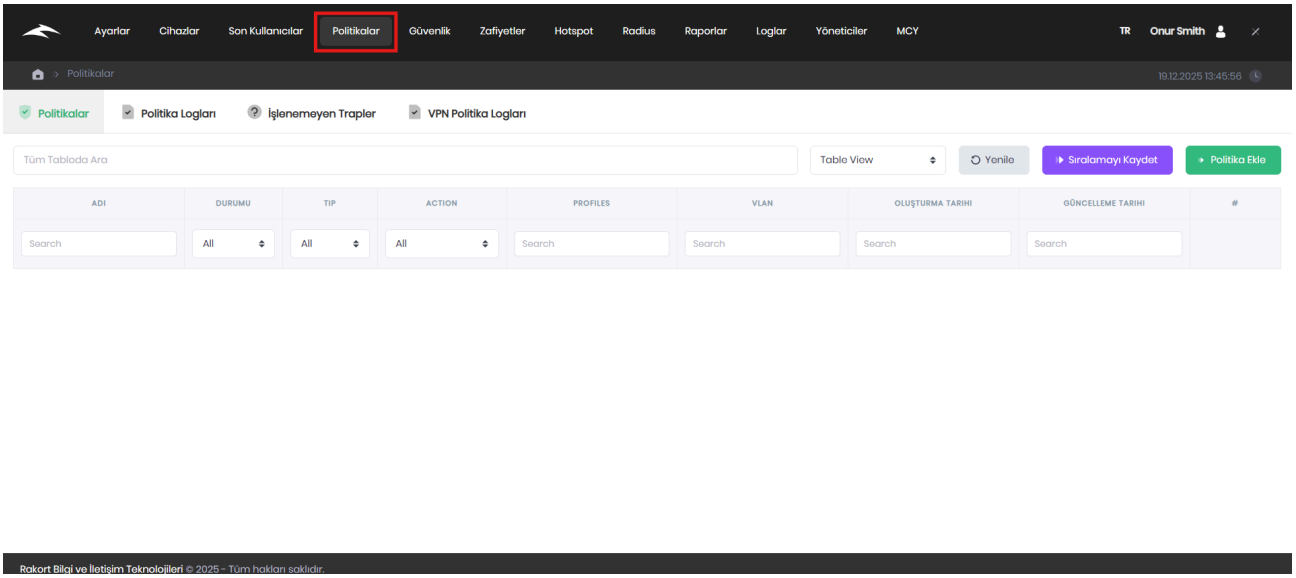
FastNAC

POLICIES

Contents;

1.1) Getting Started

Actions to be taken regarding devices connected to the network are decided through the " **Policies** " section in the main menu.



On FastNAC, policies are checked starting from the top, just like a firewall rule, and when a device hits a policy, other policies under that policy are not checked. You can change the policy order by dragging and dropping within the table on the " **Policies** " page.

1.2) Adding Policies

Add Policy " button located in the " **Policies** " list . In the window that opens;

Name: A name to be given to politics

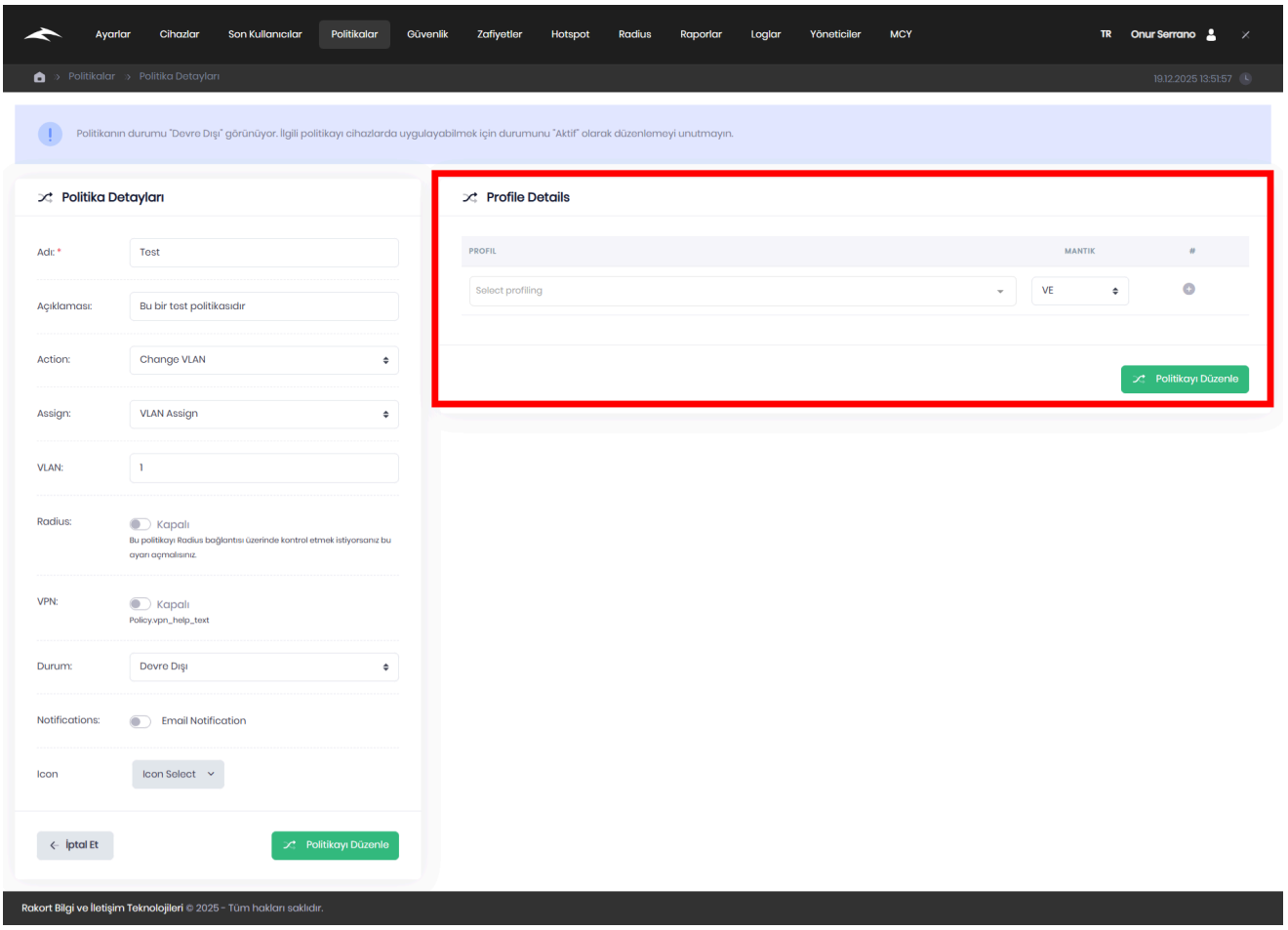
Explanation: A statement to be given regarding policy (Optional)

You can create a new policy by filling in the fields. Once the policy is created, you will be redirected directly to the policy details page.

