



Innovating The Admissions Application Process

Time Saving Automations Between Anthology Student and Salesforce to Streamline Processes for Administration, Staff and Students

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How Central University integrated Anthology Student with Salesforce CRM	3
Introduction	3
Summary of the Student Information System	3
Central University's Time-saving Automations	3
Admissions Business Process	3
Reading Data	4
File-Based	4
On-Demand APIs	4
Real-time	4
Writing Data	5
File-Based	5
On-Demand APIs	5
Real-time	5
Student Success Automations	6
Reading Data	6
File-Based	6
On-Demand APIs	6
Real-time	6
Writing Data	7
File-Based	7
On-Demand APIs	7
Real-time	7
Finance Automations	7
Reading Data	7
File-Based	7
On-Demand APIs	8
Real-time	8
Writing Data	8
File-Based	8
On-Demand APIs	8
Real-time	8
Using Linkg for Commonly Integrated Systems in Higher Ed	9
Anthology Student and Salesforce	9
Anthology Student and Flat Files	9
Anthology Student and a Data Warehouse	9
Working with Linkg for Enterprise System Integrations	10

How Central University integrated Anthology Student with Salesforce CRM

Introduction

Central University “Central U” (an imaginary Higher Education Institution) is innovating their admissions application processes by integrating their Salesforce org with Anthology Student (previously was Campus Management). Admissions counselors guide students through the admissions process in Salesforce. As applicants are admitted, an automation adds them to Anthology Student so that they can become official Central University students. The Anthology Student student identifier is stored in Salesforce to make advising and support easier. Additionally, reports can be run from Salesforce and align to other Anthology Student data sets.

Anthology Student maintains the student record long term. Therefore, changes to the student demographic information flow into Salesforce from Anthology Student. An automation enables the contact data in Salesforce to be synchronized with Anthology Student.

Summary of the Student Information System

Central U uses Anthology Student to manage their student information. Institutions increasingly integrate with Anthology Student to enable greater innovation in recruiting, admissions, retention, and advancement.

Most Anthology Student deployments have traditionally been on-premise installations, however, in the last couple years, not only are the new installations deploying Anthology Student in the cloud, but the existing on-premise installations have been migrating to the cloud at a rapid pace.

With an on-premise deployment, institutions that wish to integrate with other 3rd-party vendors, while maintaining a highly secure network, makes integration challenging. With cloud-based deployments, institutions with a number of legacy or home-grown systems that currently integrate with their Student Information System “SIS” make integration challenging.

Central University’s Time-saving Automations

Admissions Business Process

- Improve the performance of admissions teams and drive more enrollments
- Integrate with admissions applications, persons, institutions

One recurring challenge is the misunderstanding of leads/inquiries/students between users of different systems and what is considered a “duplicate”. When the definition of these concepts is not thoroughly discussed and agreed upon by the primary users of both systems, this invariably leads to long-lasting pain-points and incorrect implementations of the integration.

In Anthology Student, institutions can choose to track multiple Inquiry records (or not), at the campus-level. Many schools deem inquiries received within a specified period of time (based on the lead date) for the same person to be duplicates and choose not to create individual Inquiry records for each of these. Other schools choose to create Inquiry records for each and every inquiry they receive from a person.

Reading Data

File-Based

Other than saving reports in various formats (pdf, excel, etc), the Anthology Student Admissions module has never really been a “export to flat file” type of system.

On-Demand APIs

The APIs, first SOAP and now REST (OData and Command Model), have always been the method for programmatically interacting with the Anthology Student system. With the push to use REST APIs for the middle tier functionality, the ability to access more data via OData calls has opened up the possibilities for a greater variety of integrations and reporting with BI tools.

There are a number of “Get” SOAP APIs that can pull (i.e. read) data from Anthology Student, but the OData calls of the REST APIs provide much better access to data. There are also “Get” calls with the Command Model of the REST APIs, but OData calls are, and will be, the primary method to read data from Anthology Student.

Authentication/authorization for the SOAP APIs is via a security token obtained using the Authentication API (and providing a valid Anthology Student username and password). For the REST APIs, basic authentication (with username and password), an Oath 2.0 token, or an API key can be used.

Real-time

The implementation of the Workflow product for Anthology Student a few years ago allows customers to access Saving and Saved events within Anthology Student. Workflows can be written to proactively provide data validation, by reading the data to be entered during the Saving event and only allowing it to be saved if it passes certain criteria. A Saved event can trigger an action or a chain of events to be taken based on certain criteria, enabling users to automate tedious tasks. Workflows can range from

easy to extremely complex, especially when pushing the data read to other systems either via a direct connection or 3rd-party APIs.

