Introduction to the Eclipse Communication Framework (ECF)

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July 31, 2007

Agenda

- **Background and Value**
- **Introductory Demos**
- **ECF For Plug-in Developers**
  - **Demos**
- **ECF Extensibility**
  - **Demos**
- **API Summary**
- **What's Next?**
- **Conclusion**

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Background

- ## **What is ECF?**
  - ### **To put it simply, a framework to create distributed based applications and tools within Eclipse**

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The Value

- **For Eclipse Users**
  - **Team Communications**
    - **IM, Chat, File Sharing, VOIP, etc**
  - **Multiple Protocols/Services**
    - **Google Talk/XMPP, Yahoo, MSN, Skype, etc.**
    - **Interoperable with other clients**

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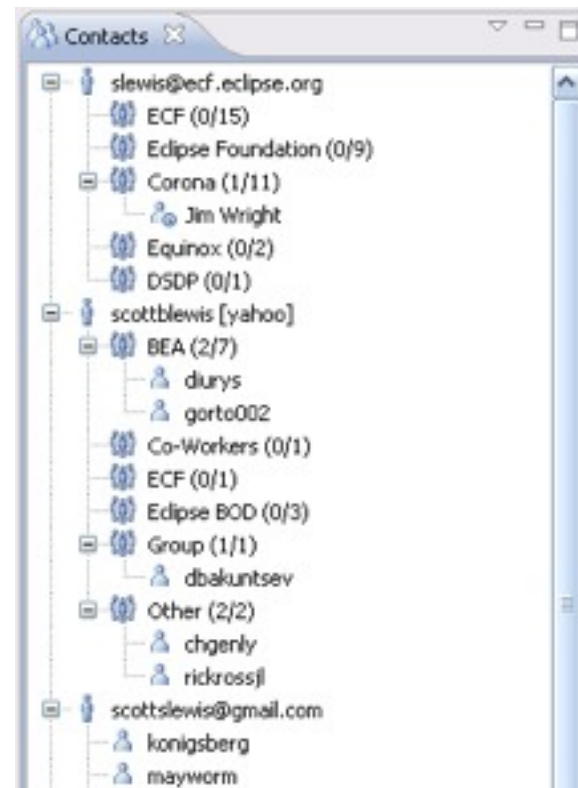
The Value

- **For Plugin Developers**
  - **Open APIs**
    - **Presence/IM, File Transfer, Discovery, VOIP**
  - **Extensible**
  - **Support for Open (or closed) Services and Protocols**
  - **Eclipse, RCP, eRCP, Servers**

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Demo: Contacts

- **Contacts List/IM**
  - **Links in Chat**
  - **File Transfer**
- **IRC/Group Chat**
  - **Chat Bot (KOS-MOS)**
- **Integration with Eclipse**
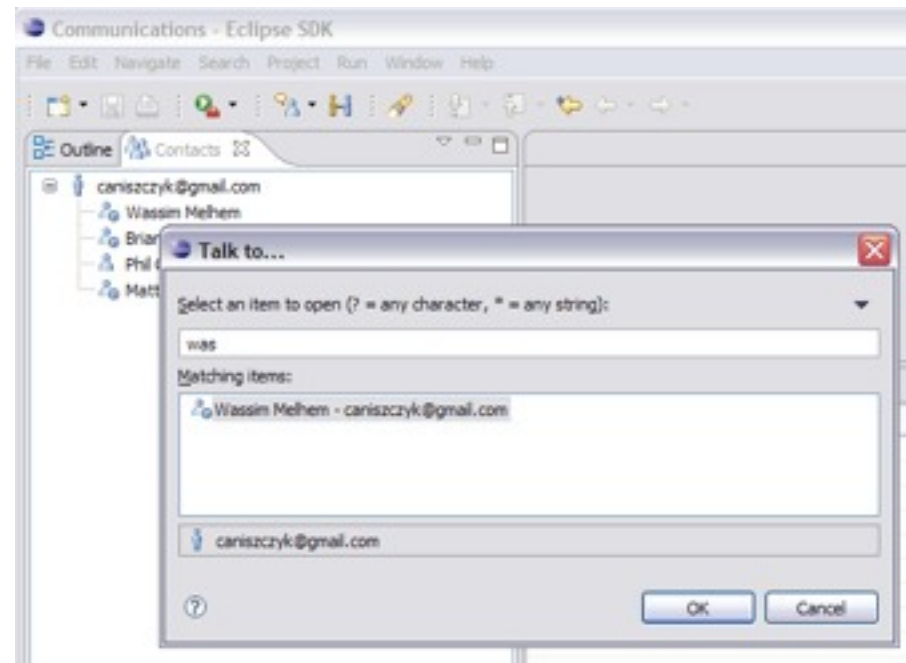 - **URL sharing**
  - **Others: Mylyn, Debug, Shared Editing**

