

LDAP User Guide

PowerSchool
Student Information System

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This edition applies to Release 10 of the PowerSchool software and to all subsequent releases and modifications until otherwise indicated in new editions or updates.

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Preface

Use this guide to assist you while navigating PowerSchool. This guide is based on the PowerSchool online help, which you can also use to learn the PowerSchool Student Information System (SIS) and to serve as a reference.

The PowerSchool online help is updated as PowerSchool is updated. Not all versions of the PowerSchool online help are available in a printable guide. For the most up-to-date information, click Help on any page in PowerSchool.

Referenced Sections

This guide is based on the PowerSchool online help, and may include references to sections that are not contained within the guide. See the PowerSchool online help for the referenced section.

Security Permissions

Depending on your security permissions, only certain procedures may be available to you.

Navigation

This guide uses the > symbol to move down a menu path. If instructed to “Click **File > New > Window**,” begin by clicking **File** on the menu bar. Then, click **New** and **Window**. The option noted after the > symbol will always be on the menu that results from your previous selection.

Notes

It is easy to identify notes because they are prefaced by the text “**Note:**”

Introduction

LDAP (Lightweight Directory Access Protocol) enables administrators to establish a single source for securely managing authentication for all users on the district network, including those using PowerSchool, PowerSchool Teacher, and the PowerSchool Student and Parent portal.

Setup

Configuration

In order for PowerSchool to authenticate users using an LDAP directory server, the LDAP directory server must be configured within PowerSchool.

Configuring the LDAP directory server consists of providing the server's address, port, SSL setting, and LDAP directory administrator credentials. It is possible to selectively enable or disable the use of LDAP for three groups of users: staff, teachers, and students. Each group of users enabled for LDAP must also have a domain context configured that identifies the root of the tree where each group of user accounts is located along with the name of the user ID attribute from the directory schema.

Once configured, the LDAP directory server synchronizes the usernames stored in PowerSchool's database with the sign in (user) IDs stored in your LDAP directory server.

Synchronization and Authentication

Directory synchronization is the process of synchronizing the usernames stored in PowerSchool's database with the sign in (user) IDs stored in your LDAP directory. For a user to successfully authenticate in PowerSchool via LDAP, the usernames must match in both PowerSchool and the LDAP Directory.

When LDAP is enabled, usernames are no longer directly editable through the PowerSchool user interface on either the Modify Info for Students or Security Settings for Teachers and Staff pages. Instead, you must use one of the Synchronization processes.

Synchronization can either be performed as a mass operation, using a selection of students or teachers and staff, or one at a time using the LDAP Lookup button on either the Modify Information or Security Settings pages. See [How to Synchronize Using LDAP Directory Synchronization](#).

Set Up the LDAP Directory

Use the LDAP Directory Setup page to configure PowerSchool to authenticate by either Active Directory LDAP or Open Directory LDAP.

How to Set Up the LDAP Directory

1. On the start page, choose **System** under Setup in the main menu. The System Administrator page appears.

2. Under Server, click **Security**. The Security page appears.
3. Click **LDAP Directory Setup**. The LDAP Directory Setup page appears.
4. Use the following table to enter information in the Server Configuration fields:

Field	Description
LDAP Server Hostname or IP Address	Enter the hostname or IP address of the LDAP directory server, such as 192.168.1.12 .
LDAP Port	Enter the TCP port to use, such as 636 .
Enable SSL (Recommended prior to enabling LDAP)	Select the checkbox to enable SSL between PowerSchool and the LDAP Directory. Note: It is strongly recommended that prior to enabling LDAP, SSL also be enabled.
Active Directory FQDN	If using Active Directory, enter the fully qualified domain name of the Active Directory Server, such as ad.powerschool.com . Typically this will be the same as the LDAP Server Hostname, but does not have to be. When authenticating against Active Directory, the Security Principal is of the form userID@fqdn. Note: When configuring LDAP for Open Directory, this field may be left blank.
LDAP Admin DN	Enter the distinguished name (DN) of an account in the LDAP Directory with read privileges within the directory, such as cn=Administrator,cn=users,dc=ad,dc=powerschool,dc=com The distinguished name can be the directory administrator account, but an account with read-only access is sufficient. This account is used for directory searches when attempting to synchronize usernames between PowerSchool and the Directory.
LDAP Admin Password	Enter the password for the Admin DN.

