

## ECF 3.3/Helios

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Home Page: http://www.eclipse.org/ecf

Wiki: http://wiki.eclipse.org/ECF

Project Plan: http://www.eclipse.org/projects/project-

plan.php?projectid=rt.ecf

# Highlights



#### OSGi 4.2 Remote Services Standard Implementation

- ECF 3.2 provides ull impl of OSGi 4.2 remote services standard
- Multi-provider impl of discovery and distribution for standards-based remote services
  - Providers
    - Discovery: Zeroconf, Slp, Apache Zookeeper, XML File
    - Distribution: ECF generic, r-OSGi, JMS, XMPP, REST, SOAP, JavaGroups

#### Asynchronous Remote Services

- OSGi standard only specifies synchronous invocation of remote services
- ECF impl of OSGi remote services exposes asynchronous API and impl
  - Callback-style
  - Future-style
- API could be candidate for standardization. Work going on in OSGi EE right now.

# Highlights



#### Apache Zookeeper Discovery

- Apache Zookeeper discovery popular/desired by community
- ECF provider architecture allows pluggable discovery
- Apache Zookeeper-based discovery provider contributed by Remain Software

#### Distributed Event Admin Message Bus

- Distributed impl of OSGi Event Admin service for publish and subscribe messaging with standard API (EventAdmin)
- Allows transport-independent interprocess messaging using standardized EventAdmin API

#### OSGi Remote Services in SOA Package

- OSGi 4.2 Remote Services standard only OSGi SOA standard
- ECF Impl of OSGi Remote Services added to SOA Package

## Highlights



#### REST and SOAP-Based Remote Services

- OSGI Remote Services clients based upon REST and SOAP services
- ECF provider architecture allows pluggable distribution
- REST-style and SOAP-style remote services providers implemented

#### ECF RS in SOA Package

- OSGi 4.2 Remote Services is only OSGi SOA spec
- ECF Remote Services Impl in SOA EPP

#### Examples and Documentation

- Hello world remote service
  - Discovery providers: zeroconf, slp, zookeeper, file
  - Ddistribution providers: r-OSGi, ECF generic, JMS
- OSGi Remote Services Load Balancing
- http://wiki.eclipse.org/ECF#OSGi\_4.2\_Remote\_Services

#### New RCP apps Based upon ECF

- TweetHub
- Salvo Newsreader (not in Helios/ECF 3.3, but preparing/finishing IP process)

#### Themes and Plan Items



#### Remote Services

- Full impl of OSGi 4.2 remote services standard
- Discovery and distribution for standards-based remote services
- Rest and SOAP-based support for clients
- Interoperability with existing (non-OSGi-based) servers/services...i.e. OSGi remote service on client to access non-OSGi (REST, SOAP, and others) web services
- Asynchronous Remote Services
  - No existing standard. ECF impl provides fully functional API and impl. API can/could be used for standardization.

#### Examples and Docs

- Full applications: Eclipse, RCP, OSGi Server
- API usage (particularly Remote Services)

### **Deferred Plan Items**



#### Google Wave Provider

- https://bugs.eclipse.org/bugs/show\_bug.cgi?id=280347
- Made progress on enhancement
- Insufficient resources to complete, test, deploy in Helios cycle

## Non Code Aspects



#### Community Very Active

- Many new large and small contributors
- (Too) many requests for features, new providers, etc.
- Mailing list: ecf-dev@eclipse.org, newsgroup: eclipse.technology.ecf
- ECF Blog is very active: http://eclipseecf.blogspot.com
- Wiki contributions growing. Wiki going to be 'crowdsource' focus for ECF book effort

#### Internationalization, Localization, Accessibility

- Meeting all Helios Requirements
- As runtime project, ECF has minimal UI (modulo example apps)

## Community and Contribution Growth



- Zookeeper Discovery Major Contribution from new corporate member (Remain)
- SOAP RS Examples Contribution (not in Helios, but in subsequent releases)
- Other contributions (e.g. ICQ provider...again not in Helios)
- Many more consumers (of Remote Services, REST, etc)
- New committers
  - Nuwan Sam Specific Google Services for Gsoc 2009

# **Committer Diversity**



- 10 part time active committers
- Committers from multiple companies
  - Remain Software
  - Others
- Committers from multiple countries
  - Brazil, US, Germany, Denmark, France

#### **API**



#### In Active Use

- P2/Platofrm: ECF filetransfer
- OSGi REmote Services: Multiple community consumers
- Commercial products/projects (e.g. Coffee)

#### Documentation

- Bundle-Level Documentation: http://wiki.eclipse.org/index.php/ECF\_API\_Docs
- Javadocs: http://www.eclipse.org/ecf/org.eclipse.ecf.docs/api/
- Eclipse help (extensions, javadocs, overview docs
- Many more examples for remote services (hello world, remote services loadbalancing, etc): http://wiki.eclipse.org/ECF#OSGi\_4.2\_Remote\_Services

## **Standards**

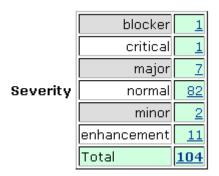


#### OSGi 4.2 Remote Services

- ECF 3.2/3.3 implements full OSGi 4.2 Remote Services Specification (chapter 13 in compendium)
- ECF's remote services implementation is transport and serialization-independent...meaning that new/other discovery and distribution providers may be easily introduced and be made immediately spec compliant. This can/could be consumed by other Eclipse RT projects to achieve spec compliance, as well as interoperability with other discovery and distribution mechanisms. e.g. Riena, Virgo, etc.
- Asynchronous Remote Services
  - Fits within existing spec
  - Anticipates future spec (async remote services under discussion in EEG)
  - ECF design/implementation will hopefully influence EEG
- Future/Indigo
  - Remote Services Admin (new spec addition after 4.2)
  - Asynchronous Remote Services (see above)
  - Changes/enhancements to Remote Services spec



# Bugzilla



## IP Issues



- All significant and third party contributions have been reviewed and approved by Eclipse legal.
- About files and license files are complete and correct.
- ECF has several other pending/under review contributions, but these are **not** included in ECF 3.3
- Draft IP log:
  - http://www.eclipse.org/projects/ip\_log.php?projectid=rt.ecf

# ECF 3.4 Plans (Preliminary)



# Remote Services Admin GSoc 2010 Project Output Into ECF

- DNS-SD based wide-area ECF discovery provider (Markus Kuppe)
- · Google Wave Provider (Sebastian Schmidt)
- Restlet API as Server-side remote service host

Google Wave Provider
DNS-SD based Discovery Provider
Other things under discussion