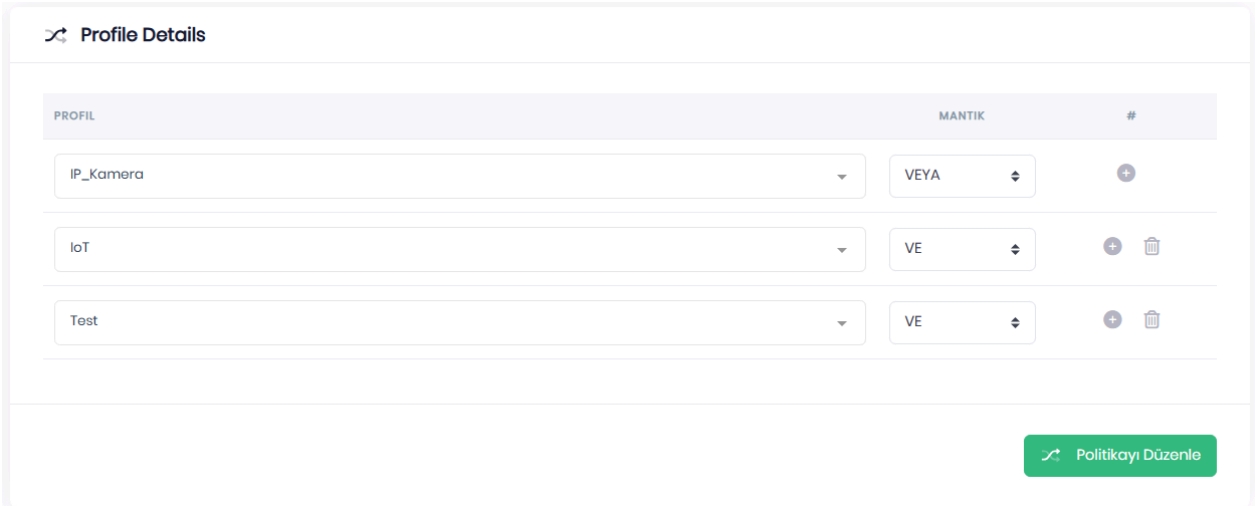
1.3) Policy Details Page

1.3.1) Adding a Profile

On the right side of the policy details page, you can find the " **Profile " section.** The profiles created can be linked to the relevant policy from the **"Details** " section.



Here, you can link the created profiles using "AND - OR" logic, and use as many profiles as you want in a single policy. By clicking on the icon in the profiles tab you can add a second profile to the policy and define the logical connection (AND - OR) between the two profiles.



, we stated that the device must match the " **IP_Camera** " or " **IoT** " and " **Test " profiles. Logically, this can be interpreted as: [IP_Camera** or **IoT** (if it matches one of them)] and [**Test**] profiles.

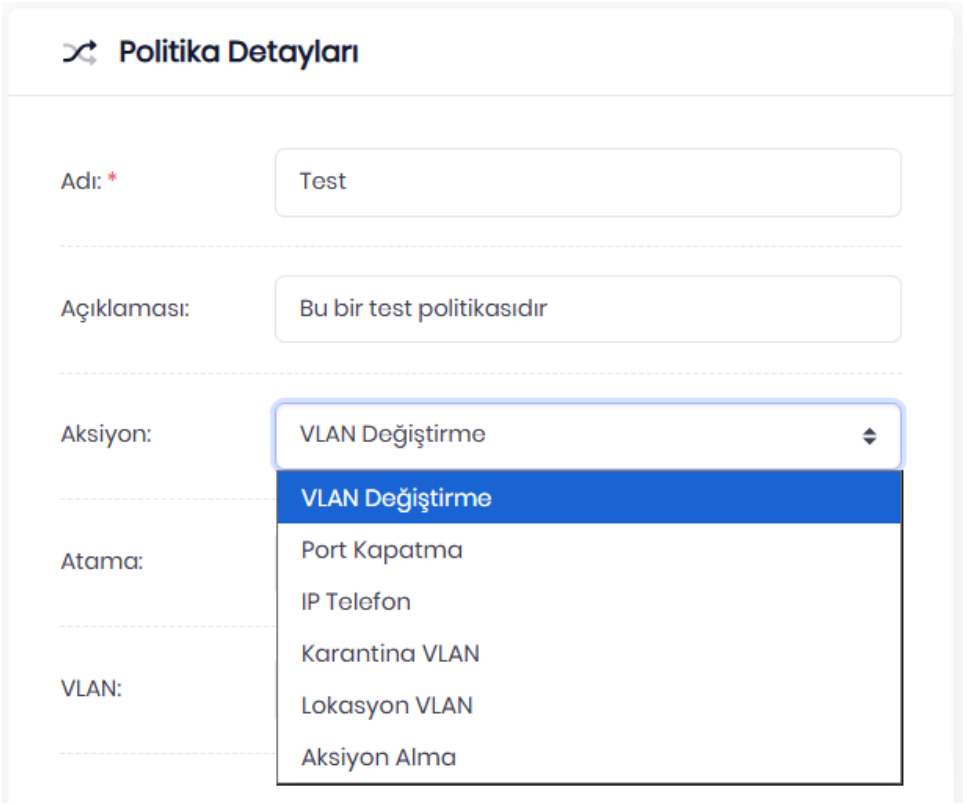
Note: The profile area changes in some action types. The changing parts will be shown when describing the action types.

1.3.2) Basic Information

You can edit the policy name and description in the upper left corner of the policy details page;

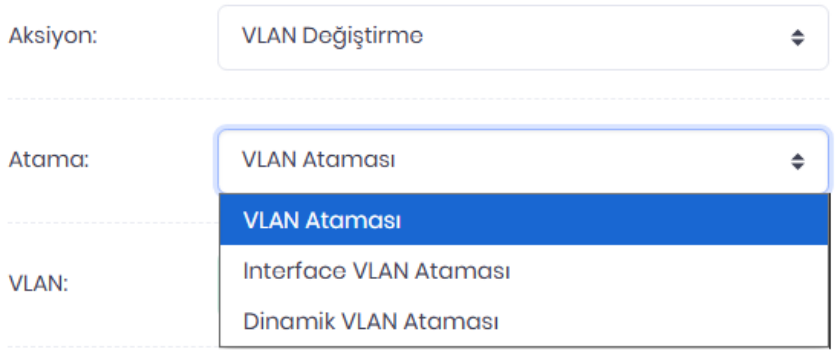
1.3.3) Types of Actions

From the Actions section on the left side of the policy details page, you can select which action to take for devices connected to the selected profiles;



1.3.3.1) VLAN Modification

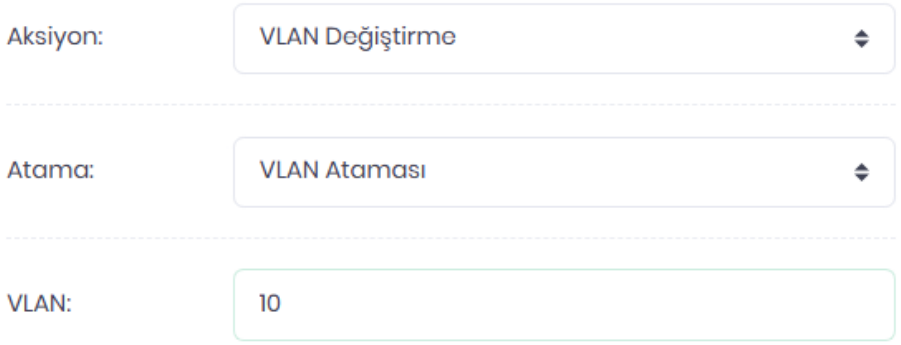
, you must select the " **Change VLAN " action type** in this section .



There are 3 different assignment types in the VLAN modification action. These are;

1.3.3.1.1) VLAN Assignment

When "VLAN Assignment" is selected as the assignment method;



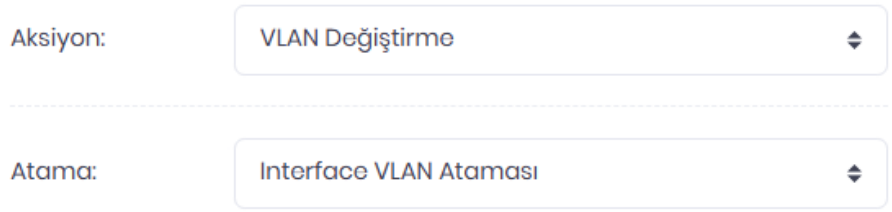
In the “VLAN” input section located directly below the assignment section, you can enter the VLAN number to which the device connected to the relevant profiles will be assigned.

