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# Advanced Settings

## User Idle Timeout

Set the amount of time in minutes, after which, if no update is received for this user, it will be considered offline and the session will close. This number should be at least 2 minutes higher than the interim-update amount in your NAS. For example, if the interim update (accounting interval) was 1 minute in your NAS, then you should set the User Idle Timeout to 2 or 4 minutes.

Note that when SAS closes the session, and the user is actually online in your NAS, it will not be disconnected. However, if any new accounting-update packet is received from NAS for the same session id, then SAS will reopen the same session instead of creating a new one.

*default: 4 minutes*

## Mikrotik Interim Update

(Mikrotik Only) This will set the interim-update time in Mikrotik. If you have already set the value in your Mikrotik, then it will ignore this option. This value represents the time interval in which Mikrotik sends accounting-update packets to the RADIUS server. For stable wired networks (FTTH/DSL) we recommend 2~4 minutes. For WISP, a 1 minute is recommended. The lower this number is, the higher the load will be put on the server.

*default: 1 minute*

## Remote Control Method

Set the method in which SAS opens the tunnel for remote access. Remote access sometimes is needed so support personnel from Snono Systems can log in to the server from behind firewalls to provide the needed technical support. We recommend setting this option to SSH as it is more robust nowadays.

*default: SSH*

## Lock Prepaid Cards To Owner

When enabled, prepaid cards generated from SAS will work only if the owner of the user (parent manager) is the same as the owner of the used card.

*default: enabled*

## Disconnect On Activation

When enabled, SAS will disconnect the user session on service activation. We recommend always enabling this feature so users get their new attributes on service activation.

*default: enabled*

## Disconnect On Update

When enabled, SAS will disconnect the user session on any update operation made on the user, such as changing profile, password, name...etc

*default: enabled*

## Lock user MAC on Login

If enabled, the MAC login option will be set automatically for the user on dial-up. This might not work well with hotspots and modern phones if they have a random mac address feature enabled by default.

*default: disabled*

## Reset User Traffic On Profile Change

This will ignore any remaining traffic in the user balance on activation. It will also reset it if the user has a negative data balance.

*default: disabled*

## Radius Username Case Sensitivity

Determine if users can log in with usernames that ignore case sensitivity. If this feature is turned on, users must enter their username in the exact case as registered in the SAS database.

*default: enabled*

## Accept Invalid Users

Allows invalid users trying to dial into the system to log in and go online. SAS will map the invalid logged-in user into an existing user which you chose. The mapped user should have enough simultaneous sessions to allow login for as many users as possible. This feature is useful for emergency cases where you want to allow any user to get connected, such as when losing the database and installing a fresh new system.

*default: disabled*

## Limit User Activation via Reward Points/Month (times)

Some ISPs prefer to limit the number of times a user can be activated via reward points per month. A value of 0 means an unlimited number.

*default: 0*

## Add Random Delay to User Authentication

This will add a random delay of 1~2 second for each dial-up request. It is a trick to prevent cheating on the system by some clients trying to log in multiple times using the same username. Usually, Freeradius will not catch users doing such a trick if they were fast enough, however, adding random delay will solve this issue without much of a delay to the actual process. Enable it only if you see multiple users online using the same account.

*default: disabled*

## Manager Session Time

Set the number of hours for manager sessions in the admin portal.

*default: 1 hour*

## Webhook Notifications

When enabled, SAS will send all system events happening in the admin portal to a URL of your choice. The provided URL shall receive HTTP POST with a JSON object holding the event data. This feature is very useful for integrating SAS with 3rd party systems such as ERP or accounting systems.

*default: disabled*

## RouteGuard

This is very similar to Webhook, but this will send the event data before it happens in the backend. This feature is for very advanced system administrators. When enabled, you get to choose the URL to post your data to. The URL will receive the event data from the user interface before it reaches the backend.

default disabled



# Backup Settings

## Backup Disk

Select the disk intended for regular backups. This disk should not be the same as the system disk. It has to be a dedicated device.

## Disk Partition

Select which partition to be used for backup. If no partitions appear here, then try to format the disk using the 'Initialize Disk' button. Don't worry as this button will not allow you to select the system disk.

## Daily Backups

When enabled, SAS will generate daily backups at the time specified in the time select input underneath this switch.

