Value Creation and Cooperative Resource Exchange in the Eclipse Ecosystem

Patrick Wagstrom
Sonali Shah
James D. Herbsleb

The contents of this presentation are released under the terms of the Eclipse Public License 1.0
Our Problem in a Nutshell

• Each year sees more OSS communities
• Eclipse is seen as a model for OSS development
• What is it about Eclipse that makes it succeed while other communities fail?
Background and Method

• We're researchers interested in the “bigger” picture
• Interviewed 32 people (still looking for more)
• Read up on almost every Eclipse member company
• Hope to add quantitative elements in the future
Major Topics

• Foundation Structure
• Firm Cooperation
• End Users
• Future Ecosystem Expansion
Foundation Structure

• Structure was almost universally positive
• Organization with no business motive owning code was key factor
  – unambiguous licensing and ownership
  – independence of short term business pressures
  – no reliance on external firms
• The foundation brand is trusted
• Bold step for IBM to release control
Issues with First Movers

• The Eclipse release train is powerful
• Eclipse structure makes it difficult to propose an alternative project
• The first project usually “wins”
• But the first project is not always the best
• Lack of integration leaves little incentive to release competing tools as Open Source
Cooperation in Eclipse

• Clear benefits for IDE developers
  - Starting to see many new IDEs based on Eclipse

• Plugin developers often participate in competing Open Source projects to get a preview of future competition

• Developers of complimentary goods are able to compete on a level playing field
Public Goods Problem

• Has Eclipse solved the public goods problem?
  - No

• Foundation and member companies have different planning horizons

• Common components frequently subject to the “Eclipse bluffing game”

• Solution is not to have Foundation do the work
End User Success

- Plugins allow firms to customize project for their setup
- Eclipse distributions take this a step further and make it more useful
- Plugin documentation makes it easy for firms to customize
End User Issues

• Distributed development makes it difficult for end users to get a say
• Traditional feedback channels are not present
• Large firms can hire developers to customize
• Smaller firms face more difficult prospects
Future Ecosystem Expansion

• Eclipse is moving beyond the IDE – but most people don't realize it
• Nested Platform Building
• Brand confusion issues
  – Similar issues face Apache
Questions/Comments

• patrick@wagstrom.net (email/jabber)
• Longer version of talk on Wednesday at 10:10 in room 206

This work was funded by the National Science Foundation, the Office of Naval Research, and the Software Industry Center at Carnegie Mellon University – a Sloan Foundation Industry Studies Center. The views expressed in this work are those of the author(s) and are not necessarily those of their institutions or funding agencies.