Profile We will use the profiles we created under the " **Adding** " heading as examples. If the device connected to the network;

[**IP_Camera** or **IoT** (if it fits either)] and [**Test**], we can interpret the action type above as assigning the device to **VLAN 10 .**

1.3.3.1.2) Interface VLAN Assignment

When "Interface VLAN Assignment" is selected as the assignment method;



The “VLAN” input under the assignment section is disabled. This means that;

When the switch is added to FastNAC, the existing VLAN numbers of the ports are recorded in the database (Interface VLAN). If "Interface VLAN Assignment" is selected as the assignment, the switch will remain assigned to the current VLAN number of the port (i.e., whatever the Interface VLAN is).

Let's explain with an example;

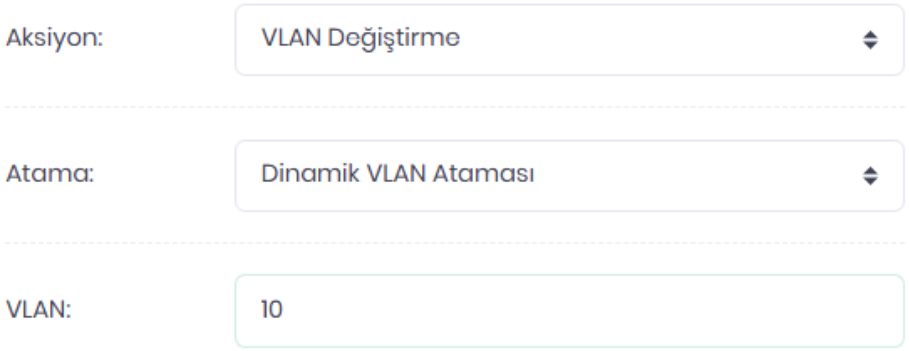
First, let's assume the VLAN number of port 5 of the switch with IP address 192.168.1.10 is 20. When we add this switch to FastNAC, we register the Interface VLAN of port 5 as 20 in the database. Then, in the " **Profile" section ...** We will use the profiles we created under the " **Adding** " heading as examples. If the device connected to the network;

[**IP_Camera** or **IoT** (if it matches either)] and [**Test**], the action type “Interface VLAN Assignment” can be interpreted as leaving the device in VLAN 20.

Note: Interface VLAN definitions can be changed from the switch details page. You can find the details in the switch_details.docx documentation.

1.3.3.1.3) Dynamic VLAN Assignment

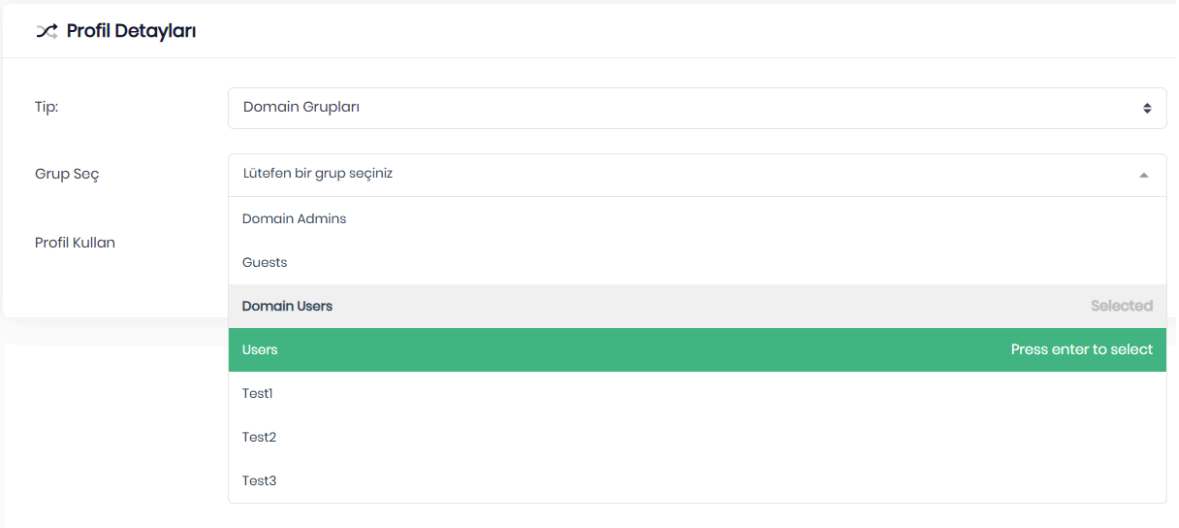
Dynamic VLAN assignment is used to assign VLANs based on Organizational Units (OUs) within a domain or groups of domain users (members).



When this assignment type is selected, the " **Profile " icon on the right side can be found. The "Details** " section is changing. The assigned OU or domain group is selected from this section.

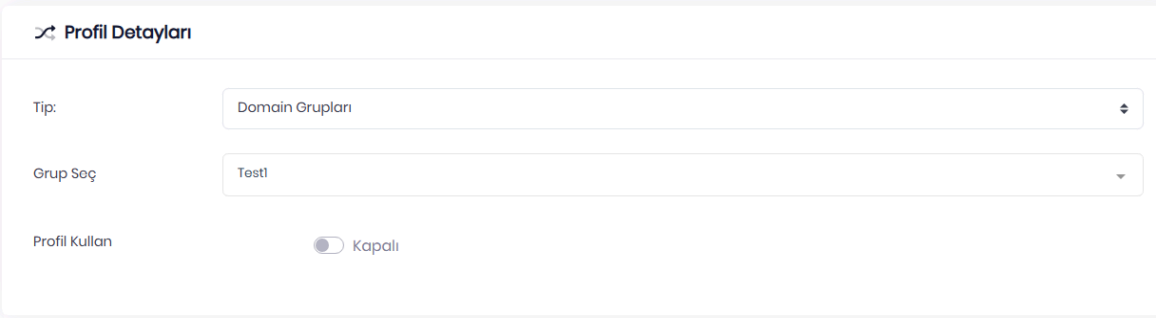
1.3.3.1.3.1) Assignment by Domain Groups

When "Domain Groups" is selected as the type,

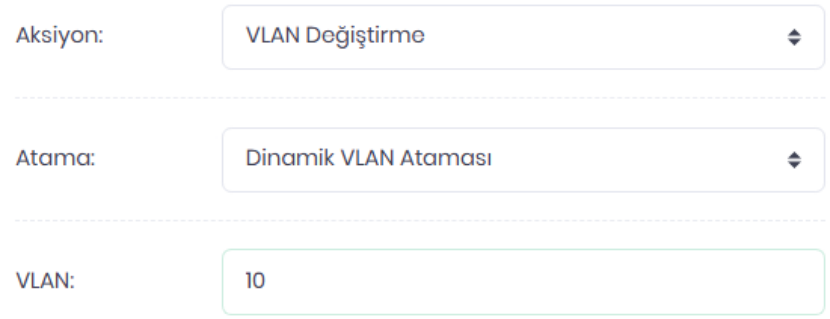


When the “Select Group” input is opened, a list of user groups available on the domain is displayed. The user must select the desired group from the relevant screen.

