Xalt's capabilities for mobile and cloud work as a cloud-based enterprise software platform that connects all your administrative database systems to your users on any PC browser or mobile device. This part of our platform also provides a flexible and secure environment for the creation and delivery of an unlimited number of business apps, utilising a single download from the Apple App Store or Google Play.

ARCHITECTURE OVERVIEW

Connectors are pieces of Java code that facilitate the data movement between your data/document sources and the Xalt Cloud. Connectors reside on the Connector Gateway (Figure 1 below), where they translate the requests issued by the Xalt Cloud into a format consumable by the data source, and then translate the response back into the format needed by the Xalt Cloud. You can think of them as language packs that you snap in when you want to converse with a new system. In Figure 1, the connectors invoke the communication lines between the Connector Gateway and the various data sources. The connectors are also responsible for gathering the metadata used in Xalt. In most cases, a single connector is responsible for a single language (such as SQL), but in some cases where the language does not provide a programmatically efficient method of metadata discovery (such as REST web services), a connector must be custom built to the specifications of the data source.

The metadata gathered by the connector includes the data structures available from the data source, their properties, and the data types that make up those properties. Using a relational database as an example, the connector retrieves a list of tables, views, or documents; the columns that make up the tables; and the data types of each column. Aside from gathering metadata, a connector provides four basic data functions: create, read, update, and delete. These functions are the basic interfaces needed to allow Xalt to interact effectively with your data/documents.
CONNECTING TO SHAREPOINT

SharePoint (via 2010 Service Pack) provides an API via Simple Object Access Protocol (SOAP) and Representational State Transfer (REST) web services standards. The Xalt connector takes advantage of SOAP to communicate with the installation.

SharePoint’s infrastructure is built around lists, so using these calls we can search for or through specified lists. From the search results, a call is made to retrieve the specific document/image/item. A single WSDL file is declared as a data source, so any lists available through that WSDL are available. As lists are created or edited, the WSDL can be re-scanned to propagate those changes to Xalt. There is no limit to the number of data sources that can be created in Xalt; therefore, there is no limit to the number of SharePoint resources you can connect to.

SUMMARY

By utilising the standard interfaces available, Xalt can connect to any SharePoint installation of your choice. This model also stores all your business logic inside SharePoint, so there is no need to alter business processes or duplicate authorisation lists. This allows Xalt to focus on delivering a rich, native interface to your users.

About Hexagon

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE), a state where data is connected seamlessly through the convergence of the physical world with the digital, and intelligence is built-in to all processes.

Hexagon’s industry-specific solutions leverage domain expertise in sensor technologies, software, and data orchestration to create Smart Digital Realities™ that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.