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# SMS 2.0 Single Sign-On Options

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# Agenda

- SSO vs. LDAP Comparison
- SSO Enhancements
- Multi Factor Authentication
- SMS 2.0 using an Identity Provider
- SMS 2.0 as an Identity Provider
- User Management Tools

# Define: Single Sign-On

- Single Sign On allows Skyward users to **authenticate** into Skyward using a username and password from a 3rd party **Identity Provider**.
- Common examples of Identity Providers are Google, Microsoft Azure, ClassLink, Clever, etc.
- SSO works with your Identity Providers **Multi Factor Authentication**
- SSO 2.0 SSO uses the **SAML 2.0 protocol**

# Define: LDAP

## **LDAP (Lightweight Directory Access Protocol)**

- LDAP allows Skyward users to **authenticate** into Skyward using a username and password from a 3rd Party LDAP Directory.
- The optional **LDAP Group Integration** feature allows Skyward to read group memberships from your Network directory and then add them to linked Security Groups, automating the assignment of Group Membership in SMS 2.0.
- LDAP uses **Secure LDAP protocols**

# LDAP vs SSO Comparison

- LDAP integrates with a directory, such as Active Directory
- LDAP can be used for the Web, Mobile, and PaC
- LDAP does not provide Multi-Factor Authentication
- LDAP does provide Group Integration

**VS**

- SSO integrates with a SAML 2 Identity Provider, such as Office 365
- SSO can be used for the Web
- SSO does provide Multi-Factor Authentication using the IdP
- SSO does not provide Group Integration


**Yes!, SSO and LDAP can work together!**

# Single Sign-On Enhancements

- New June 2022 Release Addendum 4 (August, 2022)
- Added: Enable Most Secure Authentication Method
- Product Setup -> Skyward Contact Access -> District Setup -> Configuration -> Single Sign On Configuration

# Enhanced Single Sign-On Configuration

## Authentication Options (Web, Mobile App)

Enable Most Secure Authentication Method 

### Enable Most Secure Authentication Method

When this option is disabled, a User is allowed to login with any authentication method available to any of their User Types.

When this option is enabled, a User is only allowed to login with the most secure authentication method available to any of their User Types.

1. If a user may login using Single Sign On (SSO), then only SSO is allowed.
2. If a user is able to login using LDAP, then only LDAP is allowed.
3. If user is allowed to use their Skyward Password, then Skyward Password is allowed.

OK

# Single Sign-On Enhancements

- New in February 2021 Release Addendum 7 (4/29/21)
- The SSO, LDAP, and Skyward Password Configurations are split out by system
- Product Setup -> Skyward Contact Access -> District Setup -> Configuration -> Single Sign On Configuration
- Login History includes the type of login
- Product Setup -> Skyward Contact Access -> District Login History

# Enhanced Single Sign-On Configuration

◀ ▶ Single Sign On Configuration

**Single Sign On (Web)**

Enable for Employees/Secured Users       Enable for Guardians       Enable for Students

**LDAP Configuration (Web, Mobile, PaC) ?**

Enable for Employees/Secured Users (Web)       Enable for Guardians (Web)       Enable for Students (Web)

Enable for Employees/Secured Users (Mobile)       Enable for Guardians (Mobile)       Enable for Students (Mobile)

Enable for Employees/Secured Users (PaC)       Use LDAP Groups (Windows Web Servers Only)

**Skyward Password Configuration (Web, Mobile, PaC)**

Enable for Employees/Secured Users       Enable for Guardians       Enable for Students