*default: On*

## Include Session Records

Includes the user sessions in the backup files. This will add the 'radacct' table to the backup files, which is not required unless you need them for some reason. Enabling this will make the backup files oversized and takes longer to complete.

*default: Off*

## Upload to Google Drive

Uploads the generated backup files to Google Drive. This feature requires the system administrator to link their Google Drive account to the SAS server by accessing the SAS Google Drive Settings from the top of the page.

*default: Off*

## Auto Delete Old Backups

Deletes backup files older than the selected period.

*default: Never*



# Email Settings

## Sender Email

This will set the 'From' address of your emails sent to the clients.

# Email Templates

# Free Zone

# Forms

# General Settings

## Default Logo

Here you can upload a logo for your SAS login page. The recommended image type is a transparent PNG file.

## Show Site Logo

Shows or hides your logo on the login page. Some ISPs prefer to hide it for commercial reasons

*Default: Off*

## Base Currency

Sets the base currency for the system. SAS supports a single currency for all transactions.

## Default Language

Sets the default language for the web interface.

*Default: English*

## Timezone

Setting a correct timezone for your system is very important. Changing this option requires server reboot.

## Footer Text

This option is available only for the 'Unlimited' license. It allows you to set the text in the portal footer, overriding the default copyright text.

## Google Maps Key

To use Google Maps in SAS Radius you must provide your own API key which can be obtained for free from Google Developer Console. For more information, use the following link:

<https://developers.google.com/maps/documentation/embed/get-api-key>

## Main Menu Logo

Here you can change the logo in the main menu for the admin portal.

## Block manager login for 1 minute after login fails

Set the number of manager login errors after which the manager will be denied for logging in for 1 minute. This helps block brute force attacks for guessing a manager's password.

*default: None*

## Site Status

If set to 'Offline', the portal will not allow managers to log in, except for the 'admin' manager. It has nothing to do with the dial-up process.

*default: Online*

## Enforce Manager Password Strength

Enforce password strength for the managers. Settings this to 'High' will not allow managers to set weak passwords.

*Default: Medium*



# License

This page shows information about the server license.

## License ID

Your server license ID, please memorize or save it somewhere. It is needed when requesting support.

## Hardware ID

A unique server ID, you need this to register your license on our client area

## Expiration

Your license expiration date, after which your server will stop working.

## Max Users

The maximum number of users your license can handle. This number includes all kind of user status, such as active, expired...etc

## About SAS4 License

A license is necessary for SAS4 to work. If you don't see a license ID (N/A) then usually this means your SAS server could not reach our license server. SAS checks for license every 24 hours. If it fails to check it at least once in 24 hours, then your server will go into INACTIVE state, in which it will not accept RADIUS requests and the web portal will show only basic pages for Network settings & Dashboard.

Please make sure your server always has proper internet connection and your DNS is correctly configured to avoid service disruption.



# Network

# Notification

## User Notifications:

### Email Notifications

Email Notifications include User Activation, Registration, Expiration Warning, and Termination templates for user communication.

### Notify via SMS on activation

Send SMS to confirm service activation, provide immediate feedback.

### Notify via SMS on expiration

Send SMS alerts regarding subscription/account expiration to prompt timely renewal or action, with the option to send them up to 4 days before the expiration date.

### Notify via Email on expiration

Similar to SMS, email notifications offer detailed info and instructions for expiration events, with the option to send them up to 4 days before the expiration date.

## Manager Notifications:

### Show dashboard notification

Utilize dashboard notifications for user updates, alerts, and essential information, with the ability to customize type and text for effective communication.

### Show Login Page Message

Present messages or information on the login page to communicate essential details or instructions, you also specify what message you want to display.

### Show Welcome Screen On Login

Display a welcoming screen when users log in to provide a friendly and informative experience.

# User FUP Notification:

## Notify via SMS

Send customizable messages or updates to users via SMS for immediate communication.

## Notify via Email

Use email to inform users about events, updates, or important information.

## Show Notification on FUP

Send customizable messages to users via SMS when users reach their Fair Usage Policy (FUP) limits, providing awareness and guidance.

# Permission Groups

SAS has a very flexible permissions system allowing admins to create any type of managers. Each manager must belong to a permissions group. Groups can be created from *Settings->Permissions*. To create one, go to Actions and select 'Create', giving it a proper name. Later, select the newly created group from the list. Below the list, there will be two trees, the right one is for the available permissions, and the left one is for the given ones. Select the desired permissions from the right tree and move them to the left tree using the arrows in the middle.

