

OpenShift / Keycloak SSO / Kong

Nachmittag Session



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Agenda

1. Authentication Basics
2. Keycloak SSO
3. Kong API Gateway
4. Advanced Topics

Authentication Basics

Authentication vs. Authorization

Authentication

Authentication is the process of ascertaining that somebody really is who he claims to be.

⇒ *login + password (who you are)*

Authorization

Authorization refers to rules that determine who is allowed to do what.

⇒ *permissions (what you are allowed to do)*

- Single-Sign-On (SSO)
- OAuth & OpenID Connect (OIDC)
- JSON Web Token (JWT)
- Access Token & Refresh Token

Keycloak SSO

- Open Source
- Single-Sign-On / Identity Management
- Java
- JBoss / Wildfly

- Realms
- Clients
- User
- User Federation / Identity Provider
- Authentication Flow

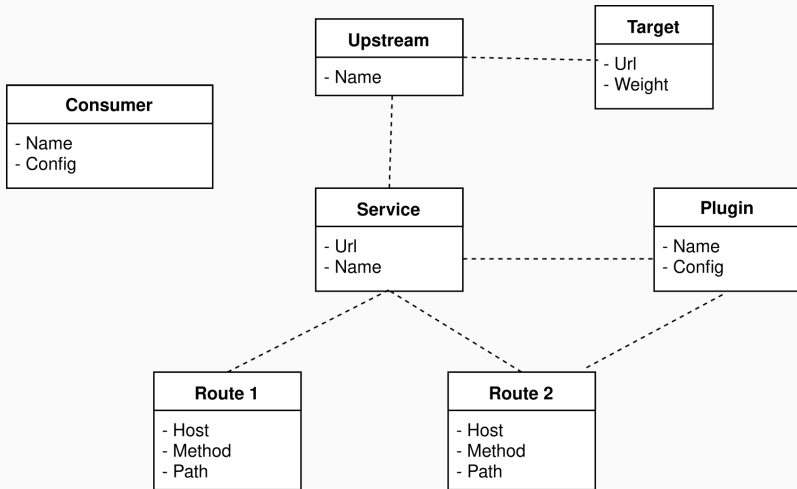
- Roles / Client Roles
- Groups
- Scopes / Client Scopes

Hands-On Keycloak

Kong API Gateway

- API Verwaltung
 - Analysiere & Modifiziere Requests
 - Plugins für erweiterte Funktionen
 - Open Source
- Nginx
 - Cassandra / PostgreSQL
 - Administration via REST

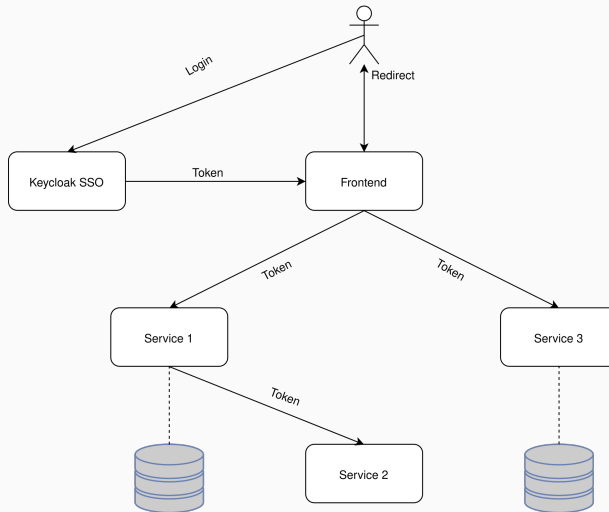
Terminologie



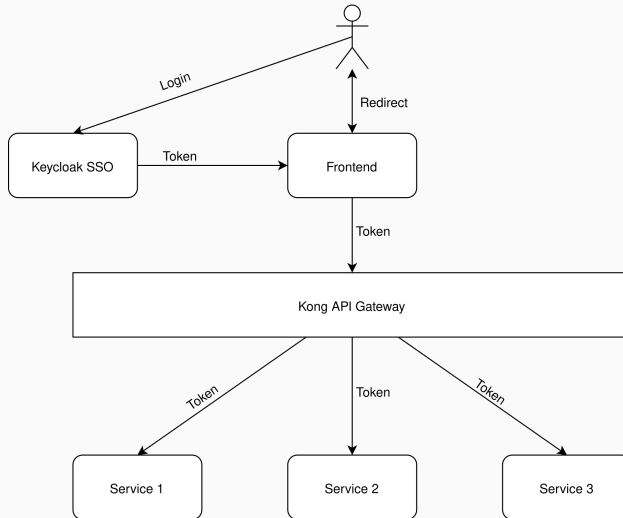
- DNS based (SRV, A, CNAME)
- Round Robin / Ring Buffer
- Weighted

Hands-On Kong

Microservice Architektur



Microservice Architektur (mit Kong)



Integrated Prototype

Advanced Topics

- Databases
- Keycloak
- Kong

- Secure Kong Admin API
- Statelessness (PHP Session!!!)
- API Versioning
- Request Logging