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Modern Application Integration in the era of cloud

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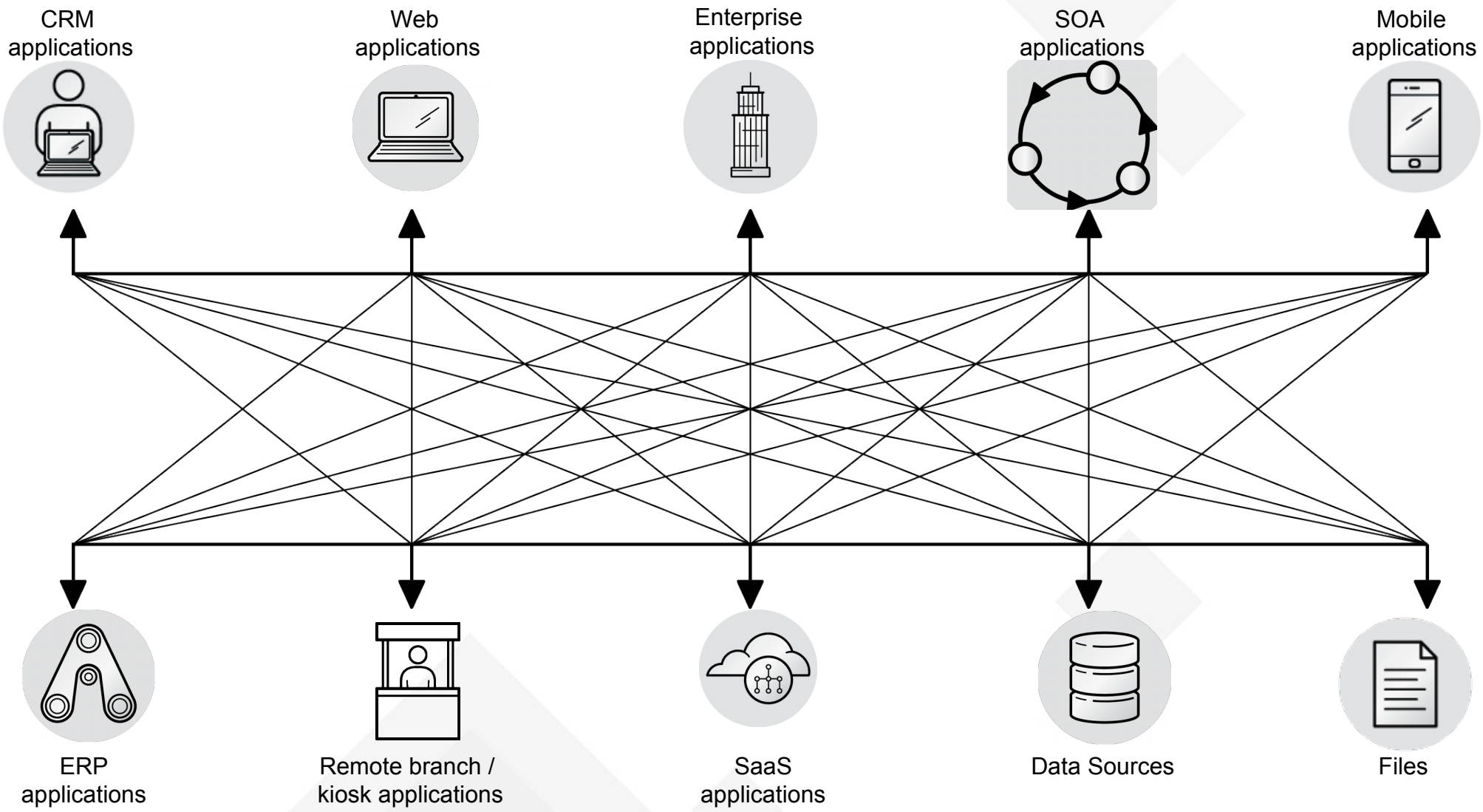
Integration problem?

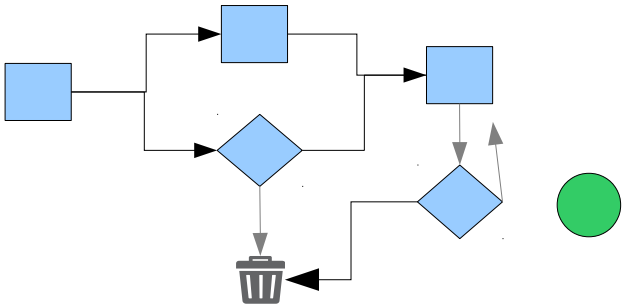
The integration challenge



TWO MAJOR INTEGRATION TYPES

Application Integration

Enable integration of end-to-end business processes across multiple applications

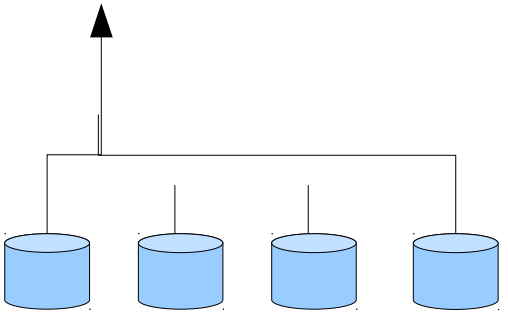


Why?

