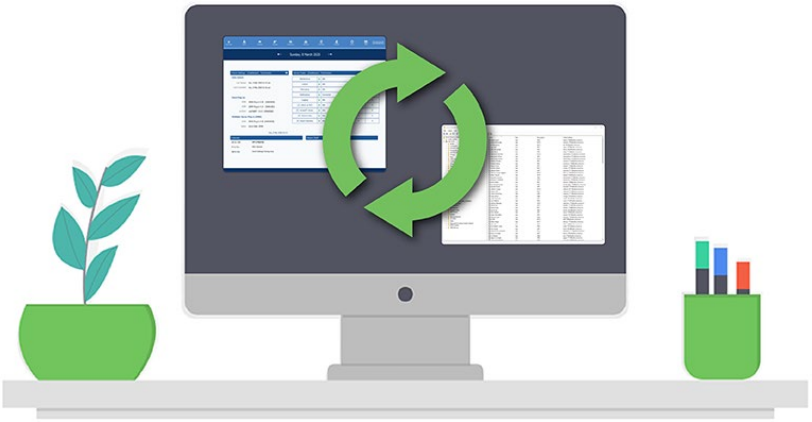
Symple

uSync

The SMS/SIS to Active Directory Management Tool



Version 3.1

Documentation

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Installation

Prerequisites

- Windows Server 2012 R2 (64bit) or newer (untested on anything older, please contact support)
- ASP.NET Core Runtime 8.0.x Hosting Bundle
- Windows Powershell 5.1 or higher
- Recommended: Enable Active Directory Recycle Bin
- LDAP MaxPageSize needs to be much larger than the student count. Default MaxPageSize is 1000. See Appendix for more information.

New Install

Install uSync on your Primary Domain Controller. While uSync does not have to be installed on the Domain Controller, it is highly recommended to reduce possibility of issues.

The installer will create a Windows firewall rule for the default port of 5005.

Self-signed certificate

The installer runs the uSync_Create_Cert.ps1 (located in the Scripts folder) to generate a self-signed certificate required for the application to run.

Change Port Number

If you need to change the port the application works on, edit the appsettings.json file and alter the line;

"urls": "https://*:5005",

With the port number you want. Note: you will also need to update the Windows firewall entry for uSync with the new port number.

Update Install

***Before any updates, it's always good practise to save/backup a copy of the settings.json file.**

Updates will be installed directly over the top of the current installation. The upgrade process will stop and restart the service once installed.

IMPORTANT: **Always put uSync into Audit Mode** after installation and initiate a sync to verify everything is working as it should. Once verified, take uSync out of Audit Mode and you are ready to go.

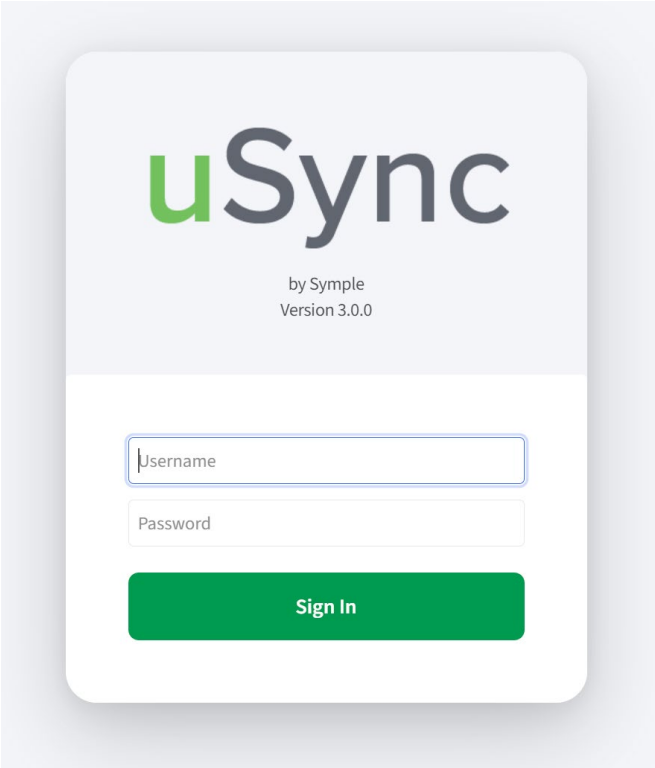
Configuration

The configuration of uSync is managed by its web interface available via the configured port on the server its installed on.

From the server, in a web browser, go to: https://localhost:5005 (if you have changed the port, enter the changed port number).

From a client desktop, go to: https://<server name>:5005 (replacing <server name> with the name or IP address of the server you install uSync on).

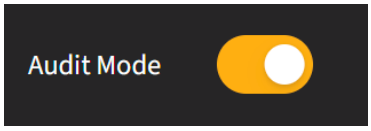
Web Interface



Logging In

The default username and password is 'Admin'. Once logged in, this can be changed under General > User Login.

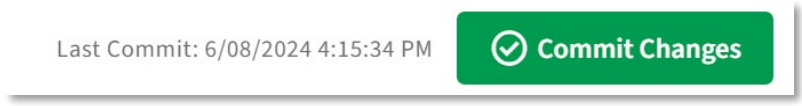
Audit Mode



With Audit Mode enabled, you can perform a sync without uSync making any changes to your Active Directory. The sync log will report any changes that would have been made.

The use of Audit Mode is important when first setting and configuring uSync as well as when making significant changes to the configuration and after updating to a new version to verify everything is working as it should.

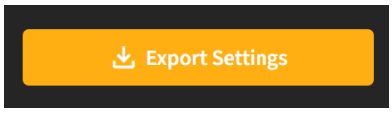
Committing Changes



Changes to the settings are live (running configuration). To permanently save the settings, click the Commit Changes button in the upper right corner. This will write the changes to the settings.json file.

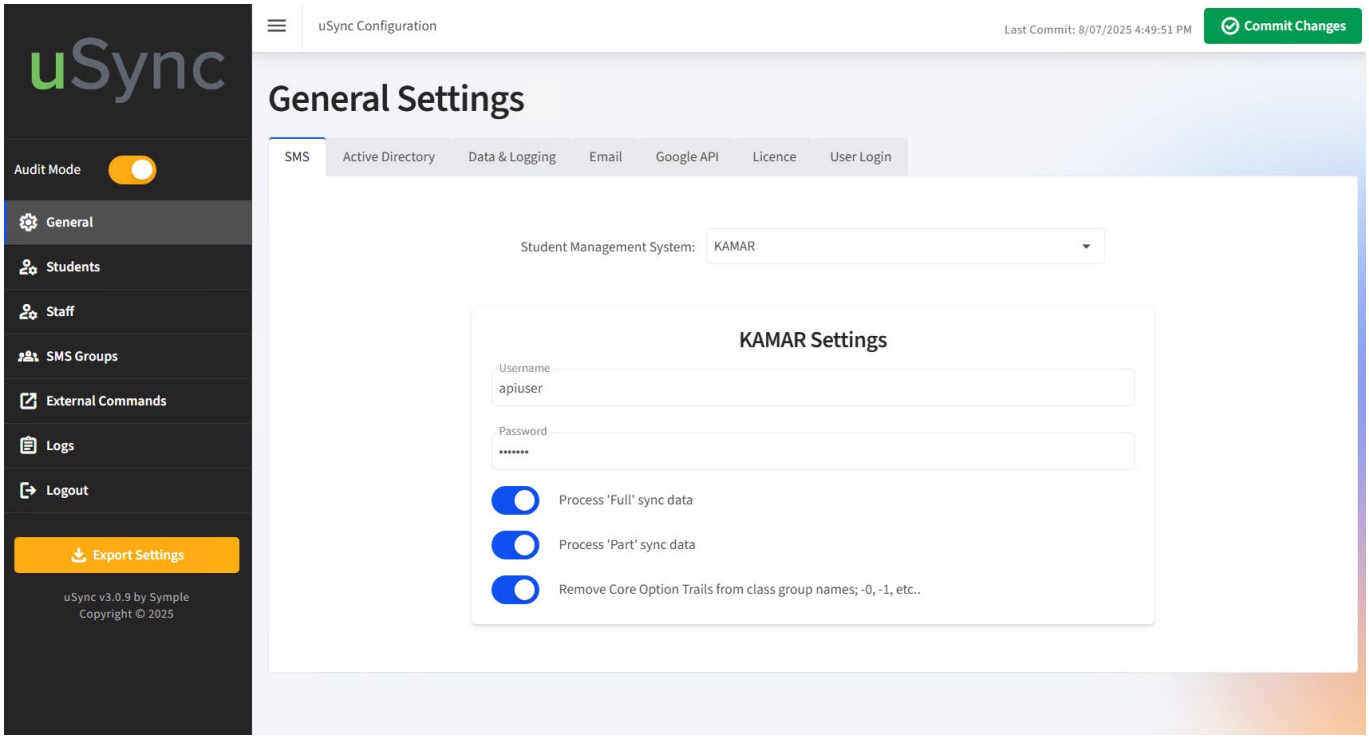
Note the last time the settings were committed will be displayed beside the Commit button.

Export Settings



Use the Export Settings button to download a copy of the active settings.

General



General > SMS

The SMS tab is where you choose the SMS (Student/School Management System) in which your school uses.

Depending on the selected SMS, various option will be displayed relevant to the respective SMS on this tab and in other sections of the configuration.

Applying a licence key issued after 1st September 2025 will set the SMS automatically and the option to change will be removed.

General > SMS > KAMAR

Enter the username and password for communication from KAMAR. This can be anything but must match within the Directory Services configuration for uSync in KAMAR.

Enable which sync data you want uSync to process from KAMAR.

Full sync is the overnight sync where all student and staff data is sent from KAMAR to be processed.

Part sync is the partial sync data (1 or more users) when certain fields are updated within KAMAR, i.e. password.

Remove Core Option Trials; Enable this to remove the trailing -0 & -1 from class names. E.g. 12PHY-1-0 becomes 12PHY-1, 13HIS-3-1 becomes 13HIS-3. It will not remove -2, -3, etc… as to not cause naming conflicts when there are multiple of the same class.

General > SMS > Helix / Edge

No SMS specific configuration, see Sync Times.

General > SMS > Wonde

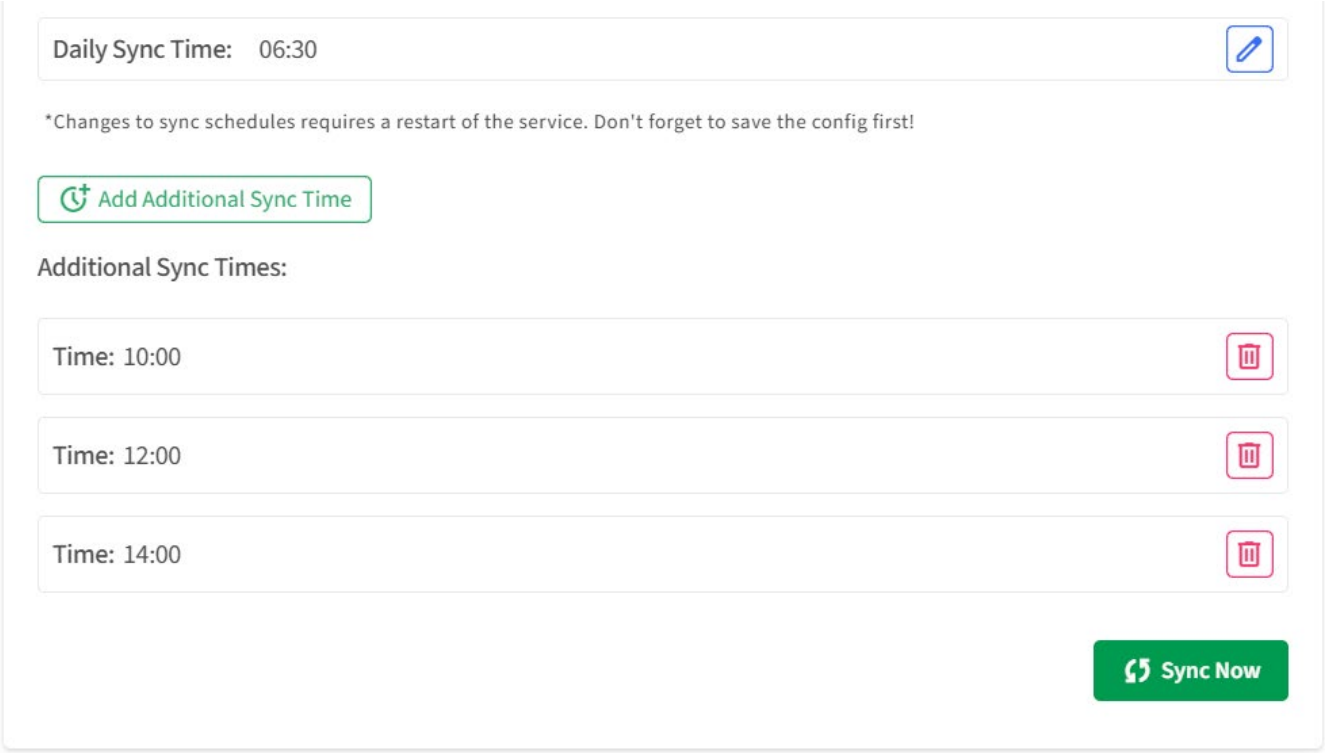
No SMS specific configuration, see Sync Times.

