

Red Hat
Summit

Connect

Modernizziamo le applicazioni

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Modernizing Applications

Are all modernization projects successful ?

79%

**App
Modernization
Efforts Fail**

\$1.5M

**Average Cost of a
Modernization
Project**

16mo

**Average Time of a
Modernization
Project**

Modernizing Applications

Why they might fail ?

3

**Failure to
accurately set
expectations**

2

**Inadequate
skills or training
and complexity**

1

**Lack of
intelligent tools**

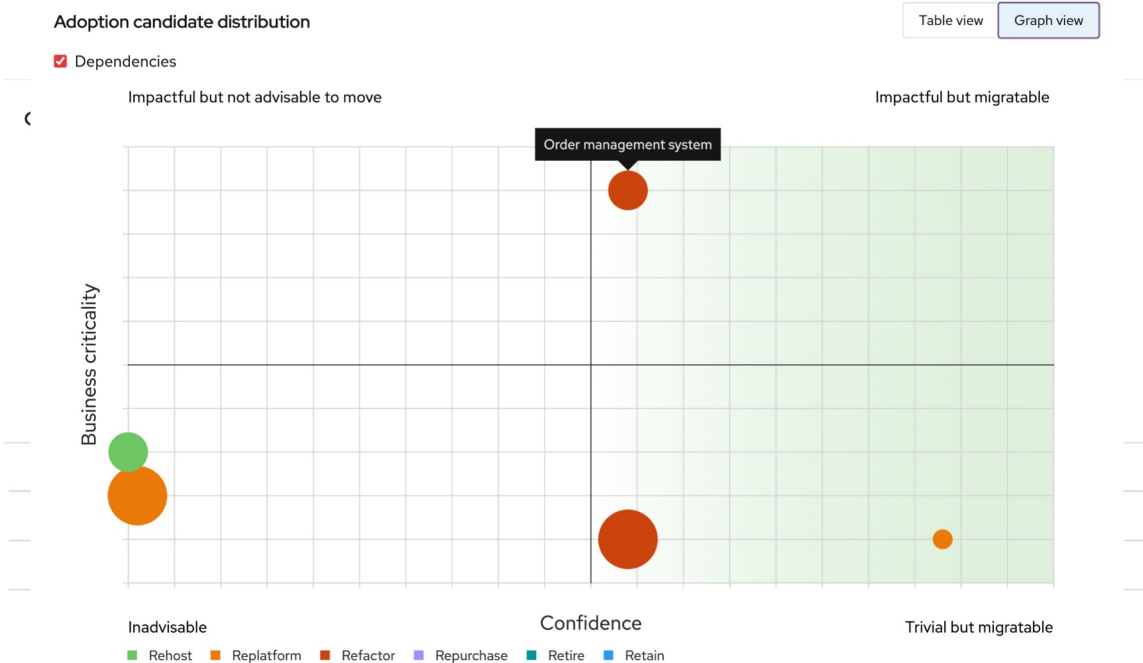
Konveyor and Red Hat Migration Toolkits

Red Hat contributions and products





Assessing the Tree of Taste Application Inventory

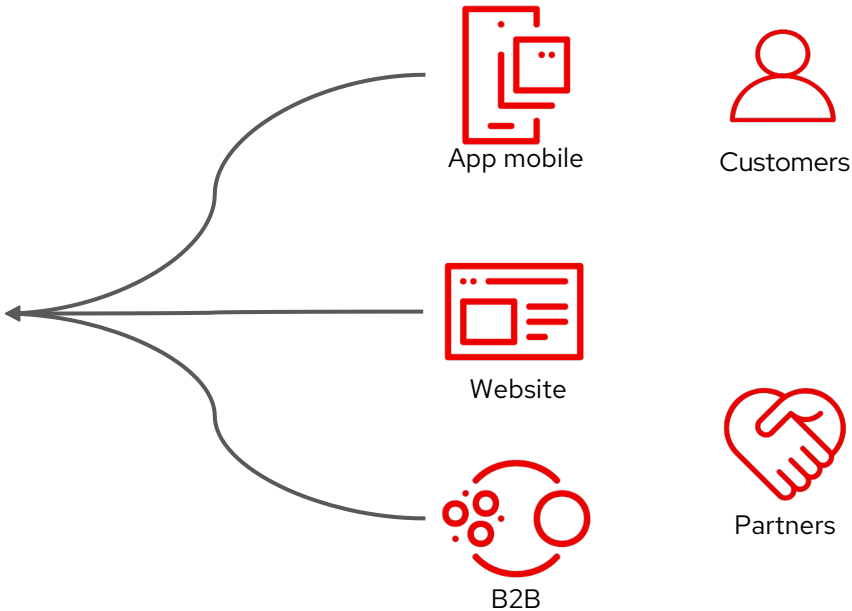
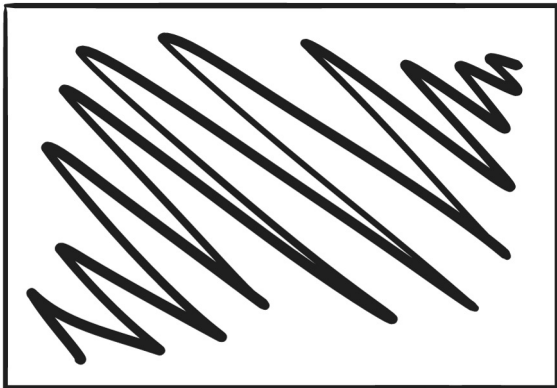