**PaC Auto Login Options**

Force Users to Enter Password

# District Login History Enhancements

**District Login History** ☆

View By:  User  Browser  Operating System  Resolution

Views: **General** Filters: **All Logins Clone**

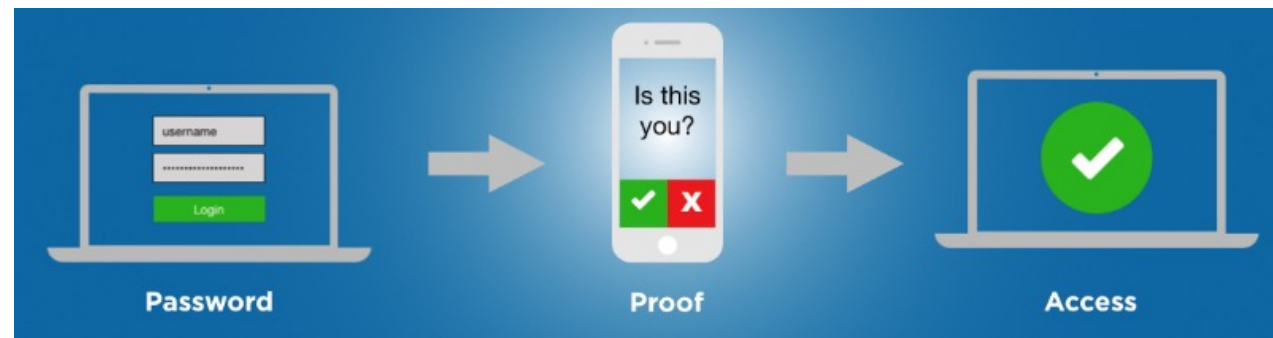
Date	Time	Last Name	First Name	User ID
▶ 04/22/2021	7:34 am	Bianco	Mike	mikebi
▶ 04/22/2021	7:26 am	School Messenger		schoolmessenger
▶ 04/22/2021	7:26 am	School Messenger		schoolmessenger
▶ 04/22/2021	7:26 am	School Messenger		schoolmessenger

Login Page	Local IP	Type
Mobile App		ldap
Desktop	192.168.1.147	sso
Mobile App		ldap
Desktop	b8735965-b6c3-	sso
Desktop	8d9676c6-b176-	sso
Mobile App		ldap
Desktop	da557360-fe6f-4	skyward
Mobile App		ldap
Desktop	c031855c-cbd1-	sso
Desktop	fd97af91-765d-4	sso

# Multi Factor Authentication

What is Multi Factor Authentication?

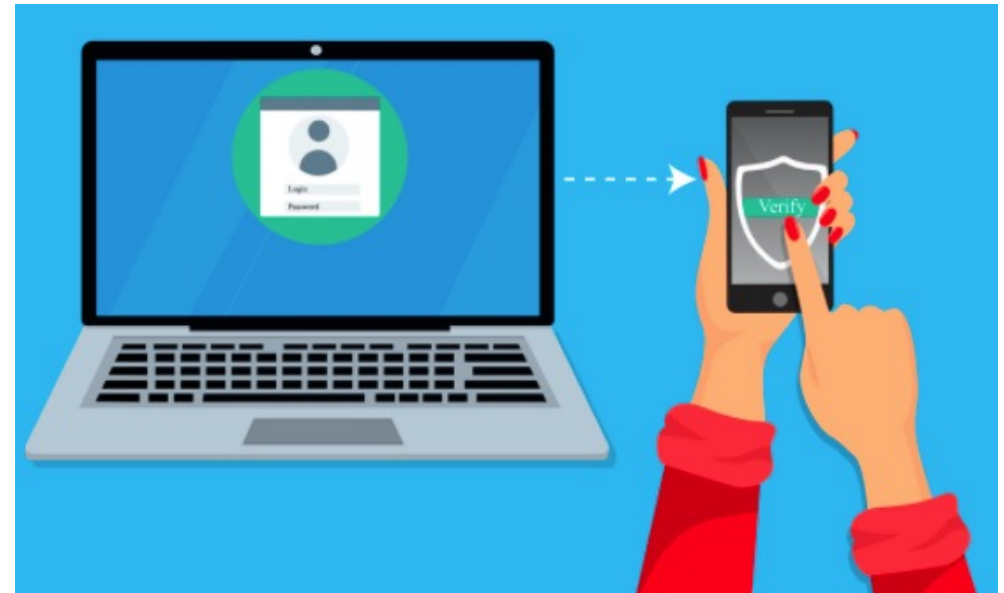
**Multi-Factor Authentication (MFA)** is a security system that verifies a user's identity by requiring multiple credentials. Another commonly used term is **2 Factor Authentication (2FA)**. The most common factors are **something you know** and **something you have**.



# Multi Factor Authentication

## Why use Multi Factor Authentication?

While not entirely fool proof, **security experts agree Multi-factor authentication has evolved as the single most effective control to protect an organization against remote attacks** and when implemented correctly, can prevent most threat actors from easily gaining an initial foothold into your organization, even if credentials become compromised.



