of the organization

- **Create** credible **high-level architecture models** for integration solutions on Anypoint Platform such that functional and non-functional requirements are likely to be met and the principles of **API-led connectivity** and application networks are followed
- Predominantly about **cloud-native architectures** using the MuleSoft-hosted Anypoint Platform, i.e. **CloudHub**

1.4 Outline

1. Putting the Course in Context
2. Introducing MuleSoft, the Application Network Vision and Anypoint Platform
3. Establishing Organizational and Platform Foundations
4. Identifying, Reusing and Publishing APIs
5. Enforcing NFRs on the Level of API Invocations Using Anypoint API Manager
6. Designing Effective APIs
7. Architecture design and Deploying Effective API Implementations
8. Augmenting API-Led Connectivity with Elements From Event-Driven Architecture
9. Transiting Into Production
10. Monitoring and Analyzing the Behavior of the application Network



1.5 How the course will work

- Central topic: How to **architect and design application networks** using API-led connectivity and Anypoint Platform. (Partly **Solution Architecture**, partly **Enterprise Architecture**)
- No architecturally **insignificant** design and implementation discussion (Fairly detailed discussion on strategies for invoking APIs in a fault-tolerant way)
- RAML features are touched-on because they are important for the functioning of an application network

- Discussions on topics like scale of Enterprise Architecture, touching lightly on Business Architecture, and heavily on Application Architecture and Technology Architecture.
- Motivations and Enterprise Architecture Building from strategically important integration solutions and therefore elaborates on parts of their high-level Solution Architecture.
- It stays away from architecturally insignificant design and implementation discussions:
  - As a rule, these are all topics whose repercussions are confined to individual application components and are therefore not apparent from outside these application components.
  - When a decision affects the large-scale properties of the application network, however, it becomes architecturally significant. This is the reason why the course contains a fairly detailed discussion on strategies for invoking APIs in a fault-tolerant way
  - The topic of API specifications and the features offered by RAML in this space are touched upon in several places, because they are important for the functioning of an application network.

This course is primarily driven by a single *case study*, *Acme Insurance*, and two imminent strategically important change initiatives that need to be addressed by Acme Insurance. These change initiative provide the background and motivation for most discussions in this course.

As various aspects of the case study are addressed, the discussion naturally elaborates on the central topic of the course, i.e., *how to architect and design application networks using API-led connectivity and Anypoint Platform*.