General > SMS > Sync Times

Set your Daily Sync Time for uSync to pull data from the chosen SMS/SIS's API and process the data. This is typically set for early morning before school starts.

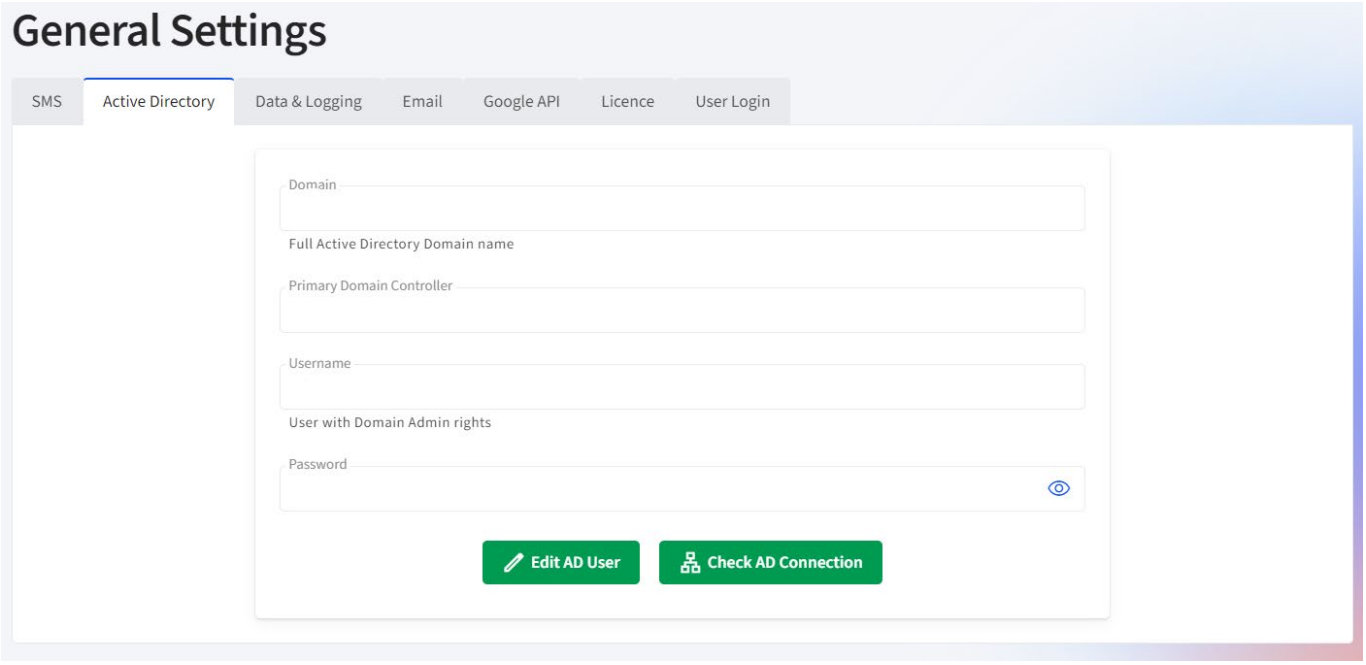
You can add an additional 4 sync times to sync periodically throughout the day. These additional times need to be set in chronological order and must be a minimum of an hour beyond the previous time.

Times are in 24 hour format.



NOTE: Any changes to the sync times will require the uSync service to be restarted.

General > Active Directory



Domain

Enter your full AD Domain name

Example: abcd.local or abcd.school.nz

Primary Domain Controller

Enter the FQDN (Fully Qualified Domain Name) of your Domain Controller.

Example: dc.abcd.local

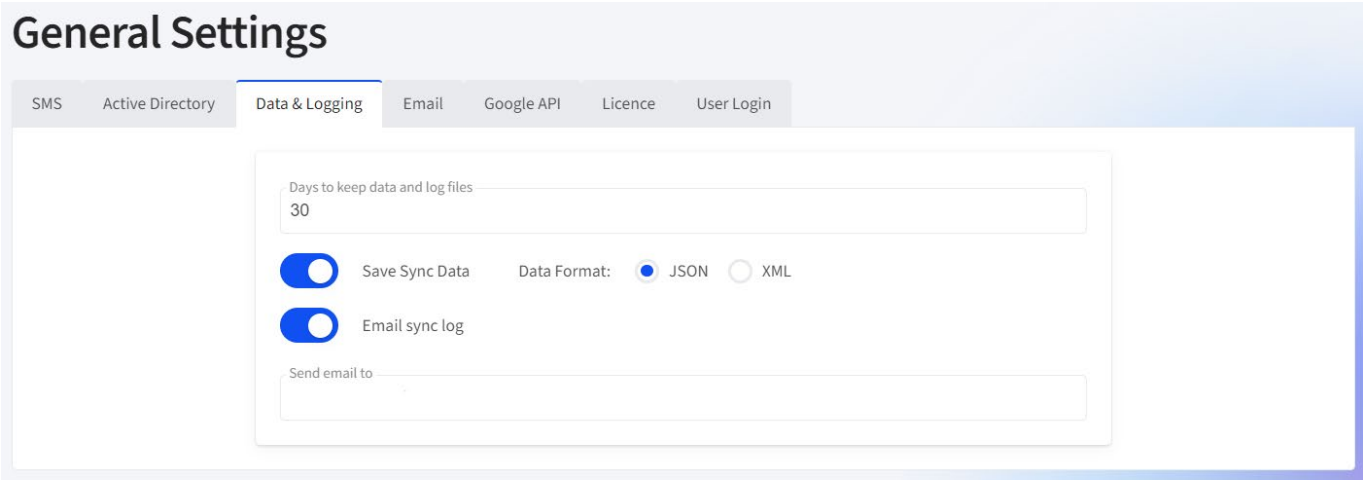
Username and Password

Click on the Edit AD User button and enter the AD User account with Domain Admin rights, then click Update.

NOTE: This account also needs to have full rights over any directories where user profile and home drives reside.

Use the Check AD Connection button to confirm the credentials are valid for Active Directory.

General > Data and Logging



Days to Keep Data and Log files

Specify the number of days you would like to keep a copy of the processed data received from your SMS and the Logs files generated from each sync.

uSync will remove any data and logs files older than the number of days specified after every sync.

Save Sync Data

Enable this option to save a copy of the processed data received from your SMS. These data files contained the processed data from uSync, not the raw data from the SMS.

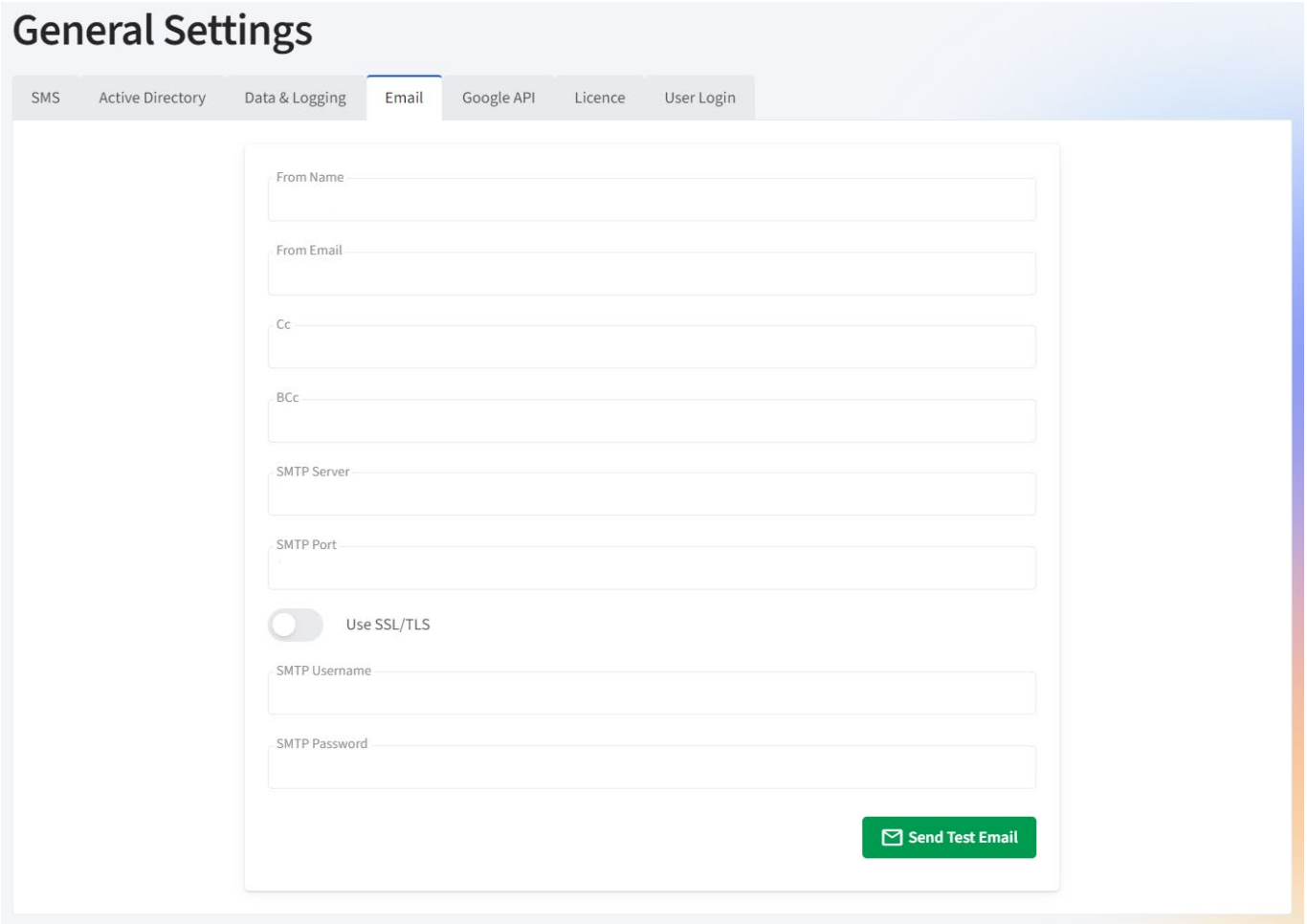
You can choose which file format you prefer, JSON or XML.

Email Sync Log

Enable this option and enter an email address to receive a copy of the sync log.

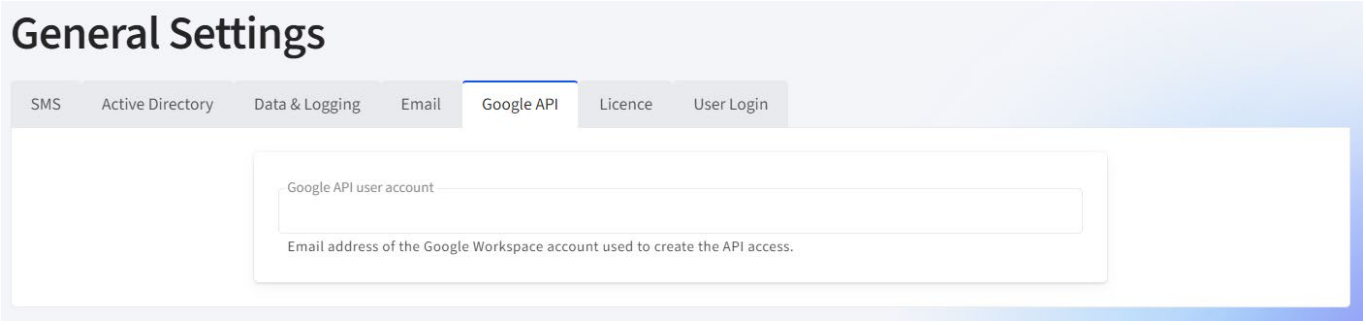
For KAMAR users, this is only the full/overnight sync, not each individual event sync.

General > Email



Enter your email server settings and use the Send Test Email button to confirm uSync can send emails.

General > Google API



Use of the Google API is for schools that use Google Workspace and require the user accounts to be created with the same password with the one form your SMS or the one generated by uSync.

NOTE: uSync only creates the basic user account in Google for new users at the same time it creates their AD account. uSync does not make any further changes in Google Workspace on subsequent syncs.

