

Presentation

# „JBoss JEE5 with EJB3.0 on NonStop“

JAVA SIG, San Jose



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# Agenda

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- Motivation
- JBoss JEE 5
- Proof of concept:  
Porting OmnivoBase to JBoss JEE5 for NonStop  
( with remarks for NonStop )
- Conclusion

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Motivation

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## Motivation

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- In the last year the use of JEE Application Server is rated up from 35% (J2EE 1.4) to 49% (JEE 5). So, there is a new market for JEE Application Server (JEE 5). The reason is the new JEE Specification.

Not every customer will rely on servlet container like Tomcat.

- The use of servlet container like Tomcat is slightly higher than JEE Application Server.
- On HP NonStop we can use WebLogic 9.2 (J2EE 1.4) or the Open Source Application Server JBoss (JEE 5).

The currently, available version of WebLogic 9.2 for HP-NonStop is out of interest.

## Why has the JEE 5 specification such a success?

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- Development is much more easier than before.
  - Less XML Configuration as before (Deployment Descriptor optional).
  - Easier Development POJO, POJI by using Annotations.
- Java EE5 is now surprisingly portable.  
No use of vendor specific deployment descriptor.
- Java Persistent API is much more better than Entity Beans of J2EE 1.4.

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JBoss JEE5 with EJB3.0 on NonStop

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## JBoss Releases by Red Hat

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- JBoss Release 5.1 (Open Source)
  - JDK 1.5 and JDK 1.6
- JBoss Release 5.0 with 24x7 support by JBoss
  - JDK 1.6.X
- Current Development Release 6.0M4
  - JDK 1.6.X

## JBoss Application Server – additional products available

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- JBoss Seam – Web 2.0
  - JBoss Enterprise Service Bus (ESB)
  - Java Business Integration (JBI)
  - JBoss jBPM Business process management  
...and much more...
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- And many more tools and products to use with Jboss.  
Have a look at <http://www.jboss.org/projects>



## New Features of JEE5

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- StAX: Streaming API for XML
- Java Persistence: EJB 3.0 (JBoss by using Hibernate)
- WS Metadata: Annotations for Webservice Development
- JAX-WS: Simplifies the Webservice Development
- JSTL: JavaServer Standard Tag Library
- JSF: Java Server Faces

## What comes next?

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- What will be new in JEE6
  - CDI & DI: Context and Dependency Injection
  - JASPIC: Java Authentication Service Provider Interface for Container
  - JAX-RS: RESTful Webservice
- Available Application Server JEE6:
  - JBoss: Currently Development Version 6.0M4 (BETA)
  - Glassfish Version 3.01

