



RED HAT® JBOSS®
MIDDLEWARE

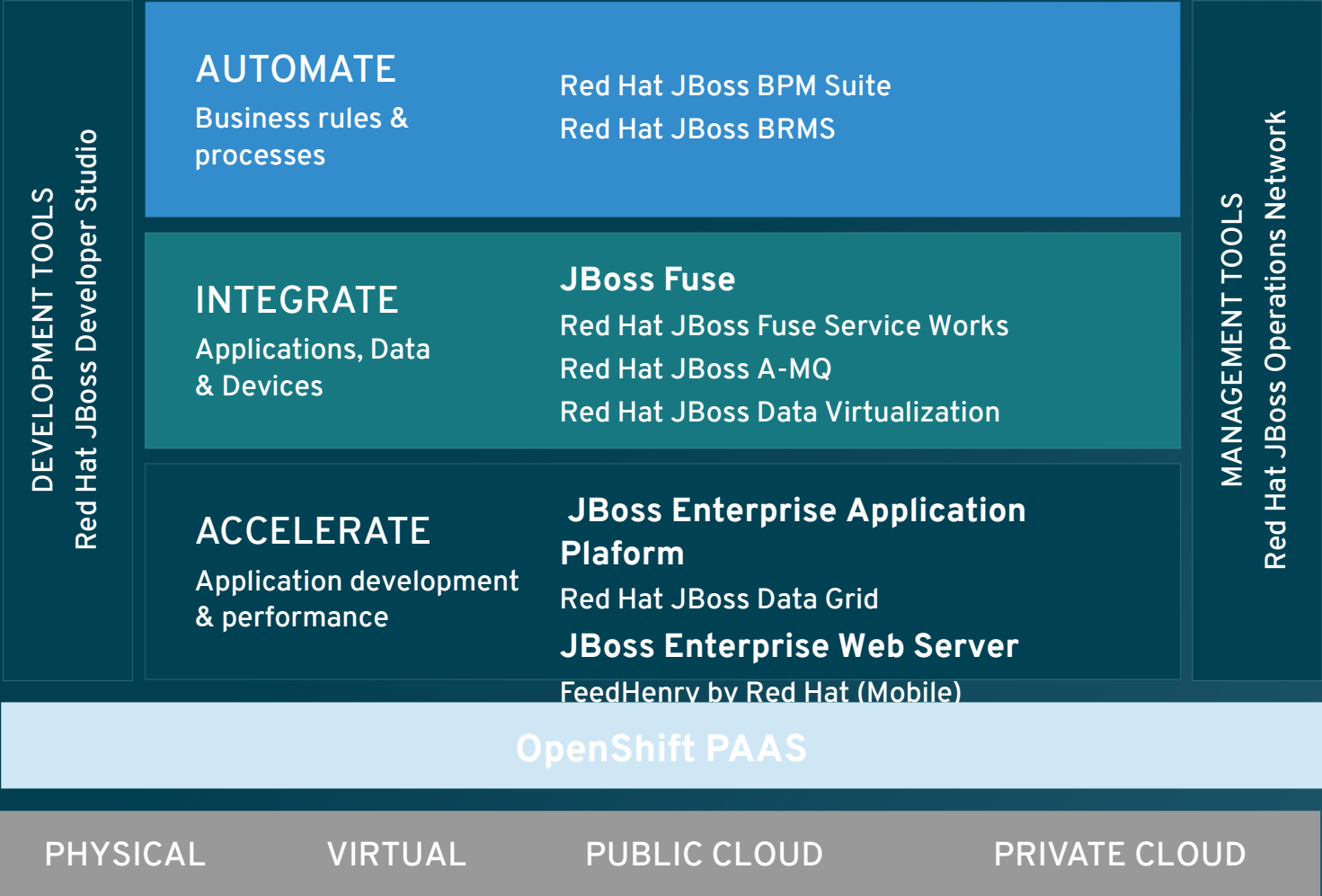
INTRODUCTION TO RED HAT JBOSS MIDDLEWARE

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INNOVATE FASTER, IN A SMARTER WAY

