

# **Developing applications using Embedded Rich Client Platform (eRCP)**

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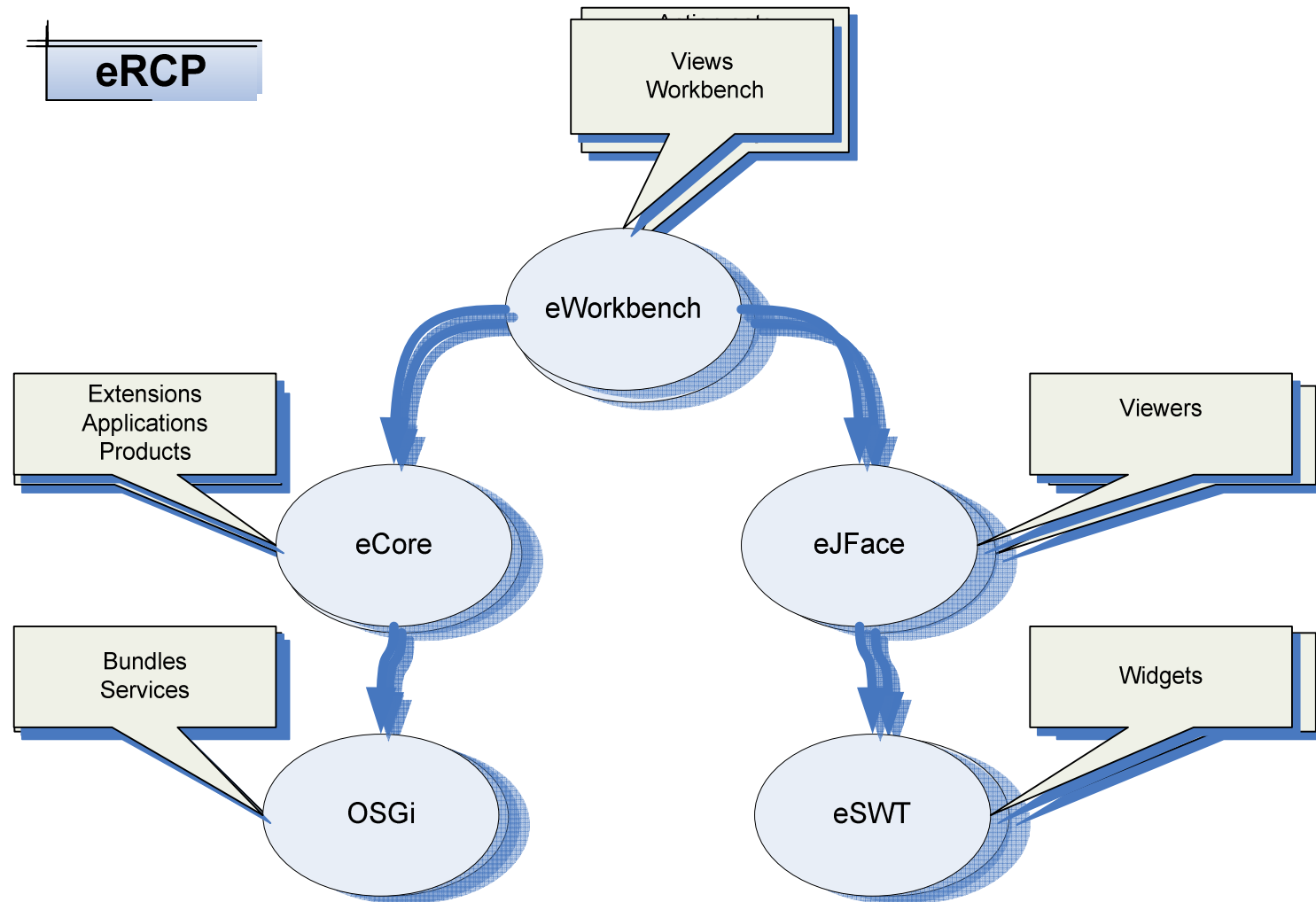
# What is eRCP

- eRCP is an embedded version of the Rich Client Platform
- Project was launched by Nokia, IBM and Motorola
- Utilizes same standard OSGi Service Platform
- Reduces RCP size and functionality to fit on devices
- Pushes requirements/patches back to core components
  - Enable running core components on JME CDC/Foundation Profile
  - Keep dependencies in check
- Adds components to enable application binary compatibility across a range of devices

# Architecture

- OSGi underpinnings
- Applications and services run in the same JVM instance
- eRCP applications can be launched from a workbench or be integrated into the native desktop
- Deployable to a range of devices
  - Desktops, cell phones, handhelds, internet tablets etc.
  - eRCP applications can also run on RCP
- It is also possible to have stand-alone eSWT applications and MIDlets

