



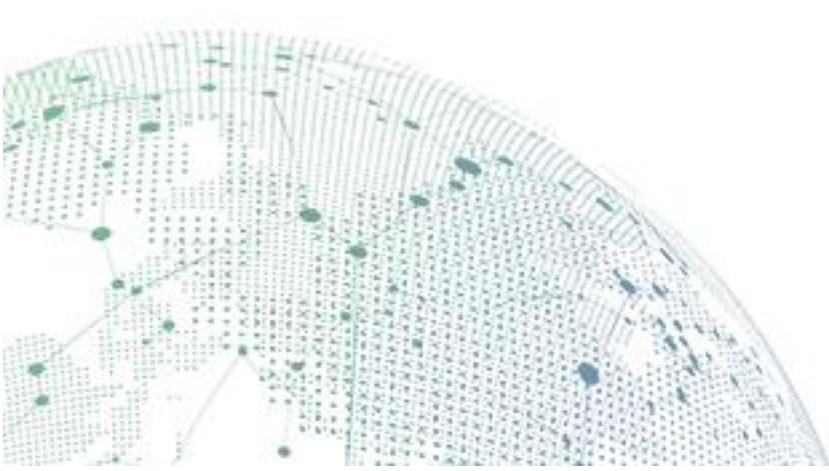
SANGFOR



IAM

How to Automatically Bind User MAC Address Guide

Version 12.0.12



Change Log

Date	Change Description

CONTENT

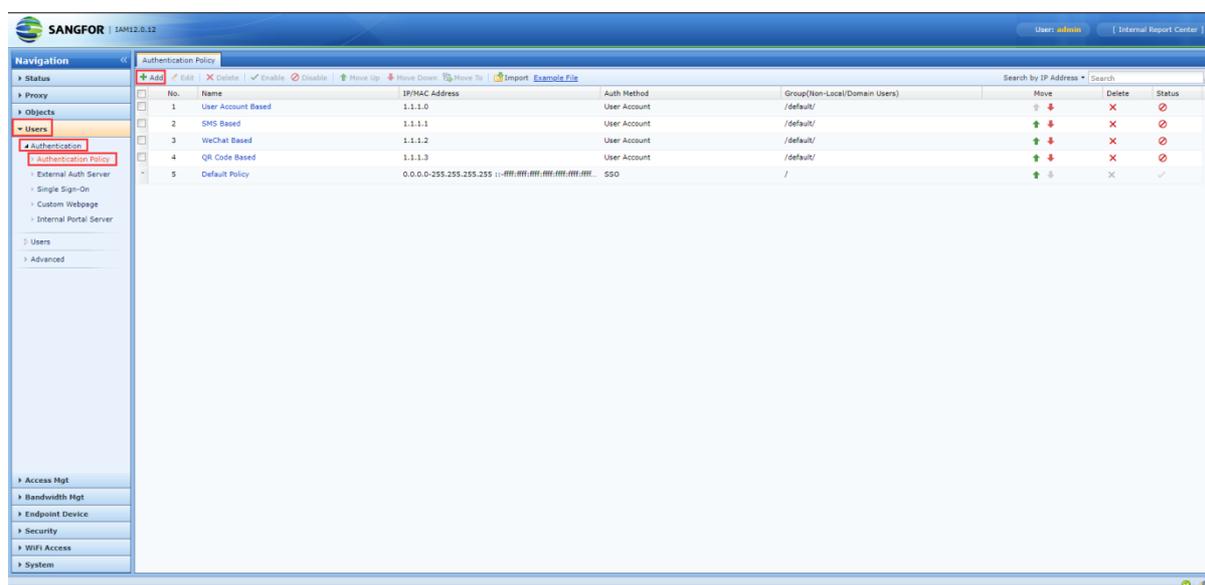
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Chapter 1 Automatically Bind User MAC Address

1 Configuration

1.1 Add New Authentication Policy

Go to [Users] – [Authentication] – [Authentication Policy] and add a new Authentication Policy.