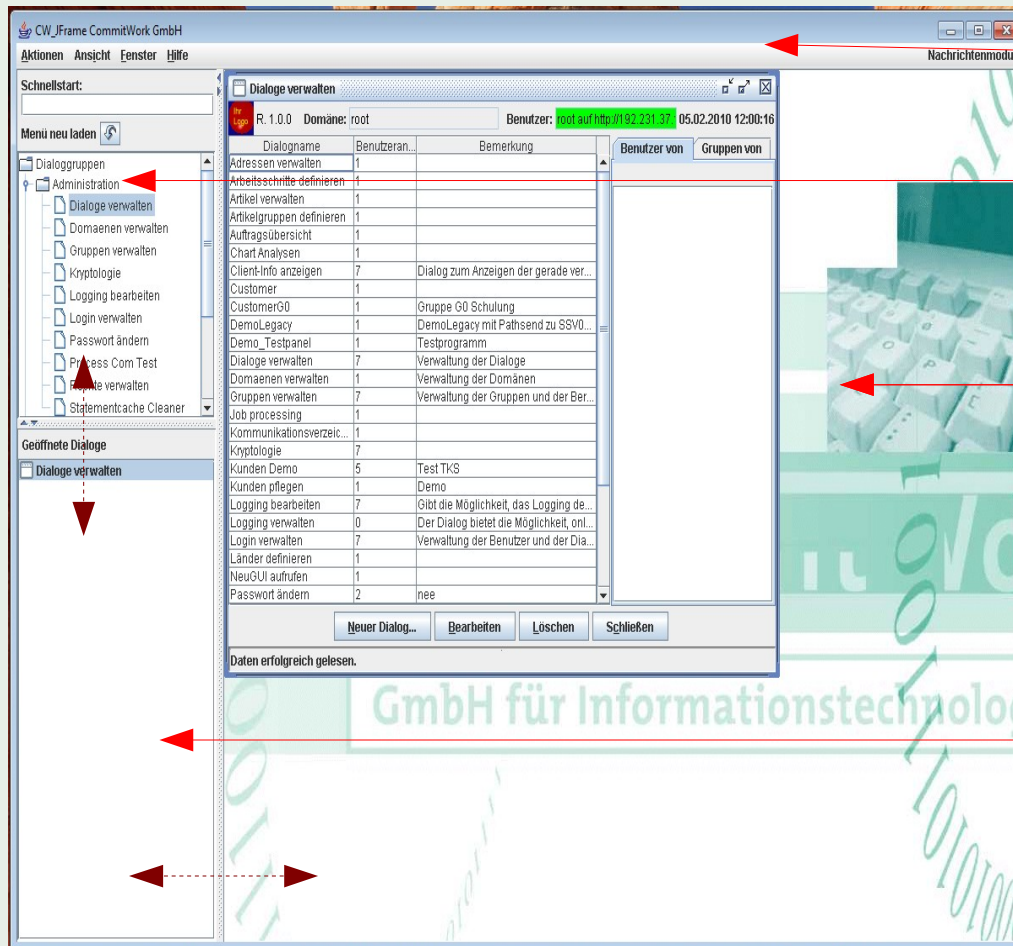
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Proof of concept:  
Porting OmnivoBase to JBoss JEE5 for NonStop

What is OmnivoBase?

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# What is OmivoBase? An Application Environment – Desktop view



