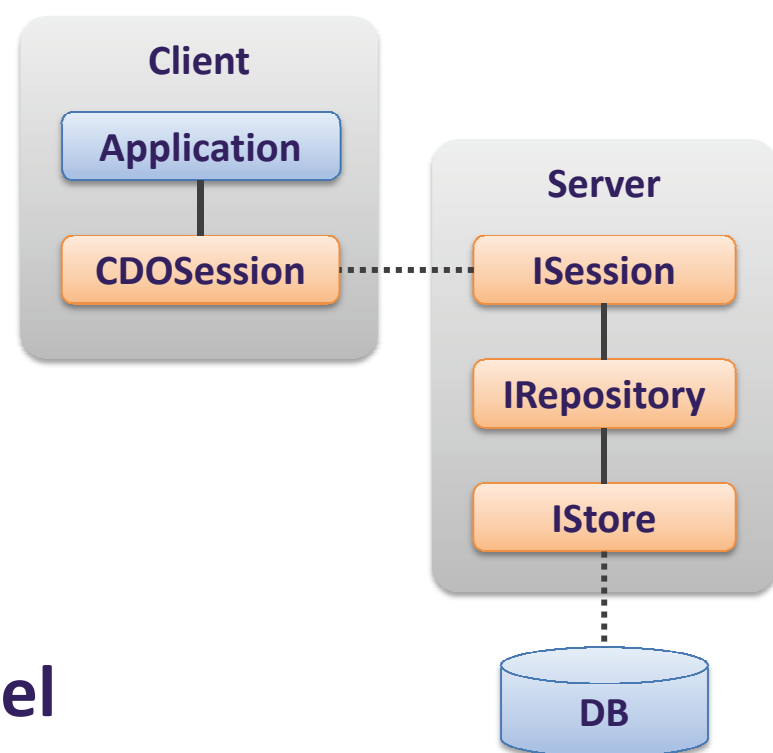


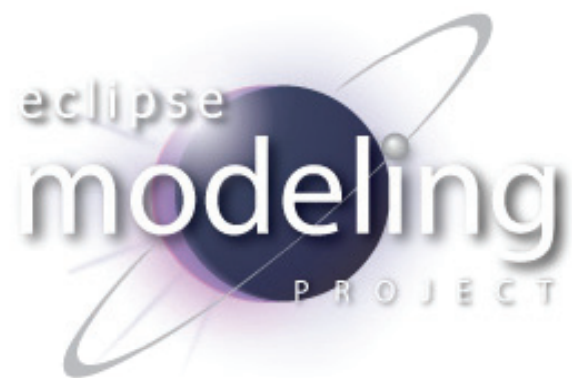


The Model Repository

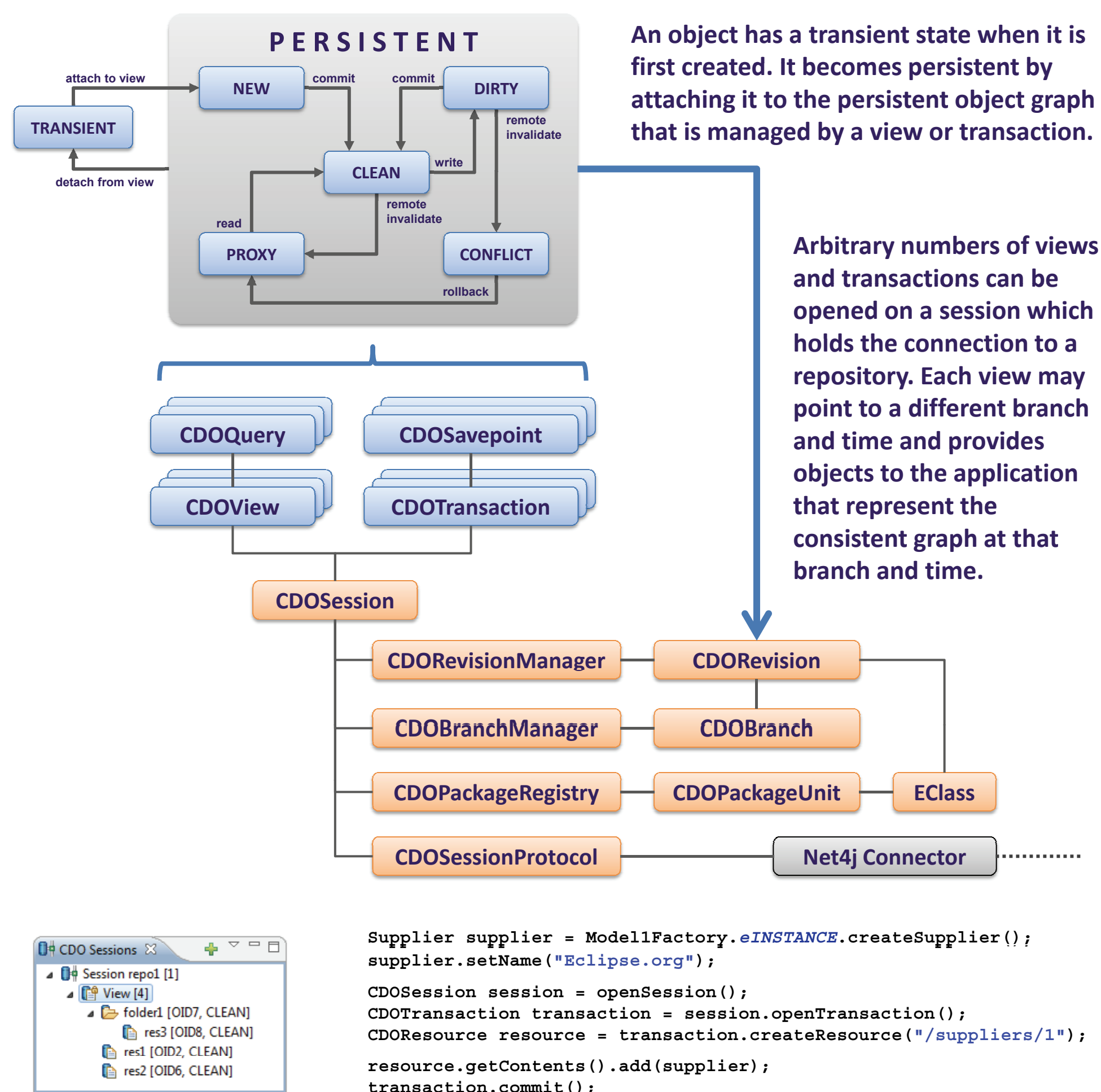
CDO is both a development-time model repository and a run-time persistence framework. Being highly optimized it supports object graphs of arbitrary size. The storage back-end is pluggable and CDO offers transactions with save points, explicit locking, change notification, queries, temporality, branching, merging, offline and fail-over modes, ...