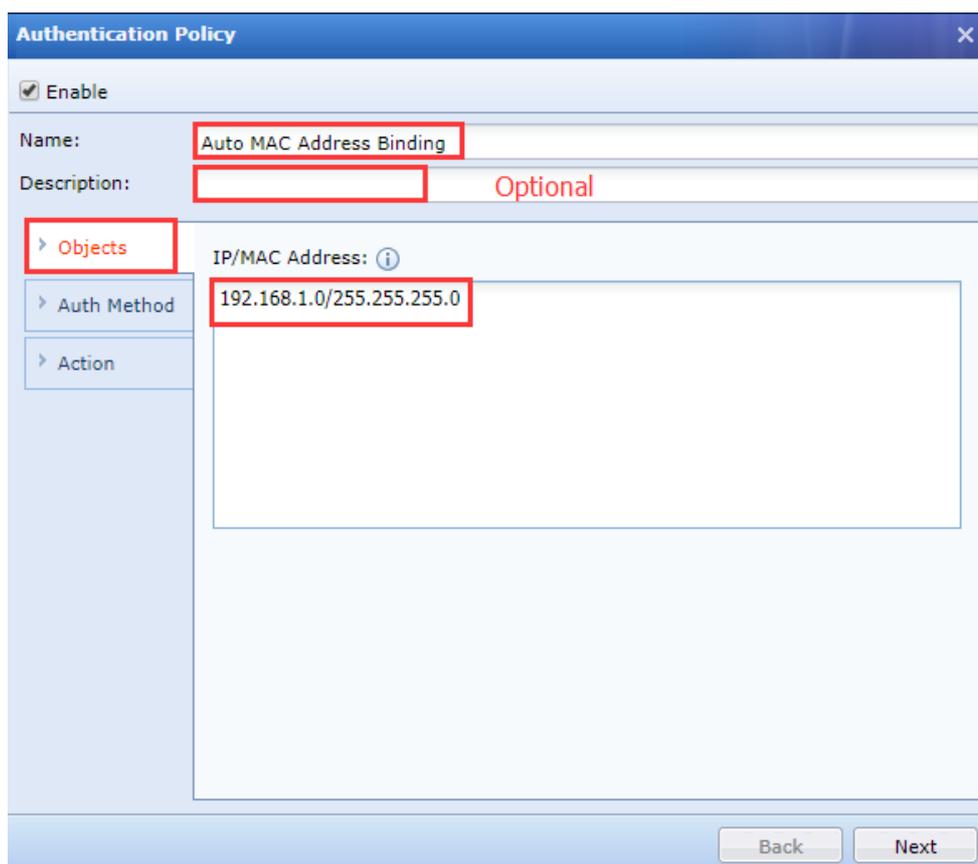


1.2 Configure Objects and Auth Method

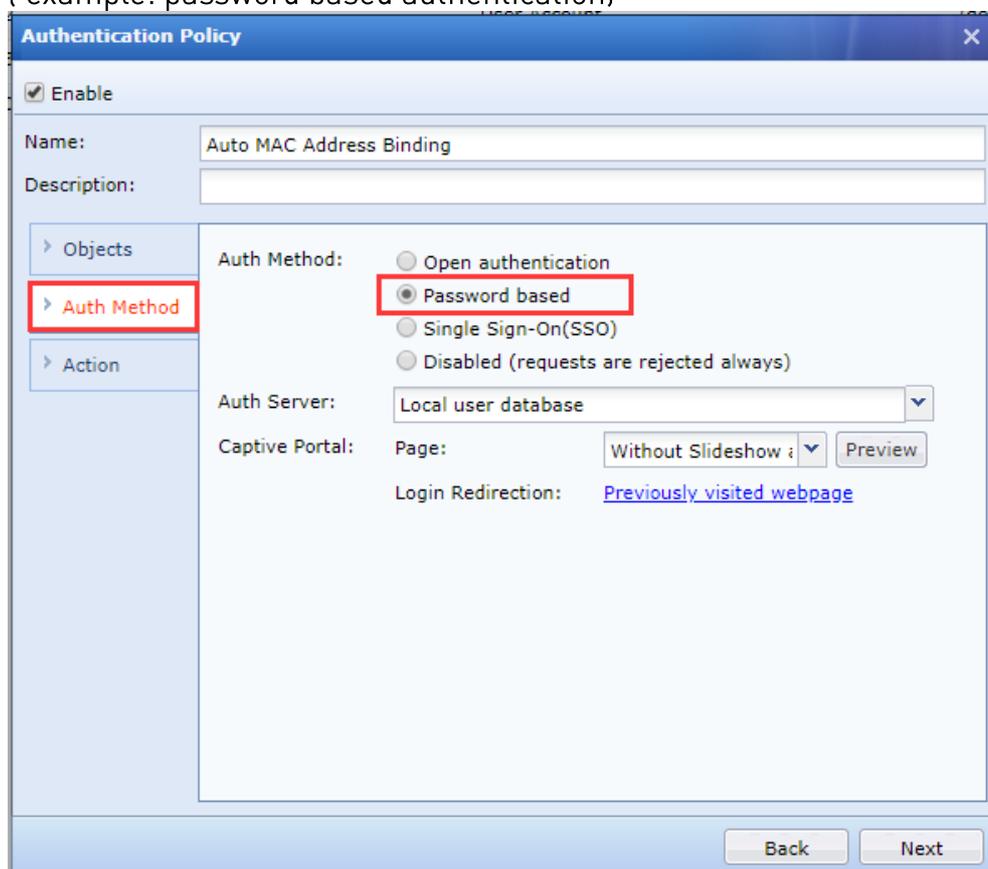
1. Name: Customize according to your preference.

Description: Customize according to your preference. (optional)

Objects: Enter the IP Segment of the intranet user or IP range (example:192.168.1.0/255.255.255.0)



2. Auth Method: Select the authentication method according to actual needs. (example: password based authentication)



1.3 Configure Action

1. Check [Automatic binding] and [Bind user account to IP and MAC address]. Select [MAC Address] and click [Commit].