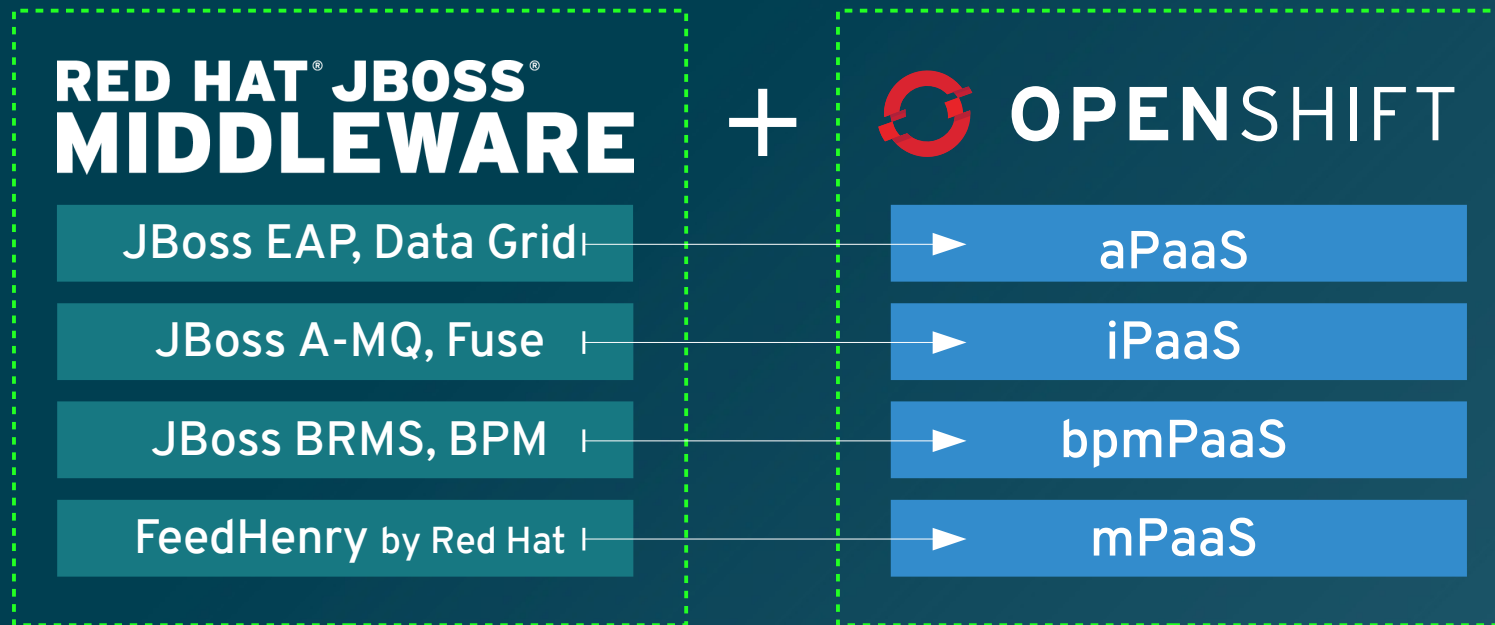


THE CIO's ALTERNATIVE

Operating system	Microsoft Windows, Oracle Solaris, IBM AIX, HP/UX >	Red Hat Enterprise Linux
PaaS cloud	Pivotal CloudFoundry, IBM Bluemix, HP Helion, AWS Beanstalk, Microsoft Azure, Google App Engine, Heroku/SalesForce >	OpenShift by Red Hat
Cloud orchestration	VMware vCloud Automation Center, RightScale Cloud Management, BMC Cloud Lifecycle Management >	Red Hat CloudForms
IaaS cloud	VMware vCloud Director, Citrix CloudPlatform, Eucalyptus Cloud, Microsoft System Center, Rackspace >	Red Hat Cloud Infrastructure, RHEL OpenStack Platform
Virtualization	VMware vSphere, Citrix XenServer, Microsoft HyperV >	Red Hat Enterprise Virtualization
Storage	NetApp, EMC Isilon >	Red Hat Storage Server
Application server	IBM WebSphere Application Server, VMware vFabric tc Server, Oracle WebLogic Server >	Red Hat JBoss Enterprise Application Platform
Mobile	IBM Worklight, Oracle Mobile Platform, SAP Sybase Unwired Platform, Pivotal CF Mobile Service, Pegasystems Antenna >	FeedHenry by Red Hat
In-memory data grid	IBM WebSphere eXtreme Scale, Oracle Coherence, VMware vFabric GemFire >	Red Hat JBoss Data Grid
Application Integration	IBM WebSphere Integration Bus, Oracle SOA Suite & ESB, MuleSule AnyPooint, Sonic ESB. Tibco ActiveMatrix >	Red Hat JBoss Fuse and Fuse ServiceWorks
Data services and integration	IBM InfoSphere Federation Server, Progress DataXend SI, Oracle Data Integration Suite, Informatica Data Services >	Red Hat JBoss Data Virtualization
Business rules and process automation	IBM Operational Decision Manager and IBM Business Process Manager, Oracle BPM Suite, Pegasystems Business Rules, FICO Blaze Advisor >	Red Hat JBoss BRMS and BPM Suite
Messaging	IBM WebSphereMQ, VMware vFabric RabbitMQ, Oracle AQ, Tibco EMS >	Red Hat JBoss A-MQ