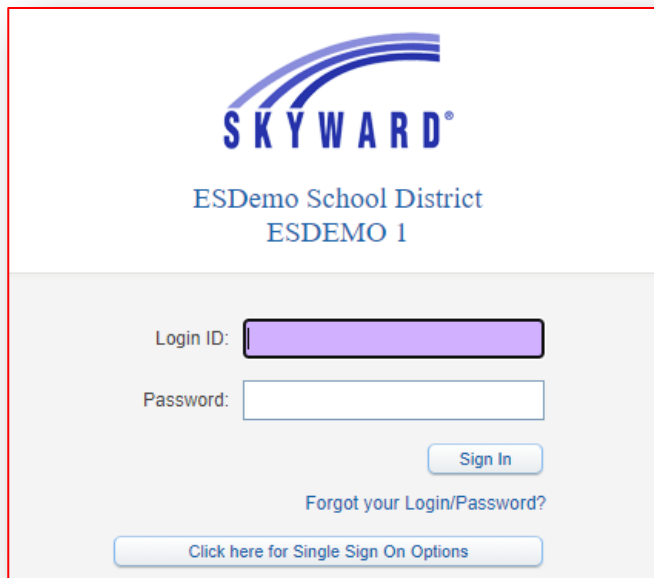
# Multi Factor Authentication (MFA) with SSO

2FA Example: You **know your password** and **you have a temporary code** that was potentially sent to you in email or on your cell phone. You must provide both “factors” to login.

**SMS 2.0** supports MFA using 3<sup>rd</sup> party Identity Providers. This includes popular IdP's like Google® Apps, Microsoft® Azure / Office 365, and ClassLink

See SSO in action!

SMS 2.0 <https://esdemo1.skyward.com>



SKYWARD®  
ESDemo School District  
ESDEMO 1

Login ID:

Password:

Sign In

Forgot your Login/Password?

Click here for Single Sign On Options

# SMS 2.0 using an Identify Provider

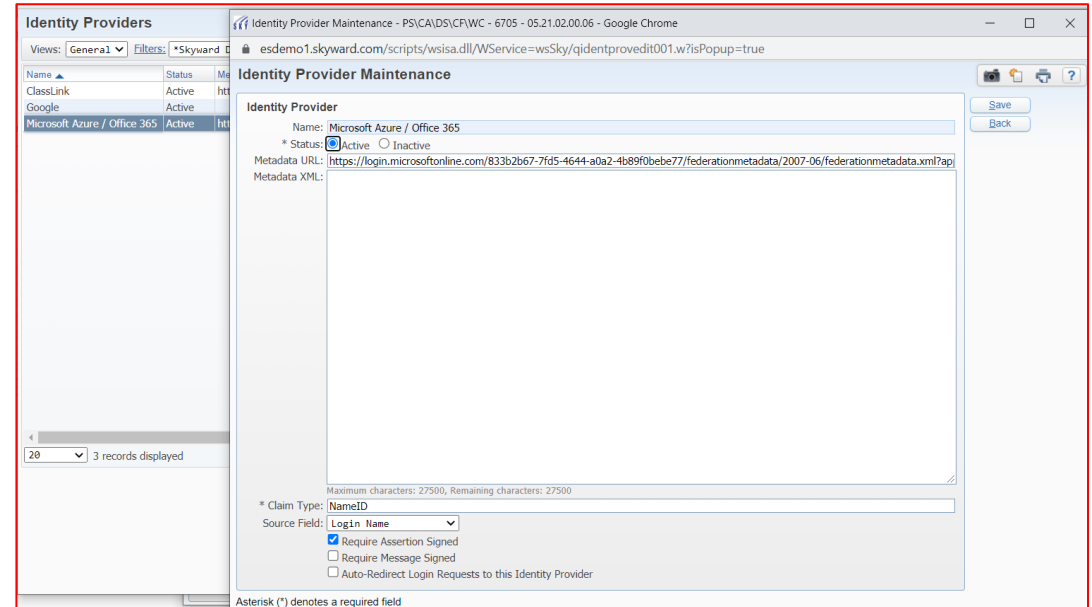
1. SMS 2.0: Install SkySTS
2. SMS 2.0: Create Identity Provider
3. 3rd Party: Create SAML App
4. Test

Menu Path:

Product Setup -> Skyward Contact Access -> District Setup -> Configuration -> Web Configuration -> Identity Provider Configuration

SkySTS Launch Kit:

[https://support.skyward.com/DeptDocs/Corporate/IT%20Services/Public%20Website/Technical%20Information/system/current\\_requirements/SMS%202.0%20SkySTS%20Server%20Launch%20Kit.pdf](https://support.skyward.com/DeptDocs/Corporate/IT%20Services/Public%20Website/Technical%20Information/system/current_requirements/SMS%202.0%20SkySTS%20Server%20Launch%20Kit.pdf)



# Our Experiences Implementing MFA

Ensure you have your leadership on board.