Maximum Active LDAP Connections (per node)	<p>Enter the number of active simultaneous LDAP connections per node.</p> <p>Note: This number represents the maximum number of users that can simultaneously sign into PowerSchool using LDAP authentication per PowerSchool node. This does not represent the maximum number of users that can be logged into PowerSchool at any given time.</p>
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5. Click **Validate Server Connection** to establish an anonymous connection to the directory using the values entered on this page and to authenticate the connection using the Admin DN and Password credentials, if provided. A window displays indicating the success or failure of these operations.
6. If using Active Directory, click **Active Directory Defaults** to populate all schema configuration items with reasonable defaults based on the Server Configuration. If using Open Directory, click **Open Directory Defaults** to populate all schema configuration items with reasonable defaults based on the Server Configuration. If any of the Server Configuration information is missing or ambiguous, you will be prompted for clarification.
7. Use the following table to enter information in the Schema Configuration fields:

Field	Description
Enable LDAP	<p>Select the Staff, Teachers, and Students checkboxes to enable LDAP Authentication.</p> <p>LDAP Authentication may be selectively enabled for three distinct groups of users: Staff, Teachers and Students. The remaining attributes, Domain Context and User ID Attribute, can be set for each user type.</p> <p>Note: It is strongly recommended that prior to enabling LDAP, SSL be enabled.</p>
Domain Context	<p>The Domain Context to which the user will bind when trying to authenticate, such as cn=users,dc=ad,dc=powerschool,dc=com for Staff, Teachers, and Students. This domain context is also used when performing LDAP Directory Synchronization activities. For example, if you are trying to synchronize the username for a</p>

	student, the student domain context will be used as the base when searching the directory.
User ID Attribute	Specify which schema attribute to use when forming the distinguished name (DN) when the user attempts to sign in, such as uid for Staff, Teachers, and Students. For example, if the User ID Attribute is uid and the domain context is cn=users,dc=ldap,dc=powerschool,dc=com, then the DN for user jsmith becomes uid=jsmith,cn=users,dc=ldap,dc=powerschool,dc=com.

8. Click **Submit**. The Security page appears.

Synchronize Using LDAP Directory Synchronization

Use the LDAP Directory Synchronization page to synchronize PowerSchool Usernames with an LDAP directory server.

How to Synchronize Using LDAP Directory Synchronization

1. On the start page, choose **System** under Setup in the main menu. The System Administrator page appears.
2. Under Server, click **Security**. The Security page appears.
3. Click **LDAP Directory Synchronization**. The LDAP Directory Synchronization page displays.

The LDAP Directory Synchronization page acts as a hub for all of the synchronization processes. From this page, you can choose to synchronize the current selection of students or teachers and staff, all students (district wide), all students with blank usernames (district wide), all teachers (district wide), all staff (district wide), all teachers with blank usernames (district wide), or all staff with blank usernames (district wide).

Note: You can also invoke mass student synchronization from the Functions menu after establishing a selection of students. For more information, see [How to Perform Student LDAP Directory Synchronization](#). Similarly, you can invoke mass teacher/staff synchronization from the Functions menu after establishing a selection of teachers and/or staff. For more information, see [How to Perform Staff LDAP Directory Synchronization](#).

Once a selection is established and the LDAP Directory Synchronization process is selected, one of two pages appears, depending on whether you are working with students or teachers and staff. In either case, before the synchronization process begins, the expected user ID attribute displays and you have the opportunity to change it before proceeding. The User ID attribute is the name of the schema element in the LDAP directory that holds the username. This is the value that is brought back into PowerSchool and stored in the appropriate username field in PowerSchool's database.

4. Click **Submit**. When you click submit, the synchronization process begins and each record in the selection is processed. The first and last name in each record is used to find an exact match in the directory. If no exact match is found, a second search is done using only the last name in an effort to find partial matches.

If an exact match is found, the username in PowerSchool's database is compared to the username reported by the directory. If they are the same, no action is taken. If they differ, the value from the directory is stored in PowerSchool. All matching records are reported in the first section of the Synchronization Results.

When processing an exact match for a teacher/staff record, the following logic applies. If the record represents a teacher, the Teacher Username will be checked and updated if necessary. And, if the teacher has access to the admin portion of PowerSchool, the Admin Username is also checked. If the record represents a staff member, the Admin Username is checked and updated if necessary.

If partial matches are found, a list of the partial matches will be displayed in the exception portion of the Synchronization Results. A link will also be provided next to the record, which opens in a new browser window to allow manual lookup and synchronization.

