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Agenda

- Review Market Dynamics & Red Hat Strategy
- Understand JBoss Development Model
 - JBoss.org vs. JBoss Enterprise Middleware
- Provide JBoss Enterprise Middleware Overview & Roadmap
- Detailed Product Roadmap

The Same Problems Continue to Impact IT

“ Similar to last year, an overwhelming backlog of requests & projects, inadequate budgets, and shortage of time for strategic thinking & planning are among the top 3 hurdles CIOs face”

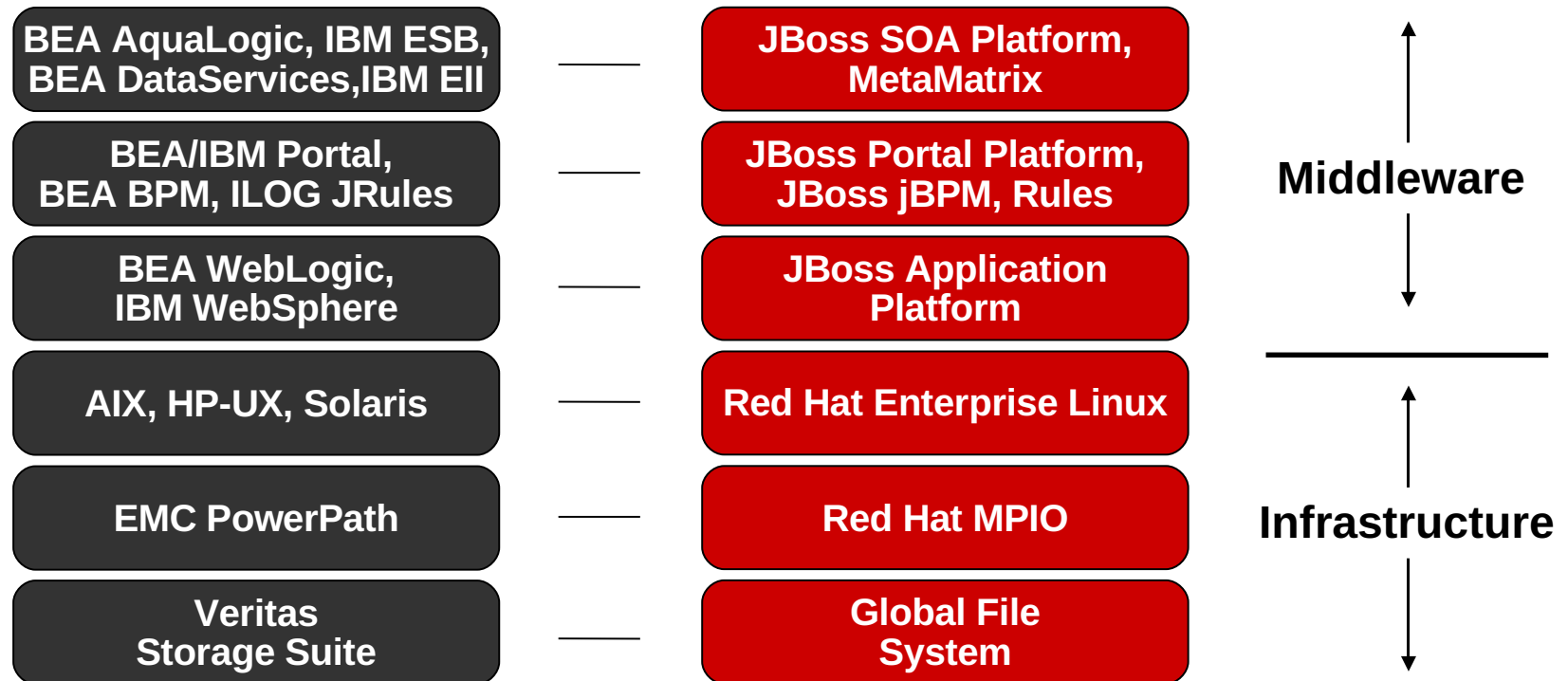
- The State of the CIO '07, CIO Magazine

YOUR BIGGEST BARRIERS TO JOB EFFECTIVENESS

1. Overwhelming backlog of requests and projects
2. Inadequate budgets
3. Shortage of time for strategic thinking and planning
4. Unrealistic expectations from the business
5. Unknown expectations from the business
6. Lack of key technical skill sets within the IT department
7. Overwhelming pace of technology change
8. Lack of business knowledge within the IT department
9. Lack of alignment between business goals and IT efforts
10. Difficulty proving the value of IT

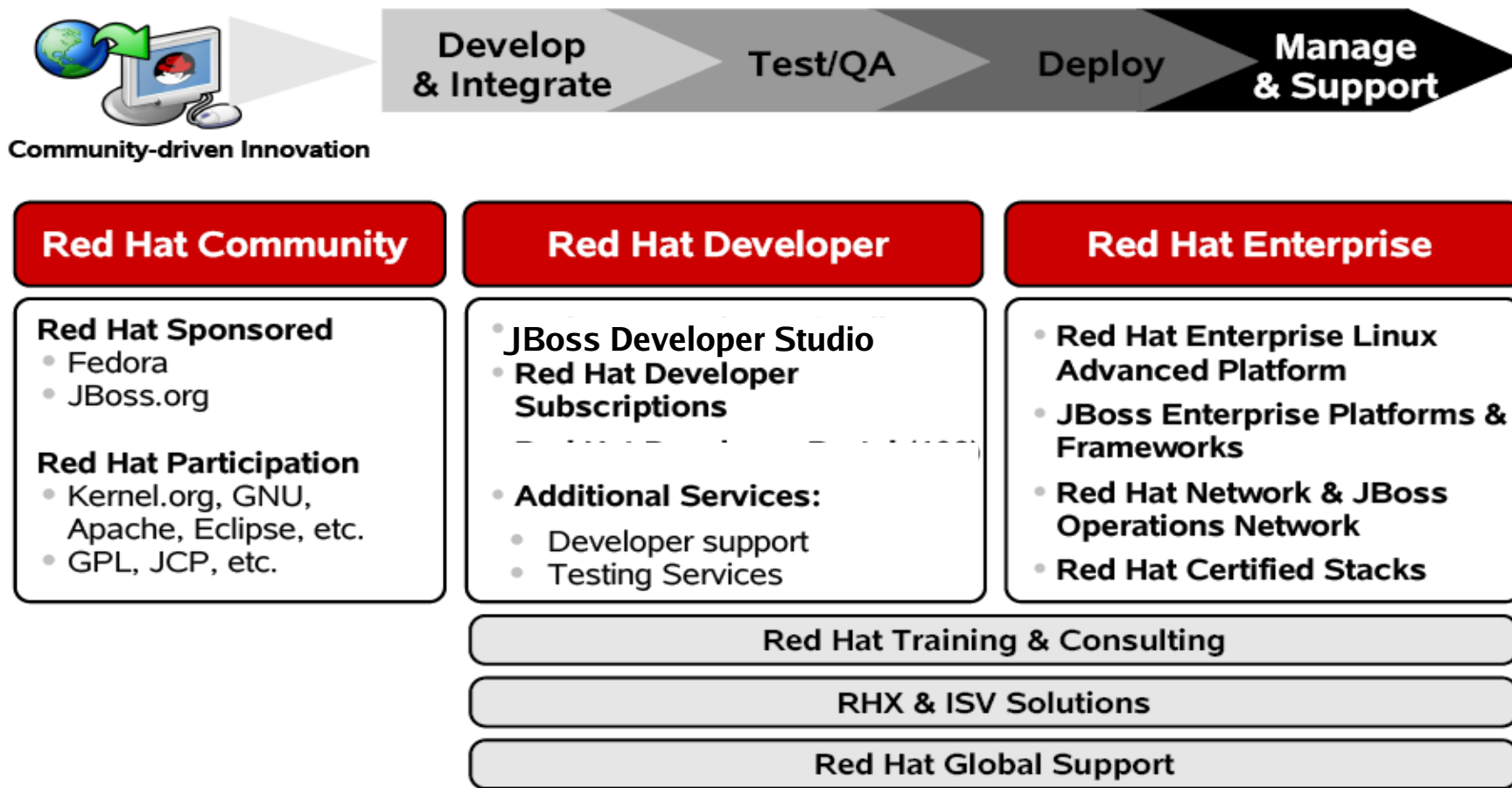
Red Hat open source solution stack changes the economics of IT infrastructure