For illustrative purposes, we'll select the " **Test1** " user group;



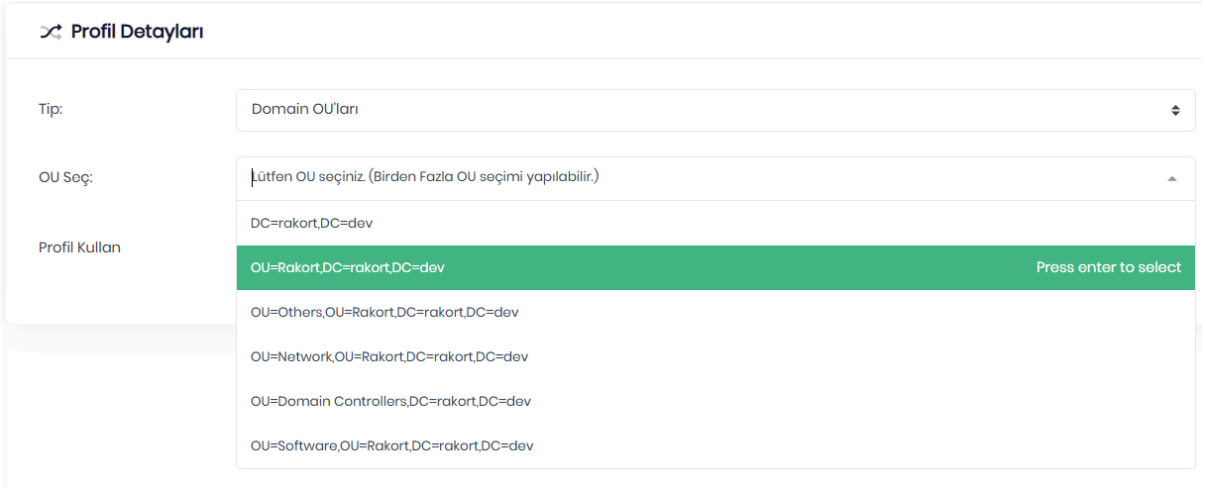
In the assignment section on the left side of the screen, the VLAN input located under the "Dynamic VLAN Assignment" option represents the VLAN to which the users in the Test1 group will be assigned.



In summary, users within the Test1 domain user group will be moved to VLAN 10 when they try to connect through any switch on the network.

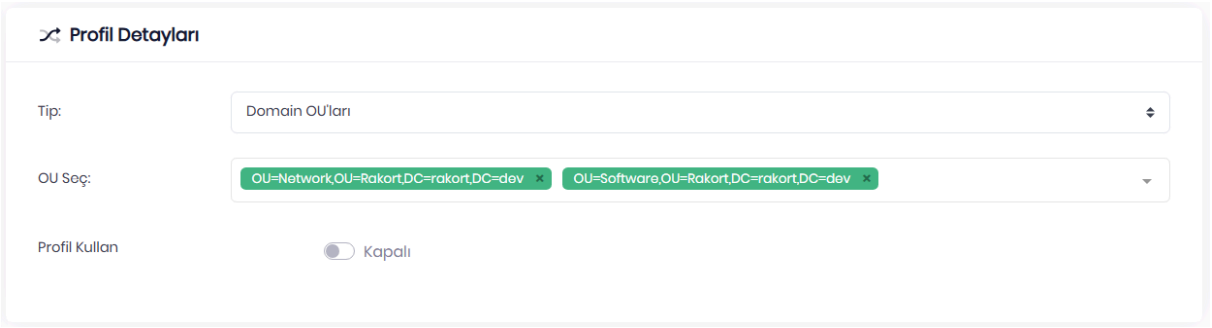
1.3.3.1.3.2) Assignment according to Domain OUs

When "Domain OUs" is selected as the type,

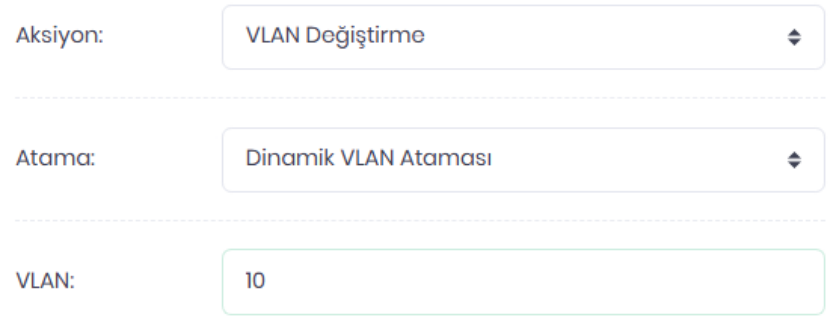


When you open the “Select OU” input, a list of OUs available on the domain is displayed. The OU to which you want to assign a OU must be selected from the relevant screen. Multiple OUs can be selected here.

For example, we select the OUs “ **OU=Network,OU=Rakort,DC=rakort,DC=dev** ” and “ **OU=Software,OU=Rakort,DC=rakort,DC=dev** ”;



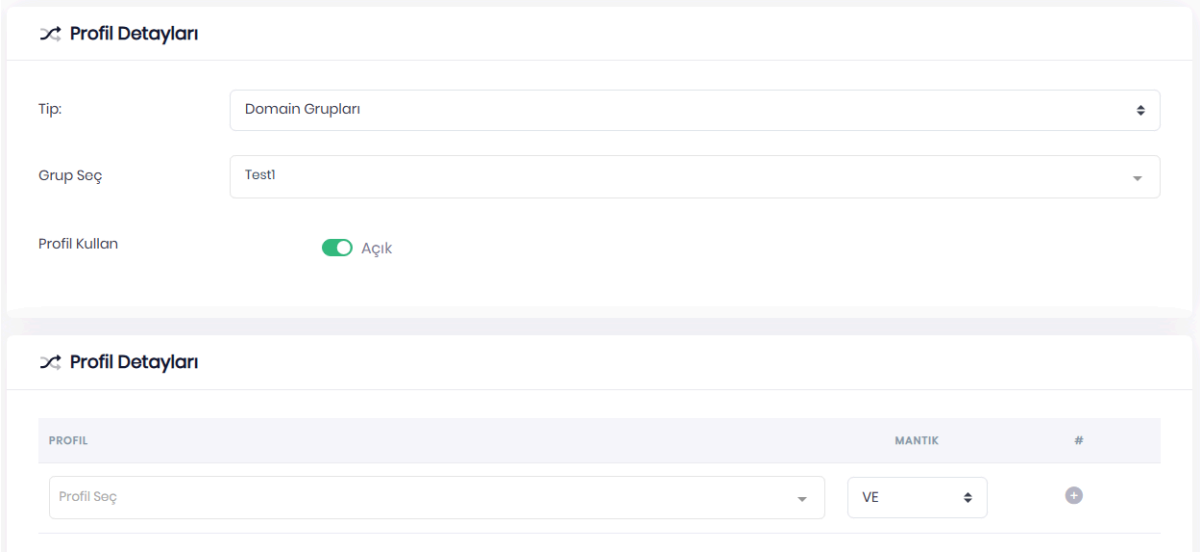
In the assignment section on the left side of the screen, the VLAN input located under the "Dynamic VLAN Assignment" option represents the VLAN to which the selected OUs will be assigned.



In summary, if a domain user is within the OU " **OU=Network,OU=Rakort,DC=rakort,DC=dev** " or " **OU=Software,OU=Rakort,DC=rakort,DC=dev** ", it can be interpreted that when they try to connect through any switch on the network, they will be moved to VLAN 10.

1.3.3.1.3.3) Using Dynamic VLANs and Profiles

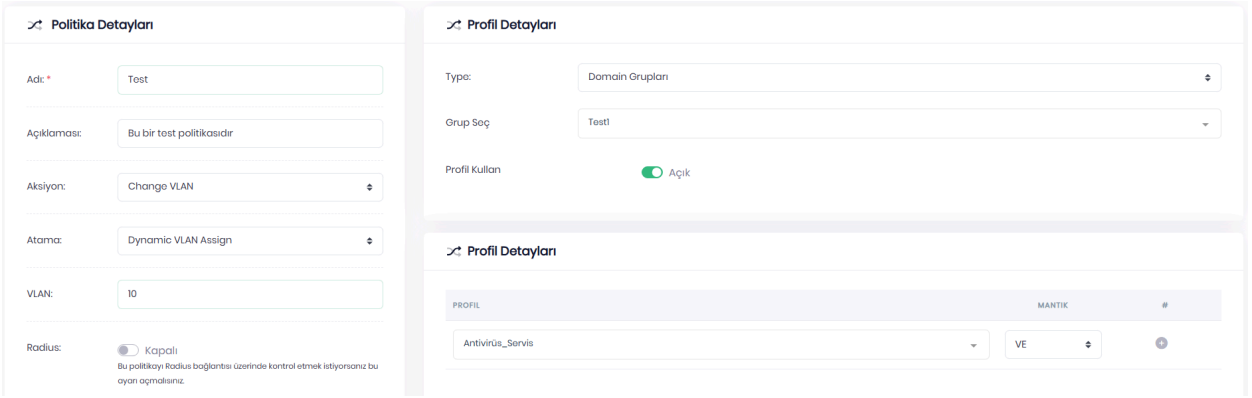
If you want to control any profile in addition to dynamic VLAN assignment, you need to enable the " **Use Profile** " option. When you enable this setting, an area where you can select profiles will open directly below the relevant screen.



