Oracle Integration Adapters, a component of Oracle Fusion Middleware, offers organizations a service orientated approach to unlocking the information assets that have evolved in most IT environments. Using standards based on the J2EE platform, these adapters are available to all components of Oracle Fusion Middleware. Oracle Adapters provide an easy-to-use, flexible, standards based SOA platform to enable rapid and real-time access to enterprise applications.

**Comprehensive Connectivity**

The adapter supports more than one recommended interface to communicate with the enterprise application and translates the application data to standards-compliant XML and back. It offers bi-directional connectivity and can be used to synchronously invoke application transactions and workflows as well as query application data. In addition, it can also asynchronously receive events from the enterprise application.

Oracle Adapters provide an integrated view of data and allow multiple applications to be integrated with each other in a harmonious manner.

Figure 1. Oracle Adapters provide one-stop shop connectivity
Simple and Easy to use Graphical Interface

Oracle AS Integration provides a unique design time experience for easy-to-use and rapid configuration of Adapters. The tool has built-in support for introspecting the EIS application metadata and to automatically generate the metadata for Adapter Services. Users can browse or search for specific EIS interfaces, business objects and operations.

Since this introspection is dynamic, all custom written or extended interfaces are available for use. No coding is necessary leading to rapid development and deployment.

Extensive Standards Based Support

The Oracle AS Adapters is fully standards-based and is compliant with both the J2EE Connector Architecture (JCA) and the Web Services Architecture. The Oracle Adapter SDK is lightweight and enables any JCA-compliant adapter to be rapidly integrated with the Oracle Application Server products.

Figure 2. Oracle Adapters Architecture

Complete Management through the Oracle Application Server

The Oracle AS Adapters are deployed on top of Oracle Application Server and
leverage it for scalability and high availability. The Oracle Application Server enables the user to monitor and manage the Adapter life-cycle. These capabilities are available out of the box with no additional software requirements.

Other Salient Features

- The Adapter supports extensive error handling and repair capabilities including setting up of a business process for handling correction of data errors.
- The Adapter Framework exposes performance metrics to provide visibility into the time spent on each processing step within the Adapter. The performance metrics can be monitored using the Oracle Enterprise Manager.
- The Adapter can dynamically scale run-time connections and exploits the underlying OC4J (Oracle AS – J2EE container) connection pooling service for the above.
- The Adapters exposes the underlying application specific properties as Header elements and allows the manipulation of these elements within a business process. For example, the AQ Adapter Header element exposes the AQ Header properties such as Correlation ID and Message ID for correlating two AQ messages within a business process.
- The Adapter supports batching of messages for increased performance. Multiple messages can be batched together as a single transaction while performing backend invocation operations.
- The Adapter is deployable in BPEL and Oracle Application Server clusters leading to a highly scalable architecture.
- The Adapter can be completely managed and monitored by the Oracle Application Server Console.
- The Adapter SDK is a light-weight tool kit that enables rapid implementation and deployment.

Summary

They offer the most standards based connectivity to over 300+ applications and reduce costs, improve productivity and decrease the time and effort involved in integrating enterprise information assets.