# Relating eRCP to RCP



# eWorkbench

- Provides the main “container” for application views that are created by eRCP applications
- Responsible for managing the UI thread
- Applications and services run in the same JVM instance
  - Fewer resources than separate JVMs
  - Allows sharing of services
  - Enables variety of life cycle models
- eRCP applications are created as Eclipse plug-ins for the eWorkbench

# Adding applications to eWorkbench

- Plug-ins intended to run in the eWorkbench are required to contribute extensions towards the following extension points
- `org.eclipse.ui.views`
  - This extension point allows applications to provide their views
- `org.eclipse.ercp.eworkbench.applications`
  - Introduces applications to eWorkbench
  - To accommodate with devices with multiple displays, it can have three types of views – Normal, Large and Status. Only the Normal view is required. Each view type is defined into separate **view** element

# Introduction to eSWT

- Subset of SWT and additional mobile specific widgets
- Provides efficient, portable access to the user interface facilities of the operating system
- Consists of 3 packages
  - SWT subset divided into two
    - *core* package
    - *expanded* package
  - *mobile* package - new eSWT components defined for mobile world



# Required development tools

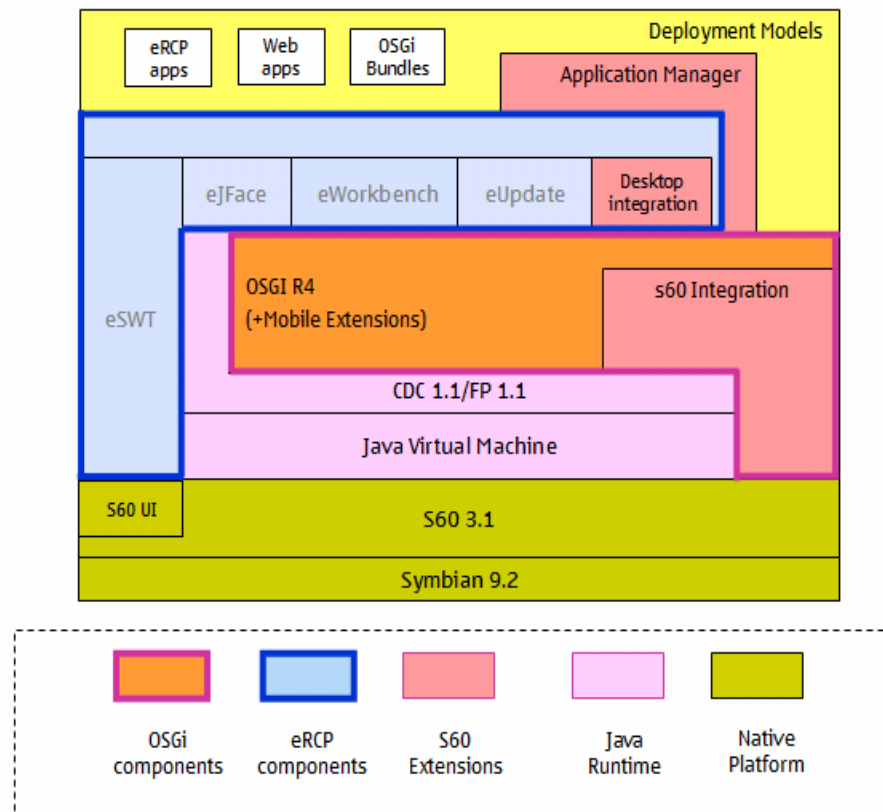
- Eclipse 3.3.1 with Plug-in development environment (PDE)
  - [www.eclipse.org/downloads](http://www.eclipse.org/downloads)
- eRCP distribution for Windows Desktop
  - [www.eclipse.org/ercp](http://www.eclipse.org/ercp)
- And a java runtime
  - <http://java.sun.com/javase/downloads/index.jsp>

# Deployment to a real Device



# Demo environment

- Seamless integration with the native S60 3.1 desktop environment.
- Application Manager integrates Eclipse eUpdate
- Includes complete OSGi R4 implementation including the Mobile extensions defined by the specification
  - Create servlet based local Web applications
- Supports Deployment Package model defined in OSGi R4



# Conclusion

- eRCP brings the RCP paradigm to mobile devices
- Website
  - <http://www.eclipse.org/ercp>
- Newsgroups
  - <news://news.eclipse.org/eclipse.dsdp.ercp>
- Always looking for contributors!