A scenario like the following could be used here;

First, let's add a profile to ensure the antivirus service is running. (Detailed information about profiling can be found in the device_profiling.docx documentation.) Then, let's check both the user group using Dynamic VLAN assignment and the antivirus profile simultaneously.

Let's write a policy that states the user requesting network access must be in the "Test" domain user group and the Antivirus service must be running.

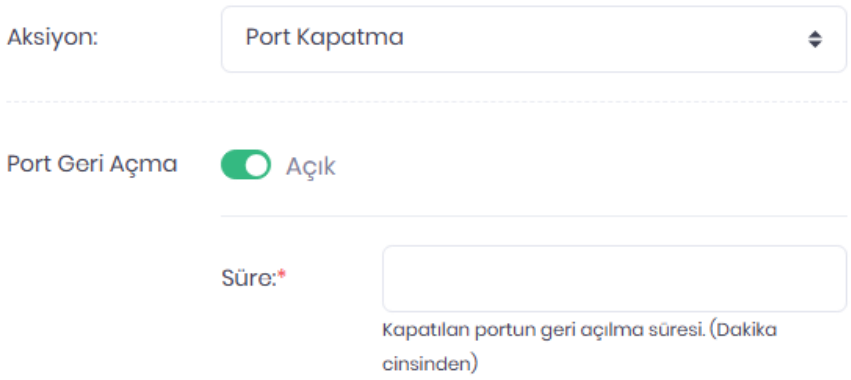


In the example above, if a domain user is within the "Test1" domain group and has an antivirus service running on their computer, it can be interpreted that when they try to connect through any switch on the network, they will be moved to VLAN 10.

This way you can perform both dynamic VLAN assignment and comprehensive profile checks simultaneously.

1.3.3.2) Disable Port

When the action type is selected as "Port Closure",



This action closes (shutdown or disabled) the port to which the connected device is attached, according to the selected profiles. By enabling the " **Port Reopen** " time and specifying the duration (in minutes), you can ensure that the closed port is automatically reopened. When the port is reopened, if the device is still connected, the policy is checked again, and if the conditions are still met, the port is closed again.

1.3.3.3) IP Phone Type

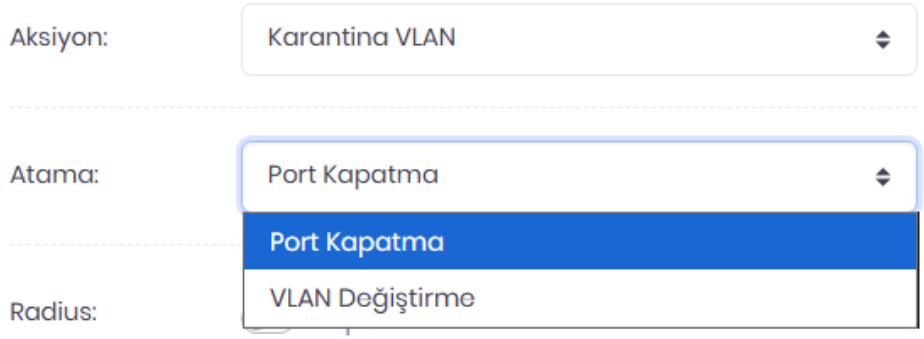
When the action type is selected as “IP Phone”,

No action is taken on the device connected to the selected profiles. This is a special profile. FastNAC does not interfere with the Voice VLANs in which IP phones operate. If IP phones are used

on the network and devices access the network from behind the IP phones, this action type must be selected for the IP phones themselves.

1.3.3.4) Quarantine VLAN

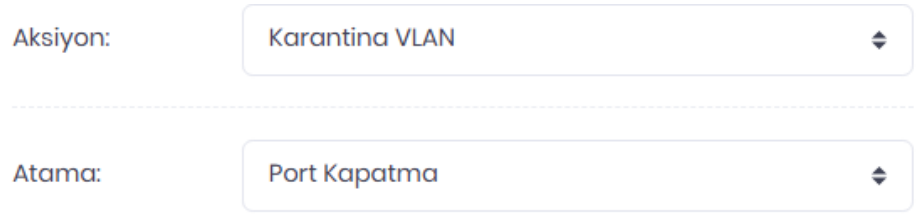
When "Quarantine VLAN" is selected as the action type;



This action type is for devices that do not comply with any policy. Two different assignment types can be used;

1.3.3.4.1) Port Closing

When "Port Closing" is selected as the assignment;



This action shuts down the switch port to which the device is connected. (Shutdown or Disabled)

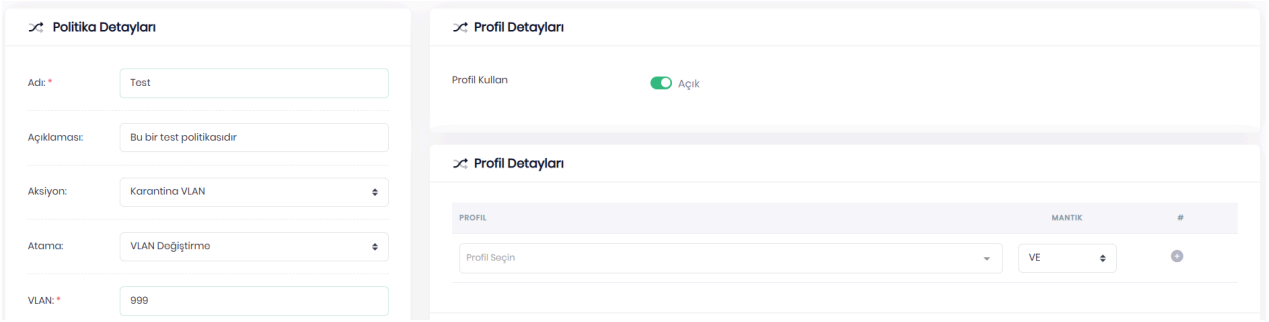
1.3.3.4.2) VLAN Change

When "VLAN Change" is selected as the assignment;

The device is assigned to the switch port it is connected to, using the VLAN number specified in the "VLAN" section.

1.3.3.4.3) Quarantine and Profile Usage

If you want to control any profile in addition to assigning a quarantine VLAN, you need to enable the " **Use Profile** " option. When you enable this setting, an area where you can select profiles will open directly below the relevant screen.



1.3.3.4.4) General Use Regarding Quarantine

Defining a Quarantine VLAN on FastNAC is not mandatory. However, for general use, creating this policy and placing it at the bottom of the policy list will be more appropriate for the system to function correctly.