Rollout by groups; start with a pilot group to ensure success. After that prioritize the groups by the **Highest Risk** employees (those that work with the most sensitive data / financials)

Be aware that MFA issues can cross boundaries into the Human Resources realm; employees may not want to use a personal cell phone.

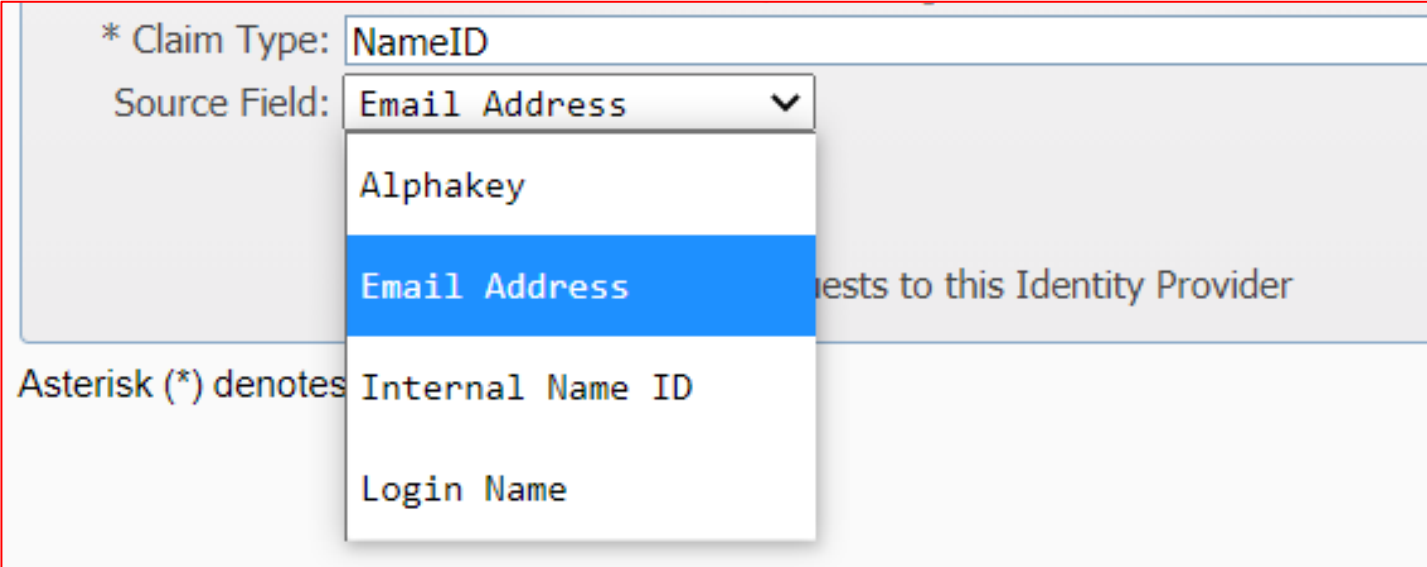
Be prepared with Alternative MFA options: Phone Call w/Audio Code, Email, OTP Device (Key Fob)

**What challenges has your district experienced rolling out MFA?**

# What is the NameID Claim?

The **NameID Source Field** determines the data that the IdP is expecting in the NameID claim. A common config is to match the Email Address, or Login Name, which requires both systems to have the same email address or Login Name entered for your SSO users.

Choose Source field:



\* Claim Type: NameID

Source Field: Email Address

- Alphakey
- Email Address**
- Internal Name ID
- Login Name

Asterisk (\*) denotes requests to this Identity Provider

# SMS 2.0 as an Identity Provider

- SMS 2.0 can also be the Identity Provider for 3<sup>rd</sup> Parties.
- Links can be created in SMS 2.0 that provide a seamless login to the 3<sup>rd</sup> Party product.
- Useful for 3<sup>rd</sup> Party products that require Parent logins.
- Examples: Registration Gateway (SRC Solutions), School Pay, MiLearn (Michigan), etc.