Accelerate development of integrated systems.

Data Integration

Enable access to data from disparate systems for a combined, consistent view across the organization



Why?

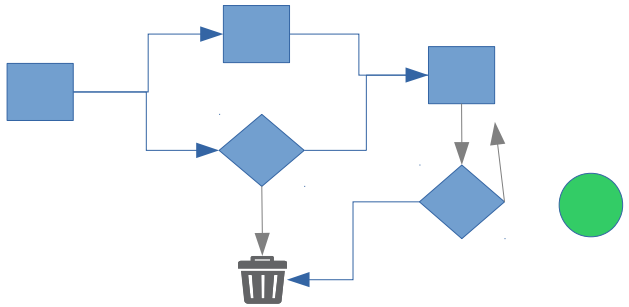
Gain insight, improve business decisions, accelerate development of business intelligence systems.

DIFFERENT – BUT COMPREHENSIVE SOLUTIONS REQUIRE BOTH

TWO MAJOR INTEGRATION TYPES

Application Integration

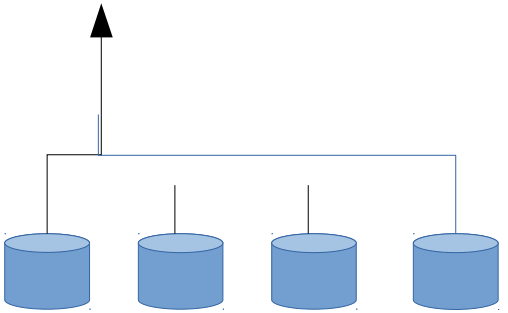
Enable integration of end-to-end business processes across multiple applications



Create & connect API's – App Services

Data Integration

Enable access to data from disparate systems for a combined, consistent view across the organization



