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Migration from JCAPS 5.1.X to Java CAPS 6

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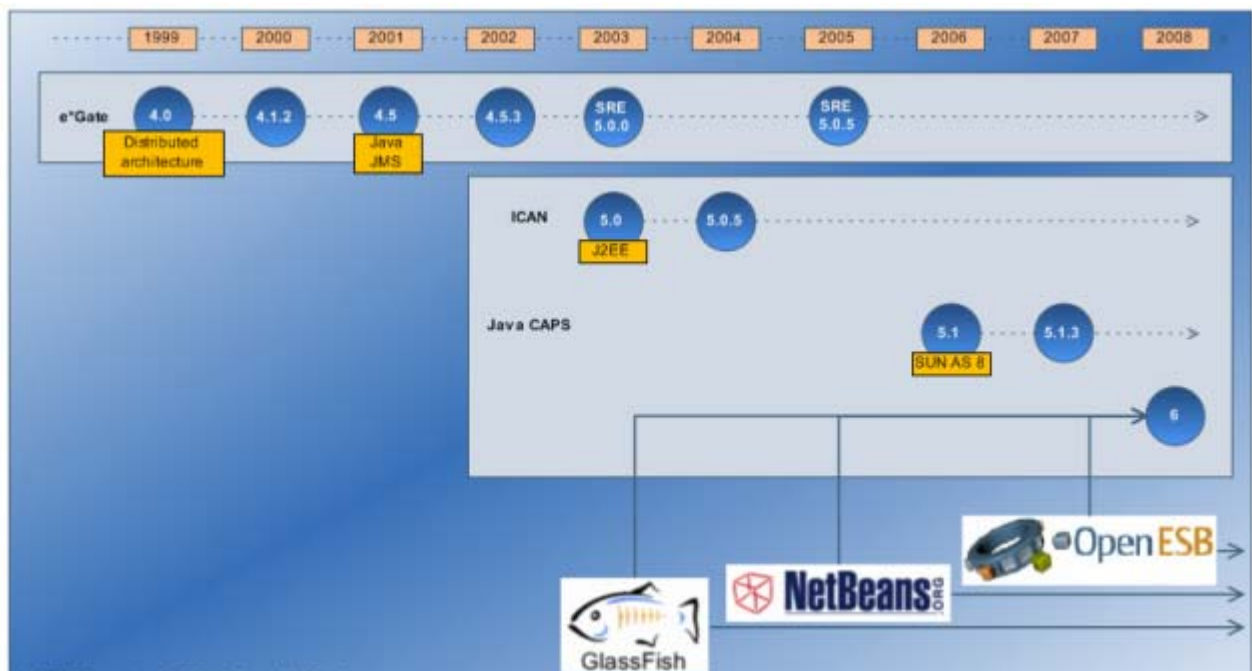
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1 Scope of this Document

This document gives the overall approach to migrate JCAPS 5.1.X. This document is intended for use by the team while migrating old versions of Java CAPS 5.1.X products to Java CAPS 6.

2 Business Overview

The below diagram will provide Java CAPS History.





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2.1 SeeBeyond versions snapshot



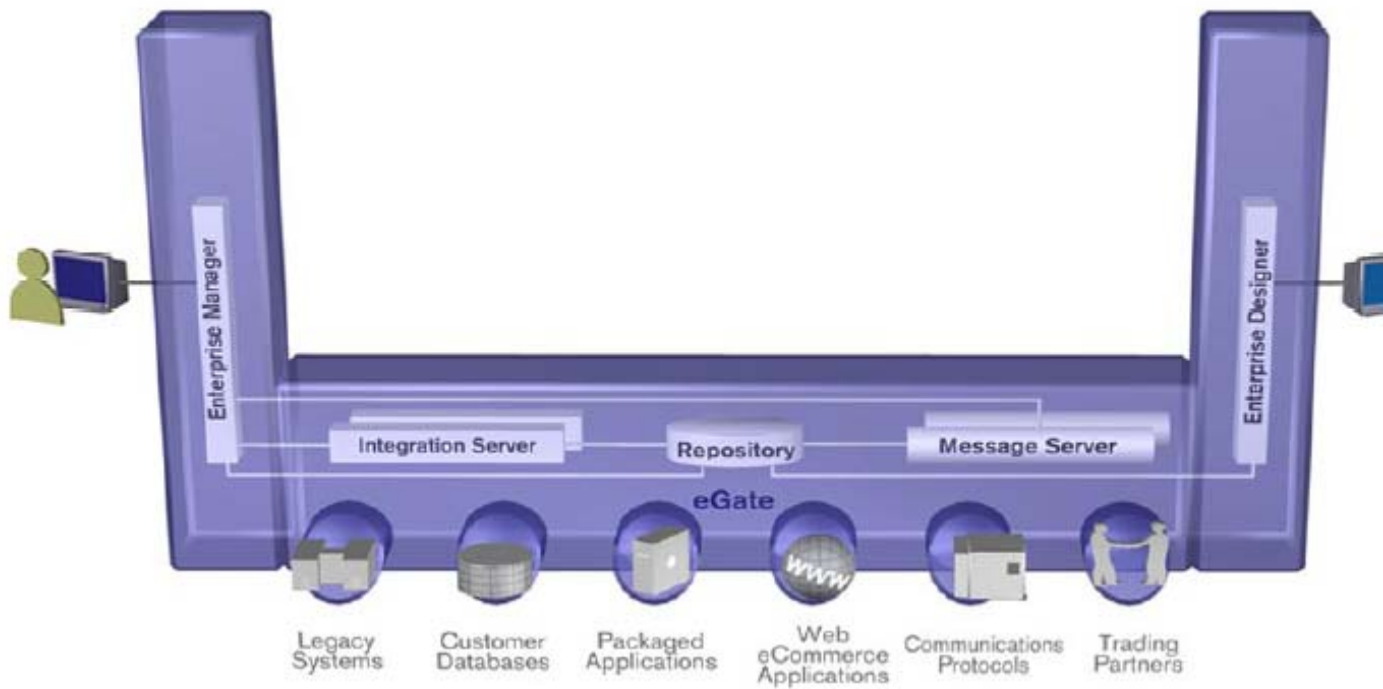
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The above diagram is a self explanatory figure that shows the versions of Seebeyond eGate 4.5X is in bottom, SRE, ICAN and JCAPS 5.1.x and Java CAPS 6 on top of that.