# SMS 2.0 User Management Tools

SMS 2.0 has several tools that assist with User Management.

The following tutorials have the details on how to mass change the SMS 2.0 logins or email addresses.

## **How do I set up Students Auto Username Generation?**

[https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/FQ/PS\\_CA\\_SE\\_PS\\_CF\\_1062348\\_100\\_T.pdf](https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/FQ/PS_CA_SE_PS_CF_1062348_100_T.pdf)

## **How do I set up Employees/Secured Users Auto Username Generation?**

[https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/FQ/PS\\_CA\\_SE\\_PS\\_CF\\_AU\\_ES\\_1112165\\_100\\_T.pdf](https://support.skyward.com/DeptDocs/Corporate/Documentation/Public%20Website/Tutorials/FQ/PS_CA_SE_PS_CF_AU_ES_1112165_100_T.pdf)

# Username/Password Configuration

The screenshot shows the Skyward School District Configuration page. The browser address bar displays "http://localhost/ - Configuration - PS\CA\SE\PS\CF - 12235 - 05.18.06.00.09-11.7". The page header includes the Skyward logo and the text "Skyward School District". Below the header is a navigation menu with tabs for "Home", "Skyward Contact Access", "System Administration", "Data Administration", and "Student Management". The "Configuration" section is active, showing a tree view of configuration folders. The folder "Automatically Generate Logins and Passwords - AU" is highlighted with a red oval. This folder contains three sub-items: "Employee/Secured Users - ES", "Students - SS", and "Guardians - GO".

- Configuration - CF
  - Email Setup for Employee/Secured Users Account Information - ES
  - Email Setup for Forgot your Login/Password - FG
    - Successful Attempt - SA
    - Unsuccessful Attempt - UA
    - New Student Online Enrollment - OE
  - Internal IP Definitions - II
  - Link to Student/Financial Database - LD
  - Security Configuration - SC
  - Single Sign-On Configuration - LC
  - Automatically Generate Logins and Passwords - AU
    - Employee/Secured Users - ES
    - Students - SS
    - Guardians - GO

# Employee/Secured Users

http://localhost/?userType=Employee&isPopup=true - Employee/Secured Users - PS\CA\SE\PS\CF\AU\E - Internet Explorer

## Employee/Secured Users

Sample Login:

Sample Password:

Sample Email:

Sample Name:

Date of Birth:

---

**Define Login Format**

Part 1:

Part 2:

**Define Password Format**

Part 1:

**Login Options**

Generate in Uppercase  
 Regenerate if Name is Changed

**Password Options**

Generate in Uppercase  
 Generate in Lowercase

**Strong Password Requirements**

Number of Numeric Characters:   
Number of Special Characters:   
Minimum Password Length:

**Permission Options**

Automatically Allow Employee Access

**Email Options**

Automatically Generate Email Addresses  
  
 Regenerate if Name is Changed

# Student Access Student Users

http://localhost/?userType=Student&isPopup=true - Students - PS\CA\SE\PS\CF\AU\SS - 12730 - 05. - Internet Explorer

## Students

Sample Login:

Sample Password:

Sample Email:

Sample Name:

Date of Birth:

Other ID #:

---

### Define Login Format

Part 1:  Limit to  letters

Part 2:  Limit to  letters

### Define Password Format

Part 1:

### Login Options

Generate in Uppercase  
 Regenerate if Name is Changed

### Password Options

Generate in Uppercase  
 Generate in Lowercase

### Strong Password Requirements

Number of Numeric Characters:   
Number of Special Characters:   
Minimum Password Length:

### Permission Options

Automatically Allow Student Access

### Email Options

Automatically Generate Email Addresses

# Family Access Guardian Users

http://localhost/?userType=Guardian&isPopup=true - Guardians - PS\CA\SE\PS\CF\AU\GO - 28445 - 0 - Internet Explorer

## Guardians

Sample Login:

Sample Password:

Sample Name:

---

### Define Login Format

Part 1:  Limit to  letters

Part 2:

Part 3:  Limit to  letters

Part 4:

---

### Define Password Format

Part 1:

---

### Login Options

Generate in Uppercase

---

### Password Options

Generate in Uppercase  
 Generate in Lowercase

---

### Strong Password Requirements

Number of Numeric Characters:   
Number of Special Characters:   
Minimum Password Length:

---

### Permission Options

Automatically Allow Family Access

# Mass Assign Permissions

The screenshot shows the Skyward School District interface for Employee Access. A dialog box titled "Mass Assign Permissions" is open, displaying "Employee Access Options" with "Allow Employee Access" set to "Yes" and "Selection Parameters" set to "Default Parameters". Below this, there are checkboxes for "Reset Existing Login", "Reset Existing Password", and "Reset Existing Email Address". A note states: "Resetting the Login, Password or Email Address will set them to the district defaults. Click here to view the defaults." Buttons for "Run" and "Back" are visible.