Authentication Policy

Enable

Name: Auto MAC Address Binding

Description:

> Objects

> Auth Method

> **Action**

Add Non-Local/Domain Users To Group: /

Add user account to local user database

Automatic binding

Bind IP to MAC address

Bind user account to IP and MAC address

IP Address MAC Address

Apply open authentication since first successful login

Valid Period

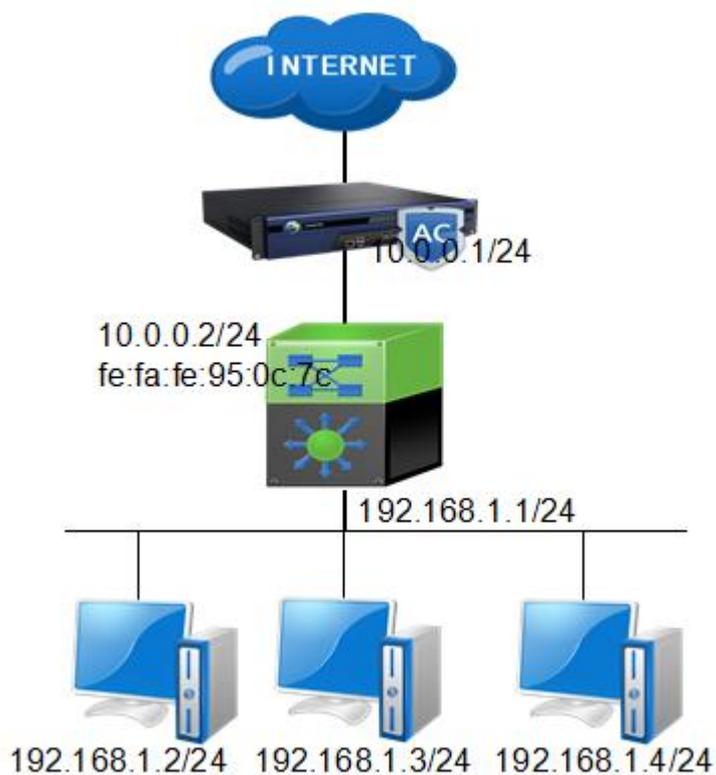
Advanced

Back Commit

[Precautions] The binding will not work if only checked [Automatic binding] option without checking [Bind user account to IP and MAC address] option.