Dynamic menues

Dialogchooser

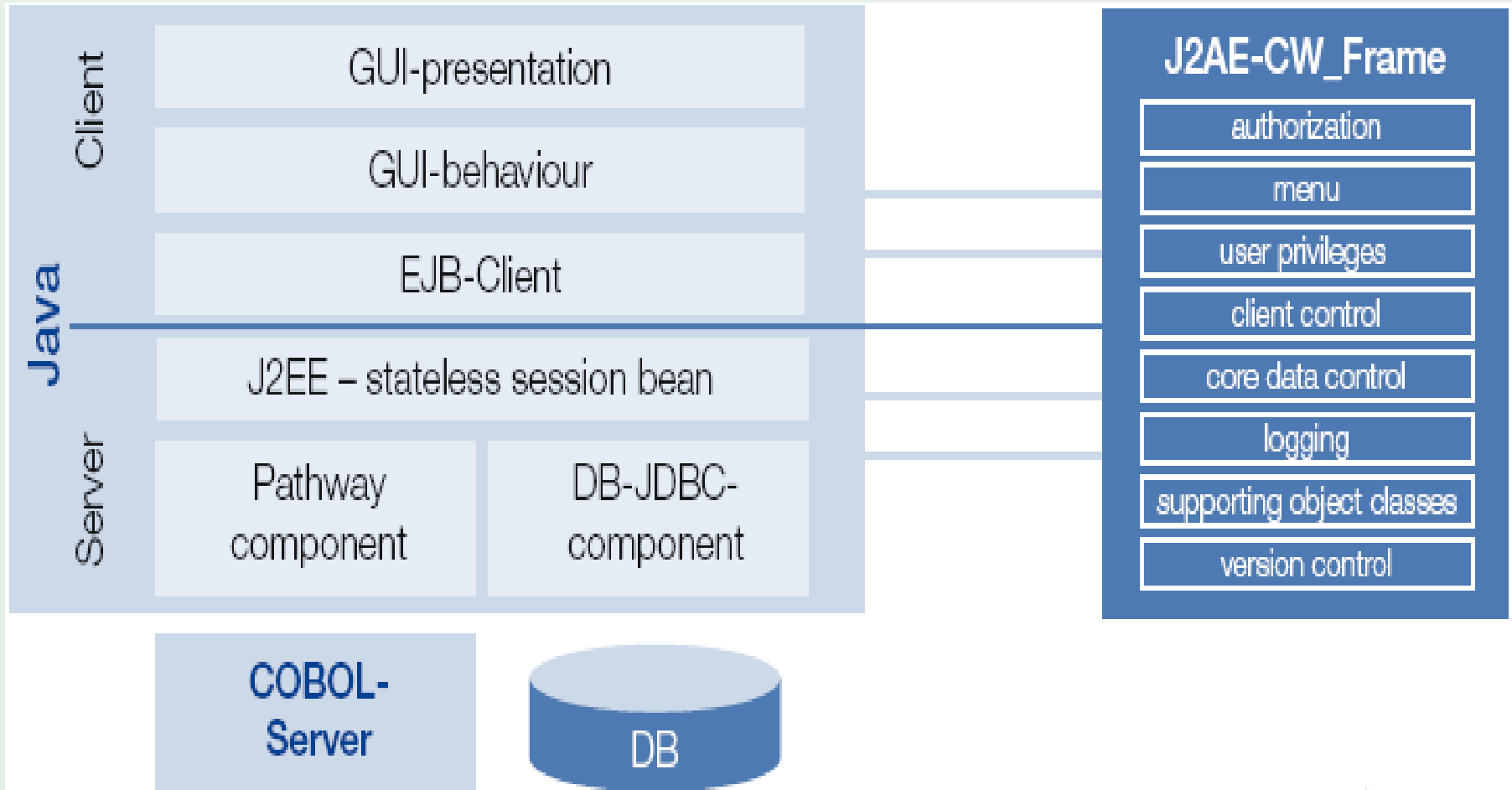
Panel for dialogs

List of open dialogs

←→ = *resizable Panels*

You can select the desktop or single window view

# OmnivoBase - Architecture



## Major benefits of OmnivoBase

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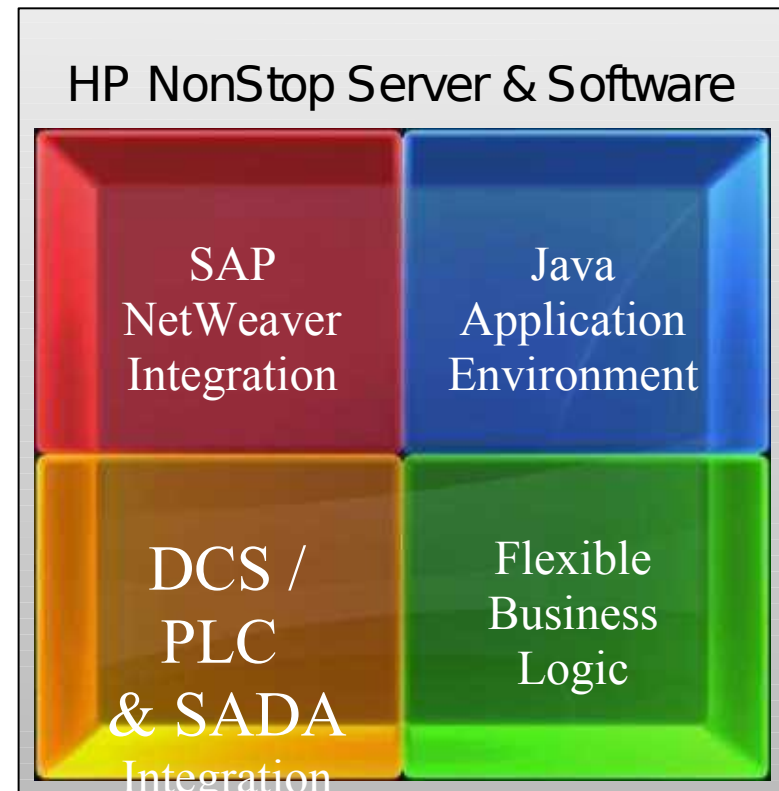
- OmnivoBase offers many moduls, so that a customer can start quickly with their own projects.
- A quick change of the Middelware (Container) is every time possible.
- OminvoBase can be used on HP-NonStop Server with:
  - Oracle WebLogic 9.2
  - JBoss AS 5
  - NSJSP
  - Open Source Tomcat
- OmnivoBase is a major part of the „HP NonStop Process Control“  
*(next slide with best regards from HP)*