Last Name	First	Middle	Login	Active/Inactive*	Employee Access	Force Password Change
		B	test005	Y	Y	N

## Employees/Secured Users

The screenshot shows the Skyward School District interface for Secured Users. A dialog box titled "Mass Generate Account Information" is open, showing "Template Settings" with "Template Description" set to "secured". Under "Ranges", there are fields for "Low" and "High" with a "Name Key" field. The "Staff Ranges" section includes checkboxes for "Only Generate For Staff Members", "Only Staff Members Flagged as a Discipline Officer", "Only Staff Members Flagged as a Teacher", and "Only Staff Members Flagged as a Substitute", along with an "Include All Entities" checkbox and an "Entities" button. "Current Year Status" is set to "Active" and "Next Year Status" is set to "Both Active and Inactive". The "Options" section includes checkboxes for "Generate Logins and Passwords", "Generate Email Address", and "Add Security Groups", with sub-options for "Overwrite Logins", "Overwrite Passwords", "Overwrite Emails", and "Force Users To Enter New Password". Buttons for "Run" and "Back" are visible.

Last Name	First	Middle
		A
		A
		A
		A
		A
		B
		B
		B
		B
		B
		B
		C
		C
		C
		C
		C
		C
		C
		D
		D

# Mass Assign Permissions

Students

The screenshot displays the Skyward web application interface. The browser address bar shows the URL: `http://localhost/ - Utilities - Entity 000 - WS\ST\SA\PS\UT - 7738 - 05.18.06.00.09-11.7 - Internet Explorer`. The application header includes the Skyward logo and a dropdown menu for 'District Entity (000)'. The navigation menu has 'Students' selected. The left-hand tree view shows the following structure:

- Go to Student Access Configuration - CF
- Utilities - UT
  - Mass Generate Student Permissions/Passwords - SP
  - Mass Delete Student Login History - SL
  - Clone Entity Configurations - EC
  - Mass Add/Remove Students to the School Directory -

The main content area is titled 'Mass Generate Student Permissions/Passwords' and contains the following sections:

- Utility Options:**  Generate Permissions/Passwords,  Import Permissions/Passwords from a csv File. Buttons: Run, Back.
- Entity Selection:** List of entities: 005 - Elementary Grades K to 4, 006 - Middle School - Grades 5 to 8, 010 - High School Grades 9 to 12, 900 - Census Entity. Button: Entities.
- Range Options:** Student Key: Low [ ] High [ ZZZZZZZZZZ ]; Grade/Grad Yr: [ 9999 ] [ 0000 ]; Student Status: [ Both ] (dropdown). Checkboxes:  Include only students in their default entity,  All Calendars (button: Calendars),  All Schools (button: Schools).
- Login/Password Options:**  Generate Logins/Passwords,  Overwrite Existing Logins,  Overwrite Existing Passwords,  Force password change at next login (if password was generated).
- Permission Options:**  Set the Web Access field, Allow Web Access: [ No ] (dropdown).
- Google™ Translator:**  Set the Google™ Translator option, Show Google™ Translator: [ No ] (dropdown).

# Mass Assign Permissions

## Guardians

The screenshot displays the Skyward web application interface. The main navigation menu includes Home, Students, Families, Staff, Student Services, Food Service, and Office. The 'Utilities' section is expanded, showing a list of utility options such as 'Go to Family Access Configuration - CF', 'Mass Generate Family Permissions/Passwords - PP', 'Mass Delete Family Login History - LH', 'Clone Entity Configurations - EC', 'Update Abandoned Online Payments - UA', 'Mass Add/Remove Families to the School Directory - SD', 'Mass Change Guardian Web Access - WA', and 'Mass Email Verified or Unverified Accounts - EA'. The 'Mass Generate Family Permissions/Passwords' utility is selected, and its configuration form is displayed in a popup window.