2.2 ICAN Architecture

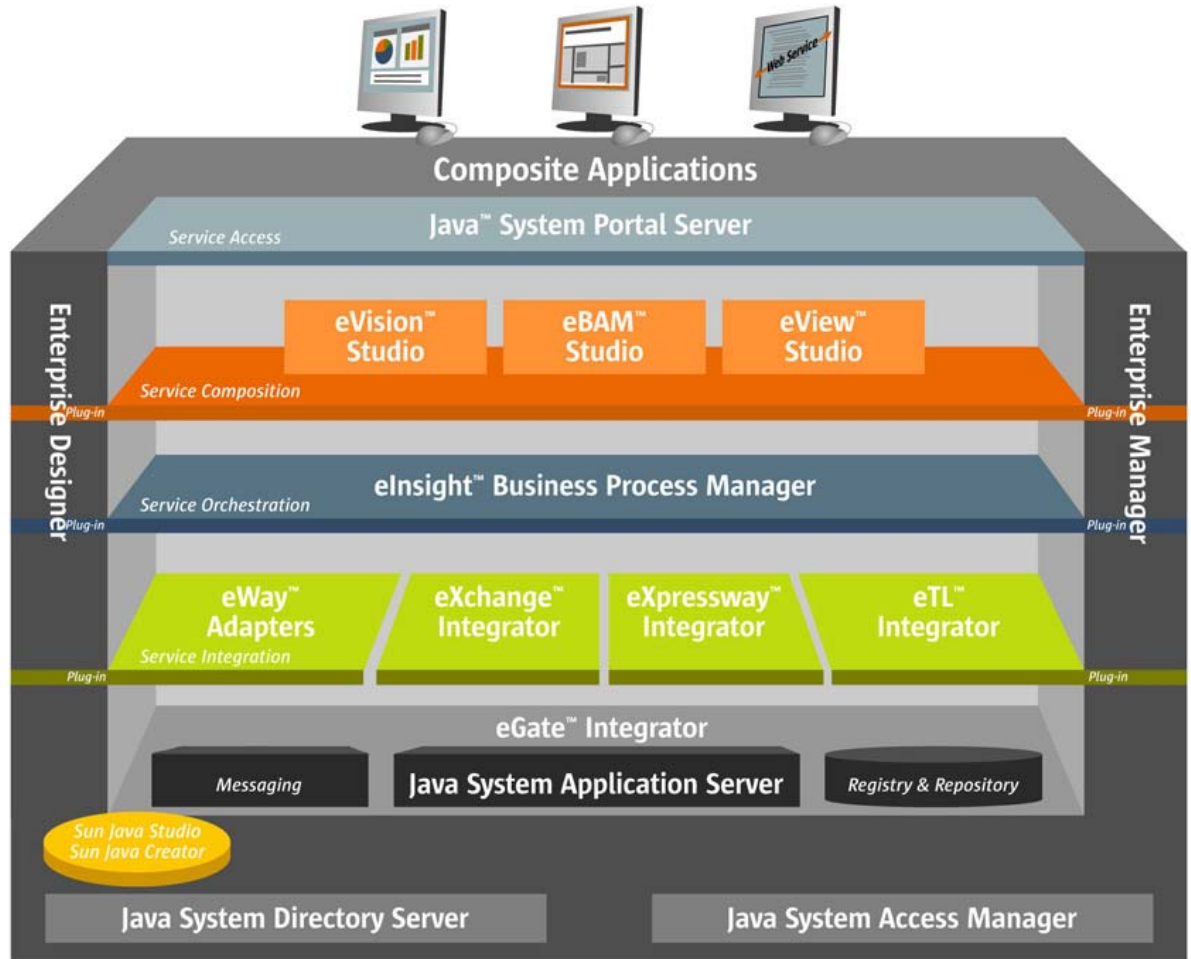




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2.3 JCAPS 5.1.X Architecture