- Offers replacements for proprietary across the software stack
- Lower TCO, higher value, great flexibility
- Increased customer leverage & choice
- Code transparency speeds development, time to solution



Open Source Model

Community and Enterprise



Red Hat provides enterprise ready open source software

JBoss Middleware Delivers Business Value

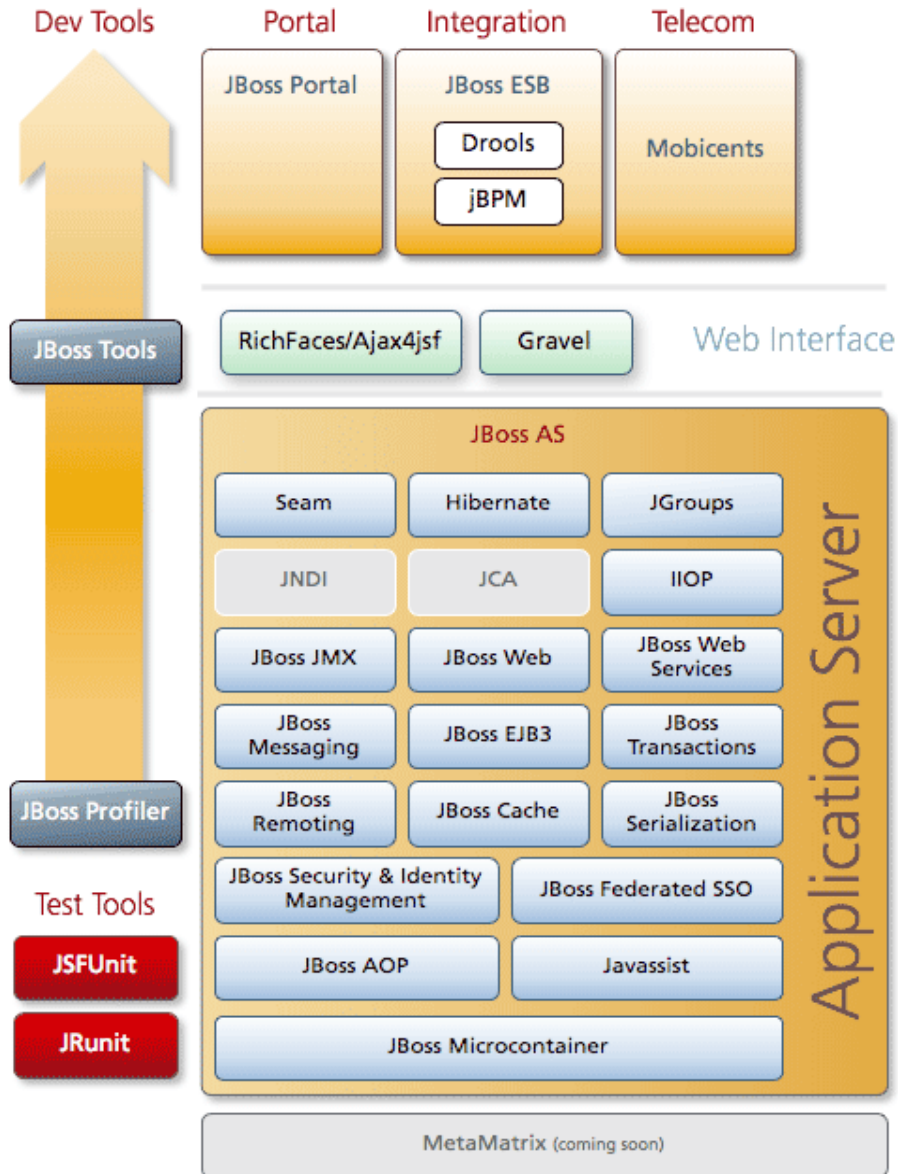
- Run mission-critical Java application portfolios
- Mitigate risks of unsupported open source software
- Establish vendor independence
- Develop applications with richer Web 2.0 functionality
- Break down silos and share data
- Reduce friction in business processes
- Reduce project backlog
- Adapt to M&A and organizational change
- Compliance with security regulations

JBoss Enterprise Middleware Customers



Selected JBoss for superior flexibility, improved performance, benefits of open source, better support & lower TCO