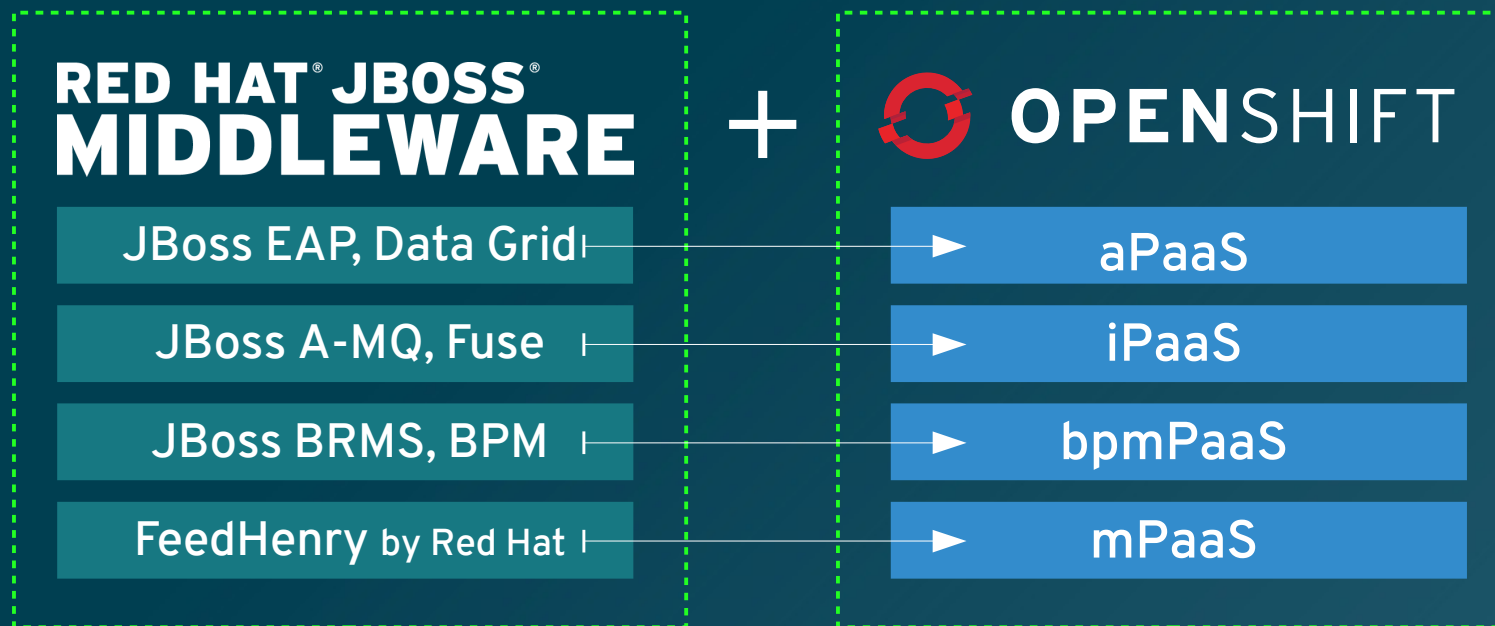
JBOSS xPaaS SERVICES FOR OPENS SHIFT

WHERE MIDDLEWARE MEETS CLOUD...



