LIS Gateway and Virtual Machine

Reduce development time on LIS implementations

Psydev LIS Gateway

LIS Gateway reduces the development time and effort needed to integrate home-grown and legacy systems with the Learning Information Services standard. It allows for an incremental approach so that developers can trial different services and transactions.

LIS Gateway is a reference implementation of the IMS Learning Information Services (LIS) standard (version 2.0.x). It is an actual service that behaves as per the standard, rather than being a skeleton back end that returns hard coded or fictitious responses.

What is Gateway for?

LIS Gateway is intended as a tool to help software developers write and test code that sends or receives LIS messages. LIS is a service based standard, which means that messages are sent from requesting software to a receiving service. However, writing code that will send messages is difficult when one does not have access to a receiver service to send them to. Gateway is intended to reduce the time it takes for developers to understand and implement the LIS standard. Gateway allows developers to see the actual messages that they are sending and provides them with real responses to those messages.

What does Gateway do?

Gateway provides a complete set of endpoints for all of the services defined by the LIS standard, including a Bulk Data Synchronisation Agent. Gateway listens for LIS request messages and processes all messages it receives. Received messages are parsed and validated and a response is sent. At each stage, a log of the raw SOAP response is kept. Responses are as specified by the LIS standard, including an appropriate error code. Internally, Gateway uses a database to store data that was sent to it. This database can be accessed by developers to check data received, query log files and so on.

How is Gateway used?

Gateway provides a head start on a LIS implementation by handling all of the LIS calls itself, requiring developers just to implement an API. It handles data mapping issues via the use of neutral data structures and a driver-based architecture. The Gateway ships with command-line clients.

Gateway is installed on a machine (for example the developer's own workstation, or a departmental server) and will listen for requests as any other service would. Developers write code that will send SOAP messages to the Gateway service and will receive SOAP responses back. Developers can access the Gateway database, change internal values and experiment with the wide range of LIS calls. They can also look at the actual SOAP messages that they have sent and the responses to them.

What are the requirements for using Gateway?

At the bare minimum, Gateway requires a Java servlet container and database. Gateway can be installed as web archive (.war) files and the database set up using supplied SQL scripts. Alternatively a VMware™ Virtual Machine which is preinstalled and preconfigured is also available. This allows users to reduce development time by up to two months as they can focus on those parts of LIS that they need, rather than having to write test servers. This version is designed to help development teams get up to speed quickly on using the LIS specification by providing them with a clean reference implementation. Developers can experiment as much as they like with the APIs, safe in the knowledge that they can roll the VM back to its initial state if they need to.

Everything required to work with LIS is included – database, application server, service endpoints and a bulk data exchanger – in one place, with all of the configuration done. Users will also need to have the VMware vSphere™ platform or VMware Workstation.

Psydev's LIS Gateway Virtual Machine is available for a one-off fee and annual maintenance charge. Please contact us for further information.

Further information

If you require any further information about Gateway or would like to discuss its implementation, please get in touch:

Email: solutions@psydev.com
Telephone: +44 (0)114 345 6500
Web: www.psydev.com

Psydev Ltd's LIS Gateway has been awarded conformance to LIS v2.0.1 (Beta 1) for both mySQL and Moodle drivers, making Psydev the first company in the world to achieve conformance to this standard. Our registration numbers are IMSE1Pd2012W1 (mySQL), IMSE1Pd2012W2 (Moodle v2.2.5) and IMSE1Pd2012W3 (Moodle v 2.2.3).

For more information, visit www.imsglobal.org
Psydev Ltd is an Oracle Gold Partner

IMS GLOBAL
CERTIFIED
Current Registrations:
imscert.org

ORACLE® Gold Partner