JBoss.org Community Projects

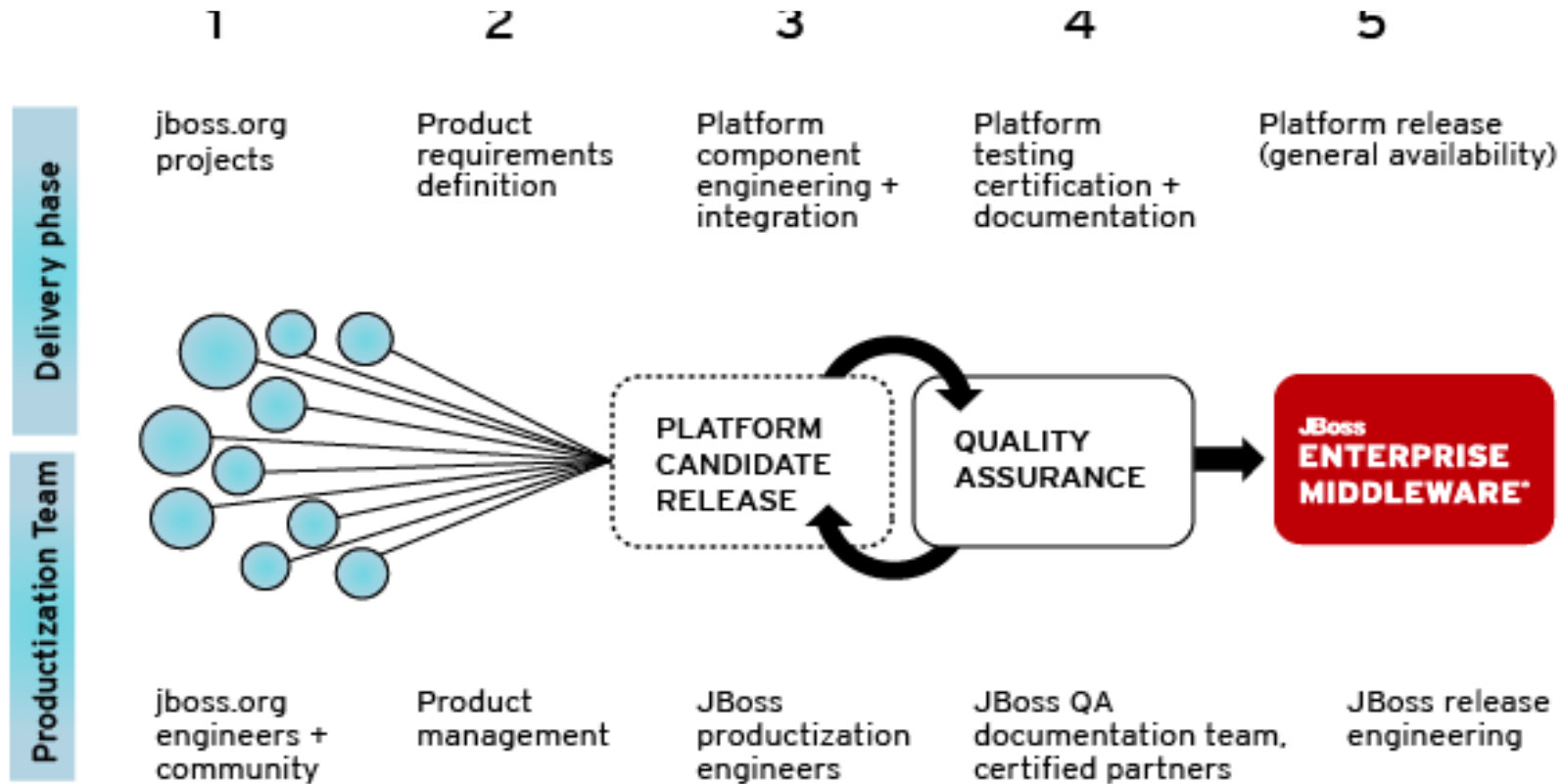


- Focus on “release early, release often”
- 40+ projects with different release schedules, versions, dependencies, etc.
- 100,000+ registered developers
- Community support with forums, project developers, wiki, issue trackers, etc.

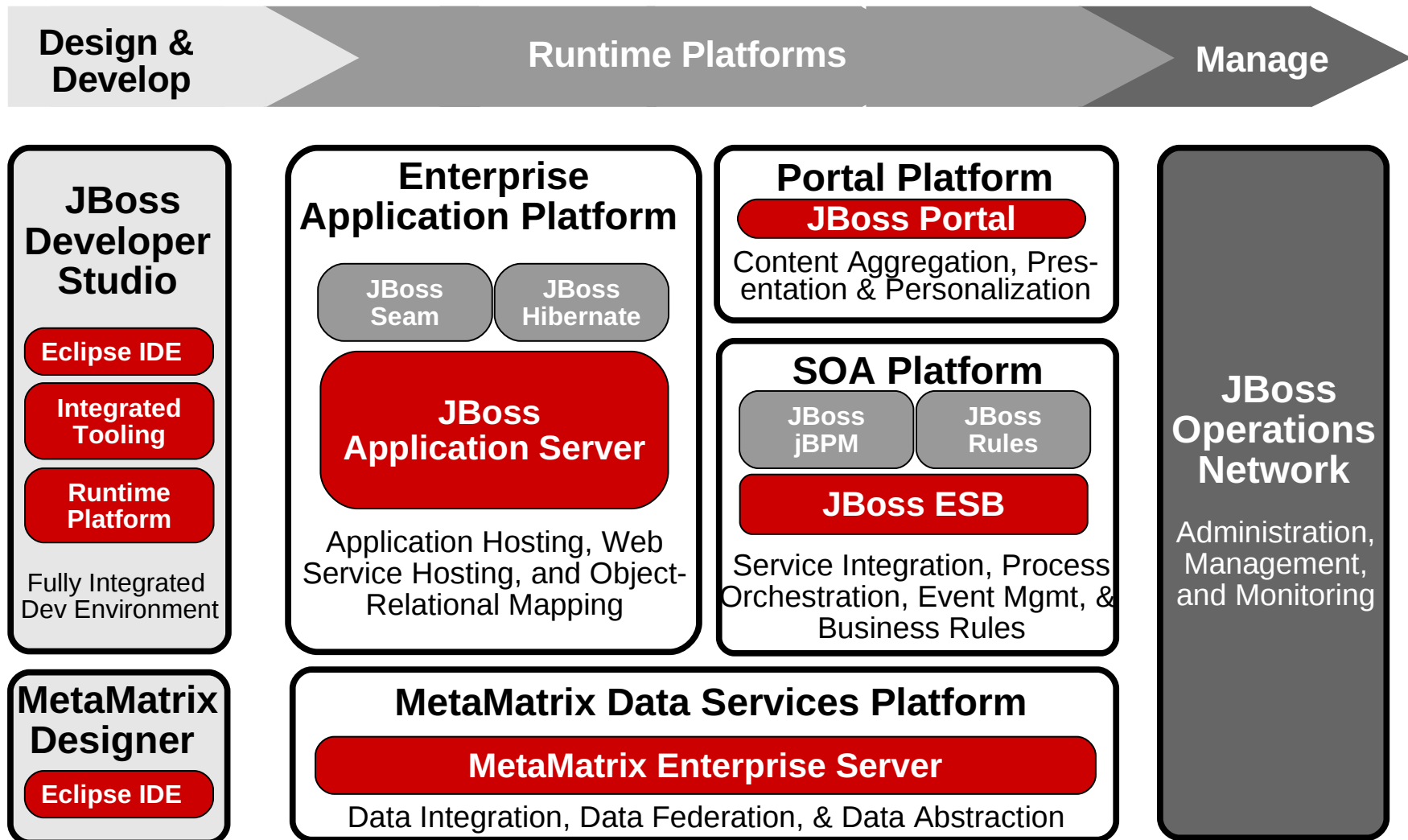
JBoss Enterprise Middleware

What makes up a certified platform?

