

BusinessObjects Enterprise XI Release 2

Comparing the Enterprise and Web Services SDKs

Overview

BusinessObjects Enterprise and Crystal Reports Server provide the Web Services and the BusinessObjects Enterprise SDKs. This document will help you decide which SDK to use to access Enterprise services.

This document applies to the XI and XI Release 2 versions of BusinessObjects Enterprise and Crystal Reports Server.

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Introduction

Business Objects has a strong history of providing robust SDKs to create and integrate Business Objects products into business intelligence application solutions. This document provides guidelines for choosing between the framework-based and Web Services SDKs.

Crystal Reports XI SDKs

The SDKs in the Developer Edition of Crystal Reports XI and XI Release 2 allows you to integrate Crystal Reports into web and thick- and rich-client applications. These SDKs include the following:

- Java Reporting Component (JRC)
- COM Report Designer Component (RDC)
- Crystal Reports for .NET

These SDKs are best suited for creating small-scale applications. For rich enterprise applications, it is recommended that you use the SDKs available in BusinessObjects Enterprise and Crystal Reports Server.

BusinessObjects Enterprise XI SDKs

BusinessObjects Enterprise XI and XI Release 2 offer seven SDKs that provide a rich set of features. These SDKs can be divided into two groups: BusinessObjects framework-based SDKs that provide full access to the Enterprise platform, and the Web Services SDK which provides a web services interface to the majority of the enterprise platform.

Framework-based SDKs

- **BusinessObjects Enterprise SDK** – use to access the services of the BusinessObjects framework. For example, the Job Server and Central Management Server (CMS).
- **Universe Designer SDK** – use to design and modify universes.
- **Desktop Intelligence SDK** – use to interact with Desktop Intelligence.
- **Report Engine SDK** – use to view Web Intelligence and Desktop Intelligence documents. It can also be used to create and modify Web Intelligence documents.
- **Report Application Server (RAS) SDK** – use to create and modify Crystal reports.
- **Viewers SDK** – use to view Crystal reports on demand.

Web Services SDK

- **Web Services SDK** – use to access the majority of the above features in a web services interface.

Since the functionality of both sets of SDKs overlap, it is important to be aware of the strengths and features of each set.

BusinessObjects Enterprise SDK

Overview

The Desktop Intelligence, Report Engine, Report Application Server (RAS), and the Viewers SDKs may be considered components of the BusinessObjects Enterprise SDK because they are designed to work together. For example, if you want to modify and view a Crystal report in BusinessObjects Enterprise, you will need to use the RAS, Viewers, and BusinessObjects Enterprise SDKs in an integrated fashion. For the sake of simplicity this tight integration allows them to be considered as a single SDK.

You can also use the COM, Java, or .NET API interfaces to the BusinessObjects Enterprise SDK to create web portals that access the back-end BusinessObjects Enterprise server. Custom applications developed using this SDK could have the same functionality as InfoView since it is created with some of the same APIs interfaces.

Advantages

The BusinessObjects Enterprise SDK has three major advantages over the Web Services SDK:

- Uses a proprietary framework called the Enterprise Bus to communicate with the back-end services. The Enterprise Bus allows BusinessObjects Enterprise to scale in a near linear fashion. Since the Enterprise Bus supports passing objects across the network, it does not incur a performance hit while objects are being serialized and de-serialized in order to convert them to XML.
- Accesses the RAS server to create and modify Crystal reports at run time, which is not possible using the Web Services SDK.
- Creates and modifies Web Intelligence documents using a web interface.

Web Services SDK

Overview

The BusinessObjects Enterprise Web Services SDK consumer API is available in Java and .NET. The Web Services SDK provides access to all the plug-ins that are available to the BusinessObjects Enterprise SDK. With the Web Services SDK you have access to Enterprise features such as scheduling and publishing reports and applications, managing servers

and security, viewing documents, and creating custom queries against managed universes.

Advantages

The Web Services SDK provides these advantages over the BusinessObjects Enterprise SDK:

- Incorporates loosely-coupled application architecture that is more flexible and resistant to change because each service is decoupled from the others.
- Provides a fully supported API for creating thick, rich, or smart clients that connect to BusinessObjects Enterprise. Although it is possible to create thick- and rich- clients using the BusinessObjects Enterprise SDK, it is not officially supported.
- Easier to connect to BusinessObjects Enterprise through firewalls because you only need to open one (the HTTP) port, as opposed to many ports for communication using the Enterprise Bus.
- Easier to share business intelligence services between companies and departments by consuming each other's BusinessObjects Enterprise web services.
- Simplified access to objects in the BusinessObjects Enterprise repository using a Universe Resource Identifier (URI) based query.
- Ability to create and modify data queries based on managed universe, thus allowing you to retrieve ad hoc on-demand data.
- Option to consume the BusinessObjects Enterprise Web Service WSDL files directly instead of using the provided consumer APIs. With this option, you can use another language such as PHP instead of Java or .NET to consume the web service

NOTE	Only applications that use the consumer APIs are supported. Issues discovered consuming the WSDL files directly may be tracked and escalated if they can be duplicated using either the .NET or Java Consumer API.
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BusinessObjects Enterprise SDK resources

The following section lists the resources that will help you get started using the BusinessObjects Enterprise SDK.

Developer Library

The Developer library is an online repository for all of the developer documentation related to the BusinessObjects XI suite of products. It contains samples, API specification, and how-to guides:

<http://devlibrary.businessobjects.com>

Sample applications

Business Objects Customer Support has created a number of basic sample applications that teach basic concepts. These sample applications can be used to create more complex applications.

<http://support.businessobjects.com/fix/samplescr.asp>

Deployment knowledge base articles

While you can find deployment help in the Developer Library, search the Business Objects Support Site for “deploy .NET” or “deploy Java”:

<http://support.businessobjects.com/search/default.asp>

Diamond Developer Community site

The Business Objects Diamond Developer Community site contains knowledge base articles, white papers, and code samples to help you create business intelligence solutions:

<http://diamond.businessobjects.com>

Developer Zone

A legacy site that will eventually be replaced by the Diamond Developer Community site:

http://www.businessobjects.com/products/dev_zone/default.asp

Web Services SDK resources

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► www.businessobjects.com

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