Create API's – Data Services

Enable and Facilitate

API Management & Collaboration

Mobile Integration & Enablement

IoT Integration

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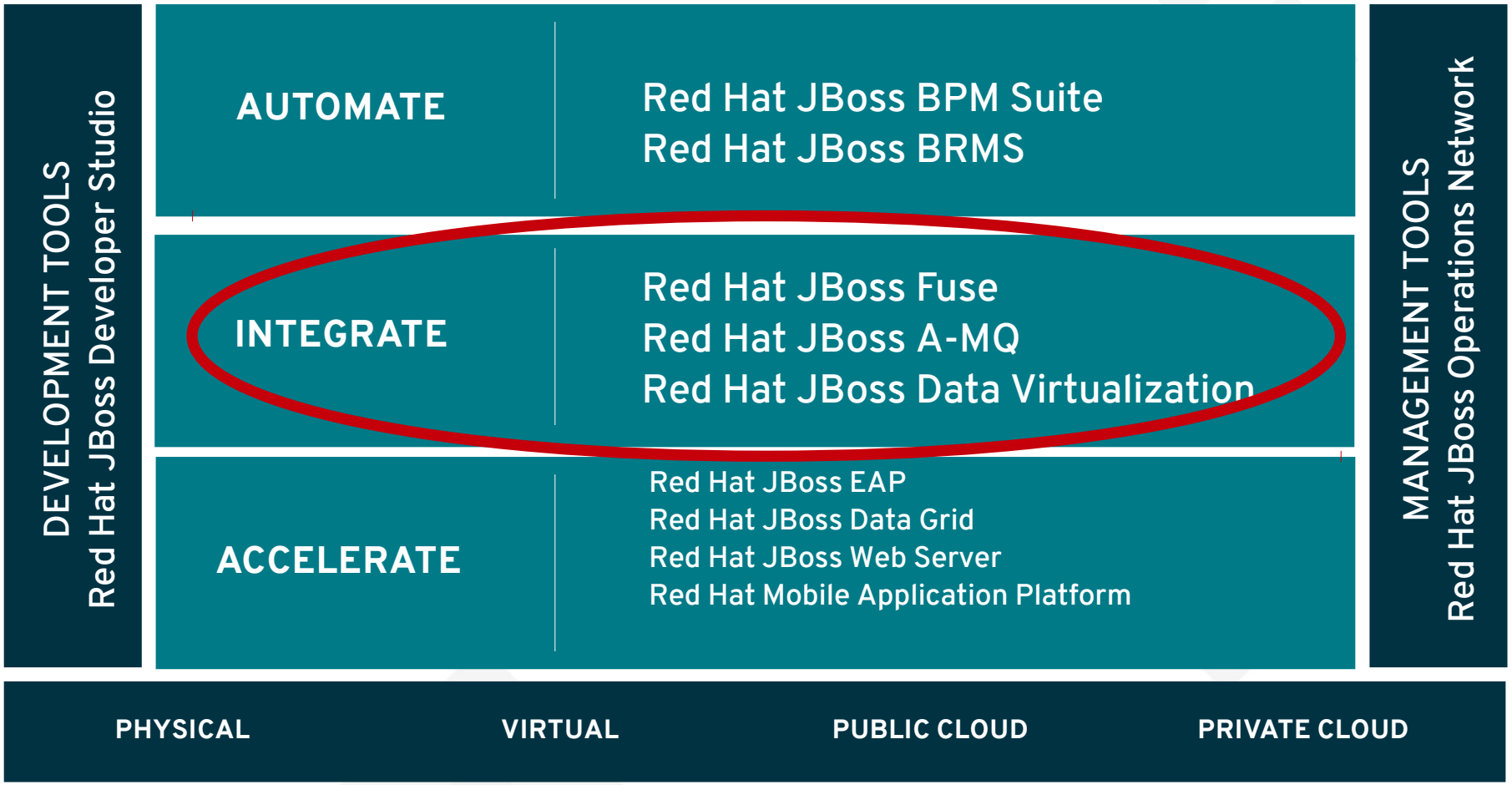
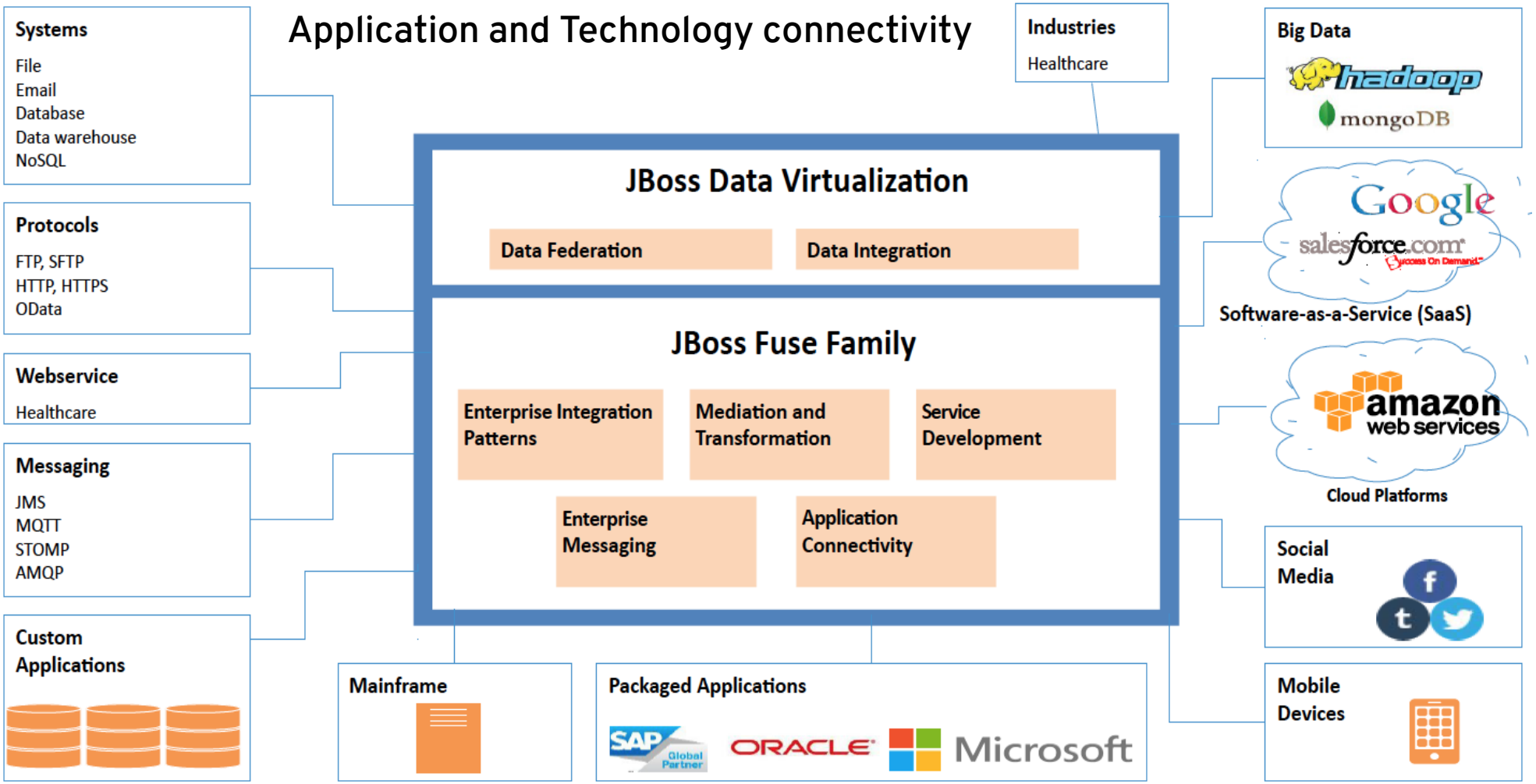
Red Hat's integration platform?

