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

Assess

Analyze

Measure

www.konveyor.io
Assessing the Tree of Taste Application Inventory
Tree of Taste Business Expectations

I want it all

Order Management System

- App mobile
- Website
- B2B

Customers

Partners
Modernizing a legacy application

What's under the hood?

Order Management System

Order Data Entry

Customer
Modernizing a legacy application

Internals

Order Management System

VM

JEE Application Server

Web UI

Supply Chain

WMS

...

Order Entry

Order Data Entry

Customer
Order Management System

What’s preventing the innovation?

Monolithic legacy applications and Monolithic RDBMS

Virtual Machines
Order Management System

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What's preventing the innovation?

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

Order Management System

Monolithic legacy applications and Monolithic RDBMS
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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?
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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
Hands-on Application analysis with Tackle
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
Hands-on Refactoring with Quarkus
Refactoring with Quarkus

Result