The table below explains the meaning of each permission type:

Regular	Use with Caution	Dangerous
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Category	Name	Description
Users	Activate	Allows user activation via manager
Users	Activate using voucher	Allows manager to activate users using vouchers
Users	Activate using manager balance	Allows manager to activate users using the available manager balance
Users	Activate using user balance	Allows manager to activate a user using the balance available in the user account.
Users	Edit Advanced Fields (dangerous!)	Allows the manager to edit user data such as the expiration, profile. This is dangerous and should not be given to regular managers. Meant to be given only for system administrators.
Users	Purchase Addons	Allows the manager to activate addons for the user. Addons could be things IPTV, VOIP... Addons are creating from the profile page as a special type of profiles.
Users	Cancel Scheduled Profile Change	Allows the manager to cancel a scheduled profile change in the future for a user he owns.

Users	Change Profile	Allows the manager to change service profile for <u>expired</u> users only.
Users	Change Profile of Active Users	Allows the manager to change service profile for activate users. This is not recommended as it is not logical to change the profile for active users only the fly. Usually their should be a procedure for this action, such as canceling the current subscription and refunding the users first.
Users	Create	Allows the manager to create new users
Users	Delete	Allows deleting users.
Users	Deposit Money	Allows the manage to deposit money into user's wallet. The deposited amount will be deducted from the manager's balance.
Users	Disconnect	Allows disconnecting online users.
Users	Show User History	Show users history log. This will list all events and actions made on the selected user.
Users	Index	Lists users belonging to the manager
Users	List All Users	Lists all users in the system regardless of their owner. This is useful for support managers.
Users	List All Group Users	This will let the manager to list all users belonging to the same group of the manager. This is useful to be given for group managers.
Users	Show Users Invoices	Lists all user invoices.
Users	Show Users Journal	List user journal entieres. These entries are the financial transactions made by or on the user.
Users	MAC Lock User	Permits locking the user on a specific Mac address.

Users	Ping	Allows pinging the user via the router. This feature is available for Mikrotik only.
Users	Rename	Allows renaming users.
Users	Reset Daily Quota	Resets the traffic consumed by a user during the day.
Users	Show Sessions	Shows user connection sessions.
Users	Update	Allows updating users.
Users	Withdraw Money	Allows money withdrawal from the user. The deducted amount of money will be transferred to the manager who performed the action.
Users	Export to Excel	Allows exporting users list into Microsoft Excel file.
Users	Extend Service	Allows extending user service via Extension Profiles.
Users	Cancel Subscription	Allows canceling user subscription.
Users	Reward Points System	Enabled the use of reward points by the manager to activate or extend users with loyalty points.
Users	POS	When this permission is given, the manager won't be able to see users list. However, it will be possible to search for users by their exact username or phone. This feature is useful for point of sales booths where the manager shouldn't see all existing users, while still being able to activate users not belonging to him.
Users	Live Traffic Monitor	Allows monitoring user's live traffic via SNMP.
Users	Delete Active Users	Allows deleting activate users. Not recommended for regular managers. Activate users should not be deleted without canceling their subscription.

Users	Show Support Tickets	Shows support tickets submitted by users. This permission should be given to support personnels.
Users	Show Freezones Traffic	Shows freezone traffic data.
Users	Show Password	Shows user's dialup password in the User Overview page.
Users	Edit MAC addresses	Allows editing the list of allowed MAC addresses for the users.
Users	Add Traffic	Allows adding extra traffic for the user. This permission is not recommended for regular managers.
Users	Auto Renew	Sets the auto renew flag for users. Auto renew works only if the user has enough balance to activate his service profile
Users	Compensate	Allows requesting compensation for users. Compensation could be days, hours, traffic. The requested compensation should be approved by a higher manager to be applied.
Users	Approve Compensations	Allows approving reviewing and approving (or rejecting) compensation requests submitted by managers.
Users	Change Parent	Allows changing user's parent.

