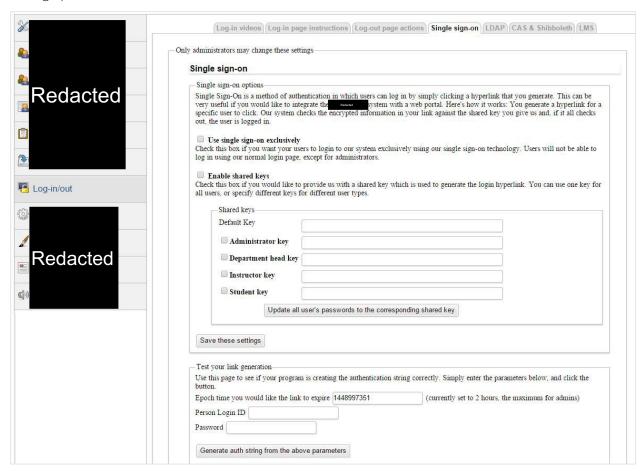# Configuring Single Sign-On

Redacted supports Single Sign On (SSO) authentication through standard methods, including CAS, Shibboleth, LDAP and SAML 2.0. Redacted single sign-on technology allows your school to authenticate users against its own servers, reducing accessibility concerns by eliminating the need for users to maintain a dedicated password to Redacted Redacted generated SSO links are convenient and secure, consisting of a unique URL for each us structed with SHA1-encrypted information such as username, shared key, and a time stamp.

To set up SSO, your IT staff would simply use the intuitive Redacted etup module to complete the setup process and create a shared key. The administrative interface provides step-by-step guidance for setting up SSO, as shown below:

How SSO Works

Redacted Single Sign-On (SSO) technology allows your school to authenticate students using your own servers. When using SSO, students login to your web portal and click a Redacted login link that is

specific to each user. Clicking the login link will automatically log the user into [Redacted] The SSO login link would look like this:

https://w[Redacted]m/login.aspx?auth=1/555/mrsmith/1123473032/C38B682D70EAFFFDFB1FF3762313BC

How [Redacted] Forms SSO Links

The first part of the link is always the following: https://www.[Redacted]m/login.aspx?a2e=

The next part is what we call the "Authentication String". The authentication string consists of the following components:

$$1/999/PersonLoginID/ExpirationTime/ENCRYPTEDSTRING$$

1 identifies the method of encrypting the string. [Redacted] currently supports only one method.

999 is a number that specific to your school. If you are unsure of your number, please call us.

PersonLoginID identifies the user. Note: all LEADING zeros should be dropped from this field when importing data.

ExpirationTime represents the number of seconds that have elapsed since 12:00:00 AM January 1, 1970 GMT. This is sometimes called "UNIX time" or "Epoch time". This number will need to have added to it an extra number of seconds that will determine when the authentication string will no longer be valid. Note: for security reasons, the expiration time cannot exceed 2 hours for administrators, 2 weeks for department heads, and no more than 21 days for instructors and students.

ENCRYPTEDSTRING is a string of characters generated through [Redacted] SHA3 encryption method. It contains ALL of the information from the authentication string along with the uploaded user password, as follows: 1/999/PersonLoginID/expirationTime/UploadedPassword

> The Uploaded Password is a field that is uploaded to [Redacted] along with course information.
> By duplicating all of the above parts in the ENCRYPTEDSTRING, and then adding in the uploaded password, we ensure that 1) the plain-text fields cannot be altered without changing the ENCRYPTEDSTRING, and 2) a password, in encrypted form, acts as the final means of authentication.

Displaying a student's current classes on your web portal:

[Redacted] will generate an XML stream that may be incorporated in any way you'd like on your school's web portal. Popular applications of this functionality include displaying a list of the student's current classes, as well as restricting access to grades pending completion of evaluations.