Records with no matches (either exact or partial) are reported in the exception portion of the Synchronization Results. For records with no matches, the appropriate users should be added to the LDAP directory or the first and last names should be checked to ensure that they match in PowerSchool and the Directory. Once the issue is corrected, the synchronization process can run again.

Perform Student LDAP Directory Synchronization

Use the LDAP Directory Synchronization page to synchronize PowerSchool Usernames with an LDAP directory server.

How to Perform Student LDAP Directory Synchronization

1. On the start page, search for and select a group of students. A list of students appears in the Current Student Selection section. For more information, see *Select a Group of Students*.
2. Click the **[Select Function]** arrow. The Group Functions pop-up menu appears.
3. Under Functions, choose **LDAP Directory Synchronization**. The LDAP Directory Synchronization page appears.

Note: Alternatively, if you have a current selection of students, you can choose **Special Functions** under Functions in the main menu and then click **Groups Functions**.

4. Edit the **User ID Attribute**, as needed. For detailed information, see [Setup the LDAP Directory](#).
5. Click **Submit**.

Work With LDAP

Staff

Note: Information in this section appears in the *Staff User Guide*.

How to Perform Staff LDAP Directory Synchronization

1. On the start page, search for and select a group of staff members. For more information, see *Staff Search*.
2. Click **Functions**. The Group Staff Functions page appears.
3. Click **LDAP Directory Synchronization**. The LDAP Directory Synchronization page appears.
4. Edit the User ID Attribute as needed.
5. Click **Submit**.

How to Edit a Staff Member Security Settings

1. On the start page, search for and select a staff member. For more information, see *Staff Search*.
2. Click **Security Settings**. The Security Settings page appears.
3. Click the **Teachers and Affiliations** tab.
4. Use the following table to enter information in the fields:

Field	Description
Sign in to PowerTeacher	Select the checkbox if you want this staff member to be able to sign in to PowerTeacher Portal and PowerTeacher Gradebook.
Teacher Username	<p>If you want this staff member to be able to access PowerTeacher, enter a username. If you do not, leave this field blank.</p> <p>Note: Use the LDAP Enabled checkbox next to the Teacher Username field to enable or disable LDAP Authentication for an individual staff member. For more information, see LDAP.</p> <p>Note: The LDAP Lookup and Clear buttons only appear if you have unrestricted Full Access to Teacher Username (USERS.TEACHERLOGINID) and LDAP Enabled</p>

	(USERS.TEACHERLDAPENABLED). For more information, see <i>Field Level Security</i> .
Teacher Password	If you entered a username in the Teacher Username field, enter the staff member's PowerTeacher password.
School Affiliations	Manage the schools you want this user to be affiliated with as a teacher/staff member. Selecting more than one school activates the School link on the navigation toolbar in the PowerTeacher Portal, and in PowerTeacher Gradebook (if applicable). For more information, see How to Add School Affiliations .

5. Click **Submit**. The Changes Recorded page appears.

How to Add School Affiliations

1. On the start page, search for and select a staff member. For more information, see *Staff Search*.
2. On the Staff page, click **Security Settings** from the staff pages menu. The Security Settings page appears.
3. Click the **Teachers and Affiliations** tab.
4. On the Teachers and School Staff section, click **Add** on the School Affiliations row. The Add Schools pop-up appears.
5. Select the checkbox next to each school you want to add.

Note: You can also press SHIFT while selecting multiple schools, which automatically selects all schools between your first and last selection.

6. Select the **Staff Type** from the pop-up menu.
7. It is recommended that you assign a status to each staff member. This makes searching for and selecting staff members more efficient and can affect what directory the user is in for LDAP systems. To specify the staff member's status, choose one of the following from the pop-up menu:
 - **Not Assigned**
 - **Teacher**
 - **Staff**
 - **Lunch Staff**
 - **Substitute**

8. Click **OK**. The selected School and Staff Type appear on the Security Settings page. The Active checkbox is automatically selected.
9. Click **Submit**. The school associations appear on the Security Settings page.

How to Modify School Affiliations

1. On the start page, search for and select a staff member. For more information, see *Staff Search*.
2. On the Staff page, click **Security Settings** from the staff pages menu. The Security Settings page appears.
3. Click the **Teachers and Affiliations** tab.
4. On the School Affiliations section, deselect the **Active** checkbox next to the school for which you want to remove access.