The Client

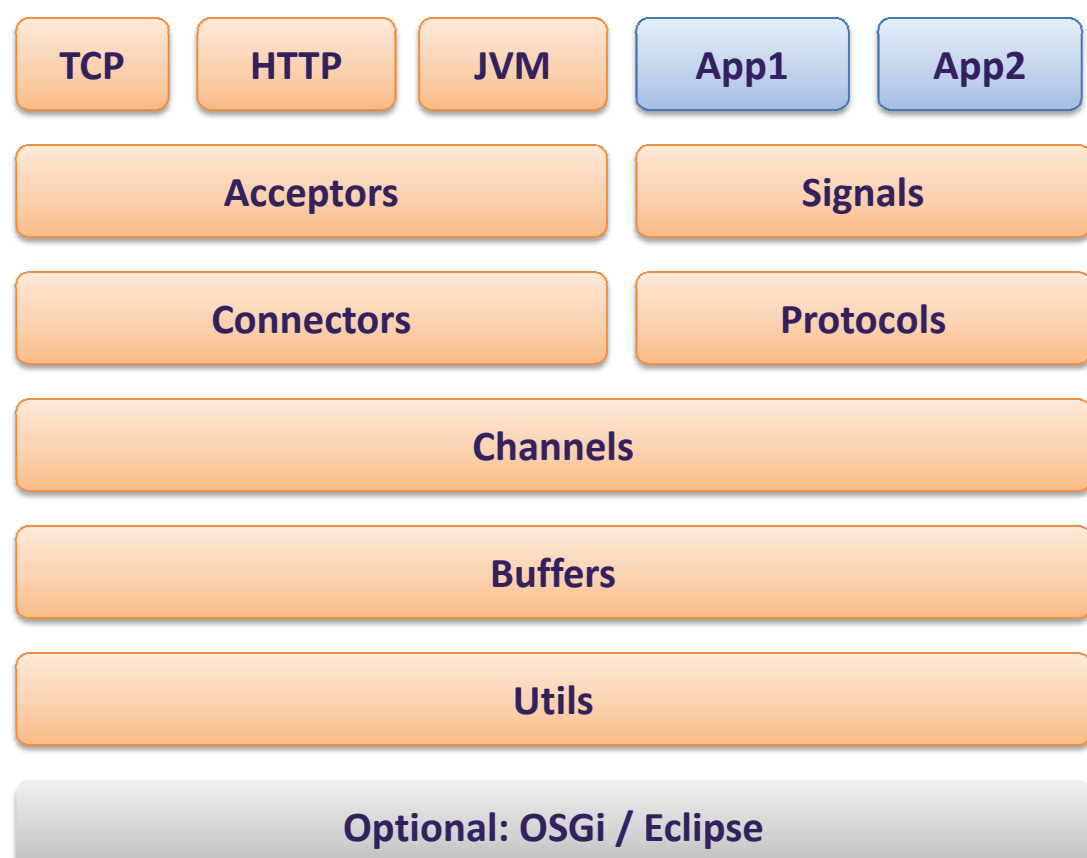


CDO is designed to work with the Eclipse Modeling Framework (EMF) and Ecore, a free Java™ implementation of the EMOF™ specification of the OMG.



Net4j

The Signalling Platform



High Performance:
java.nio.DirectByteBuffer,
zero copying

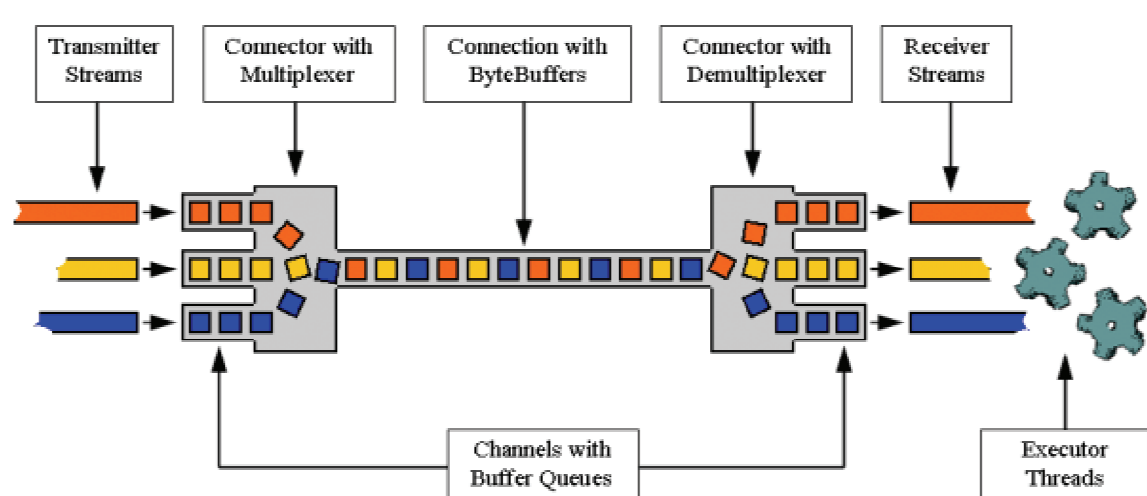
Good Scalability:
java.nio.channels.Selector,
single I/O thread possible