Most integrations, however, use the APIs instead of Workflow and poll for changes within Anthology Student, either by keeping “audit” of the data on the other side or by pulling information from the Anthology Student audit tables.

Writing Data

File-Based

A legacy product called eLeads Express utilizes “file drop” functionality for the Anthology Student Admissions module. It uses a Windows service to process the files and make API calls to do the work and push the data into Anthology Student. Within Anthology Student itself, Test Scores can be imported from a flat file once the file definition has been configured.

On-Demand APIs

The APIs, either SOAP or the REST Command Model, are the primary method for programmatically writing data into Anthology Student. The SOAP Leads API has always been one of the most heavily used APIs. When a “lead” is pushed into Anthology Student, the result depends upon the configuration of the system. A new student record could be created, a new inquiry record could be created for the existing student, or even a ‘no net change’ could be a valid result.

The Prospect Inquiry/Save New API will likely become one of the most heavily used of the REST API Command Model for the Admissions module. A major difference between this API and the SOAP Leads API is that it doesn’t (or didn’t) have functionality behind it to take different actions based on configuration. Instead, the logic to determine what should happen is written outside of Anthology Student based on the data returned from OData calls. Although the SOAP APIs have more functionality encapsulated within them, there are more REST APIs available and they allow for greater flexibility.

With the migration of Anthology Student to the Web Client, the middle-tier functionality has been migrated to the REST APIs. It is this migration that opened up the possibilities for more extensive integrations with other systems.

Real-time

The Anthology Workflow product allows customers to access Saving and Saved events within Anthology Student. Workflows can automate functionality and write missing or default information to keep the data as clean and complete as possible. Workflows can also assist with integrations between systems by pulling data from an external system based on a Saved event. However, a workflow can become very complex as it must

ensure that an infinite loop is not created and it should validate the data before writing it into the Anthology Student database. If certain data state conditions are needed to determine when to push data into Anthology Student, many integrations choose to poll the Anthology Student system periodically with OData calls to determine that timing instead of using Workflow.

Student Success Automations

- Retain students through graduation
- Integration with students, courses, enrollments, programs

Anthology Student is a hierarchical system based on School Status. When a student has multiple enrollments and is associated with multiple campuses, the student's School Status will determine the primary campus and the primary enrollment. Anthology Student also allows for multiple **active** enrollments within the same campus or across multiple campuses. This can lead to confusion regarding the hierarchy within Anthology Student and which is the primary campus and enrollment. The Active status is the highest in the hierarchy and all things being equal, the enrollment most recently made Active, is generally the primary enrollment.

Reading Data

File-Based

Other than saving reports in various formats (pdf, excel, etc), such as class rosters, the Anthology Student Academics module has never really been a "export to flat file" type of system.

On-Demand APIs

As with the Admissions module, the Academics module has both SOAP and REST APIs available to pull the data. The most widely used is the DegreeAudit SOAP API as this API is even used within Anthology Student itself and the Portal to display a student's Degree Progress Audit which contains program information, enrollments and course information. Other popular APIs are "Gets" for enrollments and course schedules.

Real-time

Anthology Student workflows can be written to proactively provide data validation for the Academics module as well. By reading the data to be entered during the Saving event, such as enrolling a student, and only allowing it to be saved if it passes certain criteria, incorrect enrollment information can be avoided. A Saved event can trigger an action or a chain of events to be taken based on certain criteria, enabling users to automate tedious tasks such as generating reports at certain times.

Writing Data

File-Based

Legacy products called App Express and the Wheel Scheduler have been the only “file drop” functionality utilized for the Anthology Student Academics module. They use a Windows service to process the files and make API calls to do the work and push the data into Anthology Student.

On-Demand APIs

As mentioned earlier, the APIs, either SOAP or the REST Command Model, are the primary method for programmatically writing data into Anthology Student. The most heavily used APIs of the Academics module are the Attendance and Grades APIs. These APIs are used to push attendance and grades into Anthology Student from 3rd-party LMS systems and even the Anthology Student Portal, in the case of grades. The Anthology Student Web Client, of course, uses the REST APIs for its middle-tier functionality.

LMS integrations are the most common integrations for the Academics module. Enrolling a student, registering them into classes, posting attendance and grades can all be accomplished via the APIs, either SOAP or REST.

Real-time

As with the Admissions module, the Anthology Student Workflow product can also be used with the Academics module. Anthology Student workflows can be written to automatically enroll students into a program and register them into classes, based on a Saved event. These tend to be somewhat complex and are usually written by the Anthology Student team.