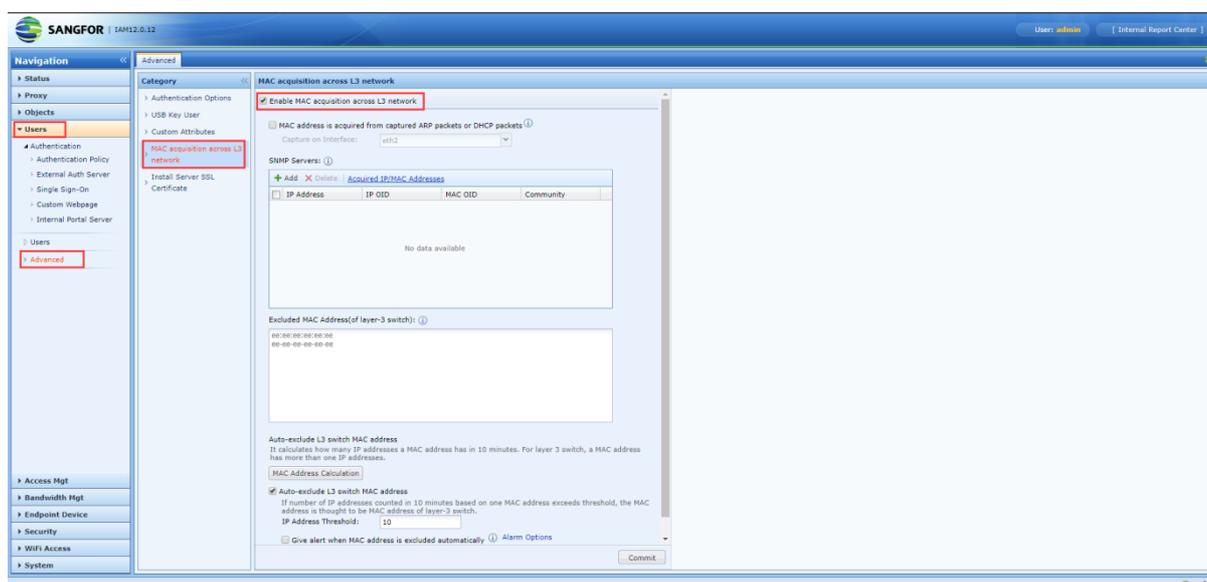
1.4 layer intranet environment

The IAM is deployed on the network, but the user's data is passed through the gateway (Layer 3 switch). In the case the data passing through the device, you need to enable the " MAC acquisition across L3 network " on the device, and the snmp service needs to be enabled on the Layer 3 switch.



1.4.1 Configure MAC acquisition across L3 network on IAM

1. Go to [Users] > [Advanced] > [MAC acquisition across L3 network] to enable the function. Configuration is show in below.

