

Nile Settings Guide

February 2023

Table of Contents

- Setup Admins..... 3
- Setup a Service Area 3
- Setup DHCP 4
- Setup Authentication..... 4
- Setup Guest Portal..... 5
- How to Setup Segments 5
- How to Setup Wireless/SSID 6
- How to Setup MAB (MAC Authentication Bypass)..... 8
- How to Setup Alerts..... 8

Setup Admins

Overview

Once the user signs up for the Nile service, they will get root user privileges. There is only one root user per enterprise. Once the root user gets access, they can start creating admin access for other users in their company. Currently, there are two types of roles available: **Administrator** and **Monitor**.

Setup Admins

- Login into the Nile Portal and click on the **Settings** tab from the left-hand navigation pane. Click on **Admins**.
 - Click on the “+” sign on the left-hand corner.
 - Now input the email address, full name, country code and phone number of the person.
 - Now, please select the appropriate **group** from the drop-down list. There are two roles available.
 - **Administrator:** This role will have complete **read and write** access to the Nile Portal. Person designated with this role can also create more admins as needed.
 - **Monitor:** This role will have **read-only** access to the Nile portal. Person designed with this role will not be able to change any Settings or create any admins.
 - Now click on **save**. The newly created admin should now get an **email** with the instructions to sign up.

Setup a Service Area

Overview

Service areas are locations where you need Nile connectivity-as-a-service.

Please make sure you have the **exact address** of the location where you want the Nile Service. Nile Service Block elements will be shipped to the address you input in the service area section.

Setup a Service Area

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on **Service Areas**.
- Navigate to DHCP and click on the ‘+’ sign to start adding a site. **Name:** This is where you will define the **site location** where you need the Nile service.
- **Find my address:** This is where Nile will **ship** its network elements. **It is important to input the exact address here for shipping.**
- Click on the newly created service area and start adding all the **buildings** under that service area. Please input information for each of the buildings where you need the Nile service and save it. **Please note:** Sometimes all the buildings won't have a different address so you can simply drop the pin on the map for reference.
- Click on the newly defined building and start adding all the **floors** in that building. Please attach the **floor plans** to each of the floors.

Optional: Once the floor plan has been added, you can also define Wi-Fi zones on the floors if applicable. Wi-Fi zones are custom SSID zones used to service a particular set of clients. For example, you can draw a zone around the cafe if you want a specific wireless service (SSID) in that area.

Setup DHCP

Overview

A DHCP Server is a network server that automatically provides and assigns IP addresses, default gateways and other network parameters to client devices. Currently, Nile does not provide a client DHCP server capability and uses the customer's existing DHCP server to assign the IP addresses to the endpoints. However, you can Setup a DHCP relay agent on the Nile Portal.

Pre-requisite

- Please make sure to have the IP address of all the DHCP servers which you want to use in your enterprise.
- Ensure that there is a bi-directional route from the DHCP server to your core router/firewall which is going to connect to the Nile Service Gateway.

Setup DHCP

- Login to the Nile Portal and click on the **"Settings"** tab from the left side navigation pane. Click on DHCP.
 - **Name:** Please specify the name you would like to use for the **DHCP server**.
 - **Host:** You can specify all the **DHCP server IP addresses** here. If you have multiple DHCP servers, please specify the other IP/FQDN in the subsequent hosts.
 - **Geo Scope:** Select the **sites** where this DHCP server will be used to assign IP address.
 - **Subnet:** These are the subnets from which the IP address will be assigned to the clients at the location selected in the Geo-scope.
 - **Router:** This IP will be consumed by the Nile relay agent when requesting an IP from the DHCP server. **Note:** Please make sure you have setup this IP address as a DHCP option on your DHCP server.

Setup Authentication

Overview

Nile supports RADIUS for authentication. RADIUS (Remote Authentication Dial-In User Service) is a client-server protocol and software that enables remote access servers to communicate with a central server to authenticate dial-in users and authorize their access to the requested system or service.

Prerequisite

- Before you start configuring auth, please make sure you have defined the **service areas**.
- Please make sure to have the IP address of all the RADIUS servers which you want to use in your enterprise.
- Ensure that there is a route from the RADIUS server to your core router/firewall which is going to connect to the Nile Service Gateway.
- Please identify the shared secret which will be Setup on the Nile Portal.