JBOSS xPaaS SERVICES FOR OPENS SHIFT

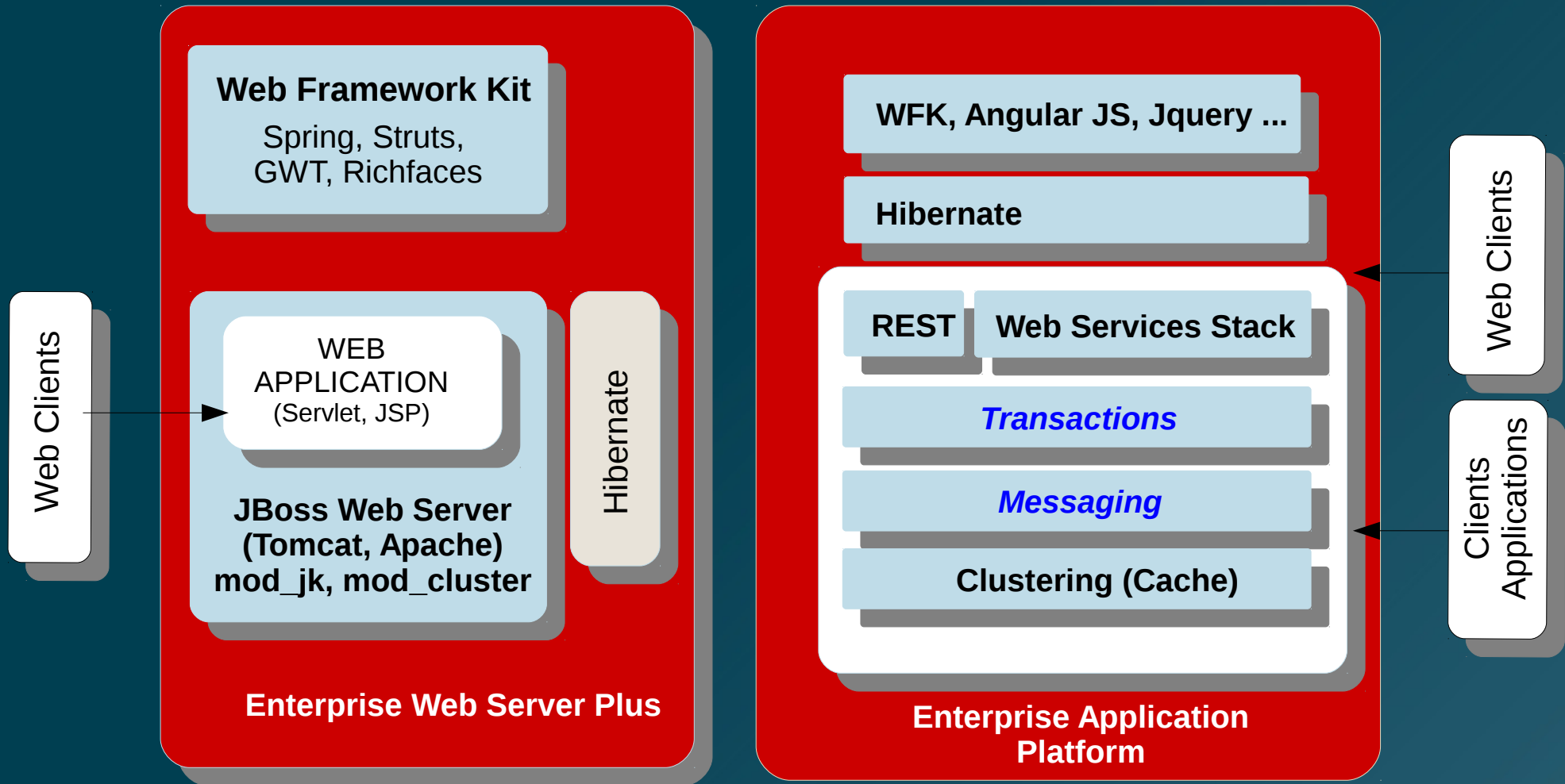
WHERE MIDDLEWARE MEETS CLOUD...



Terminology

	Application Server	Web Server	Web container
Definition	A server that exposes business logic to client applications through various protocols including HTTP.	A server that handles HTTP protocol such as Apache Web Server	J2EE compliant implementation which provides an environment on which Servlets and JSPs can run such as Tomcat
Purpose	Application server is used to serve web based applications and enterprise based applications(i.e servlets, jsp and ejbs...). Application servers may contain a web server internally.	Receiving HTTP requests, interpreting them and processing the corresponding HTTP responses back to the client	Managing the lifecycle of servlets, mapping URLs and ensuring requester has the correct access rights
Function(s)	To deliver various applications to another device, it allows everyone in the network to run software off of the same machine.	Keeping HTML, PHP, ASP, etc., files available for the web browsers to view when a user accesses the site on the web	Dynamically generate web pages based on user input from the load, initialization and process steps of the servlet container
Supports	Distributed transactions and EJB's, clustering, caching, messaging, etc.	HTTP	Servlets and JSPs

What JBoss can for you ?