Note: Once you click **Submit**, the school still appears on the Security Settings page, but the access is no longer active.

5. Click on the **Staff Status** field for a specific school to change the status, if needed. Select the status from the pop-up menu.

Note: The user's **Staff Status** at their home school is reported to LDAP servers regardless of their status at other schools.

6. Click the **Notes** icon in the Action column. The Notes pop-up appears. Enter any pertinent information about this school association for this staff account.
7. Click **Submit** to save changes.

How to Assign Admin Access

Use this procedure to assign access the administrative portion of PowerSchool.

1. On the start page, search for and select a staff member. For more information, see *Staff Search*.
2. Click **Security Settings**. The Security Settings page appears.
3. Click the **Admin Access and Roles** tab.
4. Use the following table to enter information in the fields:

Field	Description
Sign in to Administrative Portion of PowerSchool	If you want this staff member to be able to sign in to PowerSchool, select the checkbox. Otherwise, leave the checkbox deselected.
Admin Username	<p>If you want this staff member to be able to access the entire PowerSchool system, enter a username. If you do not, leave this field blank.</p> <p>Note: Usually, only school administrators, PowerSchool administrators, cafeteria personnel, guidance staff, and administrative staff members have access to PowerSchool. Teachers generally only have access to PowerTeacher Portal.</p> <p>Note: If LDAP is configured on your server, select the LDAP Enabled checkbox to enable or disable LDAP Authentication for an individual staff member. For more information, see LDAP.</p> <p>Note: Field level security may be used to restrict this information. The LDAP Lookup and Clear buttons only appear if you have unrestricted Full Access to Admin Username (USERS.LOGINID) and LDAP Enabled (USERS.ADMINLDAPENABLED). For more information, see <i>Field Level Security</i>.</p>
Admin Password	If you entered a username in the Admin Username field, enter the staff member's PowerSchool password.
Default Group	<p>To assign the staff member to a security group, choose the appropriate group from the pop-up menu. This security group will be used throughout the administrative portion of PowerSchool unless overridden for a specific school by assigning a specific role. For more information, see <i>Role Assignments</i>.</p> <p>Note: Click the field name to view each group and its permissions in PowerSchool. For more information, see <i>How to Edit Security Groups</i>.</p>
Allow Admin Sign in During These Times	Do one of the following:

	<ul style="list-style-type: none"> • Select Any time for no restrictions on when the staff member can sign in to PowerSchool. • Select Allow this user's access from and use the pop-up menus to choose the time range that the user is allowed to sign in to PowerSchool.
Allowed IPs	<p>If you want this staff member to be able to use PowerSchool from certain computers only, enter the IP addresses of those computers in this field. This setting only affects the administrative portion of PowerSchool.</p> <p>Note: If you define more than one IP address, separate each address with a comma.</p> <p>If you want this staff member to be able to access PowerSchool from any computer, leave this field blank.</p>
Roles and Schools	<p>Manage role assignments for the user. For more information, see <i>Role Assignments</i>.</p>

PowerSchool Student and Parent Portal Administration

Note: Information in this section appears in the *PowerSchool Student and Parent Portal Administrator Guide*.

Note: If LDAP is configured on your server, select the **Student LDAP Enabled** checkbox to enable or disable LDAP Authentication for an individual student. For more information, see [LDAP](#).

Note: Field level security may be used to restrict this information. The **LDAP Lookup** and **Clear** buttons only appear if you have unrestricted Full Access to **Student Username** (STUDENTS.STUDENT_WEB_ID) and **LDAP Enabled** (STUDENTS.LDAPENABLED). For more information, see *Field Level Security*.

How to Manually Assign a Parent/Guardian's Access ID and Password

1. On the start page, search for and select a student. For more information, see *Student Search*.
2. Under Information choose **Account Access** from the student pages menu. The Account Access page appears.

- Use the following table to enter information in the fields:

Field	Description
Access ID	Enter the parent/guardian's access ID.
Access Password	Enter the parent/guardian's access password.

- Click **Submit**. A confirmation message appears indicating the account is updated.

How to Manually Assign a Student's Username and Password

- On the start page, search for and select a student. For more information, see *Student Search*.
- Under Information choose **Account Access** from the student pages menu. The Account Access page appears.
- Use the following table to enter information in the fields:

Field	Description
Student User Name	Enter the student's user name.
Student Password	Enter the student's password.

- Click **Submit**. A confirmation message appears indicating the account is updated.