Spring Cloud API Gateway
A g e n d a

- Overview
- Spring Cloud API Gateway Architecture
- Why Spring Cloud API Gateway?
- Our Architecture
- Key insights
- Questions and Answers
API Gateway Overview

- Single Entry point
- Decouples clients
- Simplifies management
- Security
- Monitoring
- Routing
- Resiliency

Diagram:
- Clients
- Spring Cloud Gateway
- Micro service1
- Micro service2
- Micro service3
- Micro service4
API Gateway Architecture

Components
- Route
- Predicates
- Filter Chain
API Gateway Decision Factors

- Strangling the Monolithic Design
- API-First Approach
- Microservice – Initiative
- On-prem Infra
- Cross cutting concerns
OES API Gateway Implementation

✓ Non-Blocking API
✓ Netty Webserver
✓ Open JDK 11 (IBM Semeru Runtimes)
✓ 15 Microservices
✓ Gateway Features:
  • Load balancer
  • Circuit Breaker
  • Timelimiter
  • Retry
  • Ratelimter
• Authentication and Authorization

API Gateway

HTTP://VWDASMICRO0*:39443/EXPUNGE/ARCHIVE

Case Archival Service
HTTP://VWDASMICRO0*:8787/APIG/ARCHIVALSERVICE/EXPUNGE/ARCHIVE

EVPS Fiscal Service
HTTP://VWDASMICRO0*:8787/APIG/DC40-FISCAL-SERVICE/CLAIMS/SEARCH

Eureka Server

HTTP://VWDASMICRO0*:39443

Port: 39443

Port: 39447

Client
Key Insights

• Authentication (at gateway) and authorization (at microservice)
• High Availability and scalability
• Health checks
• Backup and Disaster Recovery
• Performance Optimization
• Resilience
Q & A