

INTERLOOM™ APPLICATION FRAMEWORK

OVERVIEW

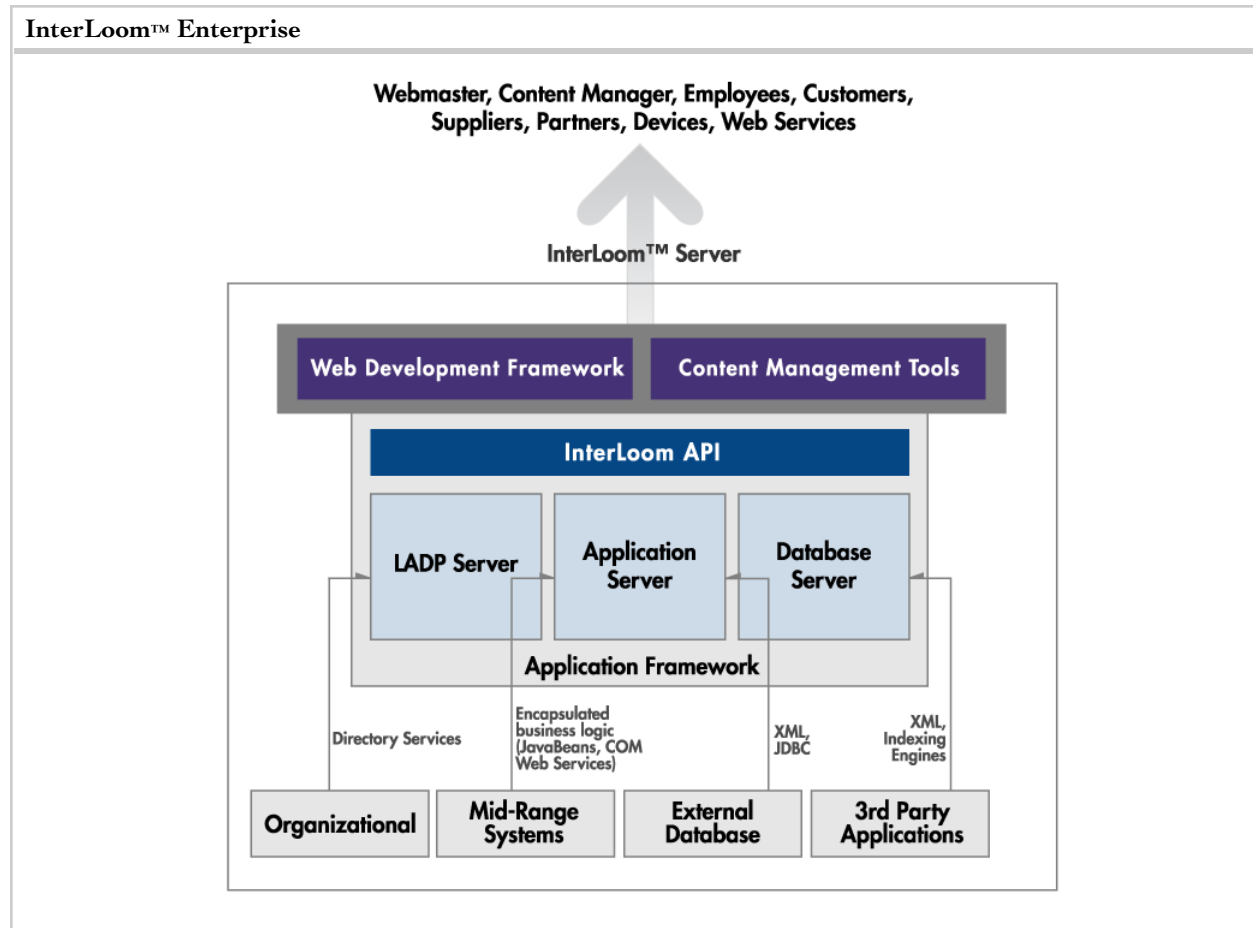
From mainframe to client/server to n-tier, DataHouse has repeatedly enabled its customers to leverage legacy resources into new architectures. Organizations now face the challenge of Web-enabling their current and future applications and integrating them into their e-business systems. InterLoom offers a framework for creating a unified presentation interface for users to have a single point of entry for multiple applications spread across the enterprise, or even the Internet.

Built in J2EE and XML, InterLoom™ follows industry standard design patterns, uses open technologies, and adheres to standard API's so that the InterLoom™ application is portable, scalable and extensible. In addition, InterLoom uses easy to implement interfaces to the services of a LDAP server, Java application server and JDBC-compliant database servers.