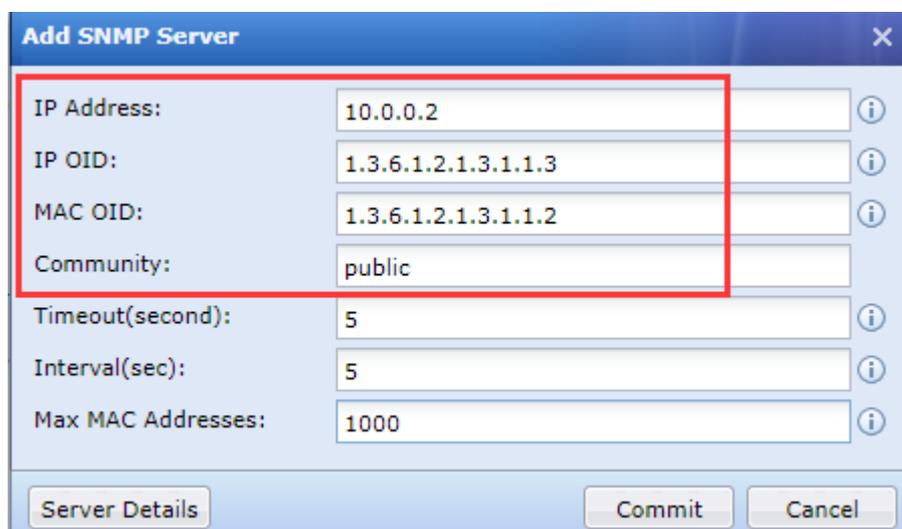


2. Add new SNMP server

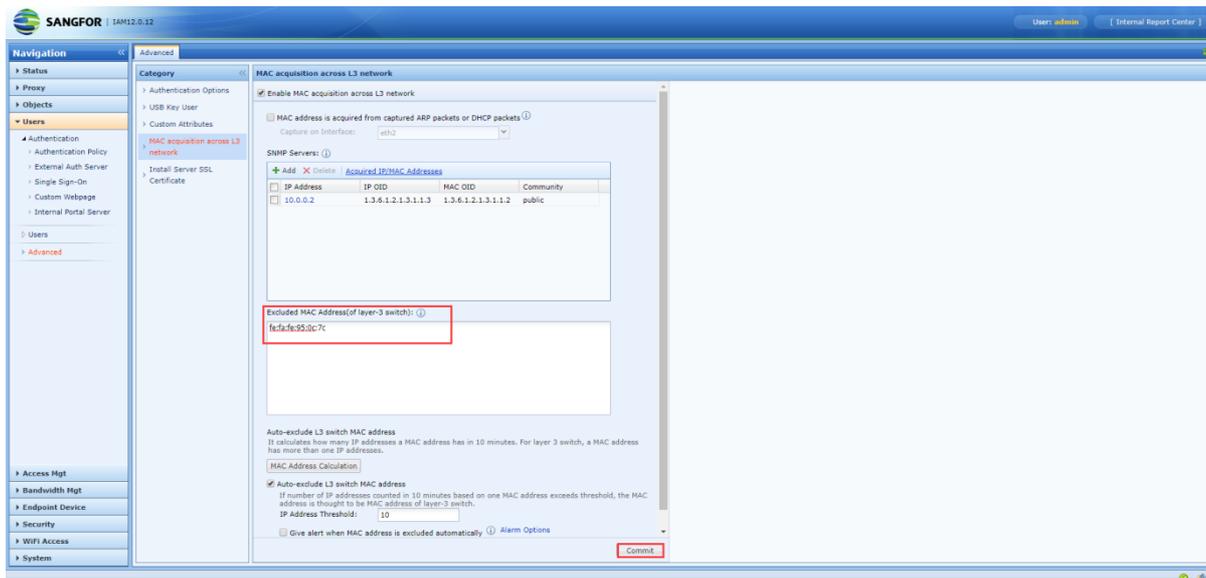
IP Address : IP of layer 3 switch (must be able to communicate with IAM)

IP OID/MAC OID: Get the OID of IP and MAC from layer 3 switch

Community: The configured community value when snmp is enabled.



3. Add the MAC address of the layer 3 switch to [Excluded MAC Address(of layer 3 switch))] and click Commit.



1.4.2 Configure Authentication Policy

1. After the configuration for [MAC acquisition across L3 network], follow the steps above to configure authentication policy. (When testing for MAC address binding, recommend to use MAC address as username. Do not bind user address info to avoid binding wrong info and cause unable to surf internet.).