EAP vs Tomcat

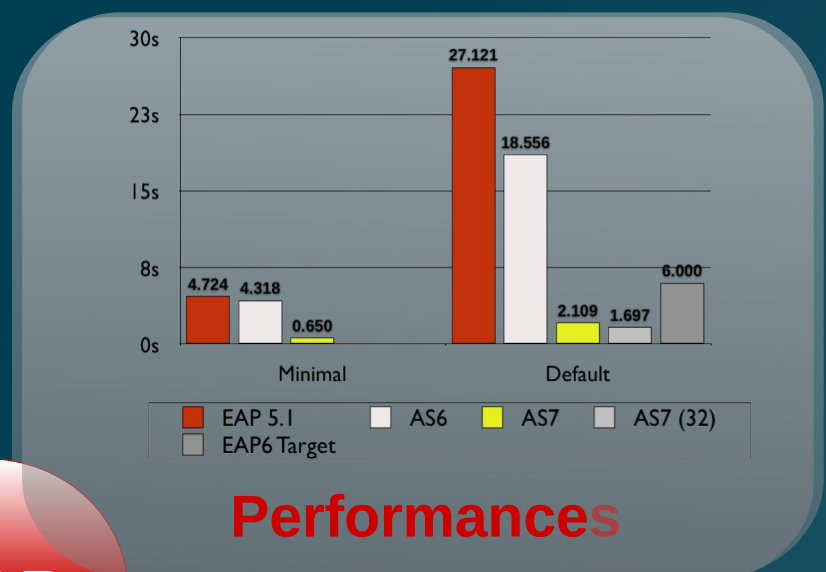
Feature	EAP	Tomcat
Java EE6-Compliant	Supports the JEE 6 specification	Tomcat is not a JEE application server. It is a servlet container. A JEE application server supports enterprise services for both the web layer and the data persistence layer (wars and ears), as well as several support services.
Enterprise Clustering	Clustering support, including session replication, high availability, buddy clustering, POJO cache clustering, advanced load balancing via mod_cluster, life-cycle support	Tomcat claims to support replication and clustering. The clustering jar was removed because "Red Hat does not believe this feature is suitable for medium or large-scale production deployments."
Enterprise Java Bean (EJB) Support	EJB 3 uses the Java Persistence Architecture (JPA) specification for data persistence.	Tomcat does not support EJBs
Transactional Support	Both local and distributed transactional support through a proven transaction manager	Tomcat does not support transactions out-of-the-box. You must rely on other third-party transaction managers.

EAP vs Tomcat

Feature	Description	Benefit compared to Tomcat
Messaging Support	Performant JBoss Messaging (fully supported) – HornetQ, an ultra-fast journal-based persistence messaging framework	Tomcat does not support messaging out of the box. You must rely on a third-party messaging framework.
Security	Support for PicketLink, a fully customizable security framework for authentication, authorization, auditing and federated identity.	Tomcat relies on the vanilla Java security manager