To enable this XML functionality, add the "&ClassesOnly=true" querystring to the single sign on link you have already developed (see Login/Logout on the Preferences menu). Please use the "[Redacted]" domain to ensure best performance. Your URL should look like this:

https://[Redacted]/login.aspx?a2e=1/999/PersonLoginID/expirationTime/ENCRYPTEDSTRING&ClassesOnly=true

[Redacted] will return an XML string with all of the student's recent surveys (+/- 30 days from today) and/or all of the classes the person is teaching (if the user is an instructor). Below is an example output:

```xml
<?xml version="1.0" encoding="us-ascii"?>
<PersonInfo>
<ClassesAttended>    (This starts the list of surveys the person has to
complete )
<Class>    (The beginning of the class specifications )
<CourseDeptAbv>AAS</CourseDeptAbv>    (Course department)
<CourseNumber>267</CourseNumber>    (Course number)
<CourseType>0</CourseType>    (Course type)
<CourseLevel>01</CourseLevel>    (Course level)
<CourseName>SOVEREIGNTY IN POST COL AFR</CourseName>    (Course name)
<CourseTrait>none</CourseTrait>    (Course rait)
<SectionID>85756</SectionID>    (Section ID)
<SurveyBeginDate>4/24/2008</SurveyBeginDate>    (Survey begin date)
<SurveyEndDate>12/4/2008</SurveyEndDate>    (Survey end date)
<TeacherLastName>HILL</TeacherLastName>    (Instructor last name)
<Completed>N</Completed>    ('Y' or 'N'. Was the survey for this course
completed?)
<Dropped>No</Dropped>    ('No' or 'Dropped'. Did the student drop this
course?)
</Class>    (End of class record)
</ClassesAttended>    (End of list of surveys the person has to complete)
<ClassesTaught>    (Begin list of classes the person taught.)
<Class>    (The beginning of the class specifications )
<CourseDeptAbv>AAS</CourseDeptAbv>    (Course department)
<CourseNumber>267</CourseNumber>    (Course number)
<CourseType>0</CourseType>    (Course type)
<CourseLevel>01</CourseLevel>    (Course level)
<CourseName>SOVEREIGNTY IN POST COL AFR</CourseName>    (Course name)
<CourseTrait>none</CourseTrait>    (Course trait)
<SectionID>85756</SectionID>    (Section ID)
<SurveyBeginDate>4/24/2008</SurveyBeginDate>    (Survey begin date)
<SurveyEndDate>12/4/2008</SurveyEndDate>    (Survey end date)
<SurveyAccessDate>12/10/2008</SurveyAccessDate>    (The date scheduled for
instructors to see their results.)
<NumStudents>48</NumStudents>    (Number of students registered for the class)
<NumCompleted>22</NumCompleted>    (Number of students who have completed
their evaluations)
</Class>    (End of class record)
</ClassesTaught>    (End of the class record )
<PersonType>Student</PersonType>    ('Student', 'Admin',
'Instructor','Department Head'. The type of person.)
</PersonInfo>
```

Other XML Applications

If you prefer a different application of the XML stream, simply check "Enable XML Classes API" in the Login/Logout section of the Preferences menu. To configure the XML stream to return classes for a specific person, make a HTTP web request to the following URL:

https:// [Redacted] /xmlapi.aspx?c=classes&s=454&xmlkey=5b63429799859a1d1a88dafb01d68cf5&u ={PERSON}

Replace {PERSON} with the School# or LoginID of the user for whom you wish to return class information.

The "xmlkey" is unique and generated specifically for you. Please keep this key safe. Should you need to change the key just click "Regenerate key" in the Login/Logout section of the Preferences menu.

If you prefer a more simplified XML that only shows the total completed and incomplete evaluations you use the following URL:

https://c[Redacted]/xmlapi.aspx?c=classes&s=454&xmlkey=5b63429799859a1d1a88dafb01d68cf5&u={PERSON}&countonly=1

Other Resources

For more information on login methodologies supported by [Redacted], please see the [Sign On Options video tutorial](#).