RED HAT JBOSS MIDDLEWARE



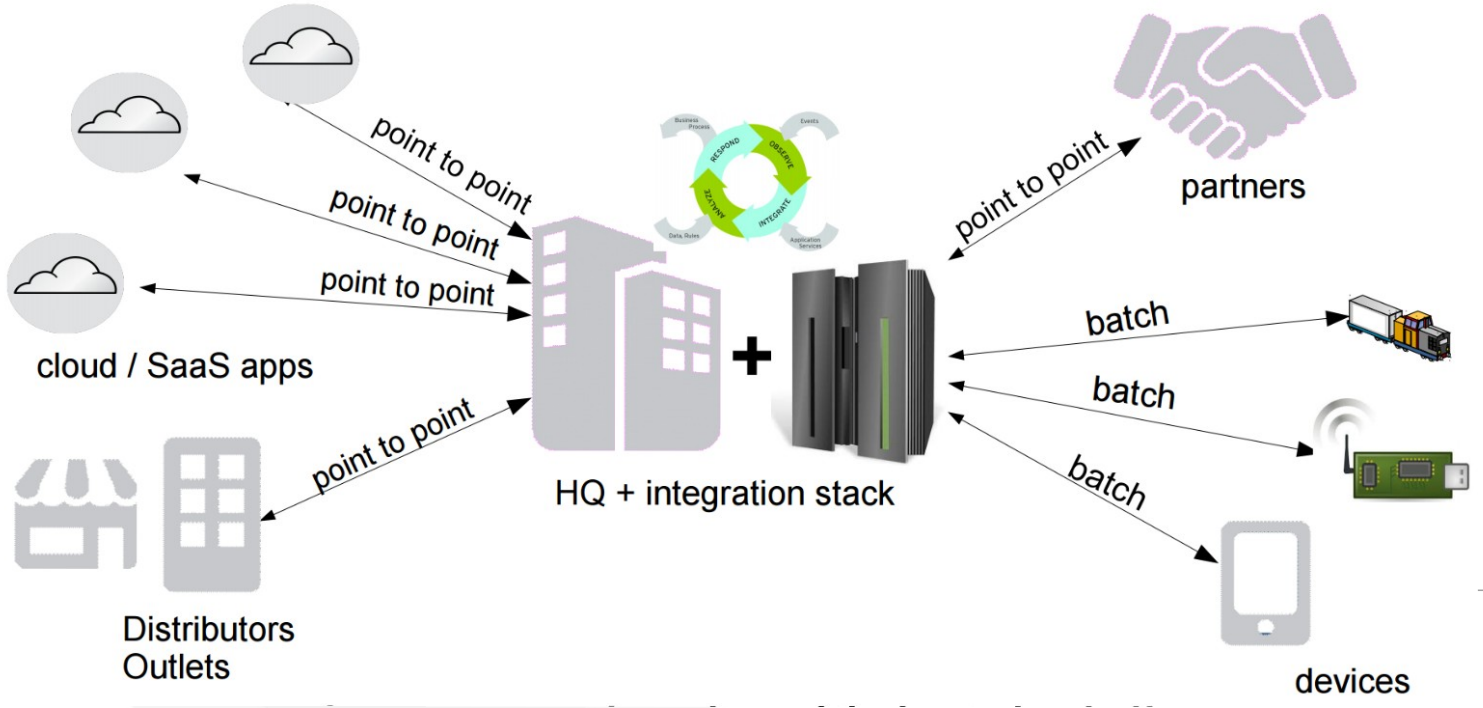
INTEGRATE

Connect systems, applications, and data across your entire enterprise.



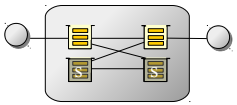
JBoss FUSE summary

- Lightweight integration platfrom / ESB
  - Cover most recent trends in integration
- Include matured de-facto standard technologies
  - Similar products:
- IBM Websphere ESB, Oracle ESB, Mule ESB …



Fuse – Use Cases

Messaging Platform



Fuse as asynchronous messaging platform:

Hub/Spoke connectivity is not a given Guaranteed Delivery, Scalable, High Throughput

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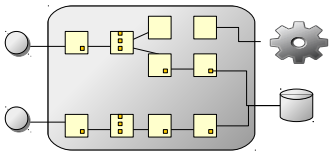
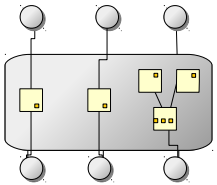
Integration platform