" **1.1) Getting Started** ", FastNAC checks policies in a top-down order. If a device gets stuck on any policy, other policies below that policy will not be checked. Therefore, the policy in the Quarantine VLAN action should be at the bottom of the list. For example, let's say we have 5 policies. These are;

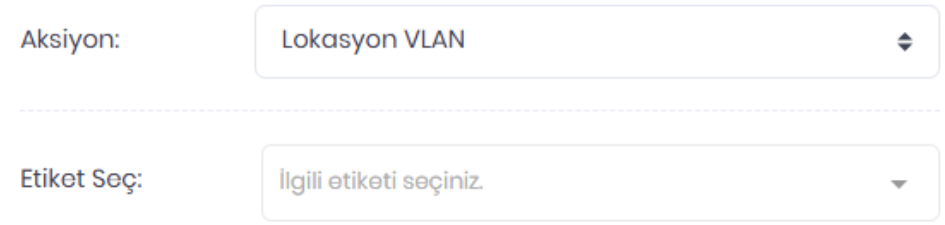
Policy Name	Type of Policy	Action
IP_Phone	IP_Phone	-
Printers	VLAN Modification	20
IP_Cameras	VLAN Modification	30
Domain_Control	Interface VLAN	-
Quarantine	Quarantine VLAN -> VLAN Change	999

IP_Phone " -> " **Printers** " -> " **IP_Cameras** " -> " **Domain_Control " will be checked** sequentially on a device connected to the network . If it doesn't comply with any of the policies, it will be flagged as the last policy, " **Quarantine** ", and assigned to VLAN 999.

If a quarantine-type policy is not written, and the device does not encounter any policy violations during policy checks, no action will be taken, and the device will remain in the port's existing VLAN.

1.3.3.5) Location VLAN

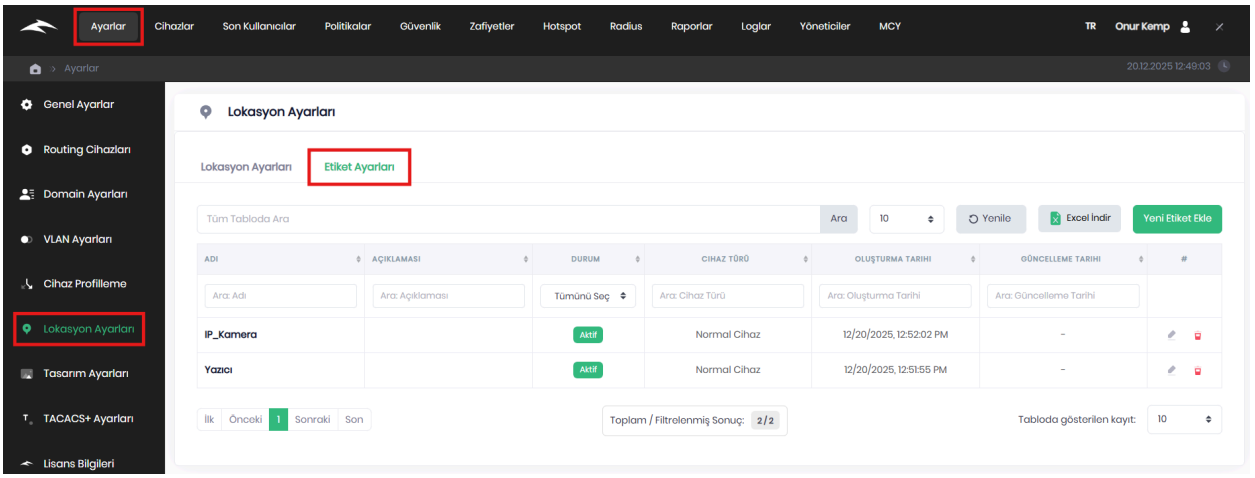
When "Location VLAN" is selected as the action type;



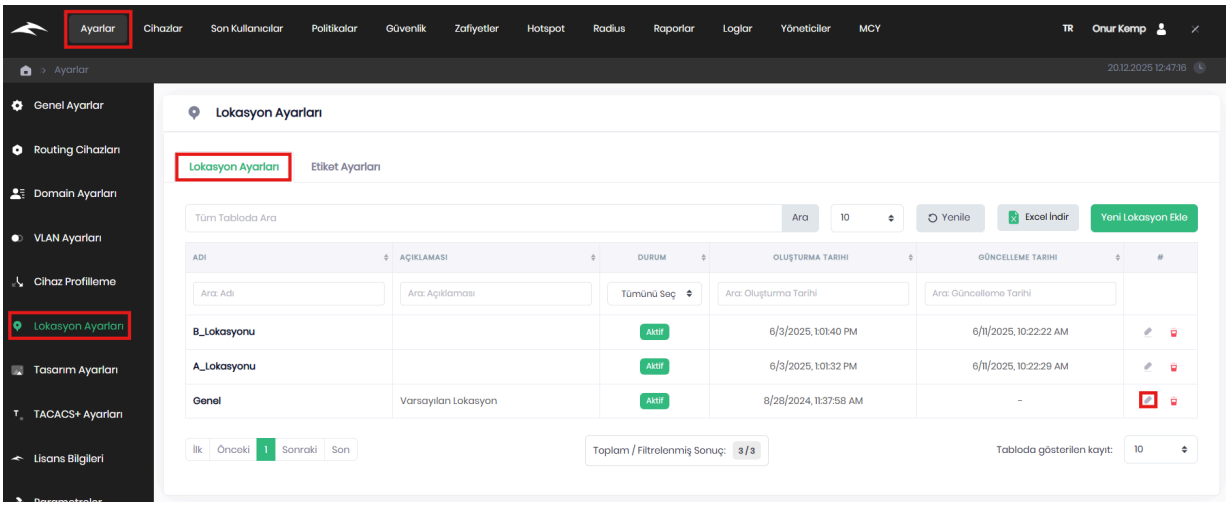
Under the Action section, there is a " **Tag**" The " **Select** " input field opens. Here, the selected label is transferred to the specified VLAN number.

No assignment selection is made for the location VLAN type. Actions to be taken according to the selected profiles are performed via tags.

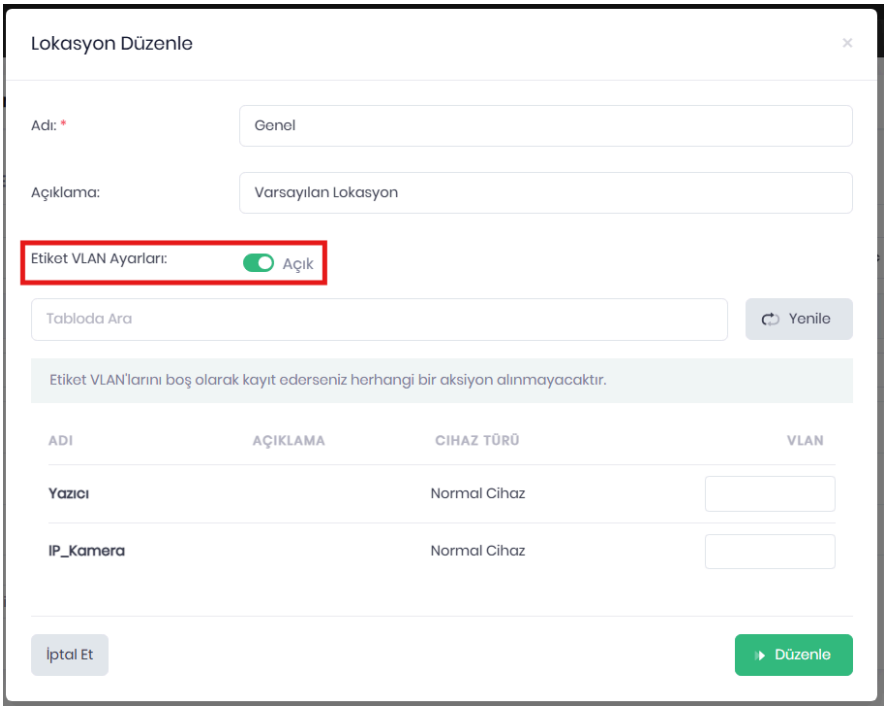
For VLAN label settings, go to " **Settings** " -> " **Location" Settings** " -> " **Tags** You can check the labels in the " **Settings** " section;