Please Note:

Currently, we only support adding one RADIUS server per site. Also, in your RADIUS server, please add Nile as a NAS IP. Please contact your Nile Solutions Architect for getting the NAS IP.

Setup Authentication

- Login to the Nile Portal and click on the **"Settings"** tab from the left side navigation pane. Click on Authentication.
- Click on the **"+"** sign under the authentication section to Setup the **RADIUS server**.

- o **Name:** Please specify the name you would like to use for the **RADIUS server**.
- o **Port:** Please specify the **port** used by the RADIUS server.
- o **Geo Scope:** You can select all the **locations** which will use this RADIUS server to authenticate the clients.
- o **Host:** Please specify the IP address of the **primary RADIUS server** under host 1. Host1 is used as the primary RADIUS server. Host2 and later are used as secondary RADIUS servers. They failover in the event if the primary RADIUS server is unreachable.
- o Shared secret: Please enter the **secret key** here.
- o **Guest Portal URL (Optional):** This is the static URL you can input for a RADIUS server. If you don't input the URL here, we will use the dynamic URL which we get from the RADIUS server.

Setup Guest Portal

Overview

Nile supports two types of guest portals. Terms and Conditions (TNC) and Email Approval.

Click Through: This will be used when you want to create an open SSID Captive Portal for guest users but want them to accept your company terms and conditions before they can access the guest network.

Email Approval: In the email approval guest portal, the guest user must input the email address of the person whom they are visiting and then the employee will receive an email to approve or deny the user to access the guest network.

Prerequisite

Before you start configuring these sections, make sure you have your company terms and conditions policies ready as it will vary according to your company cyber rules. We do have the default terms and condition policies defined which you can use as well.

Setup Guest Portal:

- Login to the Nile Portal and click on the **"Settings"** tab from the left side navigation pane. Click on **Authentication:**
- Click on the **"+"** sign under the **Guest Portal** tab.
 - o Select "Nile Guest" option and select the "click through" or the "Email Approval Option" option from the drop down.
 - o Select the right Geo-scope and click save.

How to Setup Segments

Overview

Segments are like profiles in which you can define each set of users (e.g. Corporate, guest etc.) in your enterprise. Consider one segment as one VLAN in the traditional networking terms and it includes all your wired and wireless devices. One segment can span across multiple or all of your locations.

Prerequisite

- Before you start configuring segments, please make sure you have Setup the below parameters.
- **Please note:** If you are configuring a segment for an Open, WPA2 Personal or WPA3 Personal wireless SSID, you can **skip** the **Authentication** section from the below prerequisites. You can leave the RADIUS option as blank in the next steps.

- Service Areas
- DHCP
- Authentication

Setup Segments

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on Segments.
 - **General Info:** Please **name** the segment you would like to create.
 - **Optional:** Mark the “guest segment” checkbox only if you are configuring a segment for the external Captive Portal or SSO and want to input the DNS allow list.
 - Navigate to the Service Area and click on **select service area**.
 - Choose the sites you want to assign this segment to. You can either select all the sites or select a few **sites/zones** to assign from the options.
 - **Authentication:** Please **select** the appropriate options here: RADIUS server, TNC, or Sponsored Email. TNC and Sponsored Email option will be shown only after you Setup the “**Guest Portal**” under the authentication section.
 - **DHCP:** Please **select** the DHCP server that you want to use for each of the locations.
 - **Subnets:** When you click on the drop-down menu, all the subnets Setup in the DHCP server will be displayed. Select all the subnets that will be used in this segment.

How to Setup Wireless/SSID

Overview

In this section, you will create different SSIDs for the users (e.g. Corporate, guest etc.) at all the locations.

How to Setup WPA2 and WPA3 Enterprise SSID

Prerequisite

- Before you Setup WPA2 or WPA3 Enterprise, please make sure you have Setup the following:
 - Service Area
 - DHCP
 - Authentication
 - Segments

Settings

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on **Wireless + Sign Select “Enterprise”**.
 - **Name:** Please name the **SSID name** you would like to create.
 - **Security:** Please select the **WPA2 Enterprise or WPA3 Enterprise** option from the list below.
 - **Segments:** If you had Setup RADIUS Authentication for a particular segment, that segment will be displayed under the drop-down menu. Please select the appropriate segment for the above SSID and save changes. **Note:** Segments that don’t have RADIUS server Setup, will not be displayed in the drop-down menu.