Tree of Taste Business Expectations

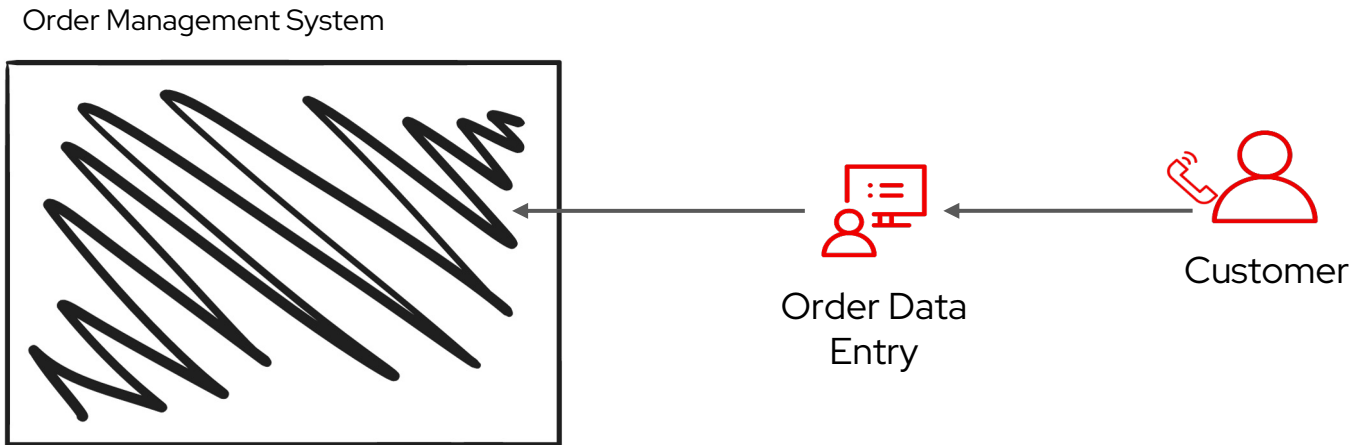
I want it all

Order Management System



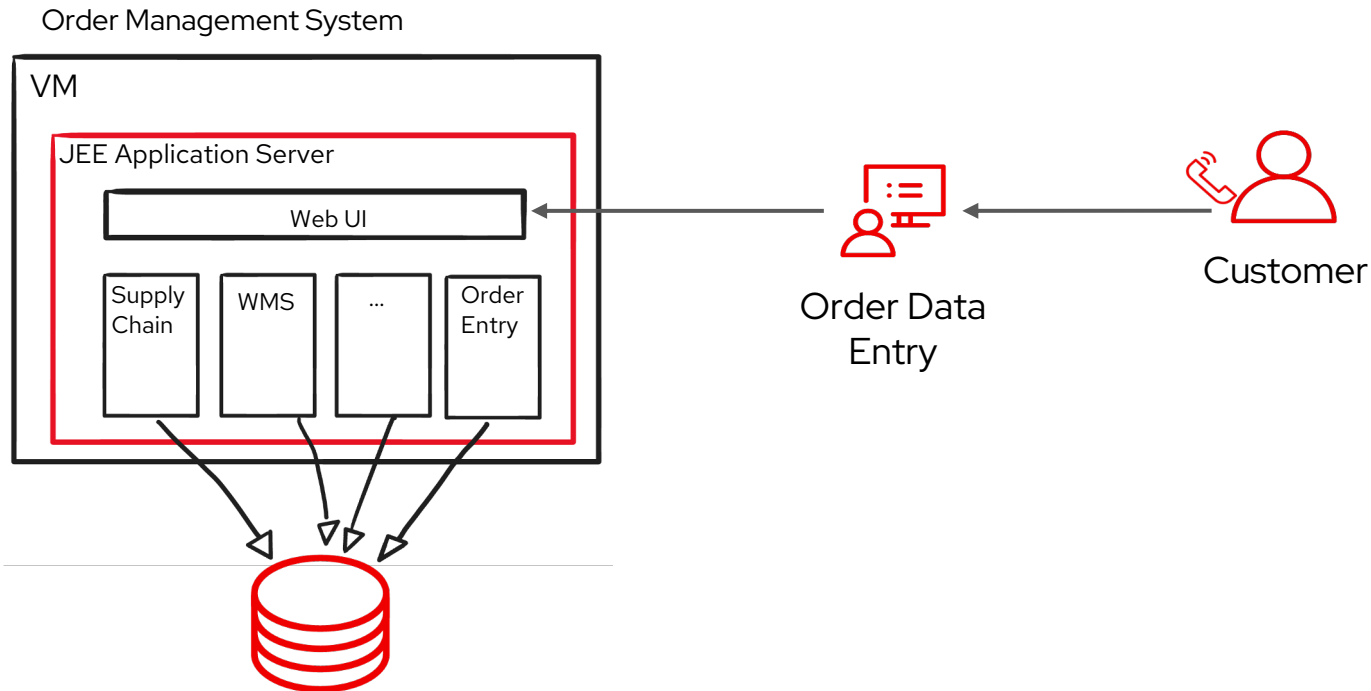
Modernizing a legacy application