2.4 JCAPS 6 Architecture



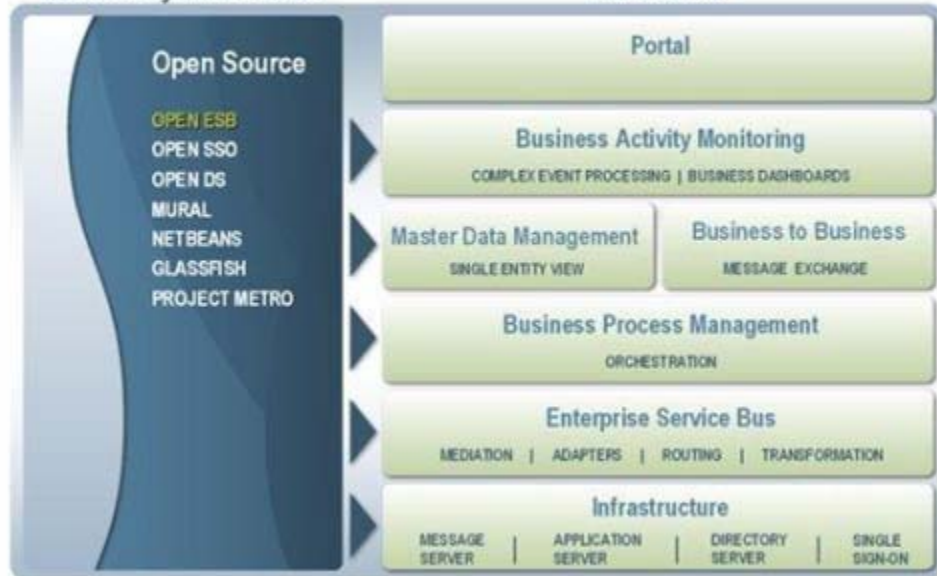
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Java Composite Application Platform Suite

Community Contribution

Java CAPS





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3 Java CAPS 6 Features

3.1 How Different compare to Java CAPS 5.1.X

We can develop application in three types using Java CAPS 6

- Repository Based
- JBI Based
- Java EE

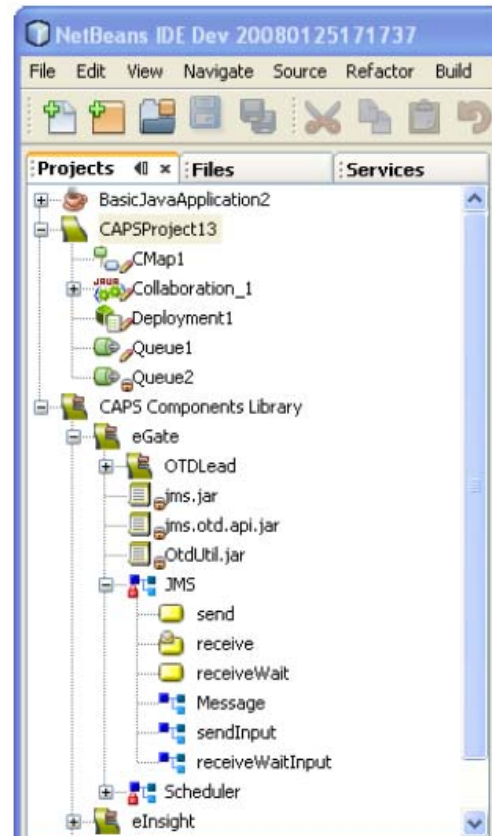
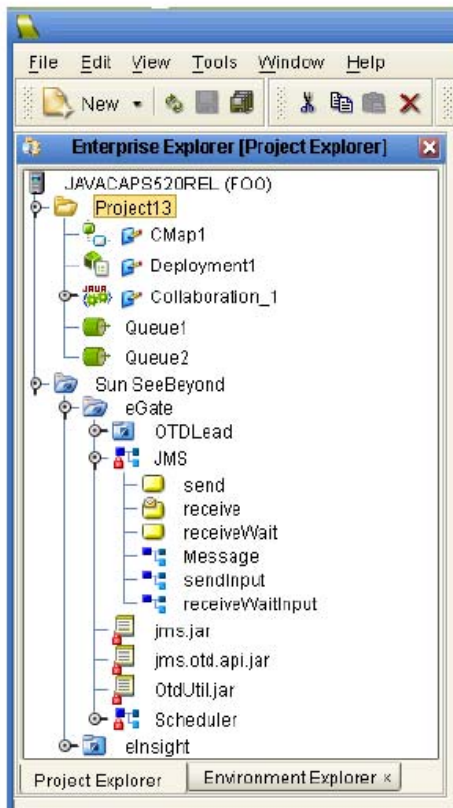
3.2 Java CAPS 6 Architecture