Finance Automations

- Write international tuition payments to
- Integration with general ledger and payments

Students can be billed for their classes either by their enrollment campus, or by the campus where their class is located. This is a campus-level configuration and when this configuration is not consistent across all of the campuses for an institution, it can lead to confusion. Care should be taken when deciding upon configuration for billing, stipends and refunds across campuses.

Reading Data

File-Based

The Student Accounts and Financial Aid modules utilize flat files more than the other modules due to government submissions and 3rd-party processors of financial aid

packaging. The Student Accounts module exports transactions to the General Ledger of 3rd-party accounting software. The Financial Aid module exports data to 3rd-party servicers like Global as well as creates submissions to financial aid-related destinations for Application Processing, Clearinghouse, COD, Direct Load, Pell/RFMS, SSCR and SSCE .

On-Demand APIs

SOAP and REST APIs are available to pull the data from a student's Ledger Card in the Student Accounts module as well as the student's financial aid packaging information and payment plans from the Financial Aid module.

Real-time

Anthology Student has a product called Financial Aid Automation (FAA) which can automate many tasks such as ensuring student eligibility, COD imports and exports, disbursement and stipend scheduling, and posting those disbursements and stipends. Anthology Student workflows can push the data created by FAA, or the general use of the Student Accounts and Financial Aid modules, but many clients prefer to pull the data out of Anthology Student on their own schedule with API calls.

Writing Data

File-Based

FAFSAs and ISIRs files are probably the highest volume imports into Anthology Student. Files from 3rd-party servicers like Global as well as financial aid from COD, CommonLine, Direct Loan, etc. are also very common imports into the Anthology Student. As yet, importing data from 3rd party accounting software is not supported.

On-Demand APIs

Institutions that wish to integrate with their 3rd-party accounting software bi-directionally, can do so via API calls (SOAP or REST). Posting charges and payments to a student's Ledger Card using the SOAP LedgerWebService API has always been very popular. Financial Aid packaging can also be performed with API calls, either SOAP or REST. A Swagger UI is available (for all modules) for institutions with the Web Client installed. This is one of the best tools for Anthology Student that can assist developers with REST development or migration.

Real-time

Anthology Student FAA automates the importation of files from the government or 3rd-party processors, but it runs on a schedule maintained in it's Job Management section and not necessarily in "real time". Anthology Student workflows are event-driven and thus realtime, so workflows can be written to perform actions such as package a student based on a student status change. Anthology Student workflows for

the Student Accounts and Financial Aid modules can be written to free staff from common and tedious tasks.

Using Link for Commonly Integrated Systems in Higher Ed

Anthology Student and Salesforce

Salesforce drives the admissions, student success, and advancement processes for many higher education institutions. Link provides connectors for Anthology Student and Salesforce. For any SIS integration, Salesforce enables all the reference data to be stored in custom Salesforce objects and fields.

Salesforce has an Educational Data Architecture (EDA) which extends the default Salesforce data model with education-specific objects and fields. On the EDA model, additional Salesforce products are built (i.e. Student Advisor Link - SAL, Admissions Connect, and more).

Link provides pre-built recipes for many Salesforce scenarios that can be customized to meet your unique Salesforce data model and accelerate the data loads EDA. Link offers a powerful, low-code Salesforce data loader that can meet all your data cleansing, migration, and automation requirements.

Anthology Student and Flat Files

Many institutions still have dozens of vendors that require SFTP file drops for integration. These integrations may be course rosters, financial aid statuses, class schedules, and more.

Some institutions ingest data into SIS using file data on an SFTP site. Link's on-premise and API connectors enable deep transformation and scalable deployment models for writing data to SIS master records.

Link provides pre-built recipes for processing flat files from SFTP and S3.

Anthology Student and a Data Warehouse

Business intelligence across an institution is critical for understanding long-term trends and actionable insights into academic and business operations. The data warehouse is fast becoming a critical component at institutions seeking to own their data and make data-driven decisions.

Lingk provides connectors for Snowflake, AWS Redshift, Google BigQuery, and other databases to support institutions building data pipelines from Anthology Student to a data warehouse.

Working with Lingk for Enterprise System Integrations

Lingk provides recipes for getting started with Anthology Student and many other Higher Education Enterprise Systems integrations. Whether you have one or one-hundred integrations, the Lingk platform helps you keep all integrations organized and maintained in projects.

If you have a team of experts, Lingk offers JumpStart services to accelerate your integration projects while your team learns the platform.

If you need additional resources for the integrations to drive the innovation of your institution, Lingk can come alongside your team to build and maintain the integrations.