- Each JBoss Enterprise Middleware platform goes through a 5 phase delivery methodology that involves many traditional elements of the software development lifecycle:



JBoss Enterprise Middleware



JBoss Enterprise Middleware Subscriptions

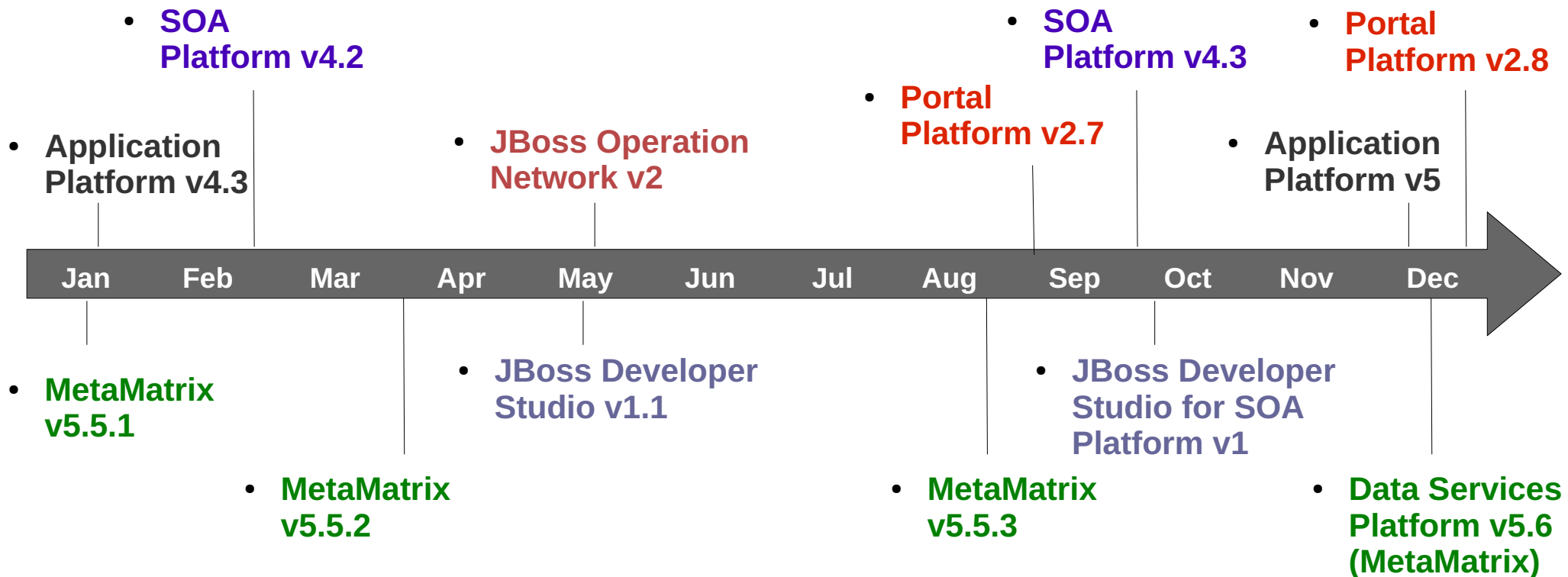
Subscription Elements

- **Access to Certified Products:** source and binary code, documentation, new releases, product updates & patches
- **Flexibility:** subscriptions are not version-specific, so access to, and support for previous version is included
- **JBoss Customer Support Portal:** track support cases, customize patch or upgrade alerts, and download certified patches and updates
- **Technical Support:** unlimited incident support from expert support staff with coverage up to 24x7 with 1 hour response for critical incidents
- **Long term stability:** multi-year support, updates & security patch policies
- **Legal assurance:** Open Source Assurance program safeguards customers from legal harm
- **Simple Pricing Model:** sold in CPU bands with no limit on applications or instances

Subscription model makes customer satisfaction the main focus of the vendor-customer relationship

JBoss Enterprise Middleware

2008 Planned Release Roadmap



JBoss Enterprise Middleware

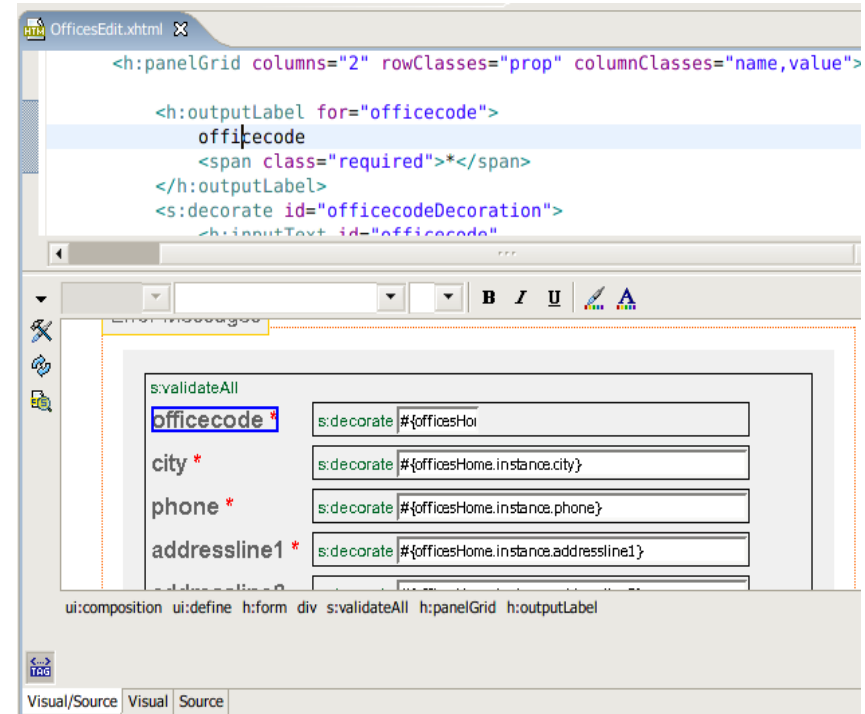
Detailed Product Roadmaps

JBoss Enterprise Middleware

- **Develop (developer tools & frameworks)**
 - *JBoss Developer Studio*: Full-featured development environment
 - *JBoss jBPM*: Business process automation & workflow engine
 - *JBoss Rules*: Business rules definition & management system
 - *JBoss Hibernate*: Object-relational mapping & persistence
 - *JBoss Seam*: Web 2.0 application framework
- **Deploy and Integrate (enterprise runtime platforms)**
 - *JBoss Application Platform*: Java EE application & service platform
 - *JBoss Portal Platform*: Personalized user interaction platform
 - *MetaMatrix*: Metadata-driven data services/federation platform
 - *JBoss SOA Platform*: Application & service integration platform
 - *JBoss Communications Platform*: Voice, video and data Telco platform
- **Manage (operational tools)**
 - *JBoss Operations Network*: JBoss administration/monitoring