Multiple Transports:
Shipped with TCP, JVM and HTTP

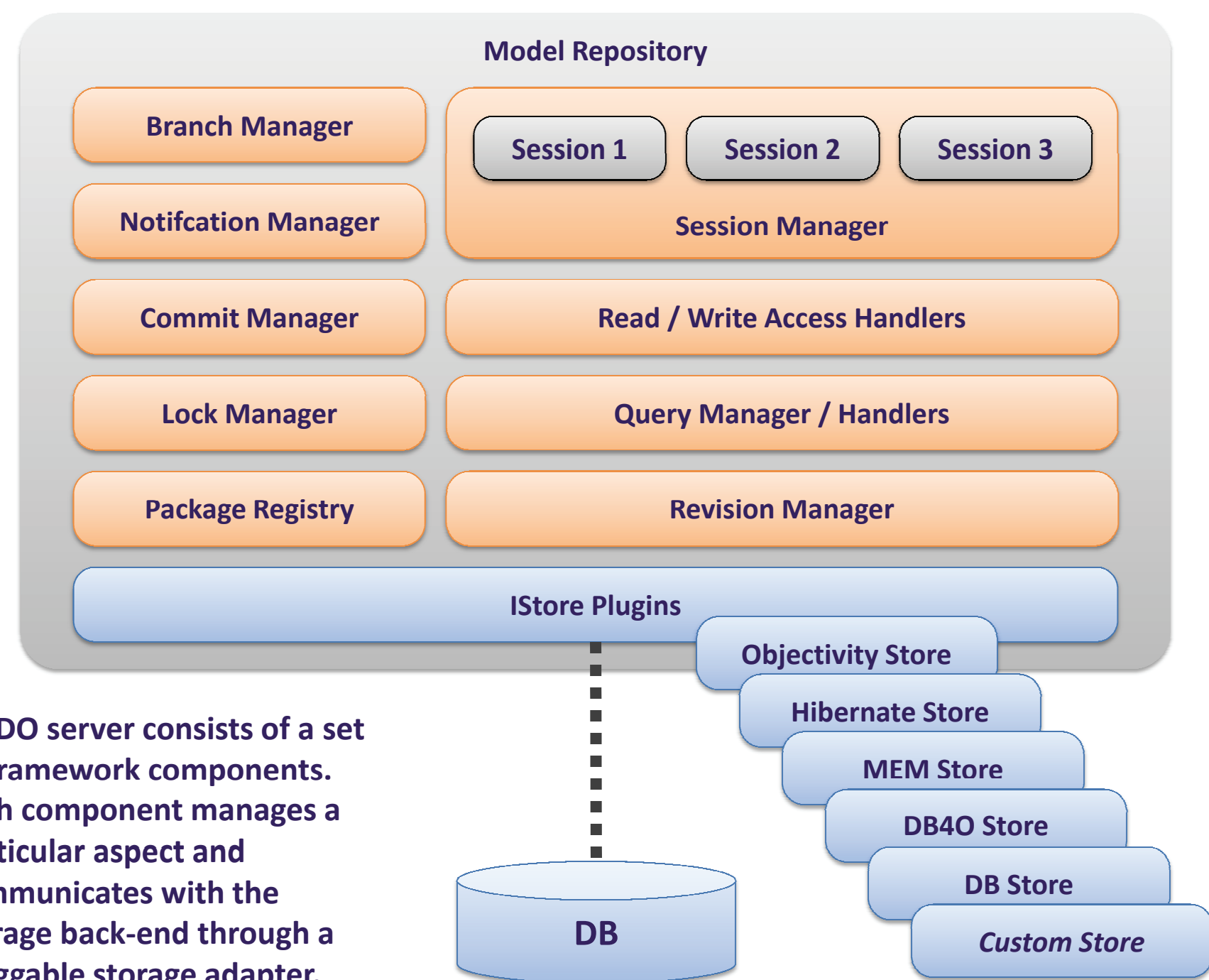
Pluggable Protocols:
Independent of chosen transport