**Entity Selection**

005 - Elementary Grades K to 4  
006 - Middle School - Grades 5 to 8  
010 - High School Grades 9 to 12  
900 - Census Entity

**Range Options**

Guardian Name Key: Low High  
ZZZZZZZZZZ

Process Guardians that meet the following criteria in the Entities selected:

- Has a Student Active for Current Year
- Has a Student Inactive for Current Year and Active for Next Year
- Has only Inactive Students for both Current and Next Year
- Has a Student Active for Next Year
- Has a Student

Process Guardians who are:

- Primary Family Members
- Head of Household of the Primary Family
- Members of Families that receive report cards

**Permission Options**

Set the Web Access field  
Allow Web Access: No

**Google™ Translator**

Set the Google™ Translator option  
Show Google™ Translator: No

**Login/Password Options**

- Generate Logins/Passwords
  - Overwrite Existing Logins
  - Overwrite Existing Passwords
- Set the option to "Force password change at next login" (if password was generated by the utility)
- Set the option to "Force password change at next login" (if password is district)

# Import

## Students

The screenshot displays the Skyward web application interface. The main window is titled "District Entity (000)" and shows a navigation menu with options like Home, Students, Families, Staff, Student Services, and Food Service. The "Utilities" section is expanded, showing a list of utility options including "Mass Generate Student Permissions/Passwords - SP".

An "Import File Help" dialog box is open, providing instructions for the import process:

**Import File Help**

The import file must be accessible by the print queue server. It **cannot** be a directory on your computer.

ex. \\Server\SharedFolder\Filename.txt  
ex. C:\Temp\Filename.txt (*this would be the C drive on the server*)

**Note:**

1. A valid file name **and** extension are required.
2. Click the **Test Import File** button to ensure that the file entered is valid.

OK

The background window shows the "Mass Generate Student Permission" utility options:

- Utility Options:**
  - Generate Permissions/Passwords
  - Import Permissions/Passwords from a csv File
    - Import Students using Other
    - Import Students using Alphakey
- Import File (Preview Import File Format):**
  - File Source:  Network Location  Upload Now
  - File: [Text Field] [Test]
- Login/Password Options:**
  - Overwrite Existing Logins
  - Overwrite Existing Passwords
  - Force password change at next login (if password was generated)
- Permission Options:**
  - Set the Web Access field
  - Allow Web Access: [No] [v]
- Google™ Translator:**
  - Set the Google™ Translator option
  - Show Google™ Translator: [No] [v]

# Import

## Staff

The screenshot displays the Skyward web application interface. The main navigation menu includes Home, Students, Families, Staff, Student Services, Food Service, Office, Administration (selected), Educator Access Plus, Advanced Features, and Federal/State Reporting. The current page is titled "Imports" and shows a tree view with folders for "Imports - IM" and "Imports - SI". The "Staff Import Utility - SI" folder is selected.

The "Staff Import Utility" popup window is open, showing the following options:

- Import Options**
  - This process will import Staff Member information from a Comma Delimited File. It will find existing Staff records to update based on the Employee ID. If existing Staff records are not found, it will create them.
- Default Teacher Security Group:  [Format](#)
- Automate Staff Import
- Inactivate Staff/Entity pairs not in the file [?](#)
  - Change User ID of Inactivated Staff Members to Match Employee ID
- Set All Staff Members in File to be Active Users
- File Includes Column Headings in Line 1
- Skip **IsTeacher** Field If Blank [?](#)

\* File to Import:  [Browse...](#)

# Import

## Staff Import File Layout

View Format	
Staff Import File Layout (.CSV)	
Field ▲	Description
1. EmployeeID	Staff's Employee ID
2. SocSecNum	Staff's Social Security Number
3. FirstName	Staff's First Name
4. MiddleName	Staff's Middle Name
5. LastName	Staff's Last Name
6. UserName	Staff's Username
7. EntityID	Entity Staff is Active in
8. Blank	Blank
9. JobTitle	Staff's Title
10. SecurityGroup	Security Group Staff belongs to
11. EmailAddress	Staff's Email Address
12. IsTeacher	Is a Teacher?
13. Gender	Staff's Gender (Optional)
14. HomePhone	Staff's Home Phone (Optional)



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THANK YOU!