- NetBeans 6.1 as CAPS IDE
- Integrated, visual development environment for developing composite applications, Java EE applications, web applications, mobile applications and web services.
- Java CAPS 5.1 editors continue to be available as NetBeans plugins
- Improved build/deployment performance and tools
- Multi-platform support: Windows, Solaris, Red Hat Linux, and Mac
- Look and fell of Java CAPS 5.1.X and Java CAPS 6 IDE



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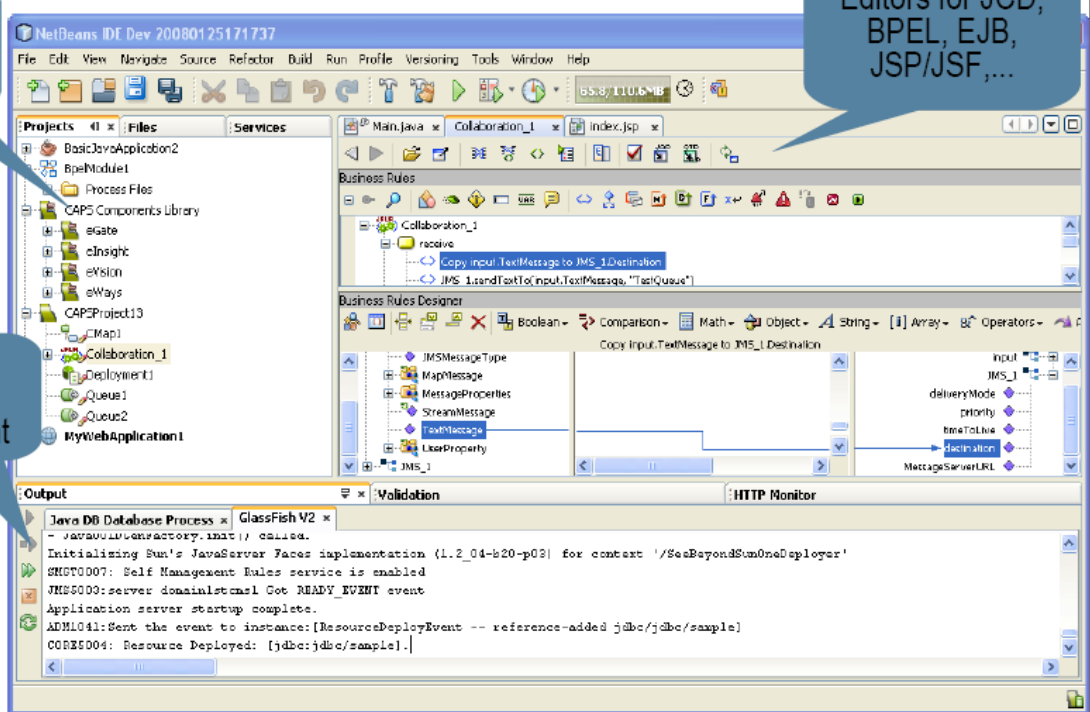
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Unified projectview

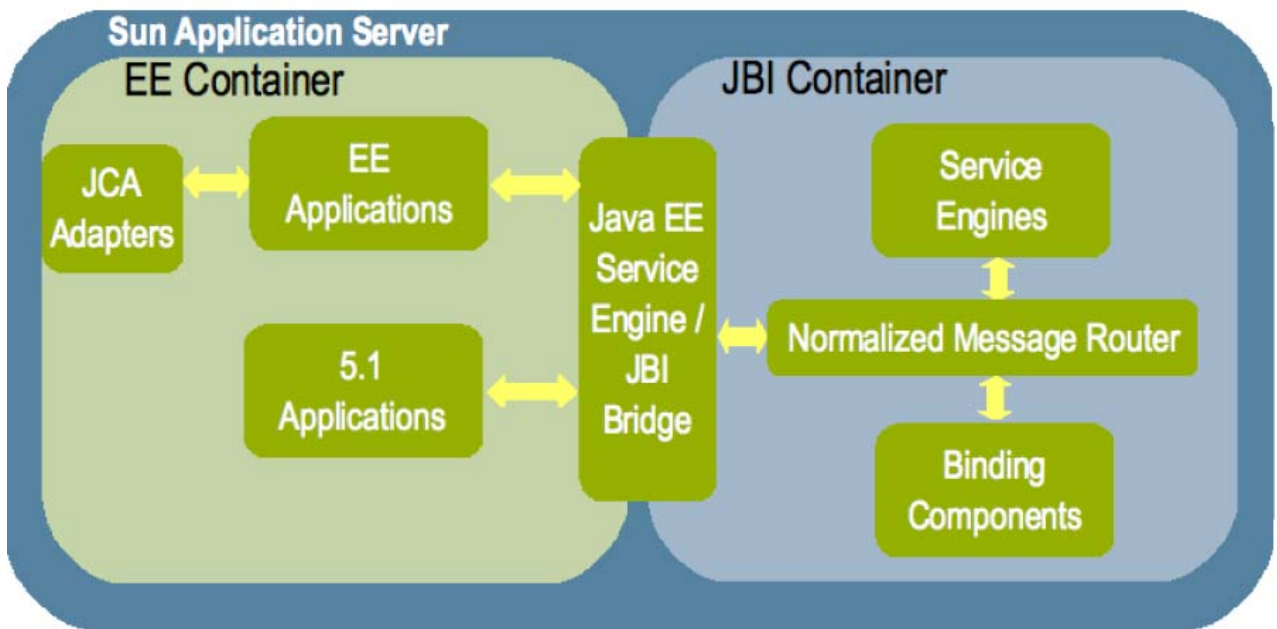
Editors for JCD, BPEL, EJB, JSP/JSF,...