Fuse as a **core integration component**:
API Platform , Services Gateway,

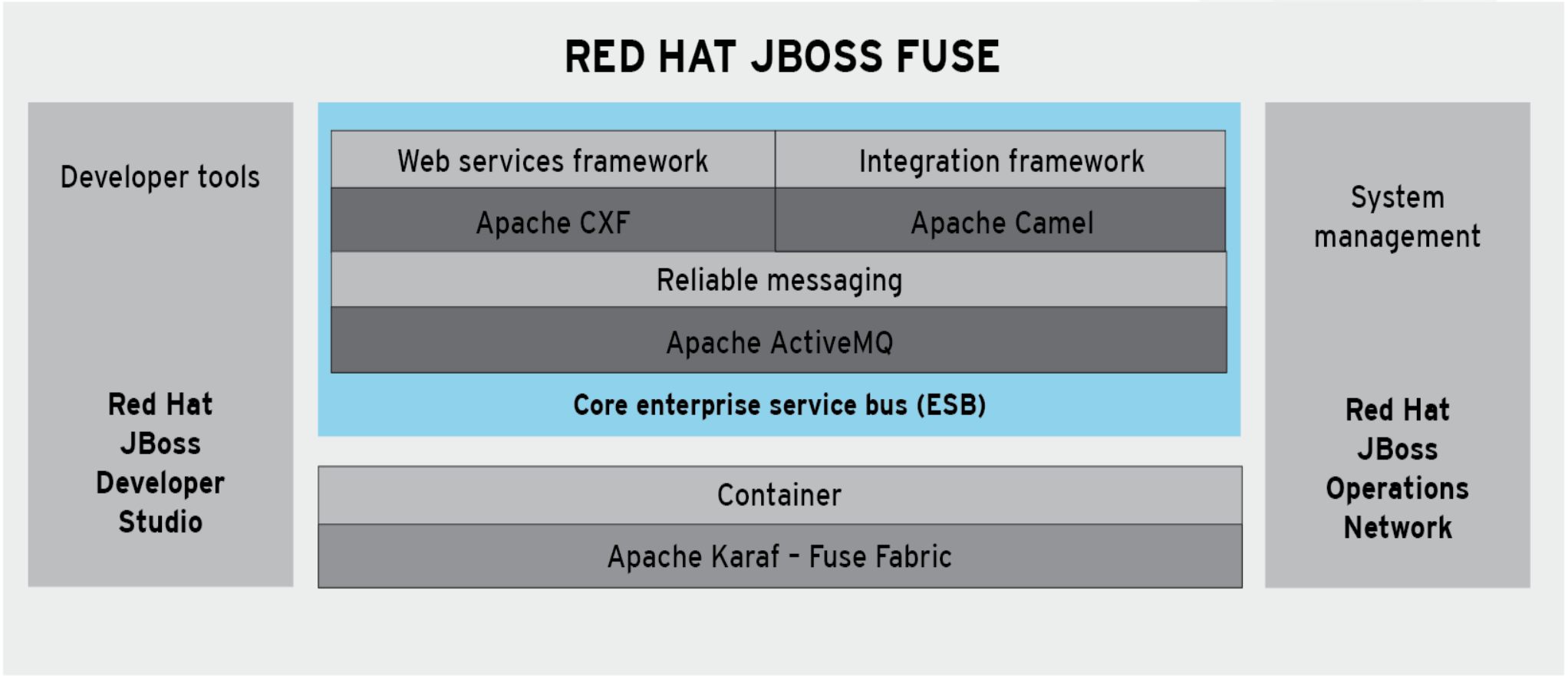
Low-level integration, IoT ..

ESB



Fuse as an **Enterprise ESB**:
Build ESB integration scenario, great with BPM ..

Establish more control over internal systems and stop expensive P2P integration developments

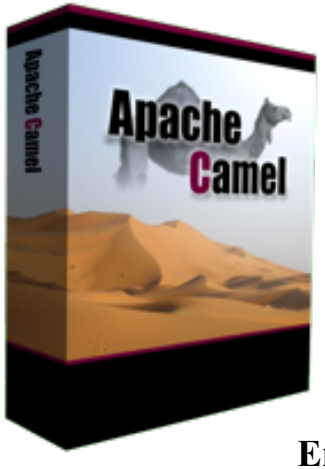


JB0011-S

New in 6.2.1

- Merge with Fuse Service Works, SwitchYard etc included, EAP entitlement included!