To assign VLAN numbers to the tags you created, go to " **Settings** " -> " **Location".** You can edit the locations in the " **Settings** " section;

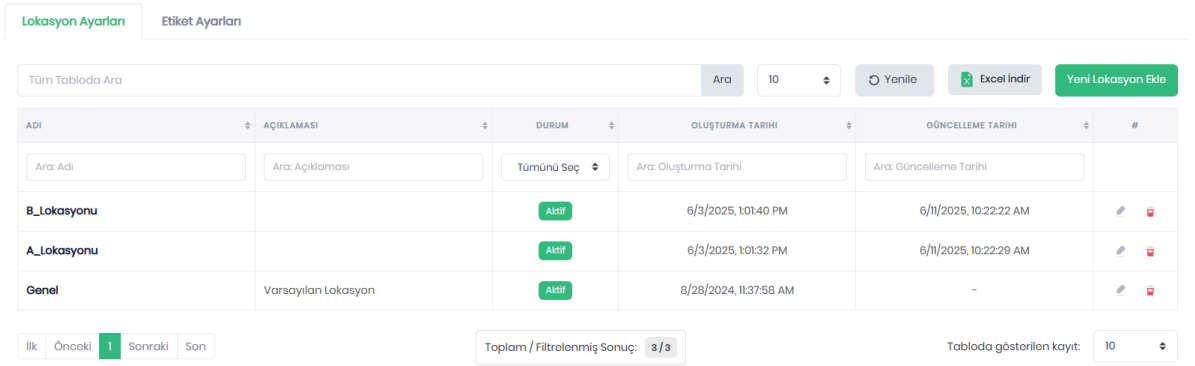


On the location editing screen, select " **Tag".** When you open the **"VLAN Settings** " section, you can enter VLAN definitions for the labels you created;

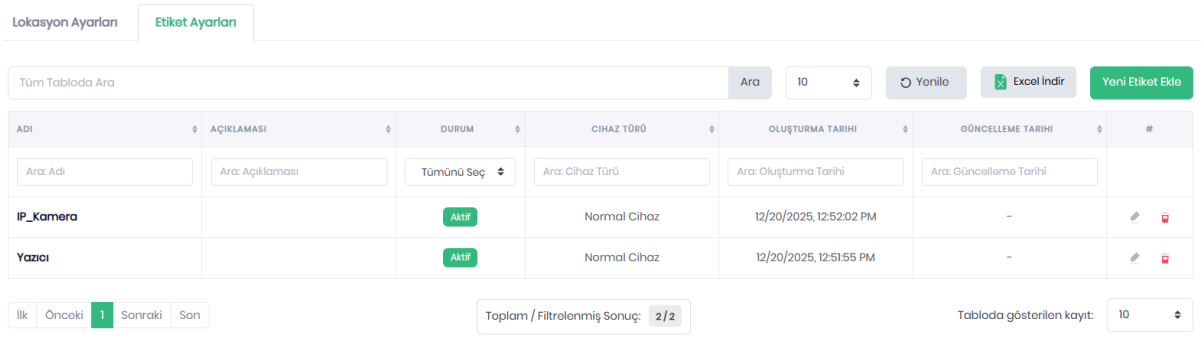


1.3.3.5.1) General Usage Regarding Location VLANs

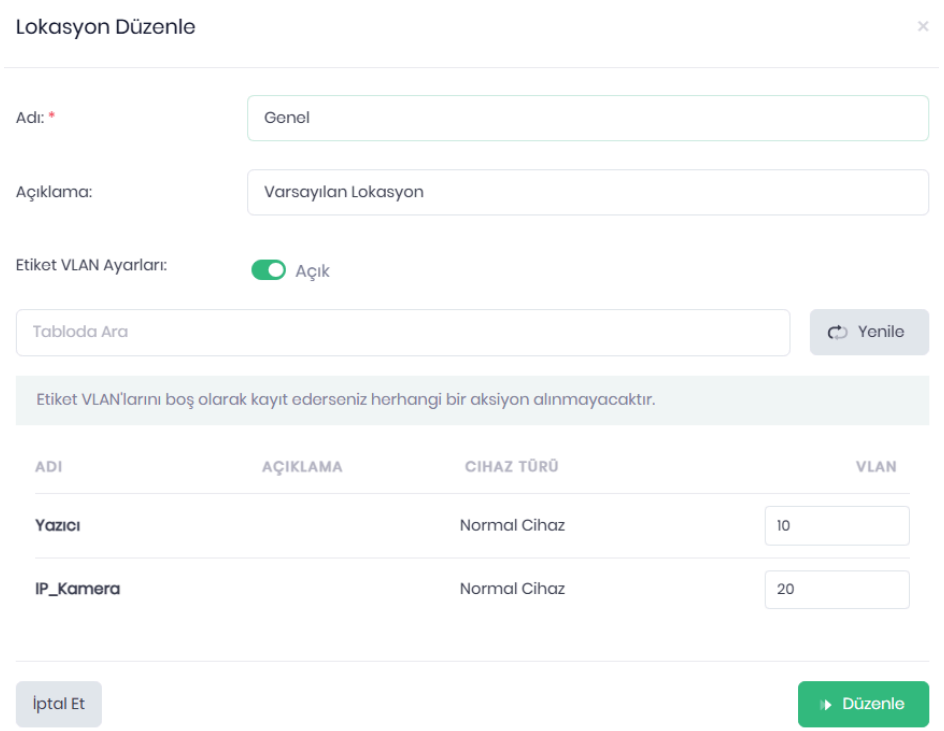
Let's explain location VLANs in detail. For example, you have switches in multiple locations. We add these locations to FastNAC;



For example, we added three locations: " **General** ", " **Location A** ", and " **Location B ". Then** we added two more tags: " **IP_Camera** " and " **Printer ".**

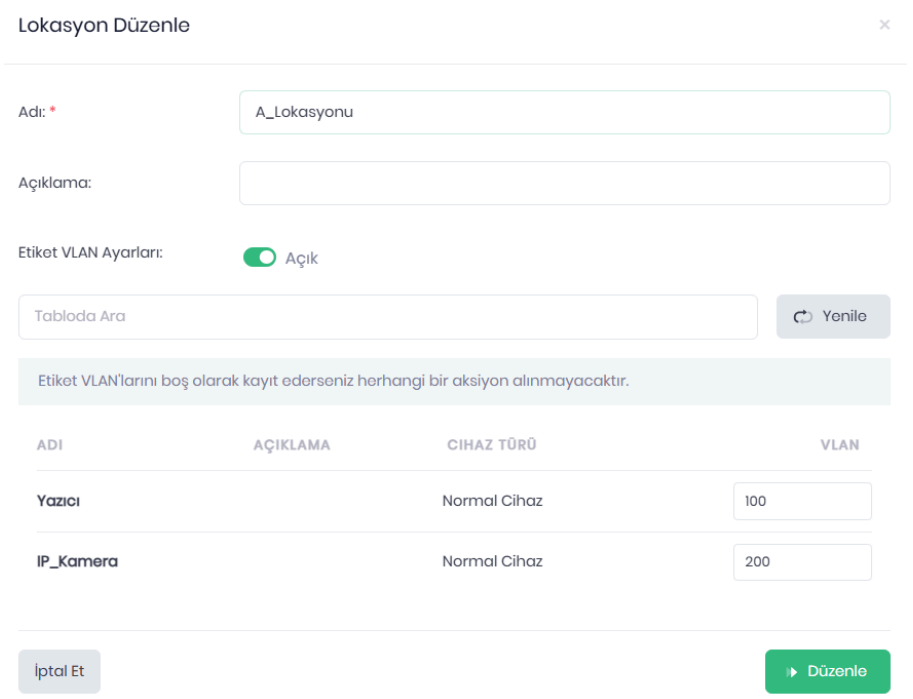


" **Location** " section. We go to the "Edit **General " location section and select " Tags" .** We open the **"VLAN Settings** " section.