Manage runtime environment



3.3 Java CAPS 6 Architecture & Platform

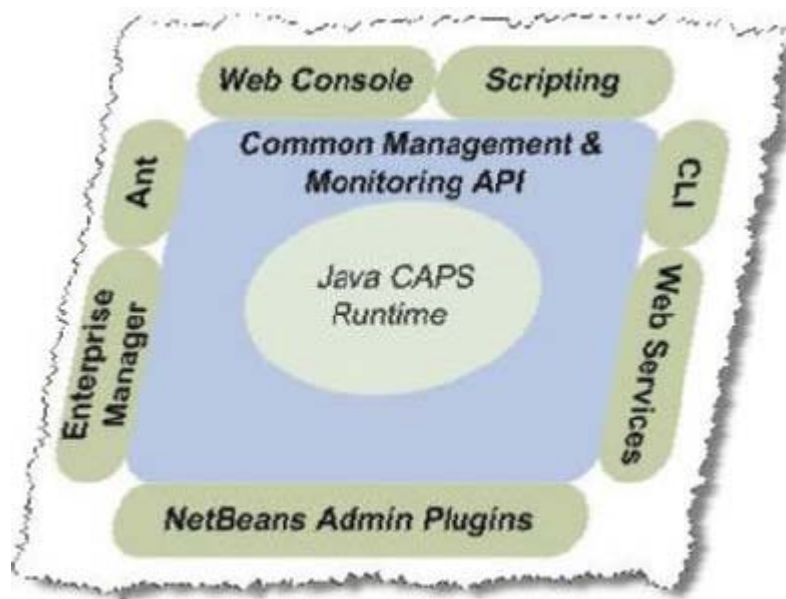
- 1) Sun App Server v9.1 (Glassfish v2) as CAPS runtime
 - Java EE 5, high performance, enterprise quality, and interoperability with .NET
 - App Server Admin Console for administration and management of Java CAPS runtime components
 - Tight integration with STCMS simplifying message server life cycle management
 - Interoperability between Java EE and JBI components via JBI Bridge and Java EE SE



4 Simplified Component Names Java CAPS

Java CAPS 5.1.X	Java CAPS 6
Sun SeeBeyond eGate Integrator	Sun Enterprise Service Bus
Sun SeeBeyond eInsight BPM	Sun Business Process Manager
Sun SeeBeyond eView Studio	Sun Master Index
Sun SeeBeyond eXchange Integrator	Sun B2B Integrator
Sun SeeBeyond eTL Integrator	Sun Data Integrator
Sun SeeBeyond eVision Studio	Sun Visual Page Designer

5 Management and Monitoring



5.1 Common Management API

- Robust Java API as foundation for management applications
- Able to build custom management interface

5.2 New scripting support (JSR 223-Compliant)

- Management capability accessible from over twenty-five different scripting languages including Groovy, JRuby, Jython, JAACL, and more!

5.3 Managing and Monitoring Components



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The screenshot shows the Sun Java System Application Server Admin Console. The breadcrumb path is JBI > Components > sun-http-binding. The page has tabs for General, Configuration, Descriptor, Loggers, Targets, and Monitoring. The 'Loggers' tab is active. It displays the 'View Instance: server' dropdown and the title 'sun-http-binding - Manage Binding Component Loggers'. Below the title is a list of log levels: FINEST, FINE, CONFIG, INFO, WARNING, SEVERE, and DEFAULT. A 'Load Defaults' button is present. At the bottom, there is an 'Update Instance(s):' field with a dropdown menu showing 'server'.