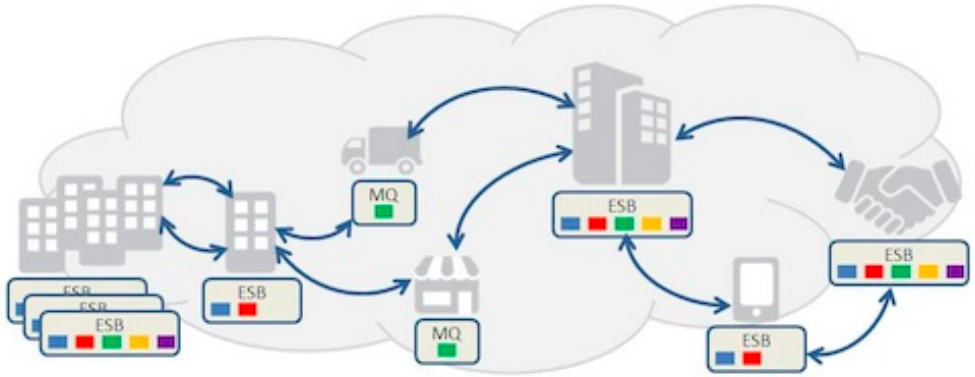
- Ubiquitous connectivity 150+ connectors (SalesForce, SAP, Social, cloud integration)
- Unified management console which leverages Fuse Fabric
- Improved High Availability (shared-nothing configuration, LevelDB: dev-preview)
- Integration in the Cloud (OpenShift Cartridge) xPaaS ready



Camel does all the „dirty job“

Fuse Fabric

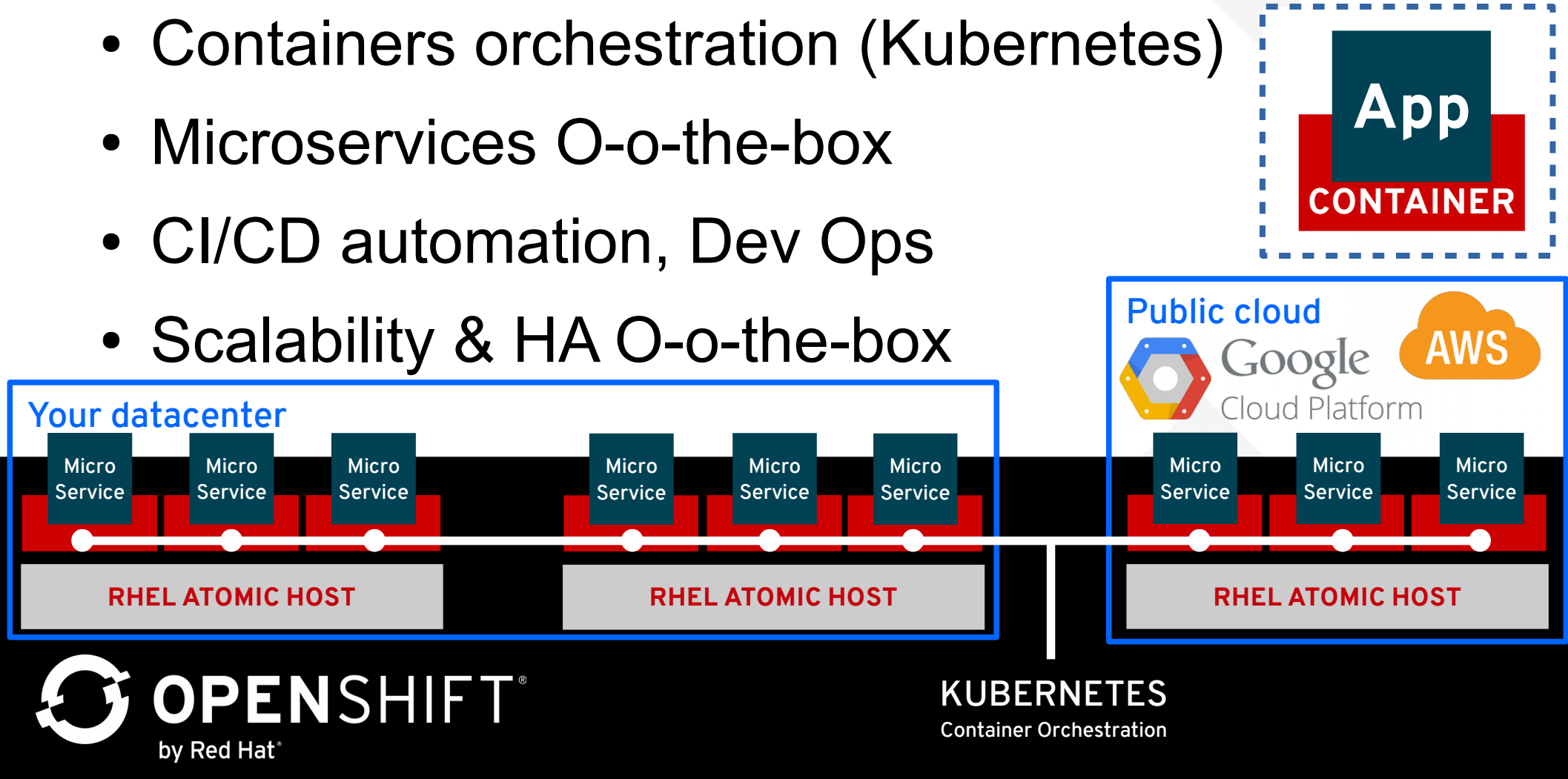
- Large scale hybrid deployments:
  - on premise local / remote / in cloud
- Endpoints can be:
  - Relocated/ load balanced / Elastic / highly available
- Distributed Configuration & Management
  - accessed across multiple domains / highly available
  - Elastic scaling of services / Resources Monitoring & control
- Hot upgrade & patching



But in PaaS we have containers, right?