What's under the hood ?



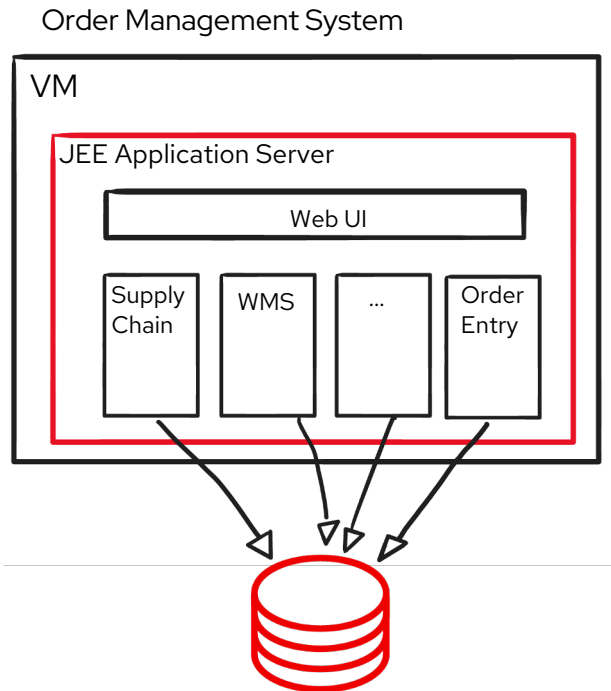
Modernizing a legacy application

Internals



Order Management System

What's preventing the innovation ?