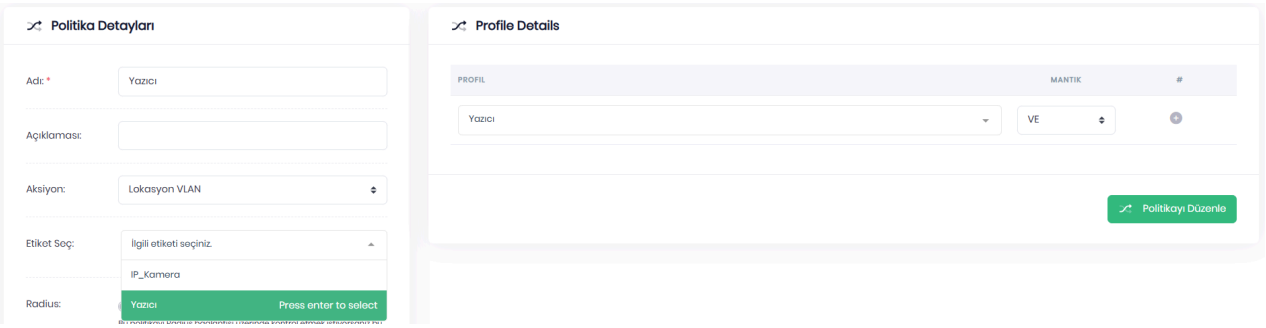
On this screen, we see the tags we created. We assign a VLAN to the " **IP_Camera** " and " **Printer " tags** within the " **General " location and click the " Edit** " button. (In the example above, VLAN 10 is assigned to " **Printer " and** VLAN 20 to " **IP_Camera ".)**

Next, we perform the same operation for " **A_Location** ", and this time we assign VLAN 100 to " **Printer " and VLAN 200 to " IP_Camera ";**



Finally, we perform the same operations in " **B_Location** ", and this time we define VLAN 500 for " **Printer " and VLAN 700 for " IP_Camera ".**

we create a profile named " **Writer " and the Action is " Location" .** We select " **VLAN** " and choose " **Printer** " as the label;



If we were to interpret this policy;

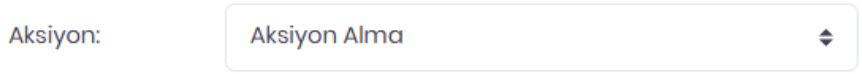
Any device connected to the " **Printer " profile;**

- If it is in the "General" location, the label will be assigned to VLAN 10, which we specified as the VLAN assignment.
- If it is in the "A_Location" location, the label will be assigned to VLAN 100, which you specified as the VLAN assignment.
- If it is in the "B_Location" location, the label is assigned to VLAN 500, which we specified as the VLAN assignment.

We can interpret this as "to be assigned". Location VLAN action eliminates the need to add separate profiles/policies for each location. You can control devices through a single profile/policy.

1.3.3.6) No Action

As an action genre, " **Action"** When **"Alma** " is selected;



No action is taken on devices connected to the selected profiles. It can be used for certain special cases. For example, a policy such as "No action should be taken on the device connected to the profile, but it should notify me when it tries to access the network" can be set as " **Action ".** You can create it with **"Alma** ".

1.3.4) Radius

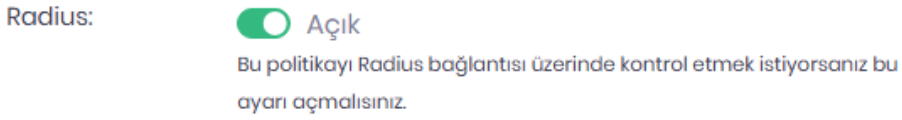
When the "Radius" option is enabled;

FastNAC allows you to create policies using a hybrid approach with both next-generation and traditional (Radius) methods. You need to enable this setting to specify that the policy will be controlled via Radius connections.

" **Radius** " setting is enabled, the Action type should be " **VLAN". "Change** " and " **Quarantine" VLANs** are included. You can find details of these action types under the heading " **1.3.3) Action Types** ".

1.3.5) VPN

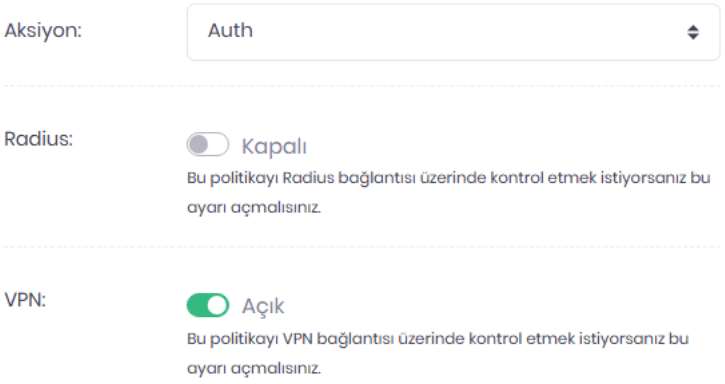
" **VPN** " option is turned on;



You are indicating that the relevant policy will be checked for devices connecting via VPN. When the " **VPN " setting is enabled, " Auth** " and " **Deauth** " appear as the Action types .

1.3.5.1) Auth Type

Auth " is selected as the action type ;



By connecting the device to the relevant profiles, you are authorizing it and allowing it to access the network.

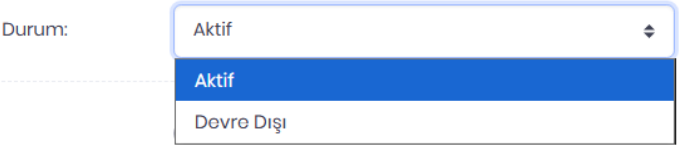
1.3.5.2) Deauth Type

Deauth " is selected as the action type ;

By associating with these profiles, you prevent the device from connecting to the VPN.

1.3.6) Situation

" **Status** " section, you can select the status of the policy;



- If " **Active** " is selected, the policy will continue to operate.
- " **Circuit"** If the " **outside** " option is chosen, the policy will not work.

1.3.7) Notifications

" **Notifications** " section, you can enable email notifications for devices that fall under the relevant policy.

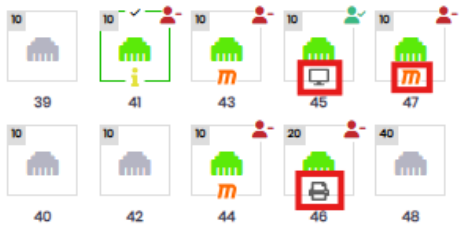
If a device violates the relevant policy, go to " **Settings** " -> " **General" Settings** -> **Notifications Settings** -> **Submission** It sends notification emails to the email addresses added in the " **Addresses " section.**

Note: For email notifications to be sent in the policies, the General Notification setting must be enabled. " **Settings** " -> " **General" Settings** -> **Notifications Settings** -> **Notifications** You need to check that the " **Policies " section is enabled in the " Features " section.**

1.3.8) Icon (Port Visualization)

You can choose to add icons to devices connected to the relevant profile;

Policy icons are displayed below the ports on the switch detail pages. When you access the switch detail page, you can see in real-time which device is connected to which port.



The icons on this screen come from the policy section. For any device that violates a policy, the icon you select will appear under the port.

FastNAC comes with 16 icons by default. You can also add your own icons to the system. Go to " **Settings** " -> " **Design". Settings** " -> " **Icon** In the **"Settings** " section, under " **New"** You can upload icons from your computer using the **"Add Icon " button.**

Note: The icon formats you wish to upload must be " **image/svg** ", " **png** ", " **jpeg** ", or " **jpg** ".