EAP Drivers

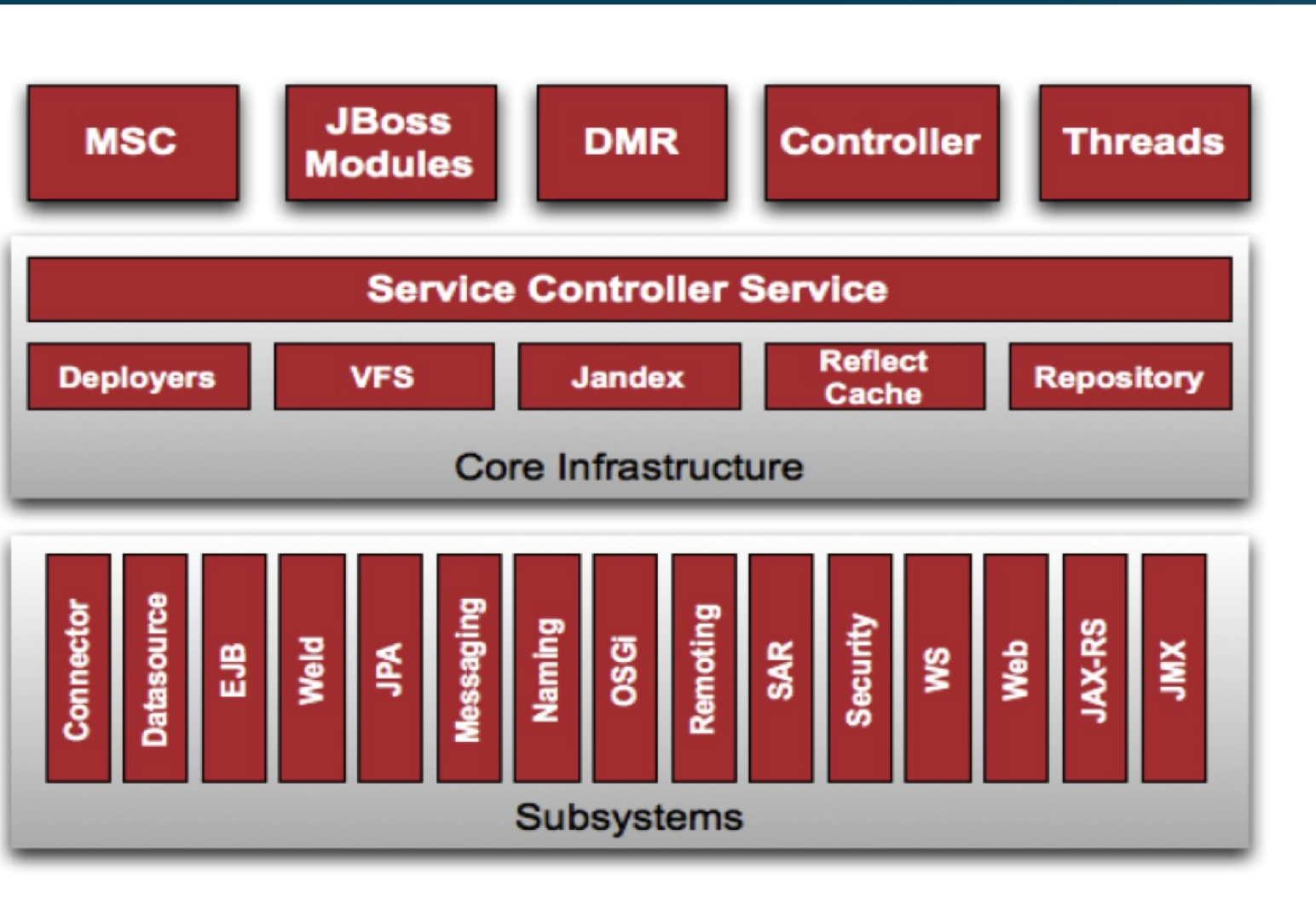
Productivity



Administration

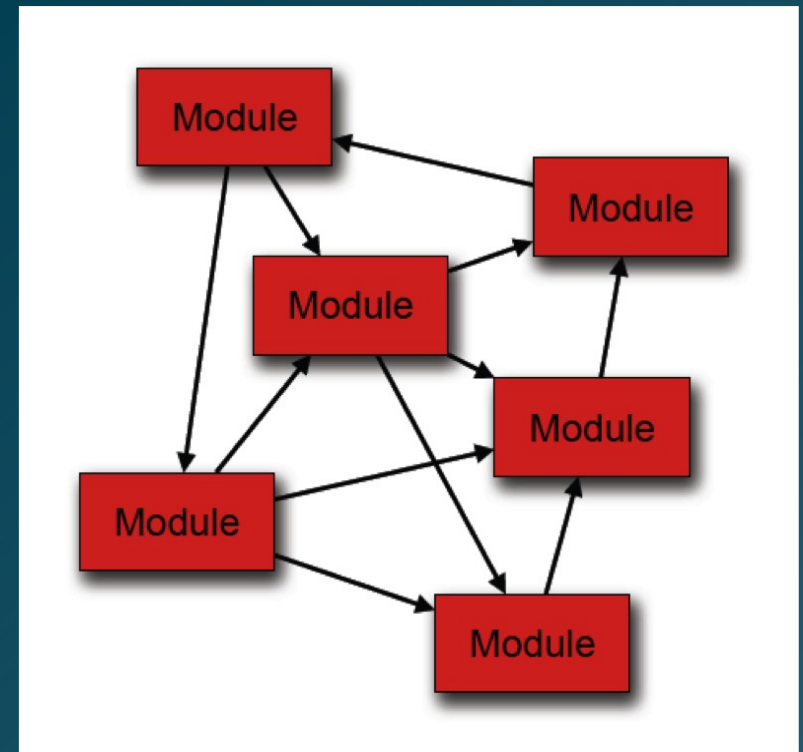
Industrialization & Cloud Deployment