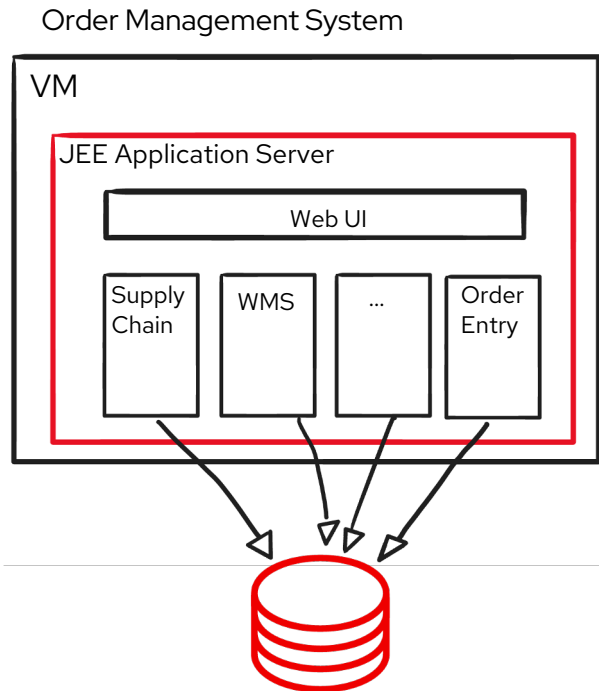


Virtual Machines

Monolithic legacy applications and Monolithic RDBMS

Order Management System

What's preventing the innovation ?

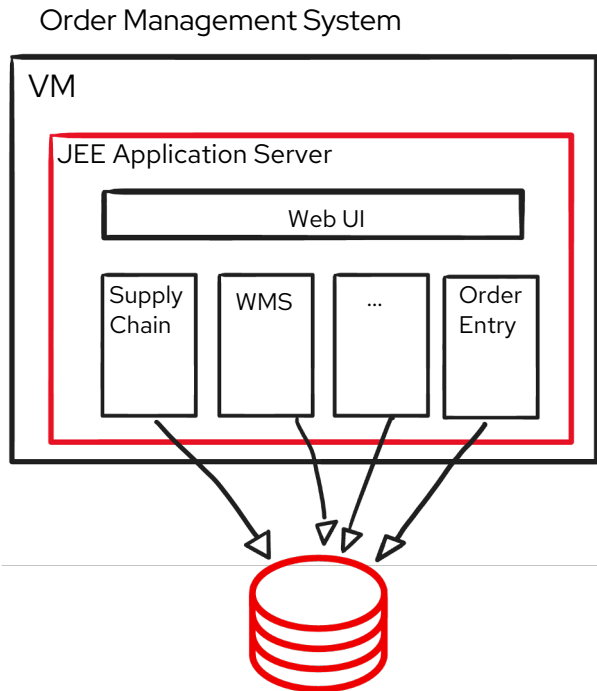


- High costs
- Complex maintenance
- Can't scale well

Monolithic legacy applications and Monolithic RDBMS

Order Management System

What's preventing the innovation ?