- Integrated with AppServer Admin Console, asadmin, and asant for managing JBI-based components
- Repository-based applications continue to be managed by Enterprise Manager

6 Message Servers

- 6.1 Sun SeeBeyond JMS IQ Manager (STCMS)
- 6.2 Sun Java Message Service Grid (JMS Grid) 5.1.3
- 6.3 Sun Java MQ 4.1

7 Application Configuration

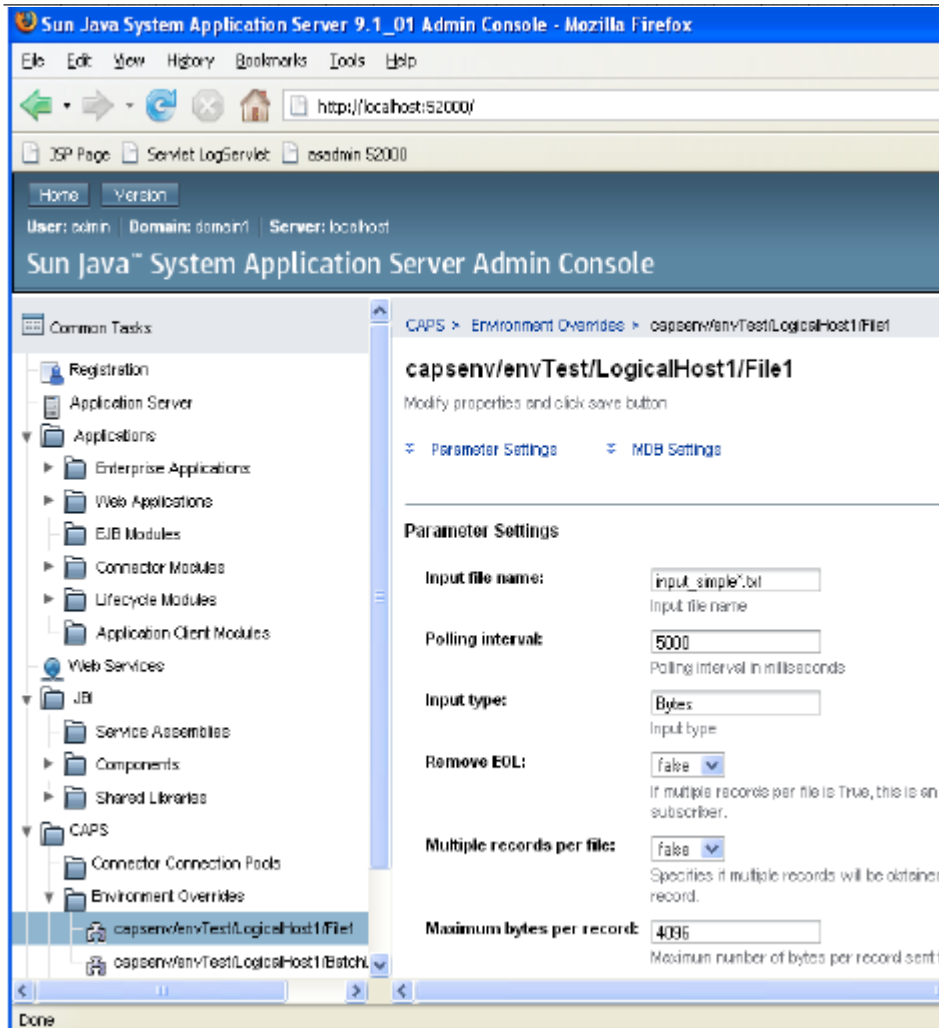
7.1 Application can now be configured in the runtime environment

- Configuration values in application deployables (EARs, RARs, and SAs) are default and can be overridden at runtime



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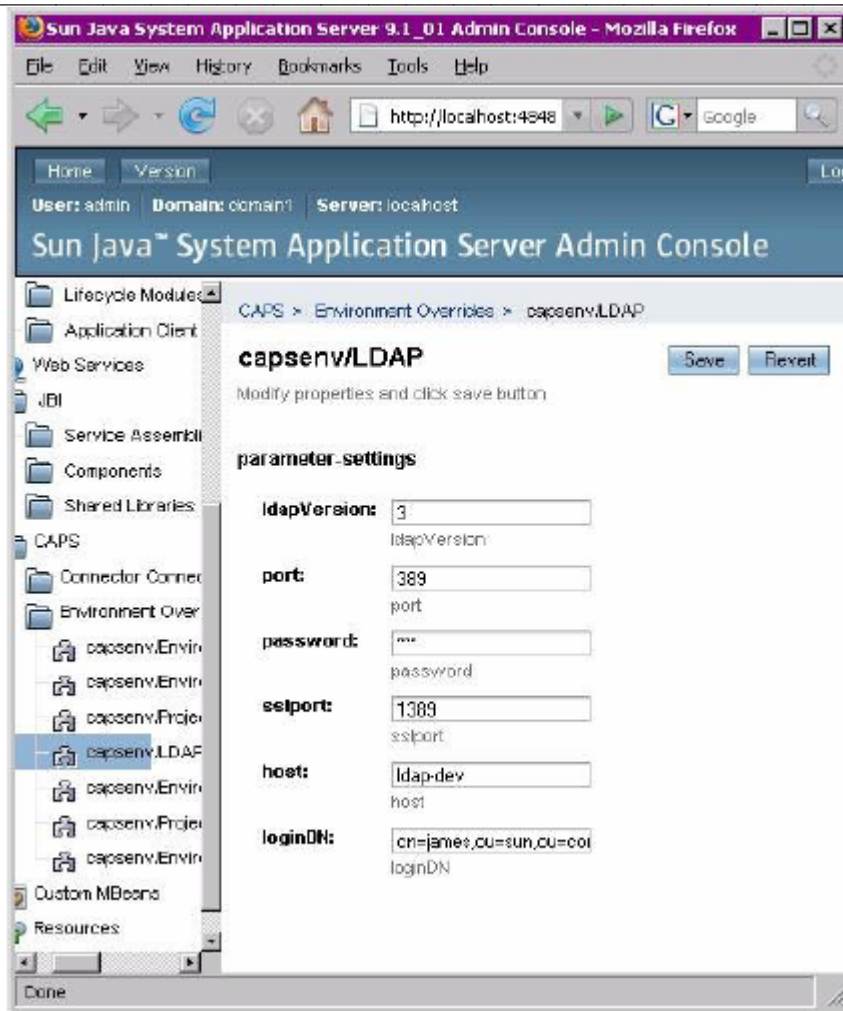