To use the Google API, you need to create an API project from the Google Cloud site.
This documentation won't go into detail, but the basic points below should be enough to find your way through.

Go to: https://console.cloud.google.com/apis make sure you are logged in with your google domain admin account.

Create a new Project 'uSync'. Switch into the created project. If prompted to choose Internal or External user type, choose Internal.

Library

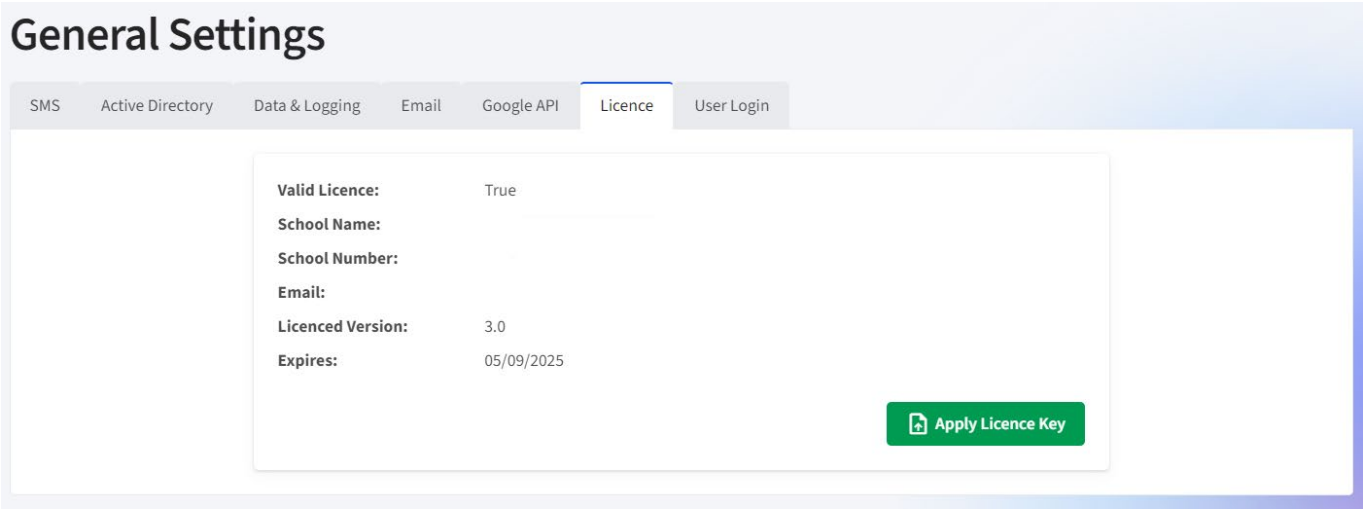
- Search and Enable the Admin SDK API.

Credentials

- Create Service Account – give account a name and click Done.
- Click on the created Service Account, copy Unique ID from Details page.
- In a new browser tab, go to: https://admin.google.com/ac/owl/domainwidedelegation
- Add API client, paste Unique/Client ID in Client ID field.
- Add the Scopes listed below and Authorize:
    - https://www.googleapis.com/auth/admin.directory.user.security
    - https://www.googleapis.com/auth/admin.directory.user
- Go back to previous browser tab, click 'KEYS' tab.
- Add Key, Create new key, Select JSON, click Create, save the downloaded file to the uSync application directory as 'google.json'.

Add the user account (email) that you used to create the API access in the Google API user account field.

General > Licence

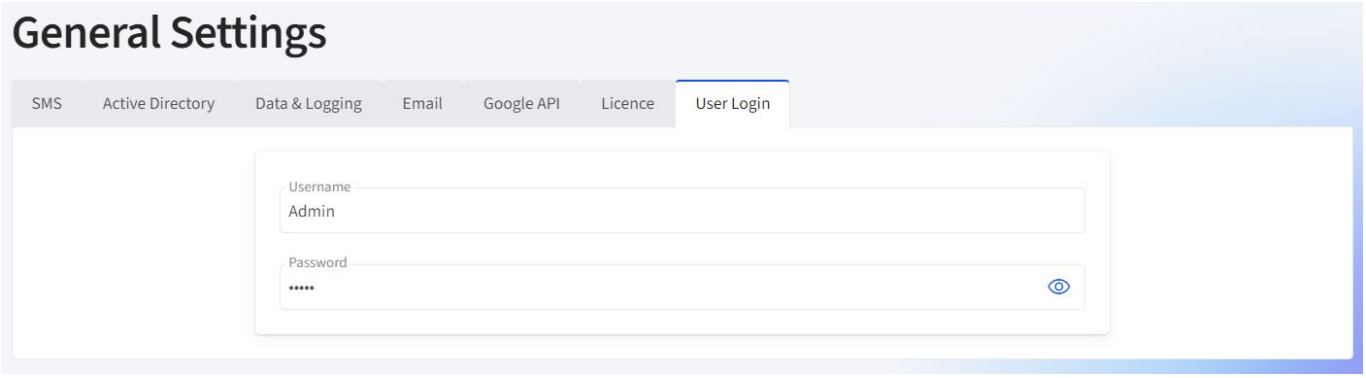


To apply your uSync licence, click on the Apply Licence Key button and enter the licence key provided by uSync.

Once successfully applied, the details should be visible on this tab.

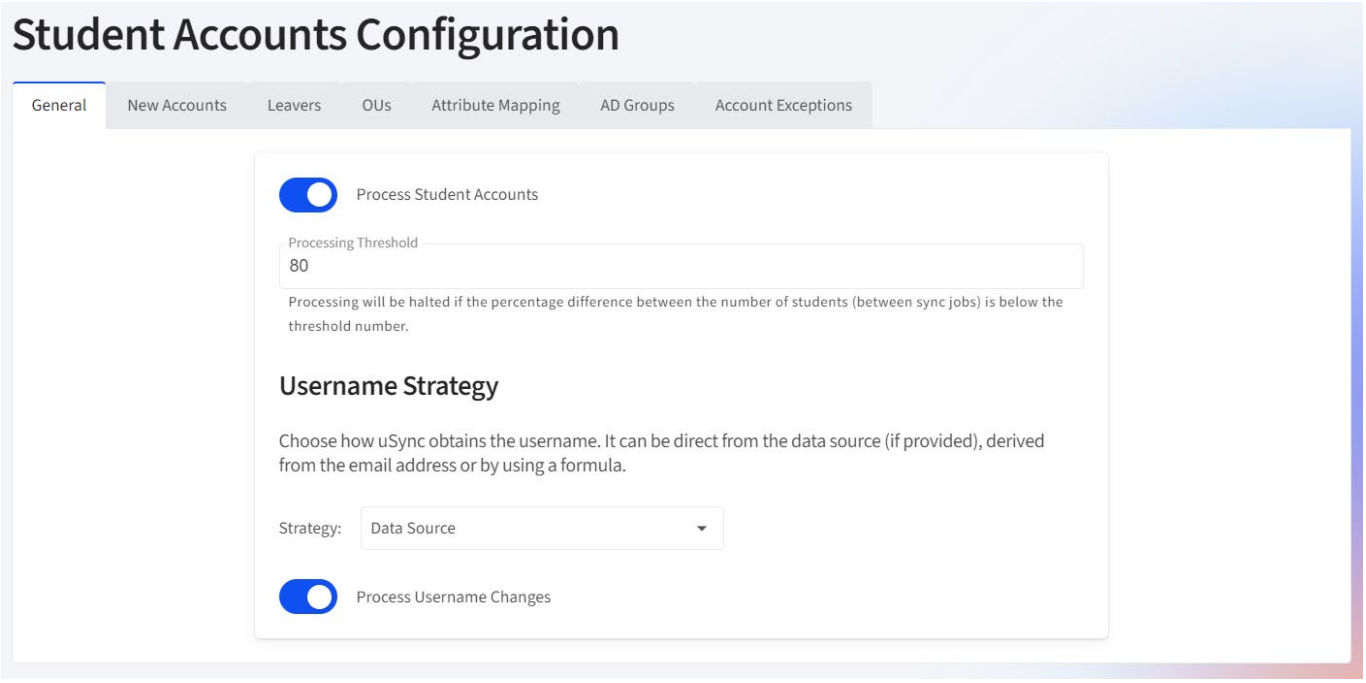
NOTE: Without a valid licence, uSync will not run any sync processes.

General > User Login



The User Login tab is where you can change both the username and password for access to this web interface.

Students



Students > General

Process Student Accounts

This option will enable processing of student accounts.

Processing Threshold

Before processing a sync, uSync will calculate the percentage difference between the number of staff/students from the last sync to the current sync. The default of 80% means if the number of students from the data received is less than 80% of the previous number then the sync will be cancelled.

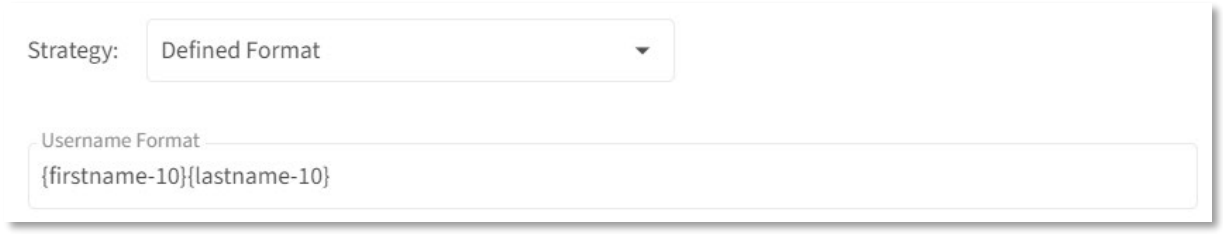
This is a safeguard in case there is an issue with the data received. The average 20% difference will account for year 13 leavers for most schools depending on size.

Username Strategy

uSync can employ 3 different strategies for defining the user's username. This is dependent on the available SMS data. If the username is available direct from the data source, then choose 'Data Source'. If you want to derive the username from the users email address (provided the email address is in the data received) uSync will consider everything in front of the @ symbol to be the username of the user.

Lastly, uSync can generate a username based on a definable format.

The defined format can use various merge fields of the user's data. See Merge Fields for more information.



Defined Format example.

Process Username Changes

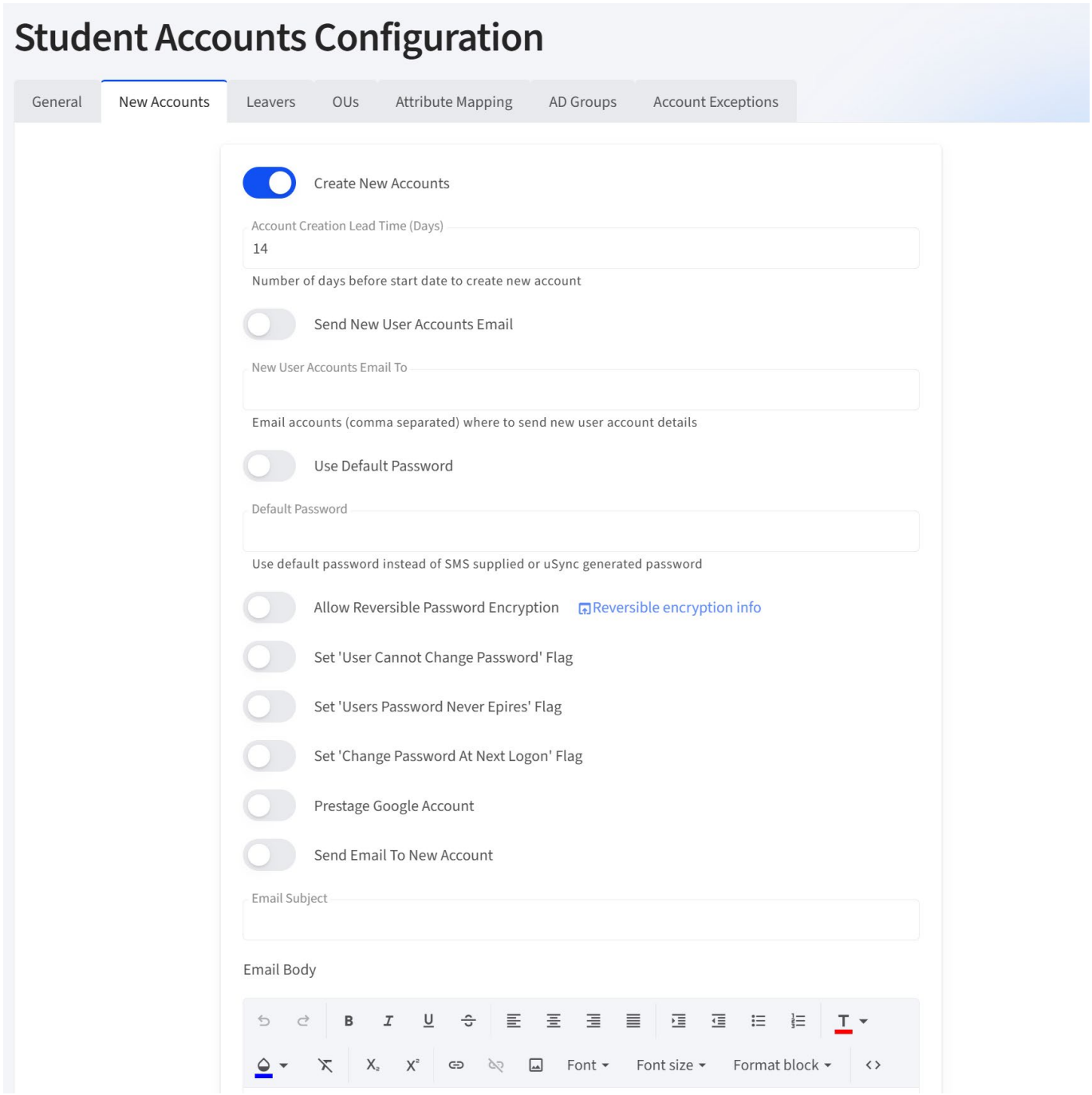
Enable this option to keep a user's username in-sync (enabled by default) with the received data.

