LIS Gateway for Moodle

Simplifying the exchange of data between Student Information Systems and Moodle.



Psydev LIS Gateway for Moodle

LIS Gateway for Moodle, developed by Psydev Ltd, is an implementation of the IMS Global Learning Information Services (LIS) standard (version 2.0.x). It is a mechanism that allows the Moodle Learning Management System to be integrated with any Student Information System which supports the IMS LIS standard. Integration with an SIS means that Student, Course and Enrolment records can be automatically provisioned on Moodle from the SIS without any human intervention. Gateway eliminates the need for custom integration scripts, unofficial workarounds or repetitive typing when sharing information between the SIS and Moodle.

About LIS

LIS is a standard that addresses the movement of educational data between different systems. LIS deals with data describing people, groups, memberships, courses and outcomes.

LIS's approach is based around the model that a particular system is the "source of truth" for a given type of educational data. For example, a Student Record System might be the source of truth for people (students); a Learning Management System might be the source of truth for outcomes (grades). These "source" systems are termed "Reference Agents".

A Reference Agent typically will send its data to other systems. For example, at the start of the academic year, the Student Record System might be used to provision accounts for students on the Learning Management System. Systems which receive data, but aren't expected to be the source of truth for it, are termed "Synchronisation Agents".

The LIS Specification details the types of messages that can be sent between the two types of Agent; effectively telling the receiving system what it should do with the data and providing a common format in which the data should be expressed. The standard therefore overcomes the complexities of exchanging data between different systems.

What does Gateway for Moodle do?

The software creates, edits and deletes course, enrolment and person records in Moodle. It listens for messages being sent from the SIS (for example, a message describing a new course). Upon receiving the message, Gateway logs the message and then converts it into a format that Moodle understands. The converted message is then sent on to Moodle itself, which responds back to Gateway. Gateway then makes a final response back to the SIS.

How is Gateway for Moodle used?

Once installed and integrated with an SIS, Gateway itself is more or less transparent. As far as the SIS is concerned, Gateway is Moodle. The SIS user sends course, student and enrolment records and these are then created in Moodle. Moodle users will still need to populate their courses with content but all of the enrolments will already have been done by the SIS informing the Gateway. End users themselves should not perceive much of a difference.

What are the requirements for using Gateway for Moodle?

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.

Gateway for Moodle is integrated with a single Moodle (of version 2.1 or above). The integration with Moodle requires that Moodle's web services API is activated and that the Gateway plugin has been installed.

Alternatively a VMware™ Virtual Machine which is pre-installed and preconfigured is also available. This VM has been tested using VMware ESX™ 5.0 and VMware Workstation™ v8.

Further information

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

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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).

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