If you are interested, please contact us  
or have a look at our website <http://www.commitwork.com>

# NonStop Process Control

## A products based framework solution

- **CSL XI Adapter from comForte**
  - SAP NetWeaver Integration
- **OmnivoBase from CommitWork**
  - Java Application Environment
- **Standard Business Rules Engine**
  - Flexible Business Logic
- **CS-FACTONET from CS Software**
  - DCS/PLC & SCADA Integration
- **HP NonStop Servers**
  - Hardware, Middleware & Data Base Services



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Proof of concept:  
Porting OmnivoBase to JBoss JEE5 for NonStop

Lets start

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## Lets start porting: Don't forget to configure your environment (1)

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- export **TCPIP\_RESOLVER\_ORDER=HOSTFILE-DNS**
- add\_define =**TCPIP^PROCESS^NAME** class=map File=\\$ZSAM3
- add\_define =**PTCPIP^FILTER^KEY** class=map file=sys05key
- add\_define =**TCPIP^HOST^FILE** class=map file=\\$system.ztcip.ipnodes
- add\_define =**TCPIP^NODE^FILE** class=map file=\\$system.ztcip.ipnodes
- add\_define =**TCPIP^RESOLVER^NAME** class=map file=\\$system.ztcip.resconf

## Configure your environment (2)

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- export **JAVA\_HOME**=/usr/tandem/sys05/java
- export **JREHOME**=\$JAVA\_HOME/jre
- export **PATH**=\$PATH:\$JAVA\_HOME/bin
- export **\_RLD\_LIB\_PATH**=  
/usr/tandem/xabroker/lib:/usr/tandem/sys05/jdbcMx/current/lib
- export **CLASSPATH** =/usr/tandem/sys05/jdbcMx/current/lib/jdbcMx.jar
- export **JDBCMX\_DIR** =/usr/tandem/sys05/jdbcMx
- export **\_RLD\_LIB\_PATH** =  
\$\_RLD\_LIB\_PATH:\$JREHOME/lib/oss/server:  
\$JREHOME/lib/oss:/usr/lib:/usr/tandem/sys05/javaexth10/lib:  
\$JREHOME/lib/oss/adonis:/usr/lib

## Challenge of porting OmnivoBase to JBoss JEE5

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- Writing JBoss Projects with changed, new maven pom.xml files.
- Changing the BusinessObjectLocator of the Client.
- Exchanging the XDoclet Meta-Comments with EJB3 Annotations of the Stateless Session Enterprise Beans.

```
@Stateless(mappedName = JNDI_DOMAIN_NEW_GUI)
@TransactionManagement(TransactionManagementType.BEAN)
public class DomainNewGUIBean implements DomainNewGUI {...}
```

and in case of transaction, you have to add:

```
@Resource
UserTransaction tx;
```

**We need only two days to implement the new  
OmnivoBase Version for JBoss AS 5 (JEE5)!**

## Challenge of porting OmnivoBase to JBoss JEE5 - SQL/MX

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- OmnivoBase needs SLQ/MX. Which driver to use?

We have tested all possible configurations

- JDBC Type 2 Driver or
  - JDBC Type 4 Driver as XA or Non-XA
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- OmnivoBase need JMS Messaging!
    - Configure JMS Topics (nothing special)

## Conclusion

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- The porting proof of concept was successful. OmnivoBase is now available for JBoss JEE 5 on HP-NonStop Server.
- With JBoss JEE5, there is a state of the art JEE Application Server for HP-NonStop Server available.

## Our NED Wishlist

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- With JBoss we can also offer „HP NonStop Process Control“ for Application Server Environment!

Take the additional business opportunity to satisfy customers, which wants to use an application server.

- NED please contact JBoss (Red Hat), so that they add
  - HP-NonStop and
  - SQL/MXto the supported platforms.
- If our platform is supported, JBoss offers a 24x7 support to our NonStop customers.

# Java on HP NonStop

Lets start!