- Configuration of LDAP connectivity moved to runtime environment



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7.2 Sub Collaboration Support

- Ability for one Java Collaboration to call another Java Collaboration



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8 Business Process Management

- 8.1 Support for Event Handlers to correlate and process adhoc messages
- 8.2 Added the ability to programmatically manage service end-points
- 8.3 Enhanced performance and scalability
- 8.4 Enables loose coupling of services and BP models using standards-compliant WSDLs and CASA Editor
- 8.5 Supports BPEL versions 1,X and 2.0
- 8.6 Enhanced Business Rules Mapper
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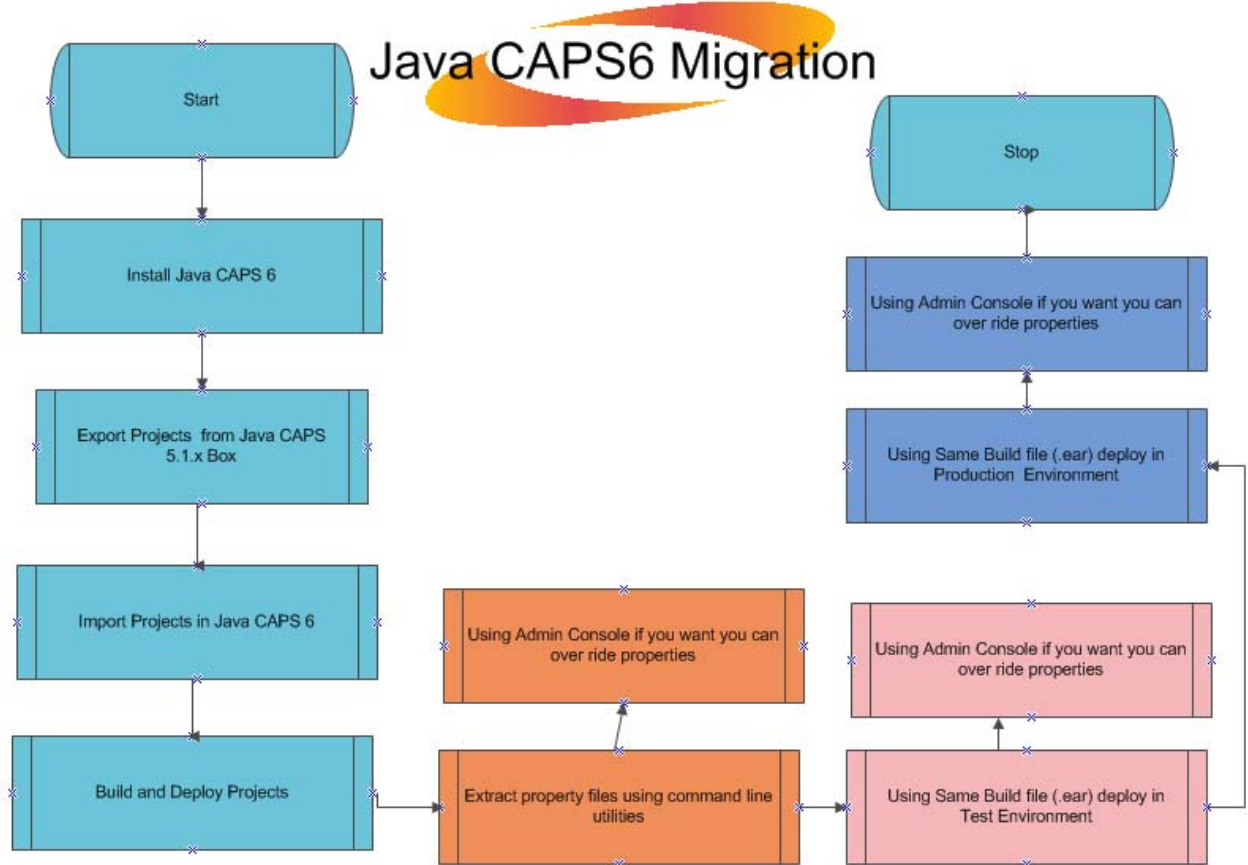
9 What are missing in Initial Java CAPS 6 GA?