Usernames Exceeding 20 Characters

As per the limitation of Active Directory usernames only supporting a maximum of 20 characters, uSync will automatically truncate usernames exceeding 20 characters.

This truncation is only applied the 'sAMAccountName' AD attribute and not the 'upn' attribute as this can support a total of 113 characters (64 before the @ symbol and 48 following).

Students > New Accounts



Create New Accounts

When enabled, uSync will create AD accounts for any student that does not already have one.

Account Creation Lead Time

Specify the number of days before a user's start date that the new user account will be created. Default is 10 days.

This is dependent on the available data from the SMS.

Send New User Accounts Email

Enable this option to send an email to the specified address or addresses (comma separated) of the new user accounts details which includes their password.

NOTE: uSync generates a secure password for each new account when generating an AD account. This password along with the basic user account details is emailed (one email per sync) to the nominated email address(es).

For SMS's that internally generate their own passwords which are available through their API will be used by default.

Use Default Password

Enable this option to define what password is set for a new user. Enter the password and or use user merge fields to generate a specific password for the user. Using this feature will bypass uSync's built in password generator or if using KAMAR, will ignore the KAMAR set password for the user.
If using, make sure the password meets ADs complexity requirements else the user creation will fail.

*NOTE: If using KAMAR and have 'Process Password Changes' enabled, the KAMAR password will override the default password on subsequent sync sessions.

Allow Reversible Password Encryption

Unless required, please leave un-checked. More info see here

User Cannot Change Password Flag

When enabled, new users will have the AD flag of 'User Cannot Change Password' set.

Users Password Never Expires Flag

When enabled, new users will have the AD flag of 'Users Password Never Expires' set.

Change Password at Next Logon Flag

When enabled, new users will have the AD flag of 'User must change password at next logon' set.

Prestage Google Account (requires Google API to be configured)

When enabled, uSync will (when creating a new AD account) use create the basic user account (first and last names, email address, and password) in Google Workspace.

Send Email to New Account

When enabled, uSync will send an email to the newly created account email address.

Limited to G Suite accounts only with the Prestage Google Account option enabled.

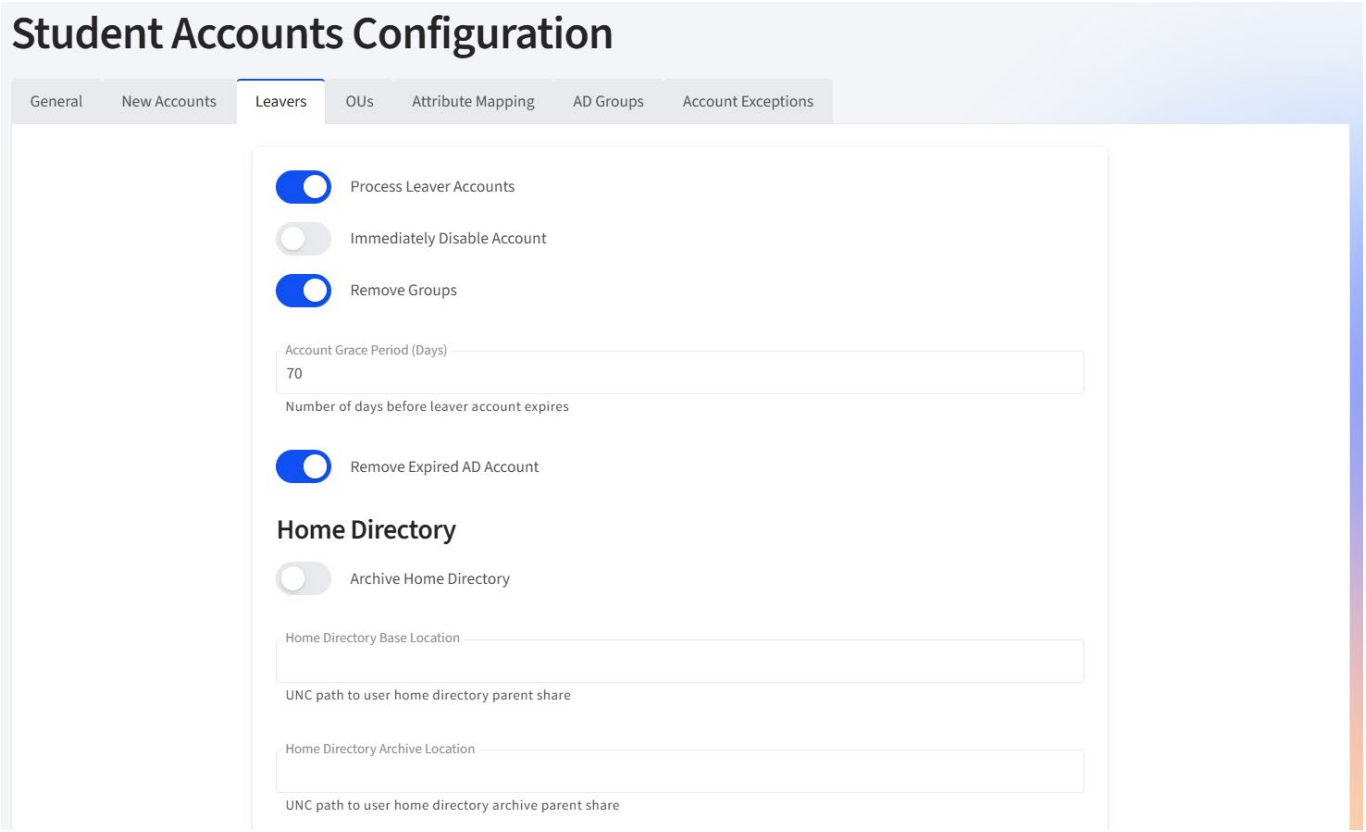
Email New Account > Subject

Enter the subject for the welcome email

Email New Account > Body

Use the editor to construct your welcome email content. You can use the user merge fields to help personalise the email. See the Merge Fields section for more detail.

Students > Leavers



Process Leaver Accounts

When enabled, uSync will manage any student leavers.

uSync determines a student is a leaver when they have a leaving date added. If that leaving date is in the future, then the account is processed as normal until the leaving date is reached.

This is dependent on the data from the SMS. If a student is dropped from the API data, then uSync will immediately process them as a leaver and apply the grace period using the current date as the leaving date.

Immediately Disable Account

When enabled, uSync will disable any leaver account that is enabled.
When not enabled, uSync will not make any changes. This allows manual control if you wish to selectively disable users accounts.

Remove Groups

When enabled, leavers are removed of all groups except for the Base (Domain Users) group and are added to any defined 'Leaver' groups.

When disabled, groups are processed as normal for leavers/redundant accounts.

Default is enabled.

Account Grace Period

The leaver grace period, specified in days, allows an account to remain active for that number of days after their leaving date.

The account itself is moved to the specified leaver OU and all groups are stripped, and only ones marked for leavers are added. *See Student > Groups*.

Note: It's handy to set a long grace period of a couple of months, mostly for end of year leavers such as year 13s. This allows them to still have access to their school email if they require it to access their exam results in the following year. It also allows for any students who may be returning to not lose their account.

Remove Expired AD Account

When enabled, AD accounts that have an expired grace period will be removed from AD.

Archive Home Directory

When enabled in conjunction with Process Leavers, when the grace period expires the users home directory will be copied to the specified archive directory and the original folder deleted.

Home Directory Base Location

Specify the UNC path to the underlying folder containing the student home directories.

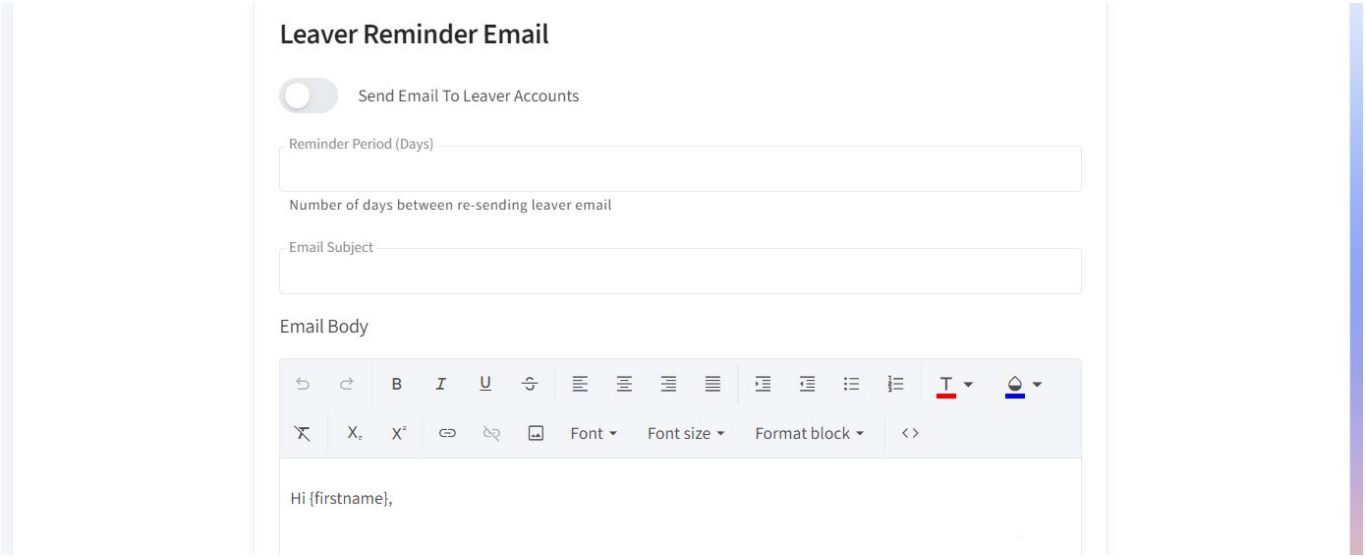
uSync assumes the folder names under this path is based on the usernames of each user.

Home Directory Archive Location

Specify the UNC path to where student home directory folders should be archived to.

You can use the {year} which will (if it does not already exist) create a sub directory based on the current year.

Leaver Reminder Email



Send Email to Leaver Accounts

When enabled, uSync will send an email to the student. This email is useful to inform the student of account closures and the related timeframe. This email will be sent on first processing as a leaver and subsequently based on the reminder settings.

Reminder Period

The reminder period will resend the leaver email every specified number of days until the grace period expires.

