



Sunshine Connections

Identity Management

Flexible Authorization System (FAS)

Final

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Overview

The Flexible Authorization System (FAS) was created based on a need identified by Florida school districts to map district staff members to students and groups of students so those staff members could access student information.

In Sunshine Connections, primary teachers are mapped to their students in the data that the school districts submit that maps staff to classes and classes to students using Survey 2 file formats (staff demographic, teacher course, student course, and student demographic).

This mapping does not account for other educators such as resource teachers, reading and math coaches, special education teachers, etc. The FAS is designed to enable districts to map these other educators to students in Sunshine Connections so they can access student data such as FCAT results.

Requirements

The FAS needs to provide for flexible mapping of educators to students and groups of students. The need is twofold; first each Sunshine Connections user should be mapped to a directory services security group, and second each user or groups of users may be mapped to students or groups of students in the Sunshine Connections database.

Security Groups

Six security groups for Sunshine Connections were defined by the school districts that participated in a joint application design (JAD) session in June 2006:

1. District – members of this group have access to all student data in their school district.
2. Region/Area – members of this group are assigned access to a subset of district student data; by region if a district is divided up geographically, or by area if a district is divided along other lines such as grade level – members of this group are assigned students by members of the District group.
3. School – members of this group have access to all student data in their school.
4. Specialist/Area – members of this group are assigned access to a subset of school student data – members of this group may be assigned students by members of the School or District groups.
5. Classroom – members of this group have access to all student data in their class.
6. Sub-Classroom – members of this group are assigned access to a subset of class student data – members of this group may be assigned students by members of the Classroom, School, or District groups.

Two additional security groups were identified for administration and use of the FAS:

1. FASAdmin – members of this group can assign use the FAS to assign staff to students and other users to the FASUser and FASAdmin groups
2. FASUser – members of this group can use the FAS to assign staff to students or groups of students.

The FAS must include administrative functions to enable members of the FASAdmin group to add or remove users to the FASAdmin and FASUser groups.

For completeness in the discussion of security groups, Sunshine Connections will also have a DistricMIS group for school district information systems and information technology staff to access technical information.

Flexible Mapping

Educators, administrators, and other users such as temporary team teachers and perhaps school and classroom volunteers may need access to student data in Sunshine Connections. Since only primary teachers are mapped to student through class data submitted by the school districts to Sunshine Connections, the FAS needs to enable mapping of non-primary educators to students.

This mapping will be accomplished in the Sunshine Connections databases such that when a non-primary educator navigates Sunshine Connections data they will be presented with the schools, classes, other groups, and/or individual students they are working with.

Students are grouped by class, grade, school, district and other data in Sunshine Connections, but there is a need for custom grouping as well. The FAS needs to allow for the creation of custom groups that may have a limited life cycle.

Educators may need to be mapped into groups as well and these groups may be mapped to groups of students in many-to-many relationships. The FAS needs to support such group-to-group mapping.

Administration

The FAS will require administrative functionality to enable members of the FASAdmin group to add, change, or remove users in the FASUser and the FASAdmin groups to delegate and manage FAS functions.

When a user is added to the FASAdmin group, they will have the ability to add new users, change users' status in FAS, including changing their membership among the six security groups listed above, and remove users from the FASAdmin or FASUser groups.

Members of the FASAdmin group will have also have the authority to create, modify, or delete mappings between educators and students for the entire school district. FASUsers will have the authority to create, modify, or delete mappings for students that they are the primary teacher for, or for mappings that they created themselves.

Functional Specifications

The FAS will operate as part of the Florida Department of Education Sunshine Connections portal. It will have as a minimum web-based user interfaces, a SQL database, and integration points with the Sunshine Connections databases and Active Directory, and Sunshine Connections authentication and authorization.

User Interfaces (UI)

The FAS UI will consist of web pages or SharePoint web parts that enable users who are members of the FASUsers security group to:

1. Select a district staff member from a list by searching on their name, or browsing a list by school.
2. Select a staff group from a list by searching for the group name (e.g., "District Grade 9 English Teachers")

3. Select from a list school(s), grade(s), class(es), or custom group of students or individual students to assign to a staff member or staff member group, based on the user's Sunshine Connections security group privileges.

Members of the FASAdmin group will be able perform the functions listed above and:

4. Create, modify and delete custom student groups based on student attributes such as school, grade, class, FCAT achievement level, and other data stored in Sunshine Connections, or by selecting students from a list.
5. Create, modify and delete custom staff groups based on staff attributes in Sunshine Connections, or by selecting staff members from a list.
6. Set the lifetime for custom groups by setting an expiration date for the group.
7. Add and remove users from the FASUser and FASAdmin groups.
8. Modify users in the FASUser and FAS Admin groups including changing user's mapping and changing their security group membership and corresponding job code in Sunshine Connections.

Database Components

FAS will have its own database to store mapping information among users and group and also integrate with Sunshine Connections and other applications such as the Individual Education Plan that need to list students or groups of students for a user.

FAS will store the definition for each relationship in the database as an XML string that contains the criteria for listing the members of each group. This enables dynamic group membership, for example if a group is defined based on FCAT math achievement level, students would be included or not included in that group depending on their math achievement level on the last FCAT test they took.

This is the physical database schema for FAS:

Use Cases

The following use cases have been implemented in FAS version 1.