PaaS: Openshift Container Platfom

- Automates whole container lifecycle
- On Premise / In cloud / Both (aka. Hybrid)
- Containers orchestration (Kubernetes)
- Microservices O-o-the-box
- CI/CD automation, Dev Ops
- Scalability & HA O-o-the-box



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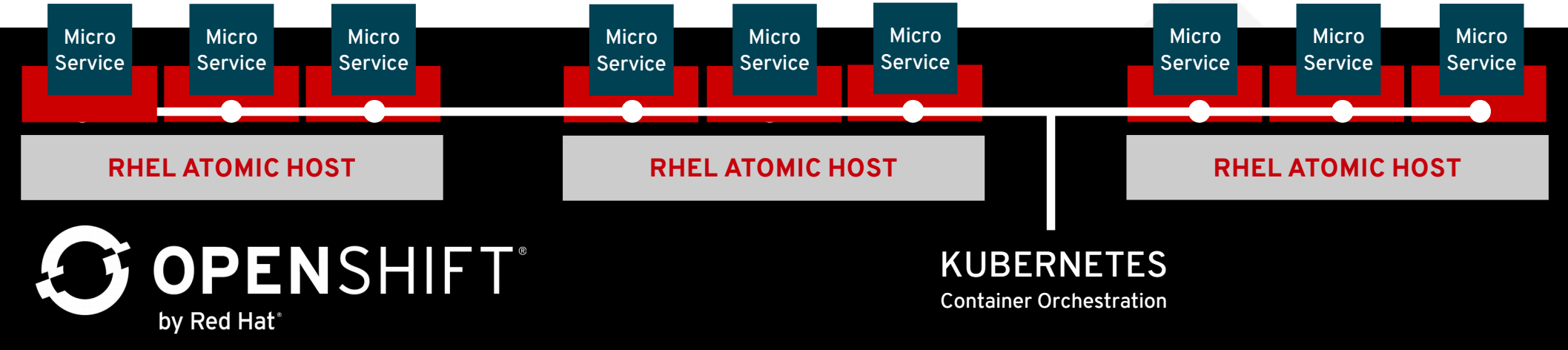
Integration in PaaS, does it make sense?

FUSE in Openshift PaaS

- Integration of applications within the PaaS
- Integtrate On-premise and Public Cloud Apps
- Fully automated deployment
  - build & deployed by Openshift
  - managed by Kubernetes
- Microservices managed by the platform