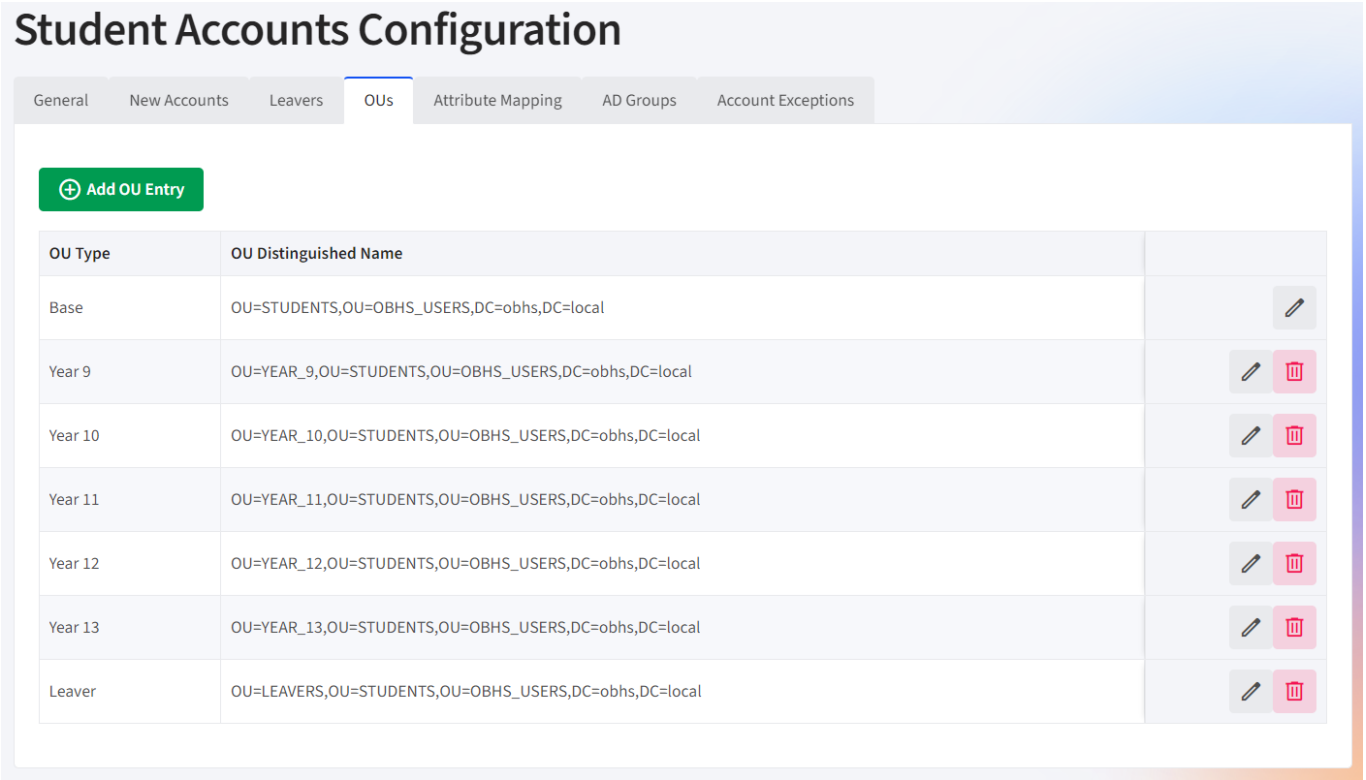
Leaver Email Subject

Specify a subject for the leaving email.

Leaver Email Body

Use the editor to construct your welcome email content. You can use the user merge fields to help personalise the email. See the Merge Fields section for more detail.

Students > OUs



This tab is used to map the OU (Organisational Unit) structure of your Student OUs in a manner the uSync can use. uSync is designed around the most common/logical way a OU design would be employed for students, which is by year level.

If all your students are in one OU, then map each year level to the same OU.

Base

The Base entry must be configured with the highest or top-most OU where all student accounts reside below this OU.
Using the screenshot as an example, note the Base entry is the OU where the subsequent OUs (based on year level) reside under.

Click the edit icon to the right of the entry and search/select the top-most OU from the drop down, then click the save button.

Add OU Entry

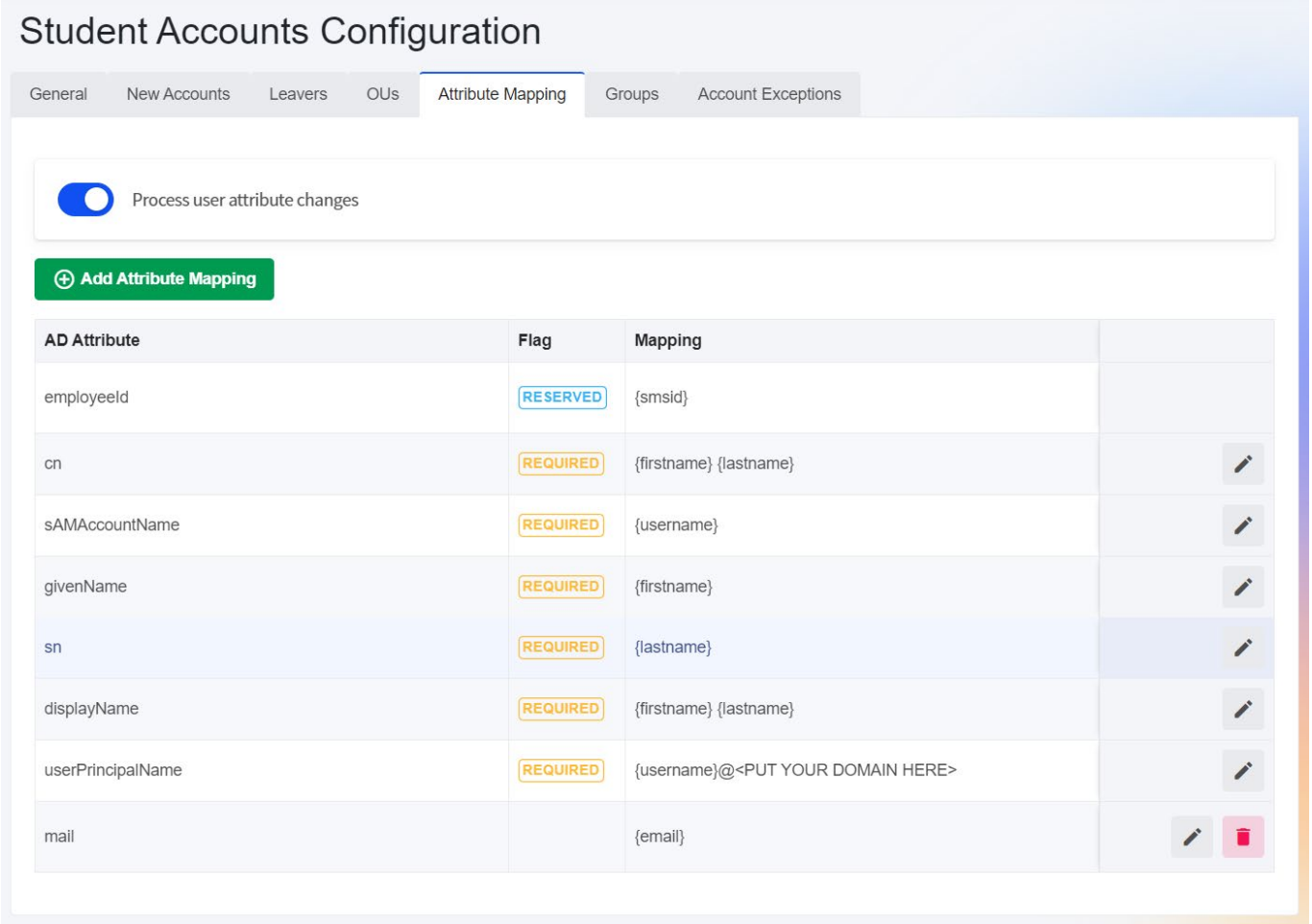
Add an OU entry for each year group your school manages. Set each entry type to the corresponding year and select the correct OU from the drop down box.

If you have all students in one OU, then map each year level entry to the same OU.

Leaver

The Leaver OU mapping is required for processing leaver accounts. This OU needs to reside under the Base OU.

Students > Attribute Mapping



The Attribute Mapping tab is where you define each AD User attribute. From the screenshot you will note that there are **Reserved** and **Required** attributes. The Reserved attribute of employeeId is used by uSync to store the SMS ID of the user as this is the main method for uSync to find a user's AD account when processing.

Process User Attribute Changes

When enabled, uSync will update any specified AD attribute based on the format specified by each attribute. The attributes section has several merge fields available. See *Merge Fields Table*.

Required Attributes

Required attributes are the base attributes required to create an AD User account.

Container Name (cn) is the name of the object itself in AD; {firstname} {lastname} > NOTE: there is a chance of a conflict if there are two or more users with the same resulting cn in the same OU.

Username (sAMAccountName) is the login username of the user account; {username} > the username from the SMS or as defined by the selected username strategy.

First Name (givenName) is the first name of the user; {firstname}

Last Name (sn) is the last name or surname of the user; {lastname}

Display Name (displayName) is how the users name is display in AD and other services; {firstname} {lastname}

User Principal Name (userPrincipalName) is the username plus the domain name in an email format (separated by the @ symbol); {username}@your-domain-name

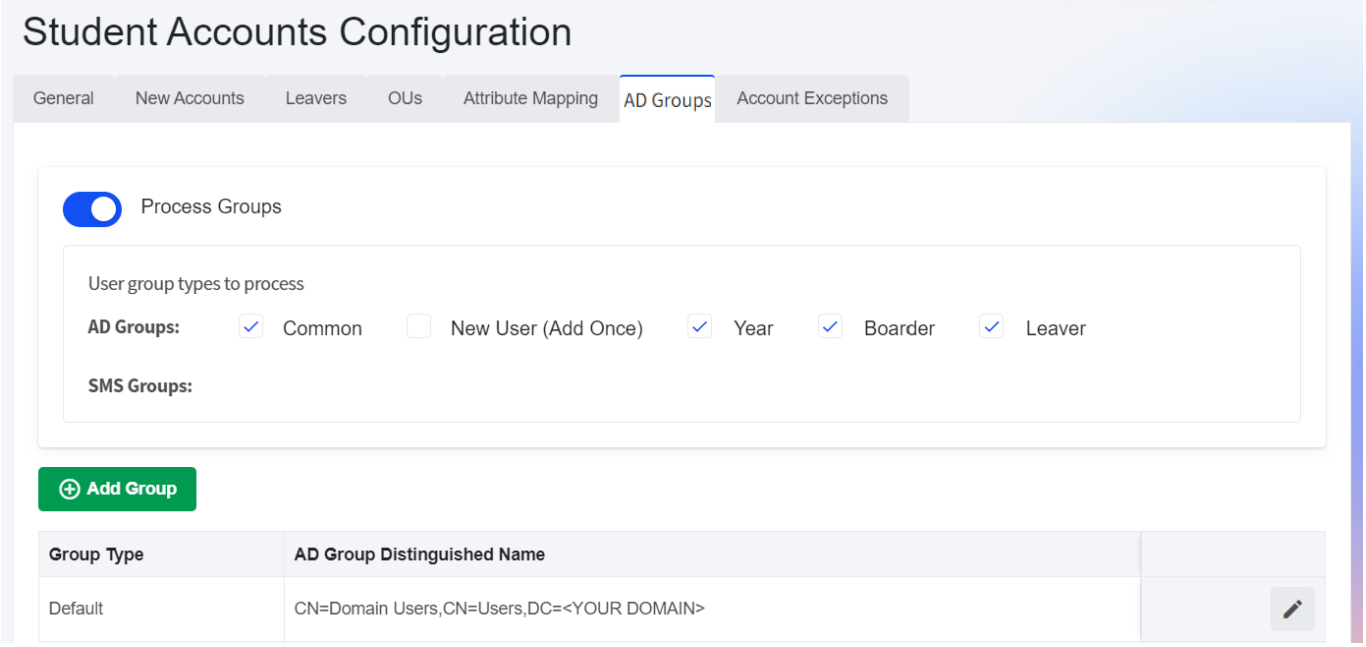
I.e. student123@abc.school.ac
This format must be followed.

Add Attribute Mapping

To add further mappings such as Home Directory, Description, Profile Path click the Add Attribute Mapping button, then select the required attribute and enter the required mapping.

As with the other attributes using merge fields, a list of available merge fields can be found in the Merge Fields section.

Students > AD Groups



Process Groups

When enabled, uSync will process the specified groups. If disabled (not ticked) no processing of any groups will take place.

User Group Types to Process

AD Groups. enable each of the AD group types you wish to process for each user.

These group types are for manually created/existing AD group objects you require users to be placed in. The different types are how you can selectively place matching students to the right groups.

Common: is used for groups that are common to all student accounts.

New User: is used to place a new user in the specified group(s) only upon the creation of the user. Subsequent syncs will not apply.

Year: used to place students into groups based on their year level.

Boarder: used to place students into groups based on if they are a boarder (for schools that have hostel/boarding facilities).

Leaver: used to place students into groups specific to leavers.

SMS Groups. Enable each of the SMS group types you wish to process for each user. The list of SMS group types is defined by the configured SMS groups in the SMS Groups section.

Add Group

To add a group mapping, click the Add Group button and select the Group Type and the AD group from the drop-down selection.

Default Group Type (Mandatory)

The default group is added by default but must be edited to match your domain. This group is required by all users and should be set to the Domain Users group of your domain.

Exception Group Type

Add any groups which are managed manually and are not common to all students that you don't want uSync to remove users from. uSync will remove any group that does not match with any of the defined group types.

Exception OU Type

An alternative to selecting individual groups or using wild cards is to add the OU that the groups are in.

For example, if all or many of your manually defined groups are contained within a specific OU, then use this option to add that OU as an exception. All groups within this OU will be matched as an exception.

