Integration of Learning Management Systems

The Integration of Learning Management Systems allows customers who use a third-party Learning Management System (LMS), such as Blackboard, to make sure that their LMS accurately reflects the official data in SAP Student Lifecycle Management. This data includes the course catalog, class schedule, and class rosters.

If the LMS system is not properly updated, it becomes very difficult for instructors to accurately manage their class rosters. Previous customers with LMS systems had to write their own interfaces, most of which operate through a periodic batch data transfer.

Through this bundle, some existing business objects can be configured to automatically create a notification message when changes have been made. These objects are Modules and Events. This bundle will provide advancements in areas like connectivity, open consumption and simplification.

Audience

The ILMS ES bundle is primarily of use for Higher Education Industry. However, any industry that needs to manage students and courses will also benefit. This includes some commercial education/training delivery and also K-12 education.

How to Use This ES Bundle

The enterprise service can be achieved through an enhancement package to SAP ERP (ERP 6.0 EhP4)

Use Case 1: Initial population of LMS system with SLCM data

When an institution needs to start the integration between SLCM and LMS, it is necessary to initially populate the LMS system with the proper data. Services in this bundle provide for this type of initial data export from SLCM to LMS.

The following table summarizes these steps and the associated enterprise services:

<table>
<thead>
<tr>
<th>Step</th>
<th>Enterprise Service Invoked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Send catalog of offered courses and sections to LMS</td>
<td>Request Collective Learning Product Replication</td>
</tr>
<tr>
<td>Step 2: Send current schedule of classes to LMS</td>
<td>Request Collective Learning Activity Replication</td>
</tr>
<tr>
<td>Step 3: Send current course registrations (i.e. class rosters) to LMS</td>
<td>Request Collective Learning Registration Replication</td>
</tr>
</tbody>
</table>

Use Case 2: Update of external Course Catalog and Class Schedule

When an institution uses an external database to publish the course catalog and schedule of classes (both internally and externally), that external database needs an initial load and subsequent accurate and timely updates from Student Lifecycle Management.

The following table summarizes these steps and the associated enterprise services:
<table>
<thead>
<tr>
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<th>Enterprise Service Invoked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Send catalog of offered courses and sections to external database</td>
<td>Request Collective Learning Product Replication</td>
</tr>
<tr>
<td>Step 2: Send current schedule of classes to external database</td>
<td>Request Collective Learning Activity Replication</td>
</tr>
</tbody>
</table>
| Step 3: Send changes to catalog of offered courses to external database | Notify of Learning Product Created  
Notify of Learning Product Cancelled  
Notify of Learning Product Changed |
| Step 4: Send changes to scheduled classes, including changed instructor assignments, to external database | Notify of Learning Activity Created  
Notify of Learning Activity Changed  
Notify of Learning Activity Cancelled  
Notify of Learning Activity Instructor Created  
Notify of Learning Activity Instructor Cancelled |

**Use Case 3: Continuous Update of external LMS**

Changes to the course catalog, class schedule, and class rosters need to be reflected in the external LMS in a timely fashion. Whenever changes are made in Student Lifecycle Management, those changes need to be transferred to the external LMS.

The following table summarizes these steps and the associated enterprise services:

<table>
<thead>
<tr>
<th>Step</th>
<th>Enterprise Service Invoked</th>
</tr>
</thead>
</table>
| Step 1: Offered courses are newly created, changed, or cancelled | Notify of Learning Product Created  
Notify of Learning Product Cancelled  
Notify of Learning Product Changed |
| Step 2: Scheduled classes for offered courses are created, changed, or cancelled | Notify of Learning Activity Created  
Notify of Learning Activity Changed  
Notify of Learning Activity Cancelled |
| Step 3: Instructor assignments for scheduled classes are changed | Notify of Learning Activity Instructor Created  
Notify of Learning Activity Instructor Cancelled |
| Step 4: Students add or drop classes from their schedules | Notify of Learning Registration Created  
Notify of Learning Registration Cancelled  
Notify of Learning Registration Changed |

**Future Directions**

"Future directions for this ES bundle will be market-driven."

**System Requirements**

- SAP ERP 6.0
- Industry Package for HER (Educational Services)
- SAP enhancement package 4 for SAP ERP 6.0

**Links**

**SDN and SAP Links**

- SOA Homepage on SDN