Server-initiated Push:
Asynchronous and synchronous
requests from the server to agents

Deployment Modes:
Eclipse UI, pure OSGi, application
servers or stand-alone

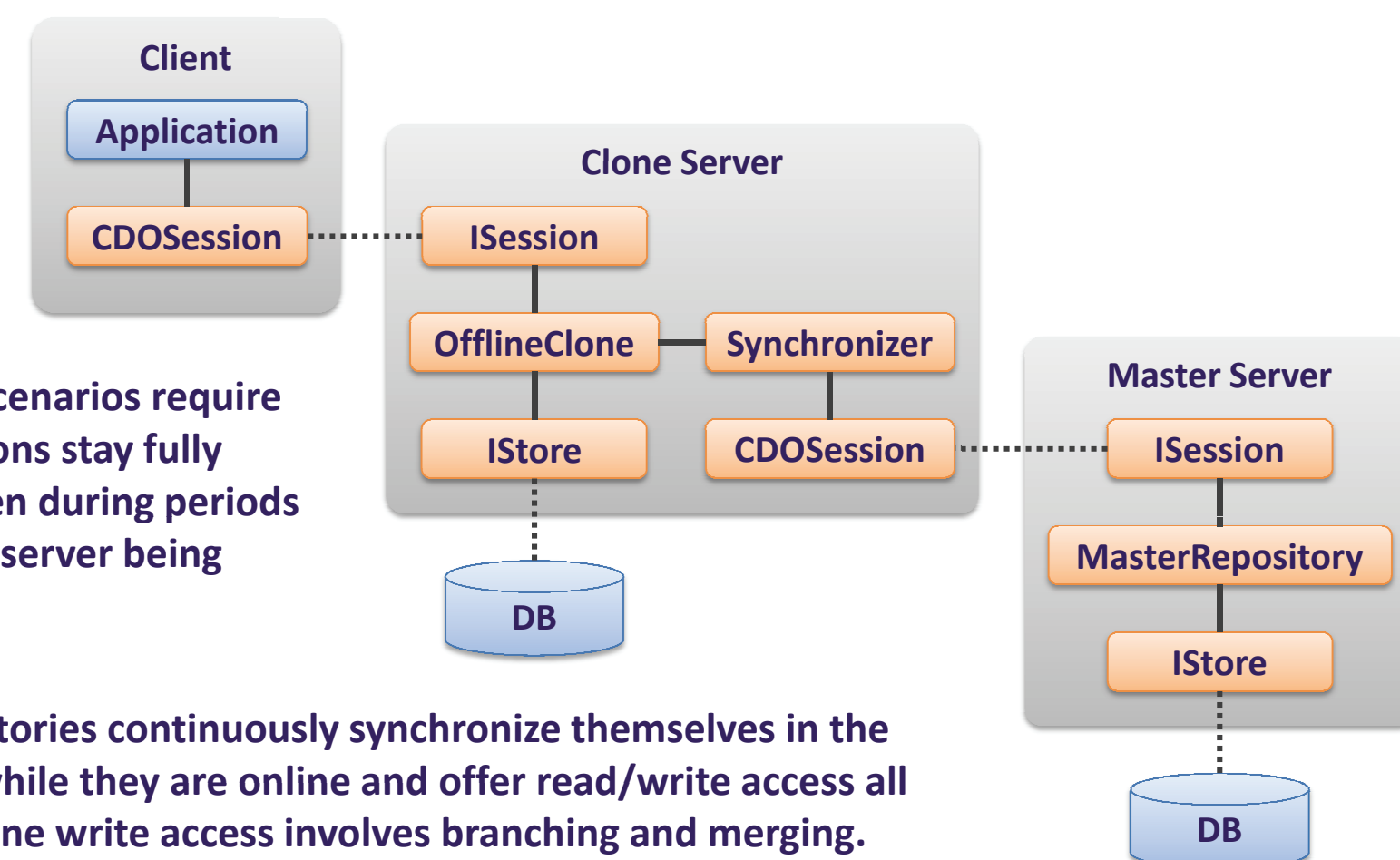


The Server



A CDO server consists of a set of framework components. Each component manages a particular aspect and communicates with the storage back-end through a pluggable storage adapter.