An InterLoom™ Extension is a set of customized InterLoom components that addresses a specific business requirement. InterLoom Extensions are the ideal vehicle for integrating enterprise systems with InterLoom™. This extensible approach ensures that the core functionality of InterLoom™ remains intact while new systems are being integrated -- an essential feature in the constantly evolving e-business marketplace.

THE FRAMEWORK

InterLoom™ coordinates the services of a LDAP server, JDBC-compliant database servers and a Java application server. The InterLoom™ application enables each of these server components to be a point of integration for users, data and business logic.



InterLoom™ provides pre-built, easy to use interfaces to the services of the server components. These interfaces are built to the specifications of the InterLoom API and are part of the InterLoom™ Web Development Framework and Content Management Tools. Additional customized interfaces may be built within the Application Framework.

LDAP Server

An LDAP directory server controls authentication of users and groups to access both the InterLoom™ Editor and InterLoom built Web site. Pre-built InterLoom objects register, authenticate and authorize InterLoom™ Editor and Web site users. Existing user directories may be integrated into the Web application using an LDAP server.

Database Servers

Enterprise-class database servers are key components in the Application Framework. For the core application, Web content is stored in the database instead of a file directory. InterLoom employs a clustered database schema to allow toggling between development, production, and backup versions of Web application data.

The wide variety of InterLoom Web objects displays this data based upon the parameters of the object type. In addition, InterLoom™ beans and database reporting objects can query and update external JDBC-compliant data sources.

Application Server

The Servlet, JSP's and XML files necessary to create the elements of the InterLoom™ application run on any Java application server that supports the following API's:

- Java 2 Platform, Standard Edition, version 1.3
- Java Servlet Specification, version 2.2
- Java Server Pages Specification, version 1.1
- Coding to standard API's and industry-standard design patterns ensures that InterLoom™ will run on a variety of platforms.

INTERLOOM EXTENSIONS

InterLoom™ Extensions help you realize a greater return on your investment. InterLoom extensions enable you to leverage legacy Web development efforts to accelerate your e-business. Because InterLoom Extensions are integrated with Core InterLoom™, an existing Web development investment built with Core InterLoom is easily repurposed for specific e-business needs. InterLoom™ Extensions can use your existing look and feel, security, and content as defined by InterLoom™ templates and objects as the foundation for building specific e-business functions unique to your business.

An InterLoom™ Extension is a combination of Java objects, Web pages, and configuration files that is used to extend the functionality of the core InterLoom™ application. Since InterLoom Extensions are written in Java, they provide access to any system that can be reached through a Java API. This gives InterLoom™ the flexibility to integrate with a large range of enterprise systems.

The InterLoom™ API defines specifications for creating Web objects, Beans, and Filters to become elements of an InterLoom™ Extension. Once properly registered, InterLoom Extensions are accessible by the InterLoom™ Web Development Framework and Content Management Tools. InterLoom™ Extensions may also be organized into a Section to provide an administrative interface.

Extensions allow developers to create new Web Object types that can be used to build Web interfaces to enterprise systems. These objects can interface with any data source that provides a Java API, which makes it possible to retrieve data from a wide variety of systems and include that data in a Web application. They can also package common functionality such as a shopping cart into an easy to reuse component.

An extension can add functionality to InterLoom in a number of different ways:

- **Web Objects** – The core of the InterLoom™ application, Web Objects are components that display content on a Web page. InterLoom™ contains a number of built-in Web Objects, used to display text, images, results from a relational database query, and many other items. Web Objects are written in Java and use Java Server Pages (JSP).

- **Beans** – InterLoom™ Beans are primarily used for form processing. Beans can pre-populate a form with data and process submitted form data. Like Web Objects, Beans are written in Java and configured via a JSP property page. InterLoom Beans are different from Java Beans, which are generic reusable Java components. InterLoom™ Beans can capture data from the Web to update enterprise systems exposed with a Java API.

Beans provide a flexible, user configurable way to implement the strategy pattern. You can define an interface for a task that needs to be carried out, and create Beans that implement this task in different ways
- **Filters** – Filters are used to perform pre-processing or post-processing on Web pages created in InterLoom™. Filters can be used to protect certain areas of a Web site from unauthorized users or to log access to a set of pages, among other things. Filters are also written in Java and configured via a JSP property page.
- **Sections** – Extensions can add new sections to the InterLoom™ editor for administration. New document types (in addition to the standard document types such as Template and Document Instance) can be created in these additional sections for holding Web site data. In addition, completely customized sections can be created to provide any additional administration interface needed by the extension.