- 9.1 XSLT Collaborations
- 9.2 Business Activity Monitor (BAM) , will be replaced with Intelligent Event Processor
- 9.3 Deployment to WebLogic and WebSphere
- 9.4 Common Monitoring tool to manage Repository based projects, JBI Based Projects

10 Migration Approach

10.1 Steps involved in migrating Java CAPS 5.1.X to Java CAPS 6

Following Flow chart explains the steps involved in Migrating Java CAPS 5.1.X to Java CAPS 6



- 1) Install Java CAPS 6 (Single Executable file which installs all mentioned products)
 - a. Repository
 - b. Logical host
 - c. Install e-Manager
 - d. Install Net Beans IDE
 - e. Install UDDI Server



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f. Install required ESR

- 2) Export Projects from 5.1.X
- 3) Import Projects in Java CAPS 6
- 4) Build Projects
- 5) Deploy Projects
- 6) Manage Projects using e-Manager
- 7) If you want over right Parameters you can over right using Glassfish server admin console
- 8) Same .ear file can be used to deploy projects in Test/Pre prod and Production Environments where we need to over ride Parameters.

Benefits

Migration of Projects from Java CAPS 5.1X to Java CAPS 6 is fairly simple and can be done easily.

- 1) No need to recompile OTD or Collaborations
- 2) No need to re write Java Collaborations
- 3) Components in the Java CAPS 6 interact with each other and with external systems with the same functionality that existed prior to upgrading
- 4) Publish/subscribe to Java CAPS 6 from Java EE Platform Project and vice versa
- 5) Property override features provides flexibility not to rebuild and deploy projects when only changes in property files.
- 6) Same Build (.ear) file can be used to deploy in Enterprise , which ever environment you like , no need to build projects depending on environments

Issues/Problems

- 1) If XSLT Collaboration present in Java CAPS 5.1.X , those are not supported in Java CAPS 6 , Need to re-design and re-code them in Java Collaborations
- 2) If any projects uses eBAM features, same will not be supported in Java CAPS 6.
- 3) Does not Support multiple Application Servers : Deploying applications onto WebLogic and WebSphere are removed in Java CAPS 6
- 4) Though Java CAPS 6, provides flexibility to the users to develop projects in three varieties (Repository, JBI, Java EE), there is no single application /Manager to manage and monitor all applications. For Managing Repository based on applications we should use old e-Manager and for JBI projects we need to use Glass fish admin console.

11 Upgrading Java CAPS 5.1.X to Java CAPS 6

JCAPS 6, provides flexibility to develop projects in three approaches

- 1) Repository
- 2) JBI
- 3) Java EE

All existing features present in Java CAPS 5.1.X are ported in Java CAPS 6.

This task can be achieved in two approaches

- Upgrade projects to Java CAPS 6 and develop new projects also as Repository based
- Upgrade projects to Java CAPS 6 and develop new projects using JBI or Java EE

11.1 Upgrade Projects to Java CAPS 6 and develop new projects in Repository based mode

Following steps to be performed as part of conversion

- Export Project from Java CAPS 5.1.X
- Install Java CAPS 6
- Import Projects in Java CAPS Repository
- Build Projects
- Deploy Projects on to Glass fish Server
- Configuration Properties can be over ride using Glassfish admin console.
- Need to re-consider scalability, deployment, user management and ACL options.

Benefits

- Direct Migration
- Great look and feel
- Business Process Manager supports BPEL 1.X and BPEL 2.0



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Disadvantages

- Does not Support XSLT: If any projects have XSLT collaborations they need to rebuild
- Does not Support multiple Application Servers : Deploying applications onto WebLogic and WebSphere are removed in Java CAPS 6
- eBAM projects cannot be migrated as of now.

11.2 Upgrade Projects to Java CAPS 6 and develop new projects in JBI Mode

This process is same as 11.1. Once we have migrated our projects to Java CAPS 6, then we can start developing new projects using JBI or Java EE.

JBI Bridge can be used to communicate between different projects (i.e. Repository, JBI and Java EE)

Advantages

- Making Applications as JBI and rich Internet Applications
- Easy to develop SOA Applications/ Web services

Disadvantages

- JBI Binding components and Service Engines are not available for all eWay Adapters present in Repository
- No common Managing component to manage both repository based projects and non repository based projects