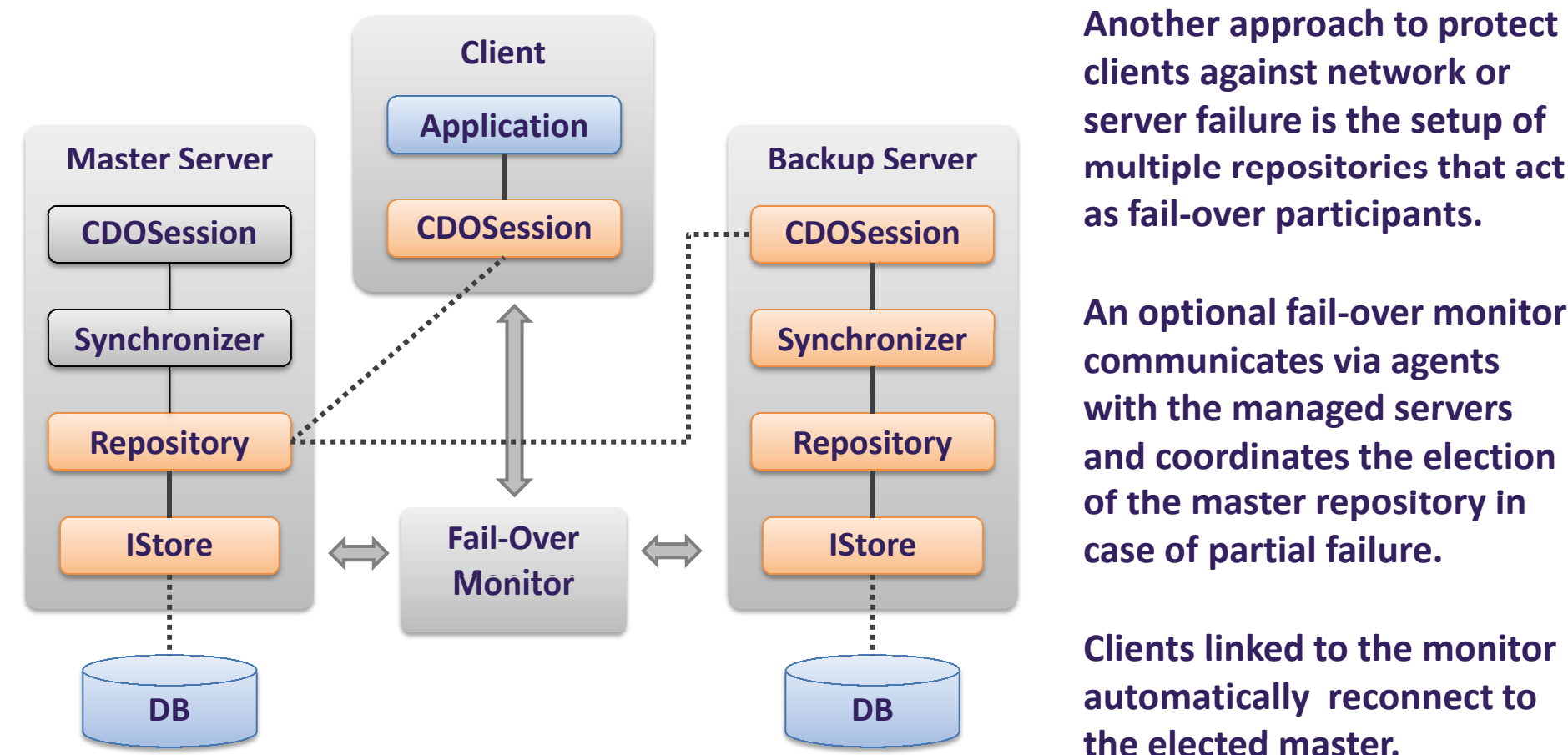
Offline Clone



Some usage scenarios require that applications stay fully functional even during periods of the master server being unavailable.