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Demo: Contacts Searching

- **Quick Access to Contacts**

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Demo: Connect via Hyperlink
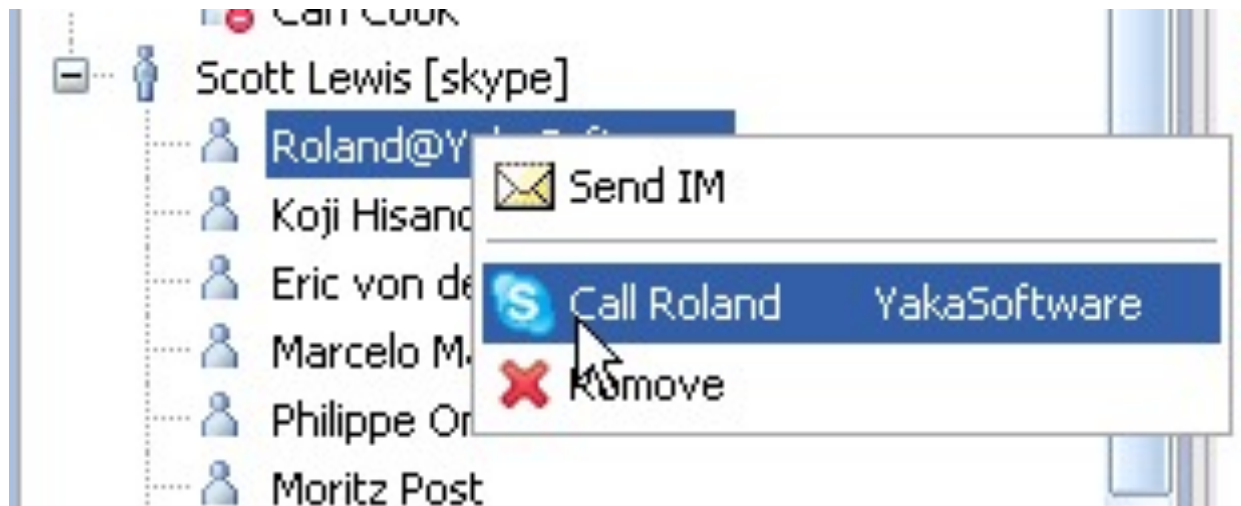
- **Communication Links in Documents**
  - **Text and Source**
  - **IM – Direct Connection with User**
  - **Chat – Join Group**

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Demo: Skype & VOIP

- **IM/Chat Features**
- **Skype Calling**

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Demo: Generic Server

- **Starting as an `IApplication`**
  - `AppGenericServer`

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Demo: Dynamic Service Discovery

- **Zeroconf Implementation**
- **Discovery Using other Mechanisms/ Protocols**
  - **JXTA**
  - **UpnP**
  - **Others**

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ECF For Plugin Developers

- **Open and Extensible APIs**
- **Provider Architecture for Multiple Protocol Support**
- **Adapter Pattern for Types of Communication**

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ECF Container

- **Core ECF Interface:** `IContainer`
  - **Represents session**
  - **Adapters for communication: Icontainer.getAdapter(<interface>);**

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Demo: Presence API

- `IContainerManager` **to get all containers**
- **Find containers that implement presence API adapter**
- **Use adapter!**
- **Example:** `ShowAllRostersContribution`

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Demo: Presence API

- **Example**
  - `ShowSelectedRosterContribution`

Demo: Adding Items to Contacts View

- **Adding IActions to Contacts**
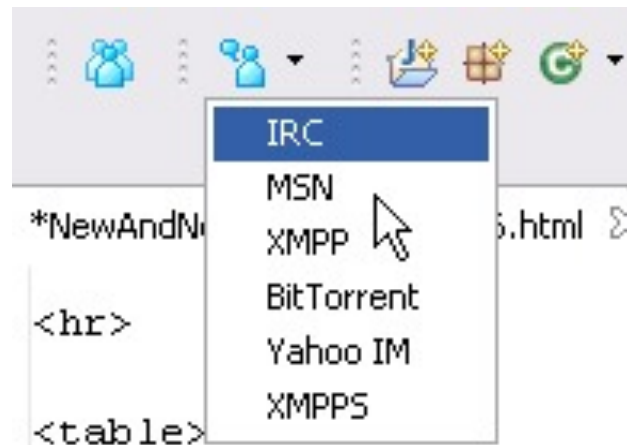 - `RosterEntryContribution1, RosterEntryContribution2`

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Demo: Drag and Drop Support

- **`org.eclipse.ecf.presence.ui.rosterViewerDropTarget`**
- **`RosterEntryDropTarget`**

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ECF Extensibility

- **OSGI Services, Extension Points and API**

- **New providers (impl)**
  - **Yahoo, Skype, JMS, others (JXTA), etc.**

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Demo: Adding providers

- **Trivial Provider**
  - `IContainer`
  - `Namespace`

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Demo: RCP App

- **Sudoku**
  - **Integrated with ECF Buddy List**

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Summary: APIs

- http://wiki.eclipse.org/ECF_API_Docs
  - **Datashare**
  - **Presence/IM/Chat**
  - **File Transfer**
  - **Discovery**
  - **VOIP**
  - **Remote OSGi Services**

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What's Next?

- **Ganymede Roadmap**
  - http://wiki.eclipse.org/ECF_Ganymede_Roadmap
- **Community Driven Approach:**
  - **More UI Features**
  - **VOIP: Skype, Jingle, Asterisk, SIP**
  - **Integration with Mylyn/Other Tools**
  - **Pending Contributions/Efforts**
    - **Shared Editing**
    - **ShareCode/Java Searching**
    - **Bulletin Board Client**
    - **BugDay Bugs**

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Conclusion

- **ECF is a growing project**
  - **Easily add communications support to your applications**
  - **Many providers**
- **Webpage**
  - **http://www.eclipse.org/ecf**
- **Newsgroups**
  - **eclipse.technology.ecf**
- **Always look for Contributors!!!**
  - **http://wiki.eclipse.org/BugDay**
  - **Query bugs for keyword 'bugday'**

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Resources

- **ECF Project Home Page:** http://www.eclipse.org/ecf

- **ECF Plugins (anon CVS):**
  - **dev.eclipse.org**
    - **/cvsroot/technology/org.eclipse.ecf/ examples/plugins**
  - `org.eclipse.ecf.examples.webinar`
  - `org.eclipse.ecf.examples.provider.trivial`

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