Exception Wildcard Type

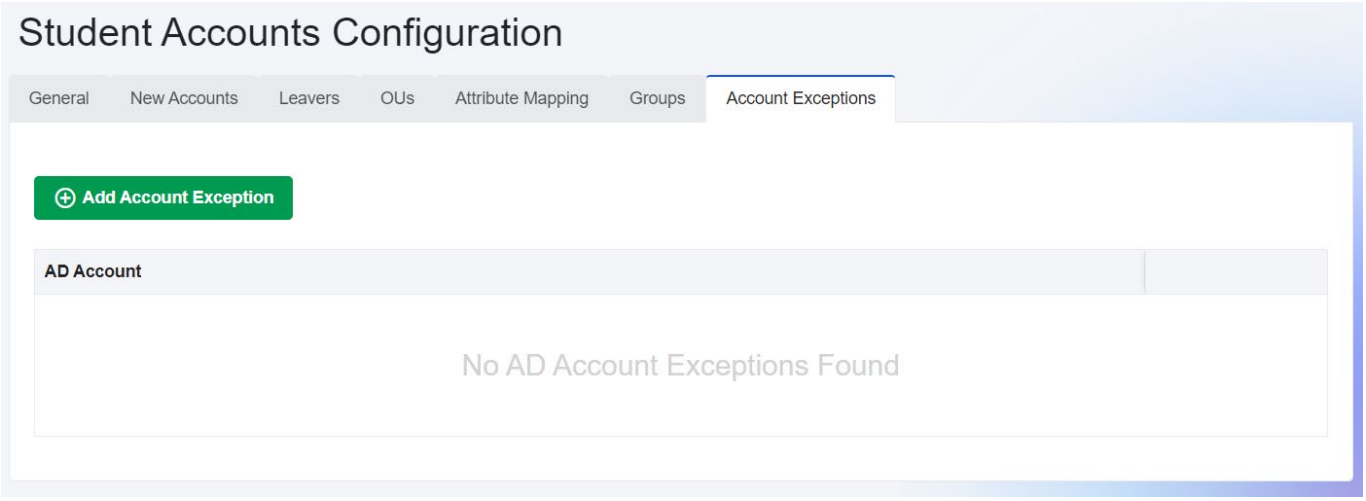
For large numbers of groups, if they have a common prefix or contain a common word, then the use of a wildcard maybe used.

Example: Groups starting with 'STAFF_' add an exception entry of: STAFF_*

Example: Groups containing the word 'wifi', add an exception entry of: *wifi*

Any groups found in AD matching the wildcard will be deemed an exception group.

Students > Account Exceptions



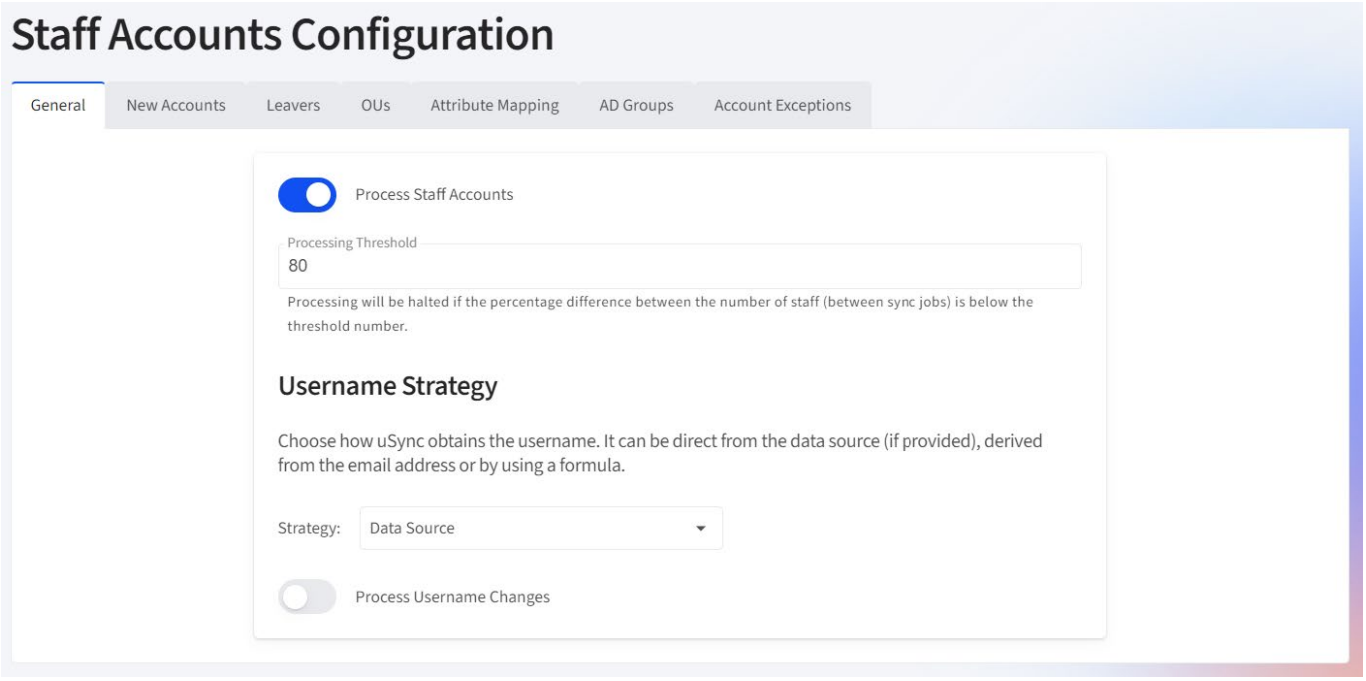
User Account Exceptions

Use this section to add user accounts that reside under the Base OU that you do not want processed.

Add accounts such as test accounts or any other manually created accounts. These should be added using the user logon name (sAMAccountName), not email or upn format.

Accounts can be added individually, or you can enter the distinguished name of an OU to exclude.
Adding an OU is not recursive, only users within the root of the entered OU will be regarded as exceptions.

Staff



The configuration for staff is the same as it is for students. Please refer to the Students section.

The only differences are as follows:

OU's

All staff accounts created by uSync will be placed in the 'Base' OU as there is no way to universally define how staff get placed into different OUs as each schools OU structure can be greatly different, not to mention the underlying SMS and its categorisation of staff and the available data from its API makes this very difficult.

Once a staff member account has been created, you can manually move said account into the OU of your choice. As uSync can't map OUs for staff, it will not manage this aspect of a staff user account with the exception of a leaver (if processing staff leavers with uSync).

If a usable/reliable method of mapping staff to OUs for a certain SMS can be employed, uSync will be updated with this capability.

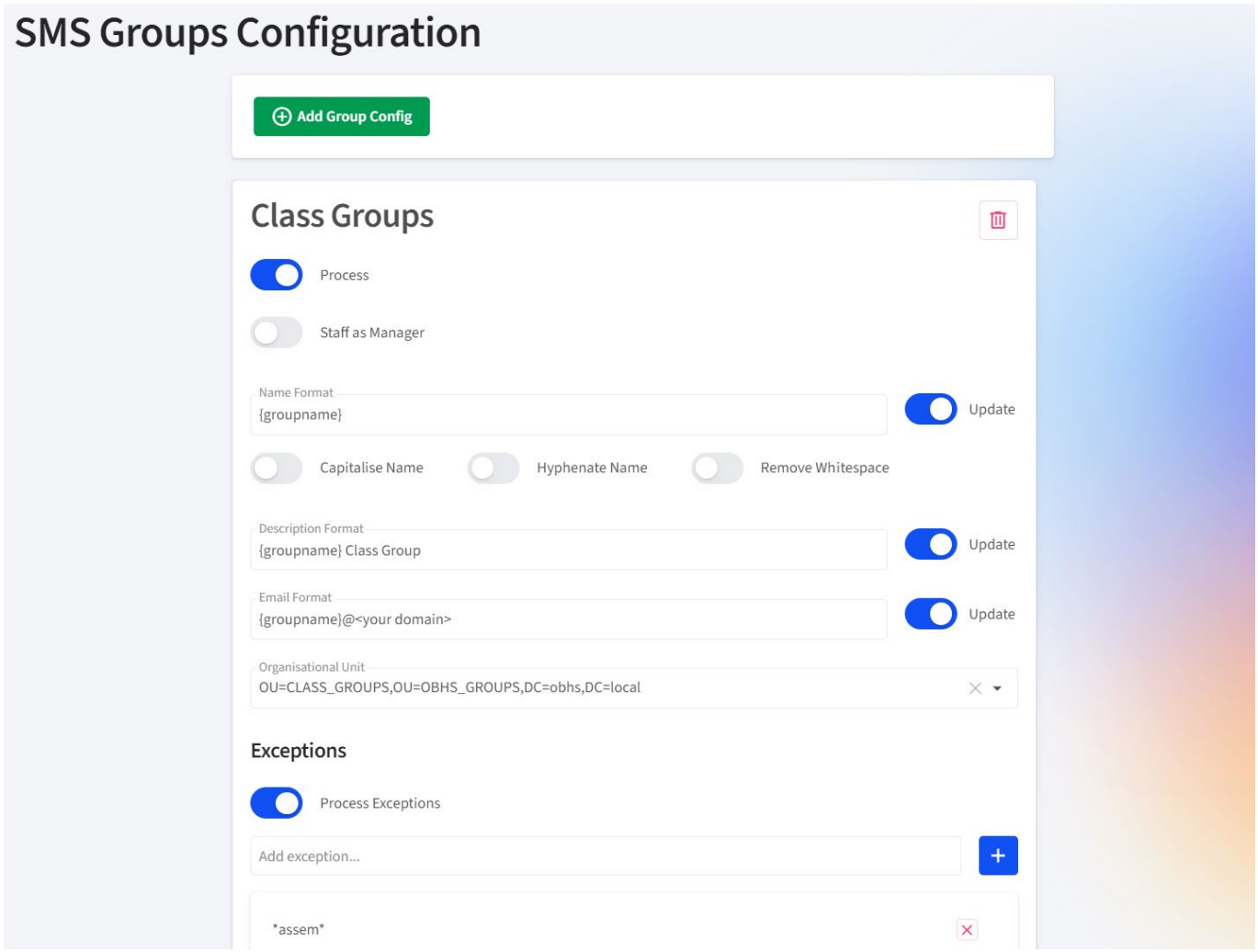
If using KAMAR, Staff can be managed in OUs by using the classification [starred] from KAMAR.

Add an entry by choosing <Classification> as the type then reselect to edit the text to that of the classification name to match. Any unmatched classifications, the user will not be moved. The user can be manually moved and uSync will not move them elsewhere, unless there is a matching classification.

Groups

Staff have no option for Year or Boarding Groups, for obvious reasons.

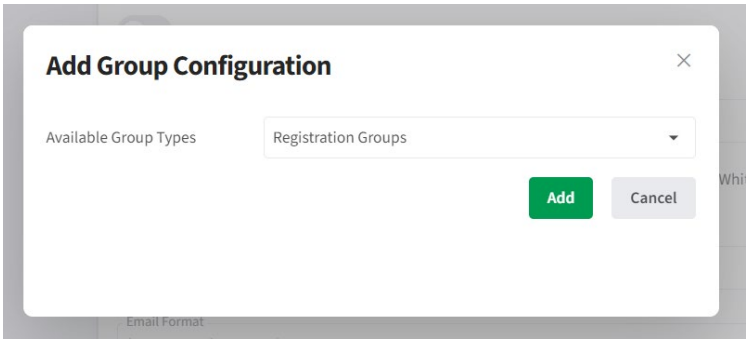
SMS Groups



The SMS Groups Configuration section is for defining what SMS groups you wish to sync to AD and how they are to be formatted.

Add Group Config

To add a group configuration, click on the Add Group Config button and choose the group type (based on the selected SMS). This will add the empty config to the bottom of the list.



SMS Groups > Group Configuration

Process

Enables processing of this group type.
This allows you to configure the group type without it being processed until you are ready.

When a group type is added, it will be available in the AD Groups tab of both staff and students to enable processing of users to the group.

Staff as Manager

The Staff as Manager option is only enabled if the group type is ticked under the Staff > AD Groups tab.

When enabled, staff members belonging to a matching group will be added as a manager rather than a member which is the default action.

Note: as only one manager can exist on an AD group. If there is more than one staff member associated with a class, the last staff member processed during the sync process will win out as the manager.
Use this option with caution.

Name Format

Use this field to define the naming convention for the class group in AD. Only the merge field {groupname} can be used. It can be used with a prefix or postfix for the name.

Example: {groupname} or grp_{groupname}

Update: when enabled the name of the group will be updated if changed. When not enabled, it allows manual modification of the group name.
uSync uses an available attribute to store an identifier to find the group regardless of its name.