Cloned repositories continuously synchronize themselves in the background while they are online and offer read/write access all the time. Offline write access involves branching and merging.

Fail-Over



Another approach to protect clients against network or server failure is the setup of multiple repositories that act as fail-over participants.

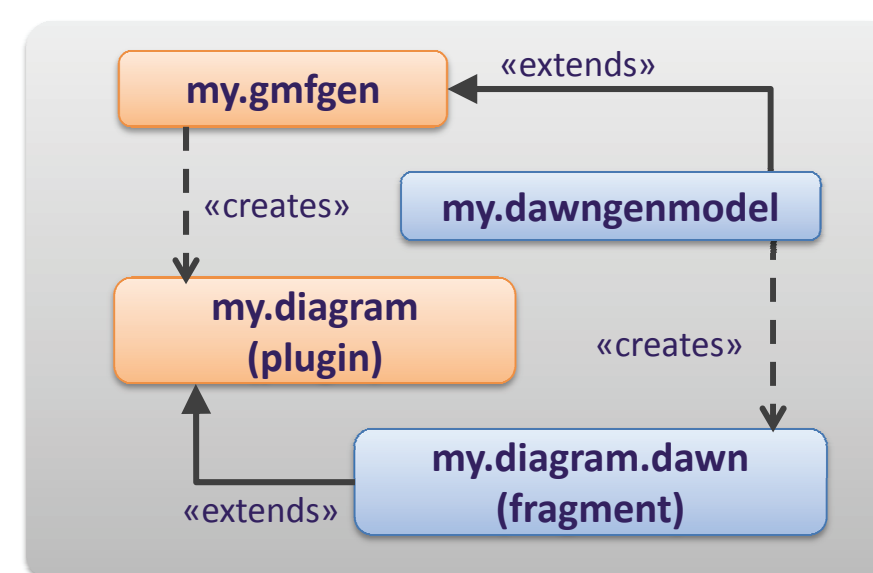
An optional fail-over monitor communicates via agents with the managed servers and coordinates the election of the master repository in case of partial failure.

Clients linked to the monitor automatically reconnect to the elected master.

