Rapid Composition of Web Services with JOpera for Eclipse

JOpera offers a visual language for programming compositions made of many kinds of services.

1. Import the WSDL interface of the Web services.
   Choose a reusable service from the library.

2. Connect the input and output data of the services.
   Add integration and adaptation logic using Java snippets.

3. Run, monitor, test and debug the execution using the same visual language.

Visual Composition Language

- Services are composed at the level of their interfaces.
- The visual composition language is not affected when adding support to invoke a new kind of service (future-proof).

Beyond Web Service Composition

- Combine efficiently coarse-grained Web Services with fine-grained Java Snippets.
- JOpera provides an extension point for service invocation plugins for calling different kinds of services using the most efficient, secure, reliable and convenient mechanisms.

Main Deployment Scenarios:
- Stand-alone, integrated rapid composition environment based on Eclipse user experience
- Client/Server: Local RCP monitoring tools connects to remote runtime execution platform
- Runtime execution platform can be deployed on a cluster of computers. We are developing an autonomic controller to automatically set the optimal cluster configuration in response to workload changes

A Flexible Architecture for Autonomic Process Execution

- State Information Storage
- Service Invocations
- User Invocations
- Service Type: SOAP
- Autonomic Controller
- Resource Type
- Local Information Storage
- System Output Parameters
- User Output Parameters