- High costs
- Complex maintenance
- Can't scale well

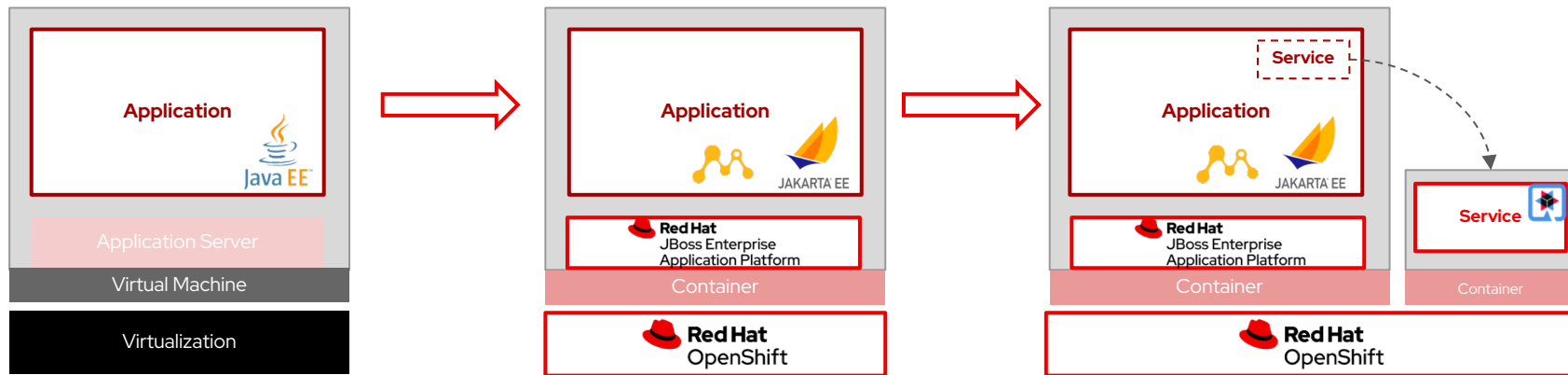
- Tech debt
- Slow change process
- Coupling in SDLC

So, how do we modernize ?



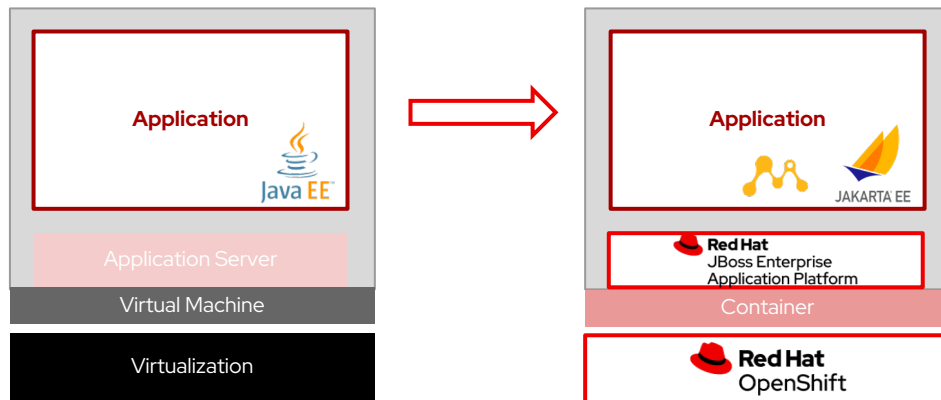
Replatform and Refactor

Leverage an incremental approach



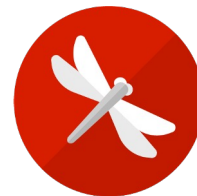
Replatforming on OpenShift

First step



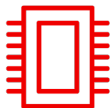
Replatforming on OpenShift

Benefits of deploying JBoss EAP on OpenShift



Lower Operational Costs

- ▶ Streamlined configuration deployment and management



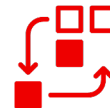
Reduced Resource Usage

- ▶ Increased app density
- ▶ Decreased memory footprint



Improved developer experience

- ▶ Developer-centric user interface and tools
- ▶ Closer to cloud-native tooling and development



Access platform Additional features

- ▶ Advanced deploy options
- ▶ Clustering support
- ▶ Platform Autoscaling
- ▶ Graceful shutdowns