Jboss EAP Core Architecture

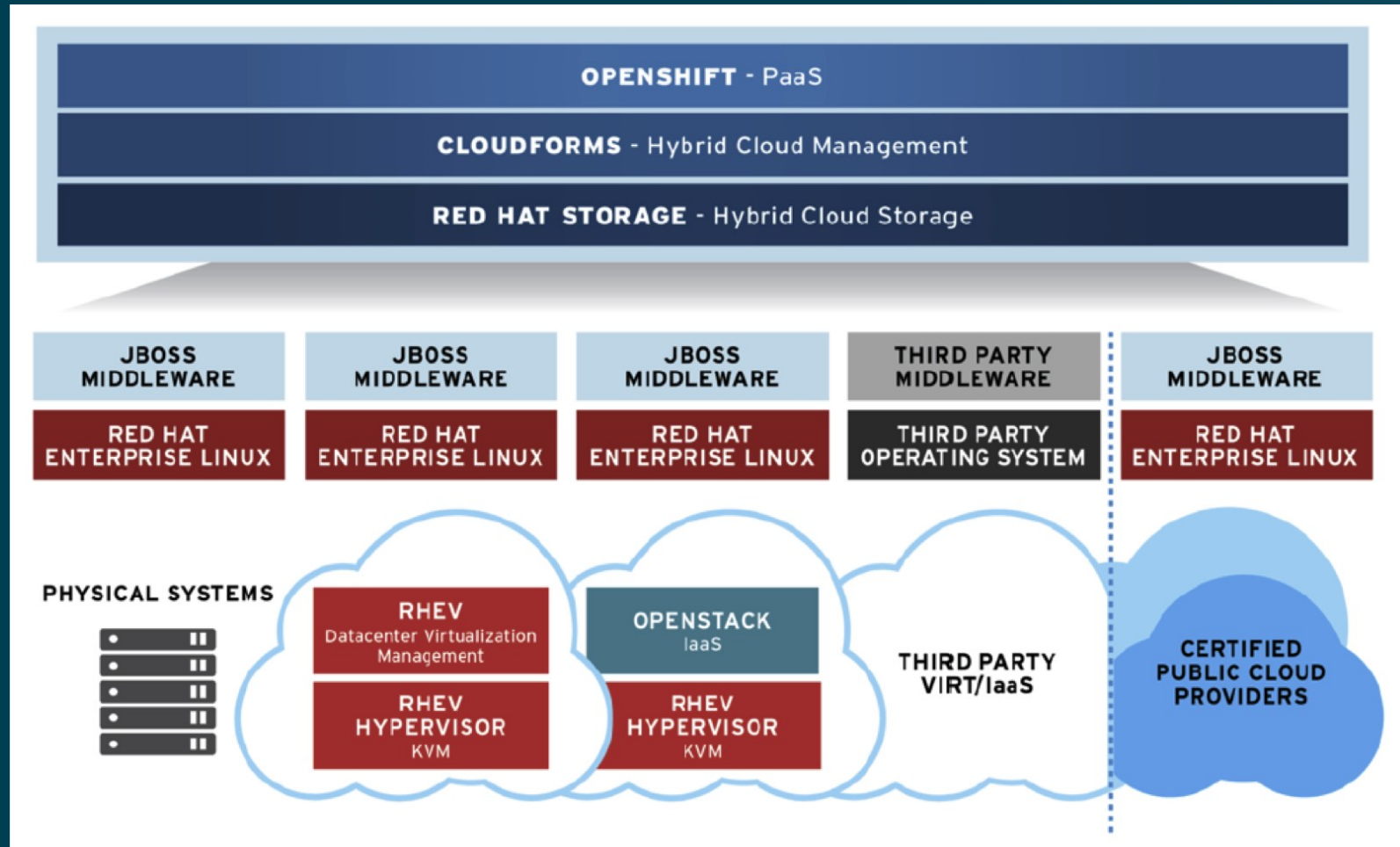


Jboss Modules

- Peer to Peer delegation
- Similar to IDE projects
- JDK Split into modules
- Not Transitive