JBoss Developer Studio

- Provides a unified, simple, and powerful programming environment for rich Web 2.0 applications
 - Innovative tooling support for AJAX, JBoss Seam, JavaServer Faces, and rich enterprise applications
 - Graphical design and editing of business processes and rules
 - Robust Java EE tools and debugging
- Runs on Windows & comes with RHEL for added virtualization benefits
- Integrated platform and tools ensures consistency throughout the development lifecycle
- Annual subscriptions start at \$99



Visual/Source JSF Editor

A comprehensive, open source development environment that integrates Red Hat/JBoss platforms with rich, Eclipse-based tools

JBoss Developer Studio

Recently Released

- JBoss Developer Studio 1.0 (Dec 2007)
 - Eclipse 3.3 Platform + WTP
 - Out-of-box integration with JBoss EAP
 - Server Lifecycle management, debugging
 - J(2)EE and EJB3 Tools, JSP/JSF/XML/HTML editing
 - AJAX Support
 - Hibernate tools, mapping visualization
 - Struts and Spring tooling
 - Database explorer
 - Seam tooling
 - jBPM process designer

JBoss Developer Studio

Roadmap

- Apr/May 2008: JBoss Developer Studio 1.1
 - Updated with JBoss EAP 4.3
 - Mac OSX support
 - Additional planned tooling
 - JBoss Rules (designer/debugger) inclusion
 - JBoss WS Tools
 - Portlet Wizard
- Q4 2008: JBoss Developer Studio
 - v2: updated with JBoss EAP 5.0
 - SOA Edition
 - ESB XML Editor
 - Drools and jBPM plug-ins

JBoss Enterprise Application Platform

JBoss Enterprise Application Platform

JBoss Seam

JBoss Hibernate

JBoss Application Server

Java EE, Apache Tomcat, Clustering, Cache

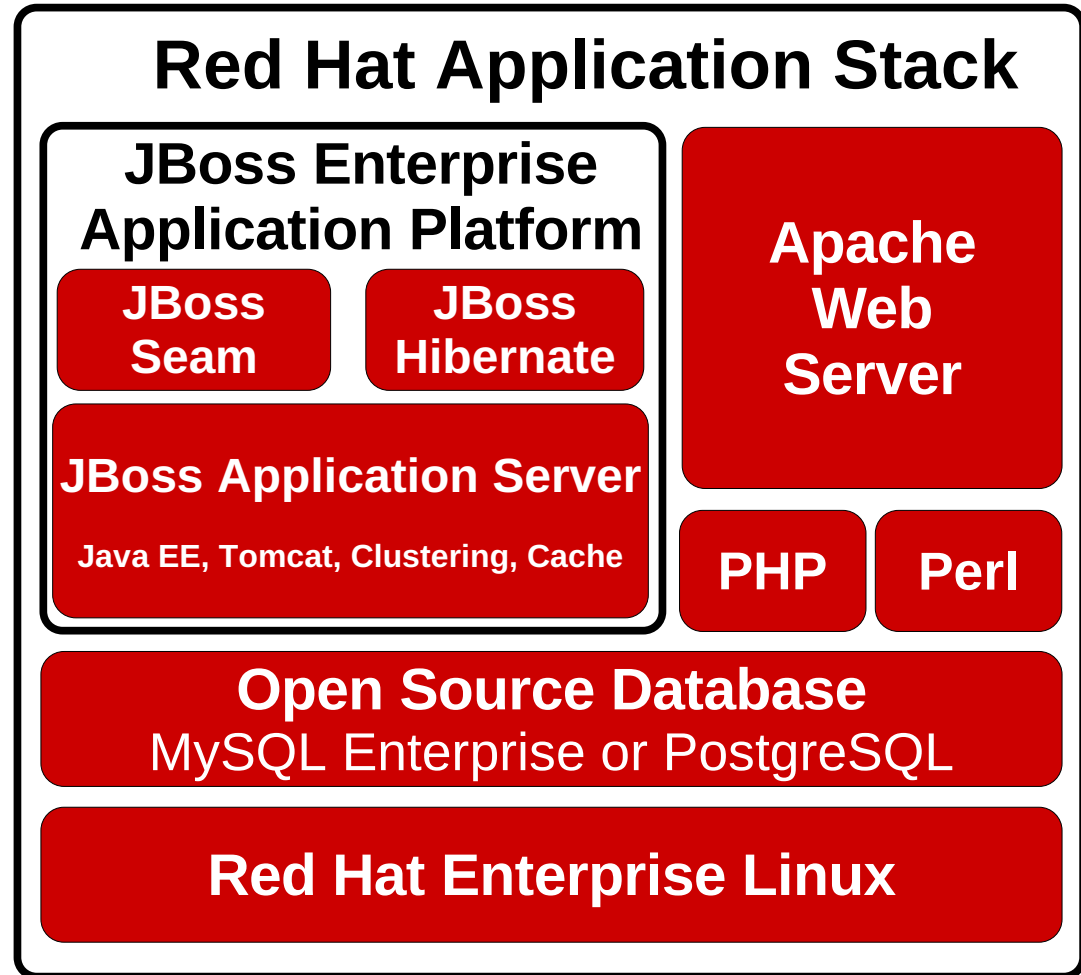
Red Hat Enterprise Linux
Windows, Unix, Other Linux

- Integrates industry leading middleware for application presentation, services hosting, and data persistence
- Single enterprise distribution includes
 - **JBoss Application Server:** the most widely used Java application server on the market; certified JEE platform that includes Tomcat, Cache, Messaging, Clustering
 - **Hibernate:** the leading technology for object/relational mapping (ORM) and persistence
 - **Seam:** powerful application framework that simplifies building next generation Web 2.0 applications
- **Multi-platform: any hardware, supports leading Operating Systems with a compliant JVM**
- **Certified Java Application Server Platform, available through RHN and/or JBoss ON**
- **Simple, Flexible, & Scalable: customizable footprint, simple installation**