Modernizziamo le applicazioni

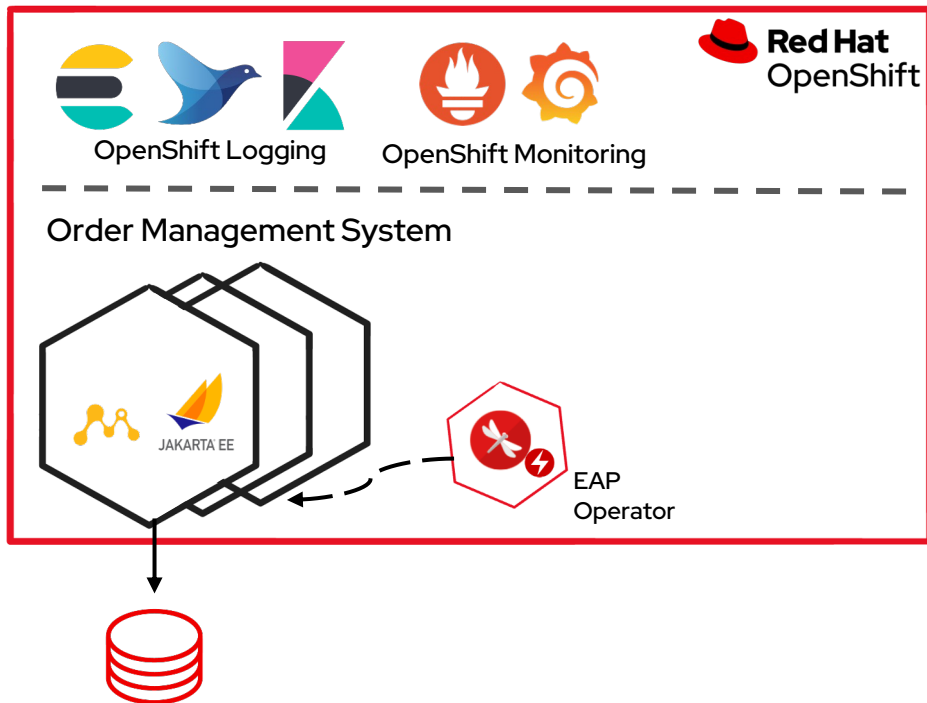
Hands-on Application analysis with Tackle

Modernizziamo le applicazioni

Hands-on Replatforming JBoss EAP

Replatforming on OpenShift

Result



Quick wins

Workload management

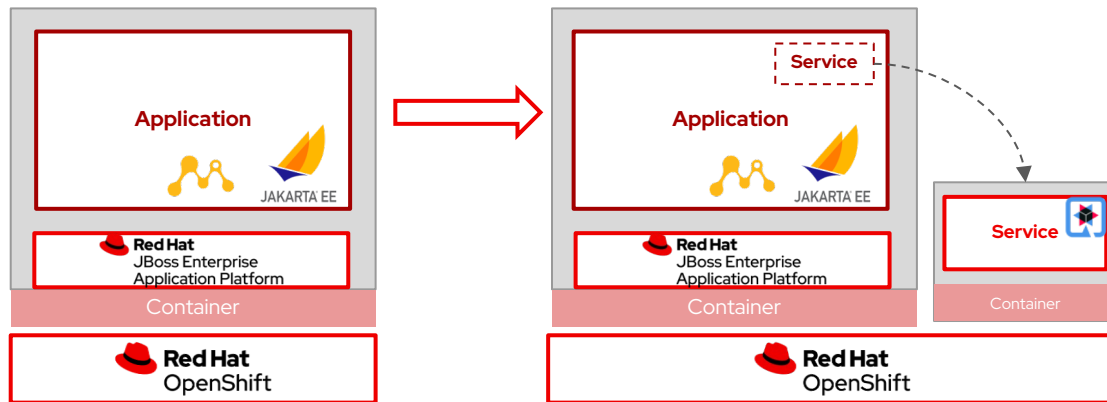
- ▶ Operator Support
- ▶ Platform Logging
- ▶ Platform Monitoring
- ▶ Autoscaling

Developer productivity

- ▶ Developer perspective
- ▶ Operator Hub & Marketplace
- ▶ Self-service access to platform services

Refactoring with Quarkus

Second step



Refactoring with Quarkus

Supersonic. Subatomic. Java



Container First

- ▶ Tailors your app for HotSpot & GraalVM
- ▶ Fast boot time and low RSS memory
- ▶ Serverless fit



Unifies Imperative and Reactive

- ▶ Combines blocking and non-blocking
- ▶ Built-in event bus



Best of breed

- ▶ 400+ extensions
- ▶ Microprofile based



Developer Joy

- ▶ Live coding
- ▶ Continuous testing
- ▶ Dev UI
- ▶ DevServices

Modernizziamo le applicazioni

Hands-on Refactoring with Quarkus

Refactoring with Quarkus

Result