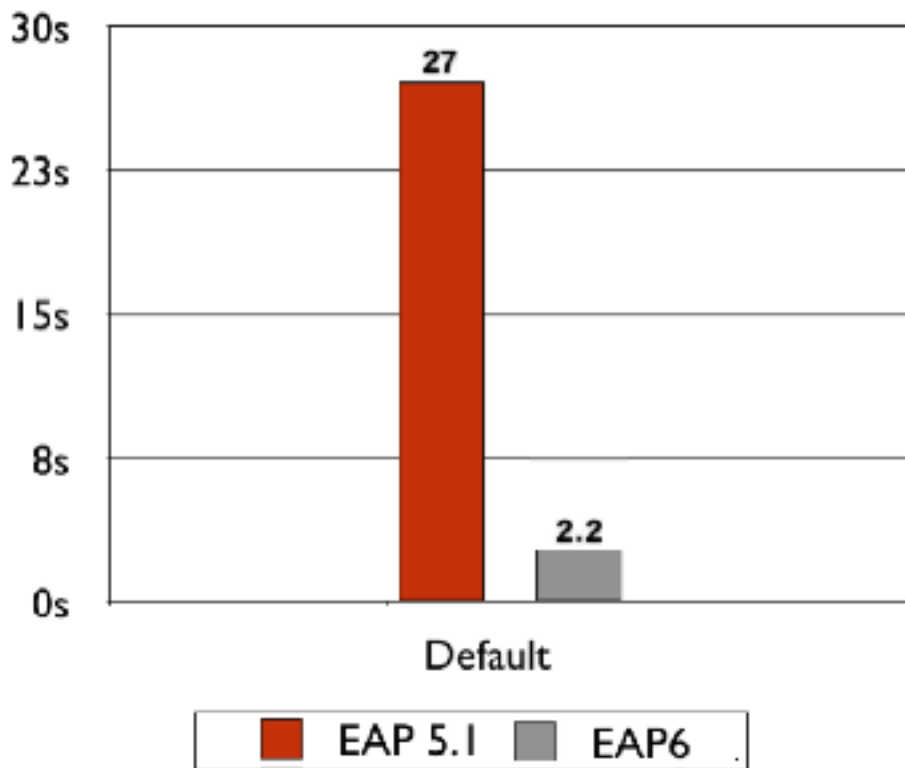
Automatization and DevOps Enabler



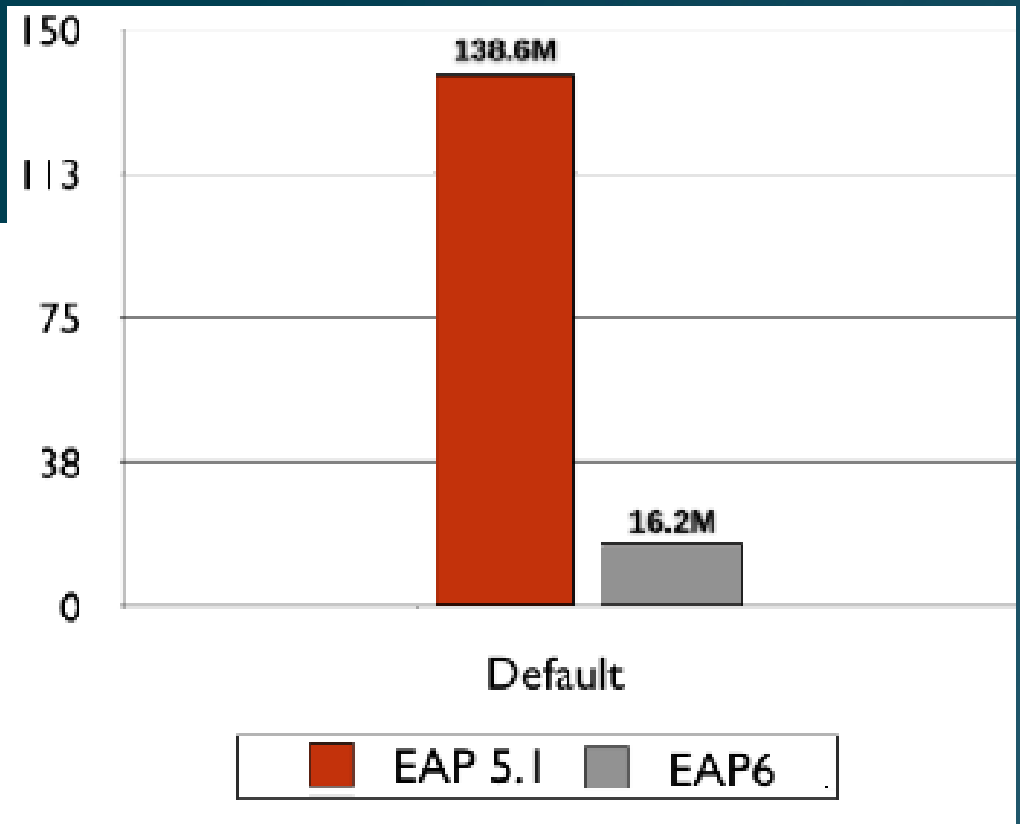
EAP 6 PERFORMANCE

Could you save 90 mins of build time per day for your developers?

Cold Boot Time



Cold Boot Memory



Can developers test with local clusters? Do you too many beefy servers?