How to Setup a WPA2 and WPA3 Personal SSID

Prerequisite

- Before you Setup Wireless, please make sure you have Setup the following:
 - Service Area
 - DHCP
 - Guest Portal

Settings

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on **Wireless + Sign Select “Personal”**.
 - **Name:** Please name the **SSID name** you would like to create.
 - **Security:** Please select the **WPA2 or WPA3 Personal** option.
 - **Passkey:** Please enter the **passkey** for the SSID.
 - **Segments:** Please select the appropriate segment for the above SSID and save changes.

How To Setup a Captive Portal SSID (Click Through or Email Approval)

Prerequisite

- Before you Setup Wireless, please make sure you have setup the following:
 - Service Area
 - DHCP
 - Guest Portal
 - Segments

Settings

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on **Wireless + Sign Select “Enterprise”**.
 - **Name:** Please name the **SSID name** you would like to create.
 - **Security:** Please select the **Open or Enhanced Open** option
 - **Segments:** Please select the appropriate segment (TNC or Email Approval Setup) for the above SSID and save changes

How to Setup a PSK SSO SSID

Prerequisite

- Before you Setup Wireless, please make sure you have the setup the following:
 - Service Area
 - DHCP
 - Segments
 - Identity – IDP Federation

Settings

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on **Wireless + Sign Select “Personal”**.
 - **Name:** Please name the **SSID name** you would like to create.
 - **Security:** Please select the **WPA2 or WPA3 Personal** option.
 - **Passkey:** Please enter the **passkey** for the SSID.
 - Please enable the “**enable SSO**” option.
 - **Segments:** Please select the appropriate segment for the above SSID and save changes.

How to Setup Your Own Hosted Captive Portal

Prerequisite

- Before you Setup Wireless, please make sure you have setup the following:

- o Service Area
 - o DHCP
 - o Authentication
 - o Segments
- Please make sure you have setup a splash page with your vendor and setup the redirect URL in the authentication section.

Settings

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on Wireless.
 - o **Name:** Please name the **SSID name** you would like to create.
 - o **Security:** Please select the **Captive Portal** option.
 - o **Segments:** Please select the appropriate segment which is Setup for captive portal and save changes.

How to Setup MAB (MAC Authentication Bypass)

Overview

MAB is used for endpoints such as printers, phones, sensors, cameras etc., which are wired devices connected to the Access Switch and do not require 802.1x authentication. In this case, the MAC address of the endpoint is used to authenticate.

There are **four different ways** to **Setup MAB** on the Nile Portal.

1. If you already have any **wired devices** connected to the Nile Access Switches, it will show up on the MAB page. You can then click on the checkbox to select those devices and approve/deny/delete as needed.
2. You can also input the **OUI** of the devices to approve or deny it. Click on “OUI” from the right-hand side upper corner and add the OUI->select segment->approve or deny the devices.
3. You can also approve or deny all devices in a particular segment by clicking on “All” from the right-hand side upper corner. However, Nile **does not recommend** using this method as this can pose a security risk.
4. You can also upload a CSV file if you want to specify rules for multiple devices. Click on “Upload CSV” from the left-hand side upper corner and download the sample csv file. Once you have created your own file, please click on “select csv file” and upload your file.

How to Setup Alerts

Overview

Nile Portal sends email alerts on four different incident types: SLA, Infrastructure, Applications, Security.

Setup Alerts

- Login to the Nile Portal and click on the “**Settings**” tab from the left side navigation pane. Click on Global Settings -> Subscriptions.
- You will see four options: SLA, Infrastructure, Application, and Security. Please select the checkbox under the email column to get alerts for each of the specific incident types and save changes. **Please Note:** When an admin follows the above steps, it enables alerts only for that user and not for every admin. Every admin needs to login into the Nile portal to enable email alerts for themselves.