Includes everything you need to run standards-based web and rich enterprise Java applications and host services

Red Hat Application Stack

- The best of open source available under one subscription, all through the Red Hat Network
- Use for standards-based web applications
 - Full Java applications (Enterprise Java Beans)
 - JSP/Servlet Applications (Tomcat)
 - LAMP: PHP or Perl scripted applications
 - Dynamic, database-driven web applications using standard or object oriented SQL queries
- Service levels for all types of applications, from departmental to mission critical



JBoss Enterprise Application Platform

Recently Released

- Jul 2007: JBoss Enterprise Application Platform 4.2
- Jan 2008: JBoss Enterprise Application Platform 4.3
 - Application Server 4.2.x + patches
 - JBoss WS 2.0, full JAX-WS Support
 - JBoss Messaging
 - High Performance JMS 1.1 provider
 - XA Integration with JBoss Transactions
 - Clustered Queues and Topics
 - Transparent Fail-over
 - Hibernate 3.2.x
 - Seam 1.2.x + patches

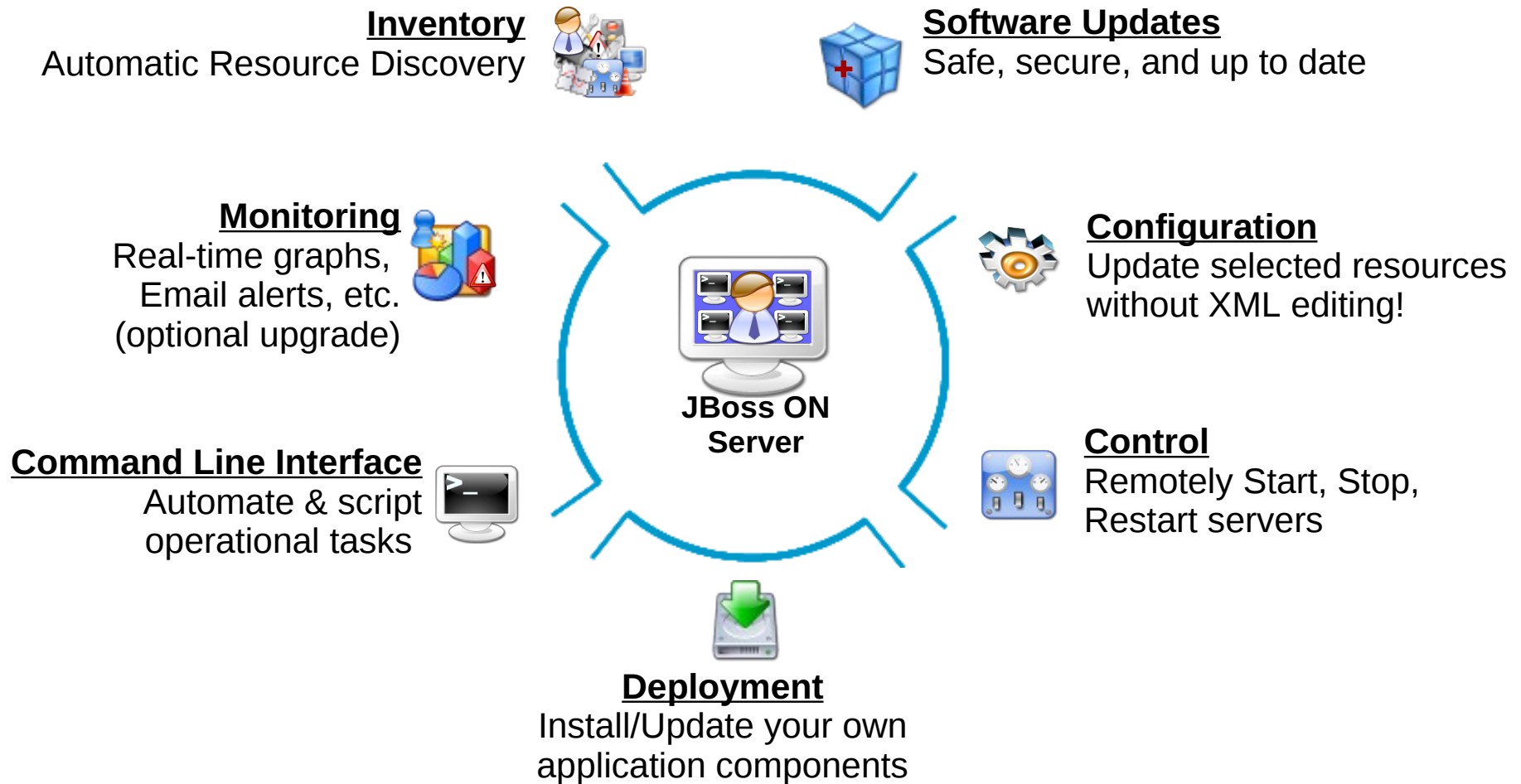
JBoss Enterprise Application Platform

Roadmap

- Q4 2008: JBoss Enterprise Application Platform 5.0
 - Application Server 5
 - JEE 5 Certification
 - JBoss Microcontainer: POJO-based kernel, advanced IoC
 - New Deployer Architecture
 - New Configuration API (Profiler Service)
 - New Classloading architecture
 - Support for other component models (OSGi)
 - Apache Portable Runtime (native performance)
 - Latest Hibernate
 - Seam 2 with enhanced integration: JBoss WS, Google Web Toolkit, Spring, Hibernate search

JBoss Operations Network

Simplifying Middleware Management for IT Administrators



JBoss Operations Network

Recently Released

- JBoss ON 2.0 (May 2008)
 - Advanced Configuration Management: auditing and versioning, leverages new AS 5 profiler service
 - Improved scalability: improved data model for collection and storage
 - Support for JDK platform monitoring (garbage collection)
 - New Plugin Architecture: easier to extend capabilities, automatically managed by the server, allows rich administration with little plugin effort
 - Enhanced security model, support for larger environments
 - Enhanced cluster support: cluster discovery, group and cluster wide administration and deployment

JBoss Enterprise Portal Platform

- **Includes everything you need to host and serve a portal's Web interface, publish and manage its content, and customize its experience.**
 - Single distribution that integrates JBoss Portal, JBoss Application Server (including Tomcat, Cache, Messaging), Hibernate, and Clustering
 - Multi-platform (e.g. RHEL, SUSE, Windows, Solaris); platform Portability
 - Any hardware, any OS with compliant JVM
- **Certified Platform for Portal-based Applications**
- **Simple, Flexible, & Scalable**
 - Light footprint, simple installation
 - Scalable clustering to support high transaction volumes

