

## Choreology Cohesions 2.0

### Business Transaction Management Software for Application Coordination

#### Product Description

Choreology Cohesions 2.0 enables the management and coordination of loosely-coupled applications in the heterogeneous environment.

Cohesions 2.0 is a set of comprehensively documented Java class libraries that enable operations spanning multiple business services to be coordinated into an outcome of known consistency. Providing coordination at the application rather than the data level, Cohesions 2.0 builds on the existing investment in today's technologies whilst significantly reducing the effort required to deliver consistent and reliable business transactions. Cohesions 2.0 permits levels of integration and service not previously deemed possible, enabling **guaranteed delivery and processing** and providing recoverable transaction completion, including support for partial outcomes and cancellation/compensation. This can occur over the heterogeneous transport protocols often present within and between organizations.

Cohesions 2.0 implements OASIS Business Transaction Protocol (BTP) 1.0 and WS-Coordination and WS-Transaction (WS-C+T) 1.0 draft specifications<sup>1</sup>. It also integrates with several leading Web Services toolkits.

#### Core facilities

Cohesions 2.0 has three main components:

- **Coordination Service**

The *Coordination Service* is used to create transaction state managers that ensure that business transactions communicate correctly with participants and controllers.

- **Participant Framework**

The *Participant Framework* enables some or all of an application service's operations to become capable of participating in coordinated outcomes.

- **Control API**

The *Control API* enables events arising from a business transaction's members or participants to be observed or monitored.

Within the business transaction environment, these components work together to provide the ability to go forward to confirm, or to go backwards to cancel, any particular action as part of a coordinated composite result.

Each application or system identified within the *Participant Framework* is either a *Coordinator* or a *Participant*.

There is a single *Coordinator* for each *Framework* although a *Participant* can also act as a *Coordinator* in another *Framework*.

Cohesions 2.0 implements these capabilities in fully documented Java class libraries.

#### Features

- A set of Java APIs for creating, controlling and tracking distributed business transactions
- A flexible framework for integrating participating applications with the Cohesions runtime infrastructure
- A variety of connectivity options for interfacing applications running in heterogeneous environments
- Support for short- and long-running distributed business transactions with persistence of state
- Transactional Application Node Passivation allowing multiple, concurrent, long-running transactions to run with little or no performance degradation
- Business transaction logging
- Automated Application Recovery (support for consistent outcomes *plus* service checkpointing)
- Performance and scalability improvements

## Supported operating systems and Java Virtual Machines

Cohesions 2.0 supports the use of the Javasoft JDK/JRE 1.4, minimum release level 1.4.2\_02 on the following platforms:

- Solaris 9.0
- Red Hat Linux AS/ES 2.1 (kernel 2.4.9)
- Windows 2000 Professional and Server
- Windows XP Professional
- Windows Server 2003

Support for other environments is subject to customer demand.

## Supported carrier protocols

Cohesions 2.0 supports the following carrier protocols for coordination messages:

- Java Remote Method Invocation (RMI)
- Java RMI over T3 (BEA WebLogic 8.1 only)
- SOAP over HTTP/HTTPS

Application messages are not restricted to any specific carrier protocol.

## Supported application containers

Applications may be freestanding or hosted in Web Service or J2EE containers (including support for applications using EJBs). Cohesions 2.0 supports the following application containers:

- BEA WebLogic 8.1
- IBM Websphere 5.1 / Axis 1.1
- Cape Clear Server 4.0
- Oracle 9iAS Release 2 (minimum build 9.0.3)
- Apache Tomcat 4.1 / Axis 1.1



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## Supported databases

Cohesions 2.0 requires a Java Database Connectivity (JDBC) 1.0 accessible relational database that supports standard SQL and local transactional features.

The following databases are supported:

- Oracle 9i Release 2 (minimum build 9.2.0.1.0)

## Documentation

The Cohesions 2.0 product library comprises the following documents:

- Release Notes
- Getting Started Guide
- Administrator's Guide
- Programmer's Guide
- Integration Guides for each application container

## Compliance with business transaction standards

Cohesions 2.0 implements the following transaction protocols:

- OASIS Business Transaction Protocol (BTP) 1.0 Committee Specification
- WS-Coordination and WS-Transaction (WS-C+T) 1.0 draft specifications<sup>1</sup> published by BEA, Microsoft & IBM

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If you would like more information about Choreology's products and solutions please:

- visit our website at [www.choreology.com](http://www.choreology.com)
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For support services please:

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  - send an email to [support@choreology.com](mailto:support@choreology.com)
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<sup>1</sup> As these specifications are only licensed for research and analysis, and have not been put before any standards body, Choreology is unable to make its working implementation of WS-C+T available for commercial use. We maintain an active interest in the latest versions of these specifications - WS-AT and WS-BA - as they progress through the standardization process.