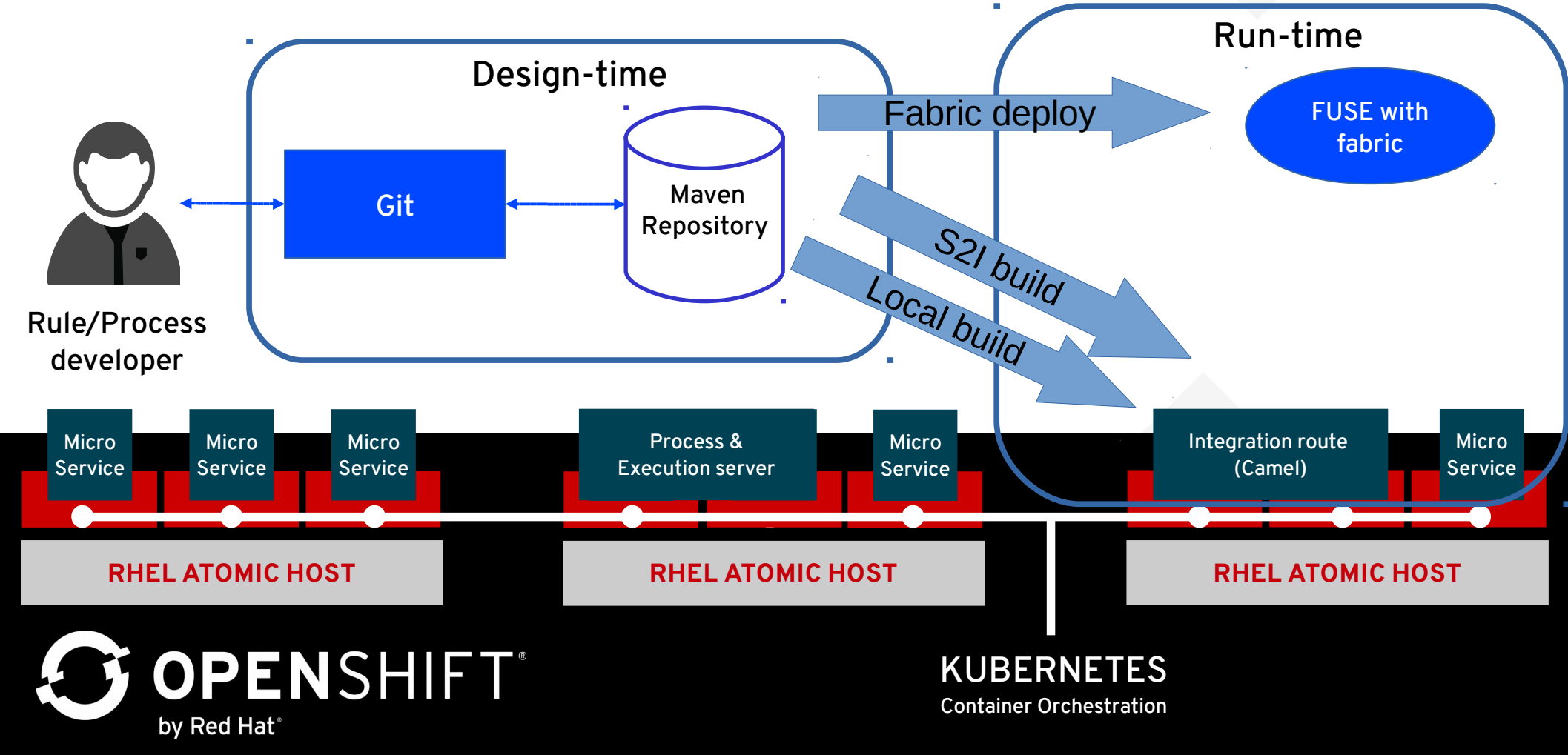


And the deployment magic?

FUSE: Openshift deployment

Fabric‘s job is done by Openshift / Kubernates (Cattle approach is used)

- Build It, Push It (outside OpenShift) = Maven build &deploy the container
- Push It, Build It (inside OpenShift) = S2I template



The Red Hat vision:

- ✓ Modular microservices
- ✓ Based on JBoss Middleware
- ✓ Running in OpenShift

RED HAT® JBOSS® FUSE

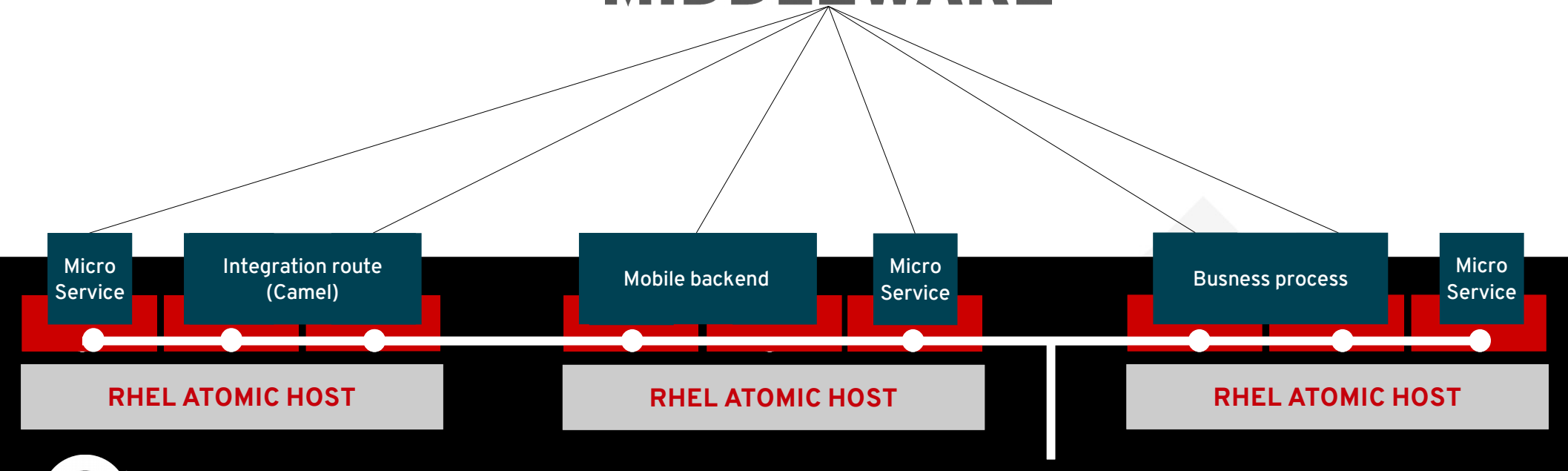
RED HAT® JBOSS® BPM SUITE

3scale by Red Hat®

RED HAT® JBOSS® ENTERPRISE APPLICATION PLATFORM

RED HAT® JBOSS® MIDDLEWARE

RED HAT® MOBILE APPLICATION PLATFORM



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