Capitalise Name / Hyphenate Name / Remove Whitespace

As the options suggest, when either is enabled the resulting group name will either have all characters capitalised, white space between words replaced with hyphens, and or all whitespace removed.

Description

Enter the description for the class group. The only two merge fields available are: {groupname} and {groupname-formatted} the latter being the result of the Name Format field.

Example: {groupname} Class Group

Update: when enabled the name of the group will be updated if changed. When not enabled, it allows manual modification of the description attribute.

Email Format

Enter the email format for the group. The only two merge fields available are: {groupname} and {groupname-formatted} the latter being the result of the Name Format field.

Example: {groupname-formatted}@abcd.school.nz

Update: when enabled the name of the group will be updated if changed. When not enabled, it allows manual modification of the mail (email) attribute.

Organisational Unit

Select the OU where these groups will be created/maintained.

Exceptions

To exclude a group from being processed, you can add the groups name or a wild card variant.

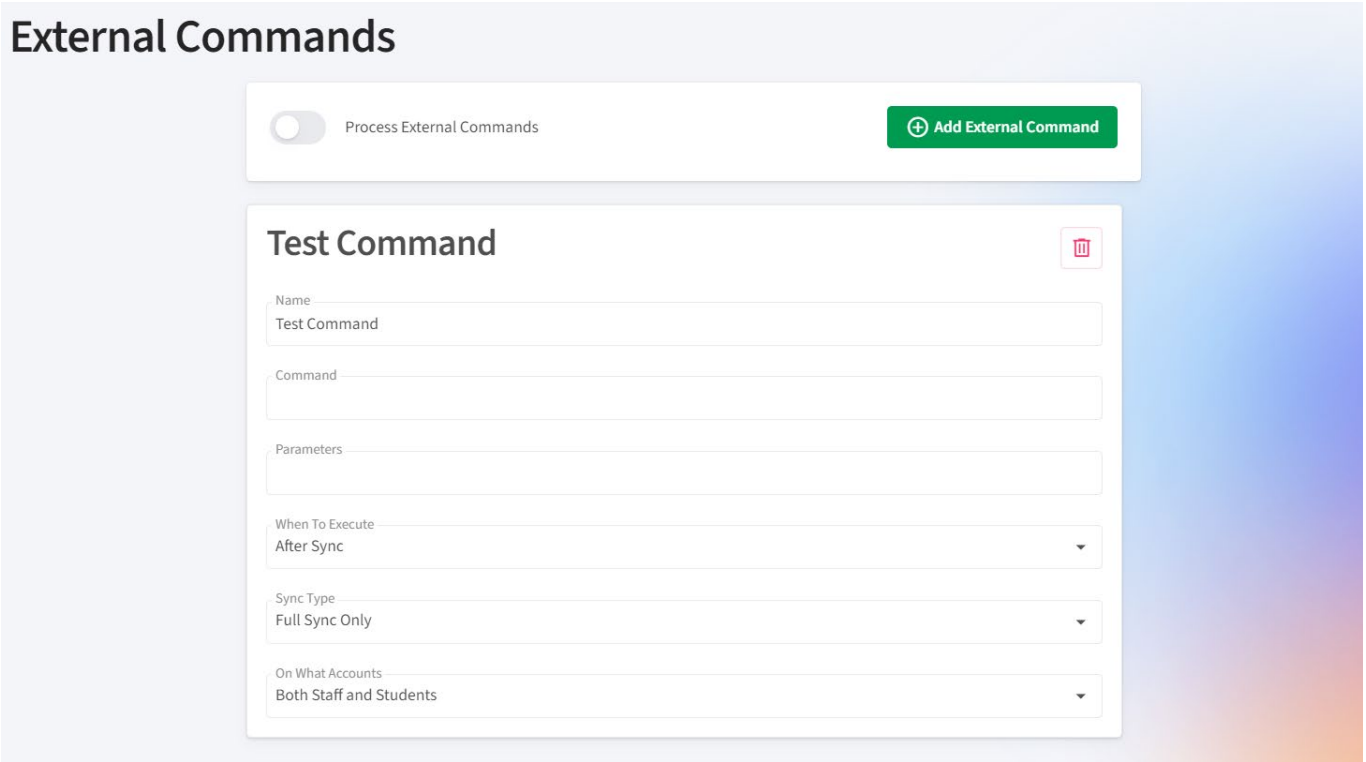
Example: *text = anything ending with 'text' will be excluded.

Example: text* = anything starting with 'text' will be excluded.

Example: *text* = anything containing 'text' will be excluded.

For KAMAR Student Groups, you can exclude group types by adding the group type to the exclusion list.

External Commands



Process External Commands

When enabled, uSync will process command based on their criteria for when they should be executed.

Command Settings

Name

Name of your external command.

Command

The path to and including the name of the executable or script to run.

Parameters

The Parameters associated with running your external command.
These parameters can use the merge fields as per the Merge Field table for Staff and Students.

When using the Run Type of 'Before a Sync', the merge option for the path of the data file itself is available as: {datafile}

When to Run

Choose when this command is to be run in conjunction with a Sync.

Options are:

- **Never** - Disables the command from being run
- **Before a Sync** – Executes before a Sync is run
- **After a Sync** – Executes at the end of a sync
- **On each process user** – Executes on each user after they have been processed but before the next user.
- **On newly created users only** – Executes only after a new user has been created.
- **On leavers only** – executes only on process leaver accounts.

Sync Type

Choose on what sync type the command will run.

Options are:

- **Full and Part** – Executes on both sync types (specific to KAMAR)
- **Full Only** – Executes on Full sync's only (for all other SMS's)
- **Part Only** – Executes on Part sync's only (specific to KAMAR)

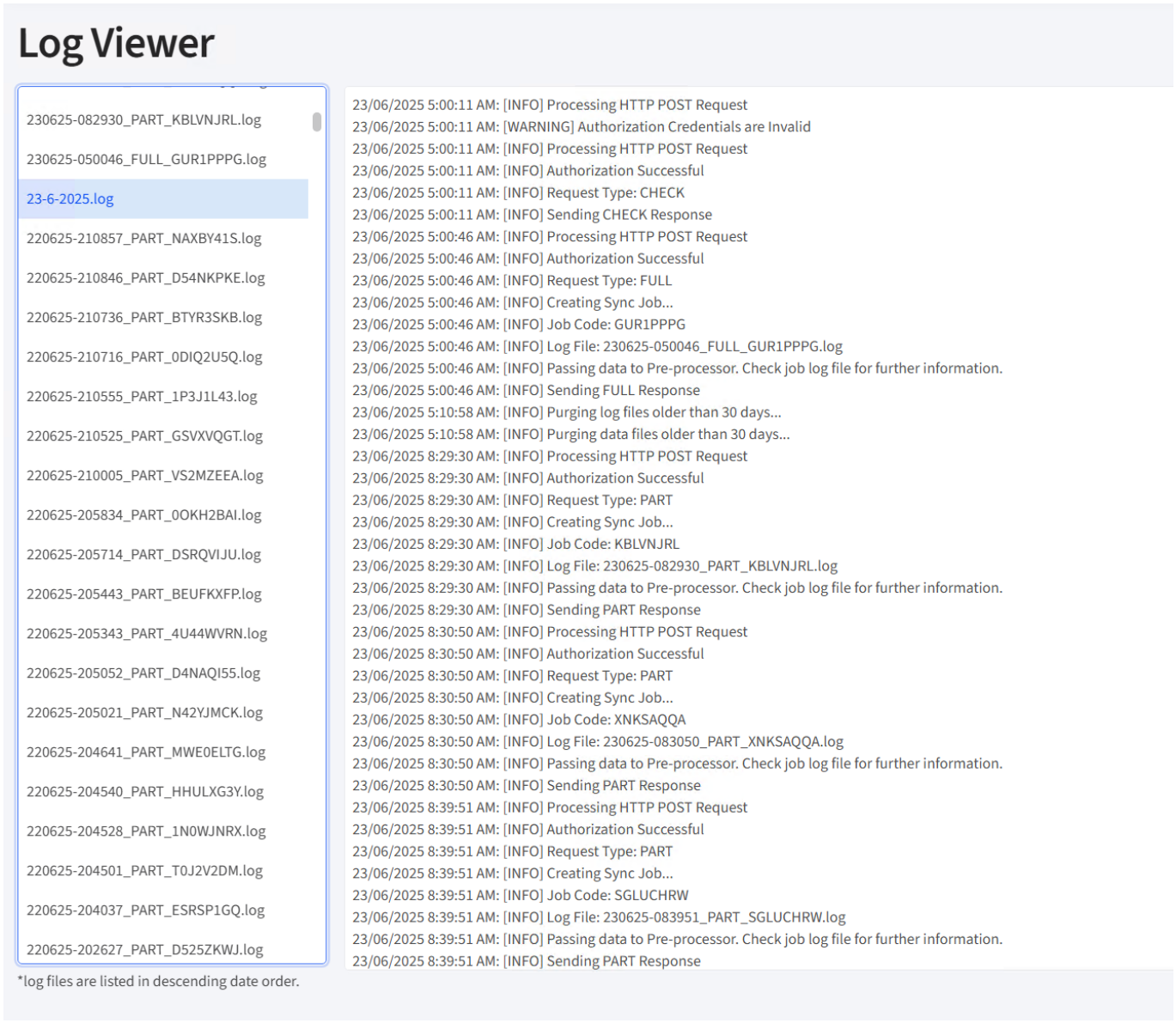
Which Accounts

Choose on which account types the command will run. This is only applicable for Run selections of 'On each processed user', 'on newly created users only', and 'on leavers only'.

Options are:

- **Not Applicable** – Unless choosing to run on each user, it will otherwise be ignored
- **Both Staff and Students** – Executes the command against both user types.
- **Staff Only** – Executes the command only against Staff user type
- **Students Only** – Executes the command only against Student user type

Logs



Log Viewer

Use the Log Viewer to view the logs saved by uSync for each sync session as well as the general application service logs.

The log files are located in the ‘Logs’ folder under the uSync application directory.

*Note: Large log files may take a few seconds to load.

Merge Fields

NOTE: The merge fields rely on the data being available from the respective SMS's API. So not all merge fields will return a value or the value may differ from expected.

Student and Staff Sections	
{smsid}	SMS ID of either staff or student
{username}	Username (the result is outputted as lowercase)
{firstname}	First Name
{middlename}	Middle Name
{lastname}	Last Name
{firstnamelegal} **Student only*	Legal First Name
{middlenamelegal} **Student only*	Legal Middle Name
{lastnamelegal} **Student only*	Legal Last Name
{email}	Email Address
{year}	Current year in 4 digit format (yyyy)
{studentid} **Student only*	Student ID
{tutorclass} **Student only*	Tutor
{yearlevel} **Student only* **AUS: Internally P/Prep is represented as Year 0*	Student Current Year Level. For NZ schools, this will output 1,2,3…13 For AUS schools, this will output P,1,2,…12
{gradyear} **Student only*	Calculated graduating year (yyyy) [final year of school]
{year-rel-yearlevel} **Student only [NZ secondary schools]*	which will give the calendar year relative to their year level basing the current calendar year at year 9. e.g. If the current year is 2025 a new year 9 student would have a relative year of 2025. whereas a new year 12 student would have relative year of 2022
{house}	The House the staff or student belongs to
{mobile}	Mobile Number
{role}	Either 'Staff' or 'Student'
{dob} **Student only*	Date of Birth in format: dd/mm/yyyy
{dob-iso} **Student only*	Date of birth in ISO format: yyyy-mm-dd
{dob:<date format>}	Date of Birth in a custom date format; Example: {dob:yyyymmdd} would result in 20101123 yyyy – year in 4 digits yy – year in 2 digits mm – month in 2 digits (proceeding zero for < 10) m – month in 1 digit (no proceeding zero) dd – day in 2 digits (proceeding zero for < 10) d – day in 1 digit (no proceeding zero) separator characters such as – or / can be used; dd/mm/yyyy
{nsn} **Student only*	NZ Student NSN
{staffcode} **Staff only*	SMS Staff code, generally 2-3 character designation (NZ)
{title} **Staff only*	Staff Title (Mr, Mrs, Ms, etc..)
{position} **Staff only*	Staff members Position (SMS data dependant)
{timestamp}	Current date and time in format: "dd/mm/yyyy hh:mm:ss"
{timestamp-iso}	Current date and time in ISO 8601 format
{currentdate}	Current date in format: "dd/mm/yyyy"
{currentdate-iso}	Current date in ISO format: "yyyy-mm-dd"

Leavers Email	
{daysleft}	Number of days left to expiry date
{daysgone}	Number of days since leaving date
{expirydate}	Account expiry date, calculated based on leaving date and Leaver Grace Period setting.
{leavingdate}	Leaving date of user as set in KAMAR.
MLEP	
{mlepDOB}	DOB date in format for mlep Attribute “yyyy-mm-dd”
{mlepFirstAttending}	Start date in format for mlep Attribute “yyyy-mm-dd”
{mlepLastAttendance}	Leaving date in format for mlep Attribute “yyyy-mm-dd”
KAMAR Specific	
{kamar.classification} **Staff only*	Staff Member Classification
{kamar.photocopierid}	Photocopier ID
{kamar.regnumber} **Staff only*	Registration Number
{kamar.moenumber} **Staff only*	MoE Number
{kamar.custom1}, {kamar.custom2},…5	KAMAR Custom field (staff and student)
{kamar.type} **groups only*	
{kamar.year} **groups only*	
Clear Attribute	
<blank>	To clear an AD attribute, use this option. This should be used with a single sync to clear out an attribute if no longer used. Once the attribute for the users has been cleared, the attribute entry can be removed from the config.