Managers	Change Self Password	Allows managers to change their passwords
Managers	Create	Allows creating new managers. This should be given to managers who are allowed to create sub managers.
Managers	Delete	Allows deleting managers.
Managers	Deposit Money	Allows adding balance to other managers.
Managers	Index	Lists sub-managers belonging to the logged in manager.
Managers	Index (All Managers)	Lists all system managers. This should not be given to regular managers and meant to be used by HQ personnels.

Managers	Show Invoices	Shows manager invoices.
Managers	Show Journal	Shows manager journal entries.
Managers	Login As (Dangerous!)	Allows the manager to login as another manager without using their passwords ! This is a very dangerous permission and should be used with caution. Meant to be used only by support personnels.
Managers	Show Receipts	Shows manager receipts
Managers	System Administrator	Give the manager a system administrator privileges. Managers with this permission have total control over the system.
Managers	Edit / Update	Allows updating manager's data
Managers	Withdraw Money	Allows deducting money from managers.
Managers	Export to Excel	Allows exporting managers list to a Microsoft Excel file.
Managers	Rename	Allows renaming managers.
Managers	Two Factor Auth (2FA)	Allows the manager to setup two factor authentication for himself. This requires using a 2FA app such a Google Authenticator.
Managers	Lock managers to PPP service	Allows the manager to lock users of sub-managers to specific PPP service. Users locked on PPP service name will not be able to dial-up from different PPP services.

Cards	Change Owner	Changes the owner of card series
Cards	Delete	Deletes card series
Cards	Designer	Allows access to the card design system, enabling the manager to create card templates for PDF download
Cards	Download	Allows downloading cards series, in CSV & PDF formats.
Cards	Generate Refill Cards	Generates refill cards



Cards	Generate Prepaid User Cards	Generates prepaid users cards
Cards	Cancel Generator	Cancels a generator job in progress.
Cards	Series Index	Lists cards series.
Cards	Suspend & Release	Allows manager to suspend or release cards series.
Cards	List PINs	Allows listing all cards of a specific series.
Cards	Verify Cards	Allows managers to verify card status by its PIN or serial number.
Cards	Change Owner (Range)	Allows changing the ownership of a range of cards to a new owner.

Groups	Assign	Allows the manager to assign a user or manager to a group he belongs to
Groups	Create	Allows creating groups
Groups	Delete	Allows delete groups
Groups	Update	Allows updating groups
Groups	Index	Permit listing available groups.

NAS	Index	Shows list of available NASs
NAS	Create	Allows defining new NAS into the system.
NAS	Update	Allows updating existing NASs
NAS	Delete	Allows deleting NASs from the system
NAS	Export	Allows exporting system NASs to external file

Profiles	Index	Allows listing system profiles
Profiles	Create	Allows creating new profiles
Profiles	Delete	Permit deleting existing profiles
Profiles	Update	Update existing profiles

Profiles	Pricing Management	Defines new pricing schema for sub managers
Profiles	Custom Radius Attributes	Allows settings custom RADIUS attributes per profile
Profiles	Policy Manager	Allows managing profiles daily policies

# Payment Gateways

# Postpaid Billing

# Sites

# SMS

## Enable SMS Service

Allow to send SMS service.

## SMS API Url

Use this web address to send SMS requests, and in API requests, replace placeholders like {dst} with the recipient's phone number and {text} with the text message.

## API Method

In the API Method, you can use "POST" to send data and "GET" to retrieve data.

## Activation SMS

A text message sent to subscribers containing renewal information, including service type, expiration, and contact details. In the message, placeholders like {srv} (Service Profile), {exp} (expiration), {username}, {firstname}, and {lastname} should be replaced with specific subscriber information.

## SMS to be sent before expiration

Send customized messages to users prior to their expiration date.

## SMS to be sent after expiration

Send personalized messages to users after their expiration date.

# Sastrack

# Telegram



# User Portal

## Enable User Portal

Enabling the User Portal grants users access for self-service and interaction with the system.

## Self Registration

Allow users to make registrations.

## Self Registered Users Default Profile

After registration, select user default profile.

## Self Registered Users Default Parent

After registration and user default profile , select the parent.

## Permit Password Recovery

Allow password recovery.

## Reject Auto-Activate Cards If User Is Active

Decline auto-activation of cards when a user account is already active.

## In Auto Login mode, ask for password when modifying user data

Its crucial to have it, beacuase otherwise it means anyone can modify the data.

## Background Image

Change the background image of the login page.

Web