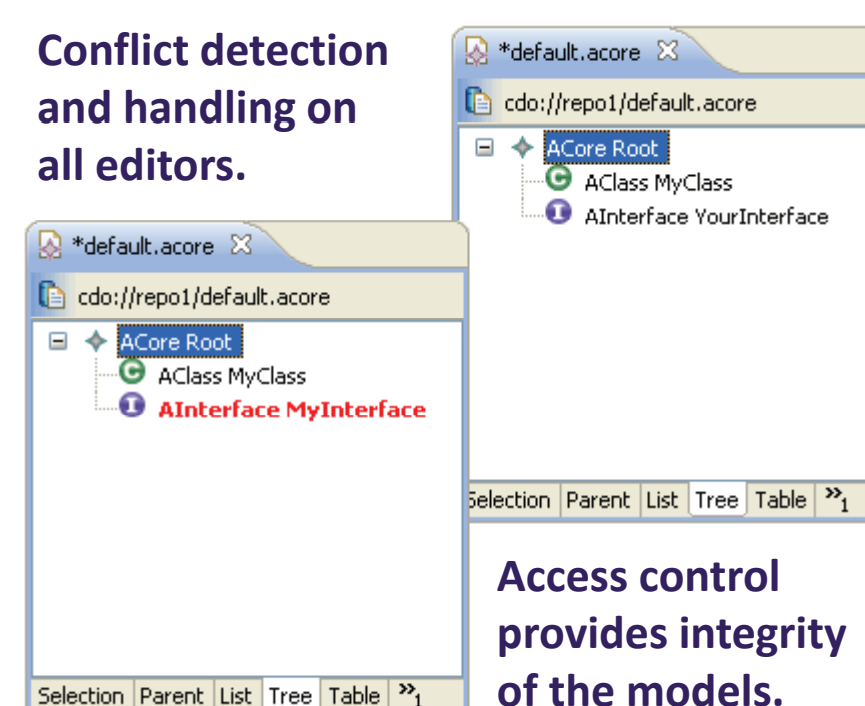
Dawn

The Rise of the collaborative UI

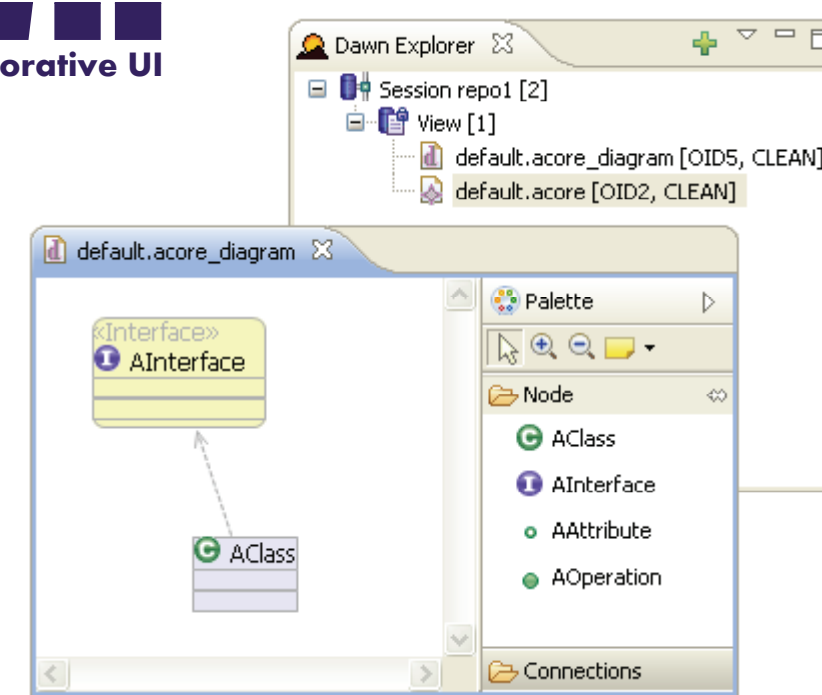
Dawn provides collaboration based on CDO for existing user interfaces.



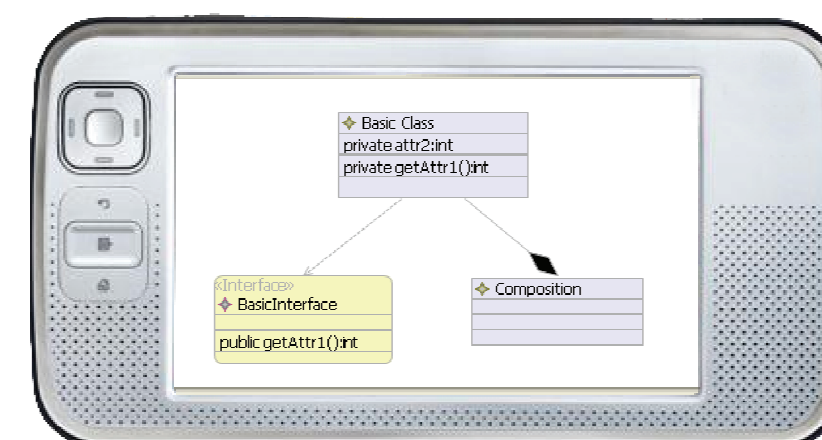
Conflict detection and handling on all editors.



Access control provides integrity of the models.



Generated extensions (fragments) for different kinds of EMF based editors (e.g. GMF, EMF, Graphiti).



Web-based solution for mobile devices and clients without installed Java environment.



CDO is an open source project hosted at Eclipse.org

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<http://www.eclipse.org/cdo>
<mailto:stepper@esc-net.de>