Netbinox
The fastest OSGi Container on the Planet

Jaroslav Tulach
NetBeans Platform Architect
Agenda

- Being Fast!?
- A bit of history
- Demo
- Technical details
- Q/A
Slow I/O During Startup

Demo
History 1 - Experiments

The Garage Days

- Sun and OSGi
  > Glassfish adopted OSGi in 2008

- Netigso
  > Friday project
  > Felix based
  > Parallel mode
  > Reuse of bundles

- Glassfish in Nb
  > Middle of 2009

- Problem: How to get this into release?
History 2 - Acquisition

18 months of despair

- Sun collapsed in Spring 2009
  - Acquired by Oracle
  - Approved in January 2010
  - Czech Republic LEC on Sep 1, 2010
- JDeveloper
  - Primary IDE for Oracle Enterprise Technologies
- Eclipse Foundation
  - Member and Contributor
- Problem: Can NetBeans be useful for Oracle?
History 3 - NetBeans 6.9 Theme

The public plan

• NetBeans Platform based on standards
  > Standard UI - Swing
  > Adopt OSGi as de-facto standard
• OSGi interoperability
  > Reuse existing bundles
  > Use bundles on server/client side
  > Use NetBeans APIs in OSGi mode
• Problem:
  > Is that enough to align with JDev?
JDeveloper

Going the same direction

• JDev converted to OSGi meanwhile
  > Most of the work done
  > Big Bang rewrite
  > Using Equinox

• Long term synergy vs. short term benefits
  > Reuse pieces of NetBeans in future
  > More speed right now

• Netbinox on the rise
  > “Just” reuse NetBeans “startup caches”
Being Fast with Caches

Demo
Caches & Speed

Avoid I/O

• 40% faster
• Useful for desktop applications
  > Start speed is important
  > “Morning” launch
• Intercept I/O queries
  > loadClass, getResource
  > File.exists()
• Modular vs. monolithic apps
  > Deployment modular
  > Start is monolithic
The Differences

What is different in Netbinox?

• 100% compatibility for bundles
• Class and resource loading
  > ZipBundleFile replaced by JarBundleFile
  > Thread Context Class Loader
• Equinox hooks
  > Registered slightly differently
• OSGi APIs in Separate JARs
  > Shared by Felix & Equinox
• Own Launcher
  > Configuration files use NetBeans format
The Presence

With future outlook

- NetBeans IDE 7.1 uses Netbinox
  - Mylyn + Bugzilla Connectors
  - Orbit bundles (JSCh, Apache)
- JDeveloper on Netbinox
  - Other features than a speed
- The common ground
  - OSGi as lingua franca
  - How do we share?
Give Feedback on the Sessions

1. Sign In: www.eclipsecon.org

2. Select Session Evaluate

3. Vote +1 0 -1

Experiences from building the fastest OSGi container on the Planet
Jaroslav Tulach

http://netbinox.apidesign.org