Managing Your Apache Maven Infrastructure with Nexus

Jason van Zyl
CamelOne - May 16, 2012
Information services and intelligent tools that enable comprehensive component lifecycle management.
More than 40k projects, 300,000 components, 200 million classes
60,000 organizations per month
Demand more than doubling every two years
Demand is under-reported due to the growing use of repositories
• Who’s using Repository Managers and Why?
• How software development has changed: Assembly vs Fabrication and why Repository Managers are necessary
• Nexus 2.0 Feature Discussion
• Nexus & Devops
• Nexus & Software Delivery
Are you using a Repository Manager?
Why Do You Use A Repository Manager?

Faster more reliable builds
Improved collaboration
Component usage visibility
Enforce components standards
Controlled sharing with partners

Why do you use a repository manager?

- 35% To enforce standards for component usage
- 32% Better visibility into component usage
- 64% Improve build time
- 67% To manage component usage

2018 Sonatype survey of 2,550 developers, architects, and managers
How Software Development has Changed: Fabrication vs Assembly

Proprietary Component Fabrication

OSS 10%

Glorious & Free OSS Components to Assemble

90%
Ever Increasing Open Source Usage

By 2016, OSS will be included in mission-critical software portfolios within 99% of Global 2000 enterprises, up from 75% in 2010.

Predicts 2011: Open Source the Power Behind the Throne
November 2010
Understanding your Component Lifecycle: What am I using and when does it change?

12,389 Artifacts in Maven Central were updated in 2011
63% were updated 2 or more times
30% were updated 4 or more times

When an artifact changes, how do you know?

- By searching the Web: 58%
- No good way to find out: 28%
- From colleagues: 7%
- Word of mouth: 6%

Would you like immediate notification of changes?

- Valuable: 49%
- Extremely valuable: 31%
- Interesting: 19%
- Not at all: 19%
Update Awareness as part of CLM

Update Analysis

Potential updates to resolve security issues:

Potential updates to resolve license issues:

Distance behind most popular version:
Issues are Viral...

Spring-beans-2.5.6
Vulnerability:
CVE-2010-1622
Severity critical

1447 projects contain the flawed component

...the Fixes are NOT
2011 / 2012 Repository Marketshare

Sonatype Nexus

Nexus: 66% of all active repos

Where in the world is Nexus?
Nearly 19,000 active instances around the world

66% of all active repositories were Nexus by March of 2012

Transforming Software Development
My team is administering Nexus and we’re answering the needs of our development and production teams by providing them with a secured repository and great way to share binaries across the globe.

Alexis Morelle
Software Factory Architect
Alcatel-Lucent, France
Configuration Management

Open Source ecosystem

Central Repository
Codehaus
Apache
JBoss

Dev
Test
QA
Production

One repository configuration!
Unified indices for IDEs

Precious developers

Your development ecosystem
Availability Architecture: Smart Proxy

- Master R1
- Proxy R1
- Nexus 1
- Proxy R2
- Nexus 2
- Nexus 3
- Load Balancer
- Developers

Update Notifications Pushed
We’re excited to be working with Sonatype to help the .NET community save time and cost while building a more secure and effective development environment for their organizations.”

Scott Hunter
Principal Program Manager
Transforming Software Development

Build Promotion & Staging

Developers (Nexus 1) → Stage → Promote → Release → Customers (Nexus 1)

QA Group (Nexus 1)
Beta Group (Nexus 1)
Summary Data For Open Source Users

Detailed Reports for Customers
There should be no development tools in your production or delivery environments.
• Try Nexus Pro for Yourself
• Free 14 Day Trial

• [www.sonatype.com/camelone](www.sonatype.com/camelone)

• Sign up for a trial at this url and we’ll send you a Nexus travel mug!