Options Array Merge field

To change the merge field or text based on a students year you can use an options array merge field.

Example: {{default:Student|6:<blank>|7:put text here|8:put text here|13:{tutor}}}

The array starts and ends with two curly braces and is segmented using the pipe character.
The first option must be set as ‘default’, this is a fallback for any non-matching year levels.
Each item starts with the year number and is separated by a colon with the desired text last.
You can place text or a merge field in the resulting data to be set.
The <blank> option can be used to clear the AD attribute.

Configuring KAMAR Directory Service for uSync

From KAMAR go to Setup > Server > Directory Services.

Click ‘New Service’ then ‘Create’.

Enter a name for the service e.g. ‘uSync’.

For the address, enter the FQDN (fully qualified Domain Name or IP address) of the server where uSync is installed followed by /kamar. E.g. server.school.nz/kamar

*NOTE: If you are on Hosted Kamar, you will need to get N4L or whomever looks after your firewall to give you your public address and allow a rule for the port to be forwarded to your local AD server. This rule should be locked down to only allow traffic from Kamar’s servers.

Enter the port chosen, default is 5005.

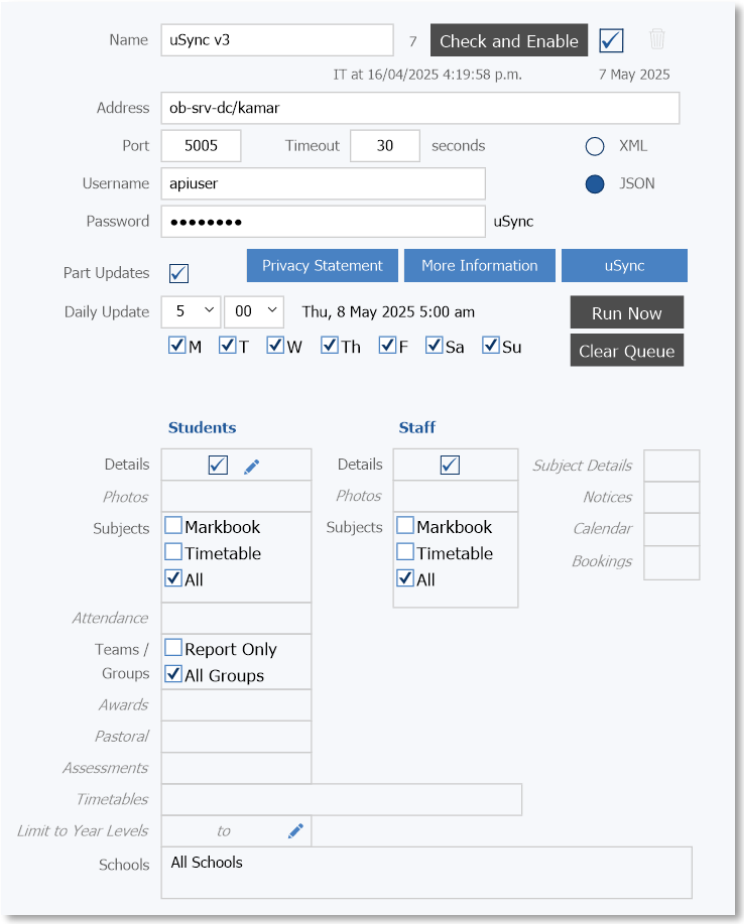
If not using a proxy server, check ‘Bypass Proxy’.

Enter the Username and Password configured earlier.

Make sure ‘JSON’ is selected.

Click ‘Check and Enable’, you should receive a status ready confirmation.

If you do not, double check your settings, make sure the uSync service is running on the server.



Select ‘Part Updates’ if you wish uSync to process Part updates. i.e. Password changes.

Part updates are generally triggered for an individual when certain fields update such as username, password, leaving date, etc..

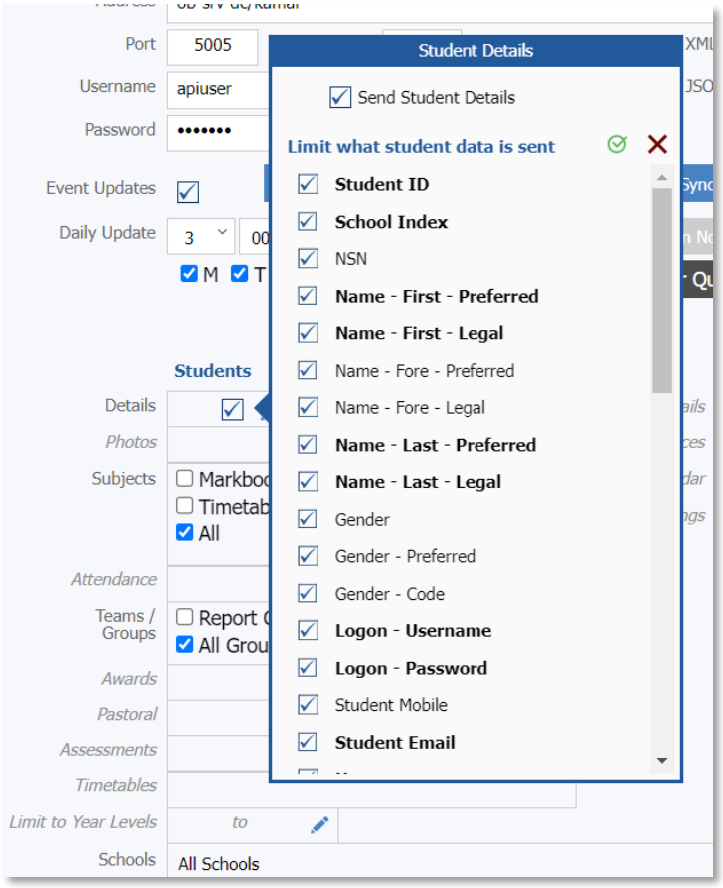
Select the time and days you want uSync to receive Full updates from KAMAR.

Full updates contain all data configured below.

For uSync to work effectively, all options available need to be selected.

For both Students and Staff, click the details check box to bring up the field options.

Click the little green tick icon to select all fields.

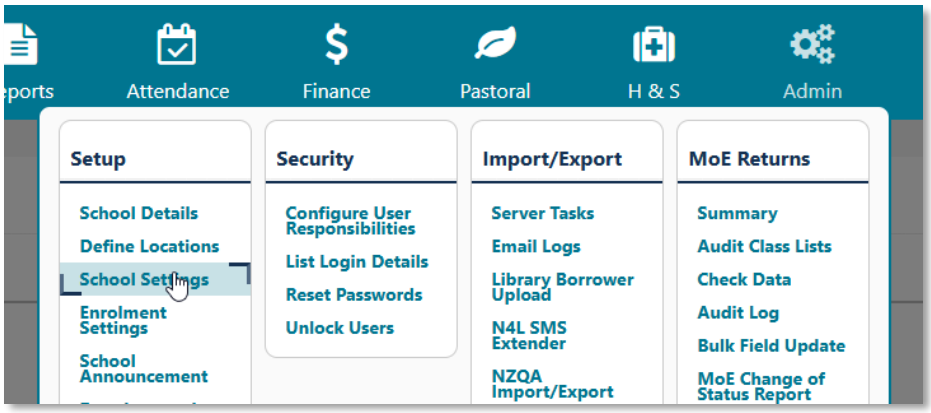


With everything ready to go and uSync in Audit Mode (please check), click the ‘Run Now’ button to initiate a full sync. Keep an eye on the Logs folder, after a few minutes you should see a new Full sync log and the size should grow as uSync processes the data.

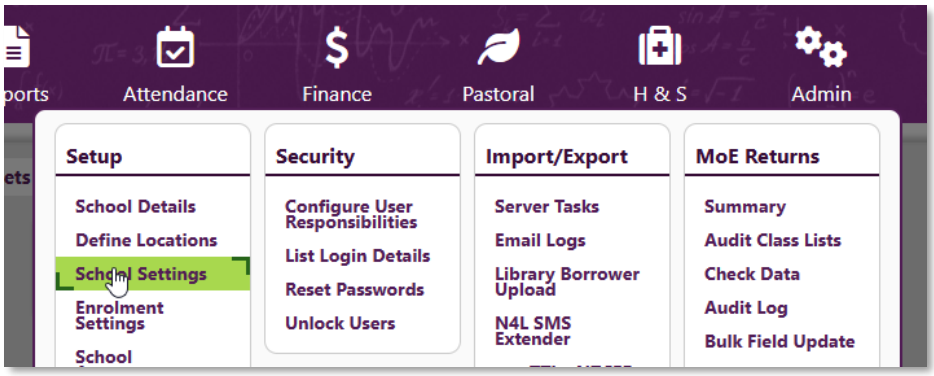
Configuring Helix / Edge for uSync

In Helix / Edge, go to Admin > Setup > School Settings. Under External Providers, tick uSync to allow uSync to access your school's data.

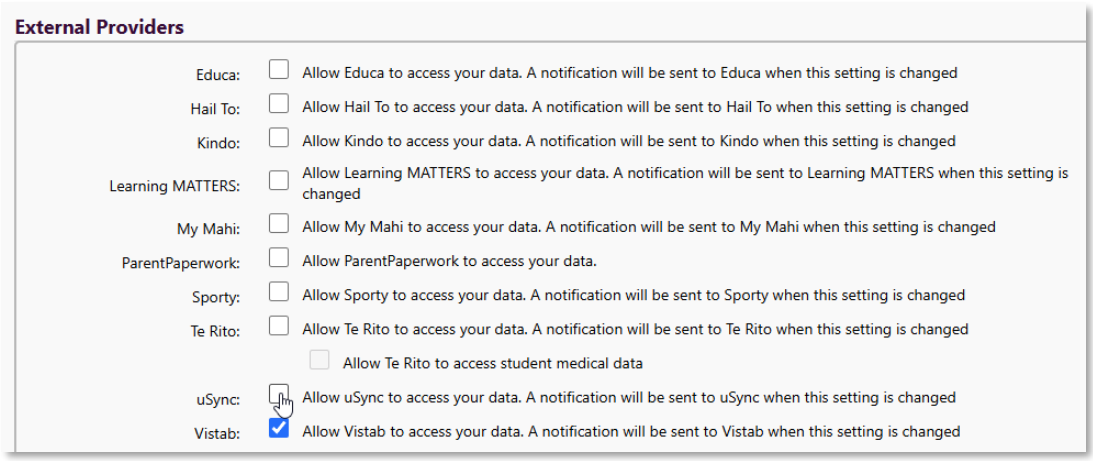
Helix interface



Edge interface



External Providers



Help and Support

As uSync is Developed by a full-time school IT administrator, support is limited to email, though, when necessary, phone conversations and or online sessions can be had.

Also, if you have a feature request, fire it through, always happy to discuss enhancements to uSync.

Email: support@usync.nz

Thank you for choosing uSync.

Appendix

LDAP MaxPageSize

By default, the LDAP search results are limited to 1000 by the MaxPageSize setting. If your school has over 1000 students, this could cause issues with the running of uSync.

It is recommended to increase this value, use these instructions below to check and update the setting.

1. Open the Command Prompt on your domain controller, logged in as domain administrator.
2. Type **NTDSUTIL** and press ENTER.
3. In the ntdsutil: prompt, type **ldap policies**
4. In the ldap policy: prompt, type **connections**
5. In the server connections: prompt, type **connect to server <FQDN of domain controller>**
6. Once you are connected, type **q** to come back to the ldap policy: prompt.
7. If you type **show values**, you can see the current value for the administration limits, including the MaxPageSize limit.
8. To change the value to allow up to 10,000 objects to be returned in a single LDAP query, type **set MaxPageSize to 10000**
9. You can view your changes by typing **show values**. Note that the new values appear in brackets because you have not yet committed your changes.
10. To commit changes type **commit changes**