**JBoss Enterprise
Portal Platform**

JBoss Portal

**JBoss Enterprise
Application Platform**

Red Hat Enterprise Linux
Windows, Unix, Other Linux

JBoss Portal Platform 2.6.x

- Current generation of portal - incremental enhancements that will be time boxed and released
- 2.6.2 October 2007
 - Usability improvements
 - New identity portlet
 - SSO open source framework integration (OpenSSO, Josso, CAS)
 - User registration process (jBPM & Captcha)
 - WSRP file upload implementation
- 2.6.4 Today
 - Better support for internationalization (pages, themes, portlet instances)
 - Support for portlet defining icons
 - Rich Faces integration
 - Portlet initially maximized on a page

JBoss Portal Platform Roadmap - 2.7

- This release of the portal is targeted to Sept-2008
- Highlights
 - Support for Portlet 2.0 specification
 - Certified Portlet 2.0 container
 - Page parameters
 - Administration tool support for portlet 2.0 specification
 - Introspect portlet 2.0 features
 - Portlet 2.0 coordination configuration – e.g., event wiring and render parameter sharing

JBoss Portal Platform Roadmap - 2.8

- This release of the portal is targeted for early 2009
- Highlights
 - Engineer the core technology to allow the portal engine to be separated from the presentation engine. This will allow the portal platform to support several user interface technologies. The initial engines to be supported are
 - Pure AJAX --> This will allow developers to build a portal application in AJAX and GWT
 - Classic --> This will allow developers to build a traditional portal application using JSF and/or JSP presentation layers.
 - Future implementations would allow developers to target presentation technologies like Flash/Flex, enterprise mashups, ...

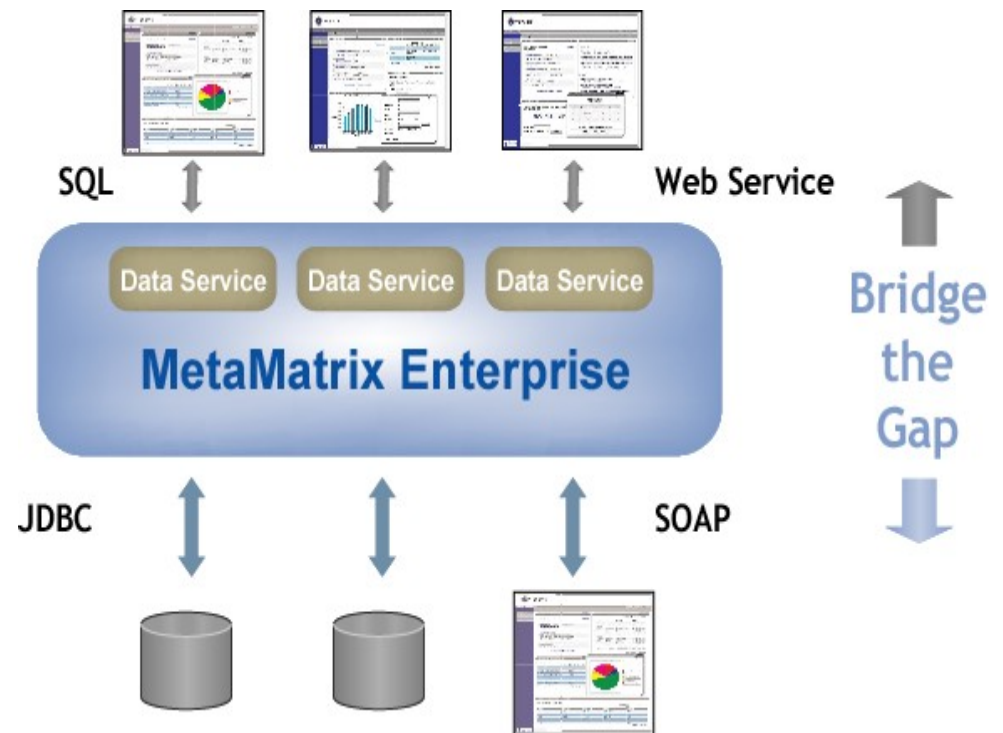
Seam Integration

- JBoss Portlet Bridge
- Simplify Portlet Development
 - JSF
 - Reduce XML Meta Data
 - Visually Design Page Flow
 - EJB3
 - Safe, Declarative State Management
- AJAX Enabled/High Fidelity Portlets
 - Ajax4Jsf
 - RichFaces
- Ease Integration
 - Business Processes (JBoss jBPM)
 - Business Rules (JBoss Rules)

MetaMatrix Enterprise Data Services Platform

What Does It Do?

- **Standards-based read/write access to distributed, heterogeneous enterprise data stores. Service-enable data to meet SOA demands.**
- Speeds application development by simplifying access to distributed data
- Transforms data structure and semantics
 - Vocabulary difference
 - Schema compliance
- Consolidates data into a “single view” without the need to move data
- Centralized access control, auditing through robust security infrastructure
- Enterprise-proven –flexible, scalable, performant



MetaMatrix Product Plans – Sept 2008

■ 5.5 SP3

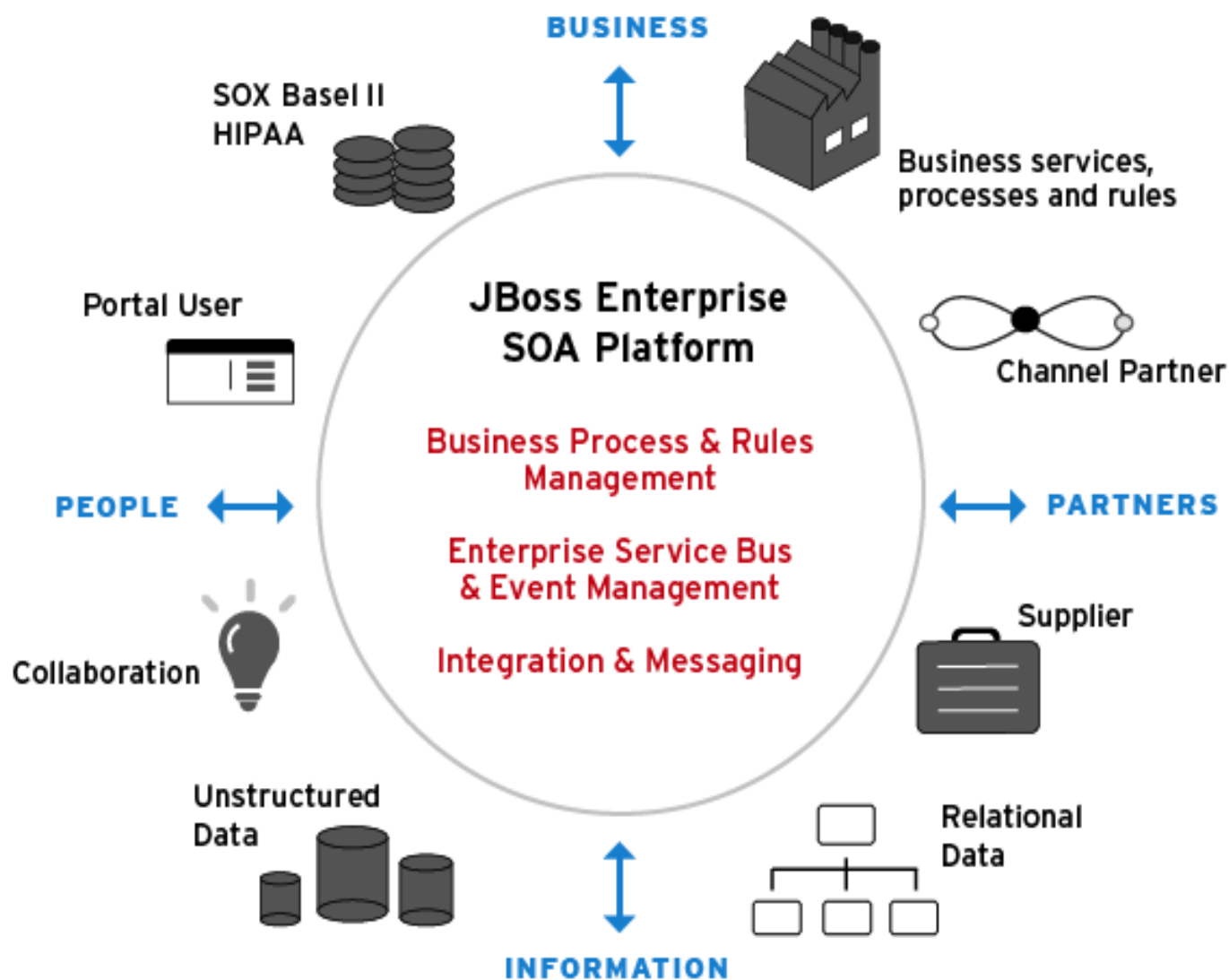
- Designer usability Improvements
- JB Integrations
 - ESB
 - Hibernate
- RHQ – Web-based console
- Caching improvements
- Salesforce.com support included in product (available for V5.5.2)
- SQL pass-through support
- Improved text output capability
- Netezza as data source support

MetaMatrix Product Plans – December 2008

■ Version 5.6 - Subscription

- Transaction improvements: transactional custom connectors, transaction query engine component.
- Caching/staging improvements: use distributed cache, materialized view maintenance, in-memory db
- Support for external vendor-provided DB drivers (DataDirect)
- Adopt microcontainer architecture
- Source/build re-org for OSS, highlighting componentization.
- Enhanced VDB “reuse”
- Security enhancements
- Basic SQL/XML support
- Subquery/costing optimizations and improvements

Value Chain Integration Challenge



JBoss Enterprise SOA Platform

- **Enables Business Process Automation by integrating and orchestrating application components and services running on JBoss Enterprise Middleware and/or any other standards-based AS**
 - Single distribution that integrates JBoss ESB, jBPM, Rules, JBoss Enterprise Application Platform
 - Combines integration, SOA, BPM, and EDA technologies to automate business processes to improve business productivity
- **Certified Platform for Service Integration, Orchestration and Business Process Automation**
- **Simple, Flexible, & Scalable**
 - Light footprint, simple installation
 - Scalable clustering to support high transaction volumes
 - Customizable footprint

JBoss Enterprise SOA Platform

JBoss jBPM

JBoss Rules

JBoss ESB

Transformation, Routing, Registry

**JBoss Enterprise
Application Platform**

Red Hat Enterprise Linux
Windows, Unix, Other Linux

JBoss SOA Platform - Roadmap

- **SOA-P V4.3 – 4Q 2008 GA**
 - Transports – S-FTP, HTTPS, etc...
 - Gateways – RMI, POP3/IMAP, SQL
 - Web Services - .NET interoperability
 - Platform based security – SSO and message-based
 - Consolidate consoles, JON 2.0
- **JBoss Dev Studio SOA Edition – 4Q 2008 GA**
 - ESB XML Editor
 - Drools and jBPM plug-ins
- **BRMS Product – 4Q 2008 GA**
 - Add-on to Rules Framework and SOA-P

JBoss SOA Platform - Roadmap

- SOA-P V5.0 – 3Q 2009 GA
 - EAP 5.0
 - MRG
 - SCA/SDO
 - JBI
 - Complex Event Processing via Drools V5.0, BRMS, Real-time BAM
 - OSGi support
 - SLA/Policy mgmt and enforcement
 - MetaMatrix integration (technical – out of the box)
 - OEM BPEL or ODE
- JBDS SOA Edition – 3Q 2009 GA
 - Updated web services, SCA, OEM BPEL or ODE

JBoss Enterprise SOA Platform

jBPM Roadmap

- jBPM 3.2.2 (Sept. 2007)
 - Runtime engine, web console, eclipse designer
 - JPDL, Seam pageflow, BPEL 1.1 (most BPEL 2.0 features available already)
- jBPM 3.2.3 (Next Release)
 - Tech Preview: WS interface, Simulation
- jBPM 4.0
 - Improved DB performance
 - Full BPEL 2.0 support
 - Process Virtual Machine (PVM): mixed graph/composite processes, annotations, concurrent paths of execution, new event model handlers, async messaging, flexible TX demarcation

JBoss Enterprise SOA Platform

JBoss Rules

- JBoss Rules 4.0.3 (Nov. 2007)
 - Enhanced performance
 - Language enhancements: data-pulls from inside Rules (“from”), also not matches, not contains, not in, etc., etc.
 - RuleFlows
 - Stateful and Stateless working memories
 - BRMS tech preview: GWT/AJAX console for Business Analysts, rule authoring wizards, rule agents and rule versioning
- Planned Features
 - Clips language compatibility: eases migrations from Jess
 - BRMS Production Support
 - Streams (Entry Points)
 - Backward-chaining

JBoss Enterprise SOA Platform

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Next Steps

Creating New Applications?

- JBoss Enterprise Platforms & Frameworks

<http://www.jboss.com/products>

- Red Hat Developer Subscriptions

<http://www.redhat.com/developers/subscriptions.html>

- Using JBoss Technologies & Want Subscription

<https://www.redhat.com/apps/store/jboss/>

Migrating Existing Applications?

- Migration Services

<http://www.jboss.com/services/migration>

General Questions?

<http://www.redhat.com/contact>