Authentication Policy

Enable

Name:

Description:

> Objects

> **Auth Method**

> Action

Auth Method:

Open authentication

Password based

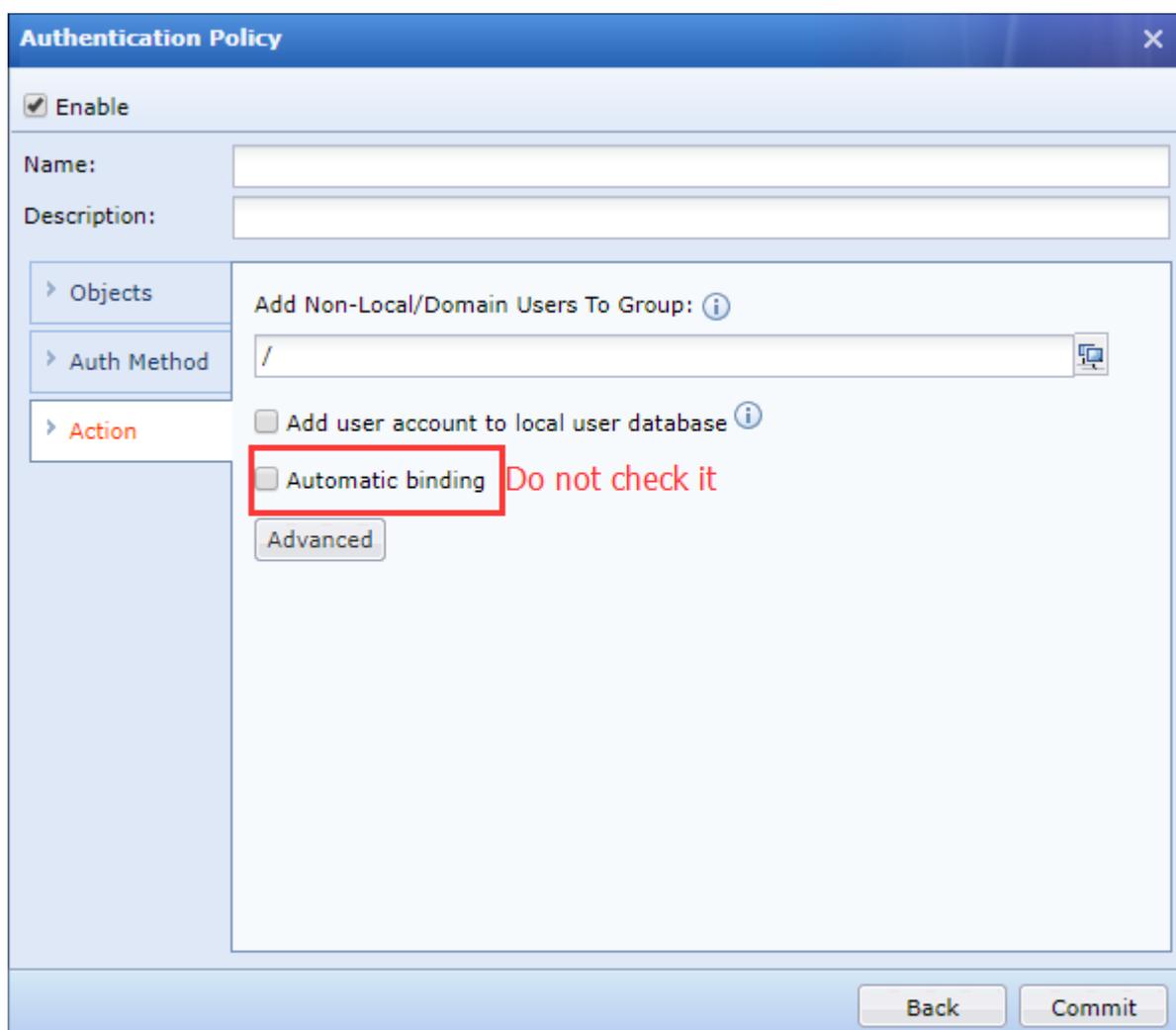
Single Sign-On(SSO)

Disabled (requests are rejected always)

Username:

Back Next

2. Configure Action.



The screenshot shows the 'Authentication Policy' configuration window. The 'Enable' checkbox is checked. The 'Name' and 'Description' fields are empty. The 'Action' tab is selected in the left sidebar. The main area shows the following options:

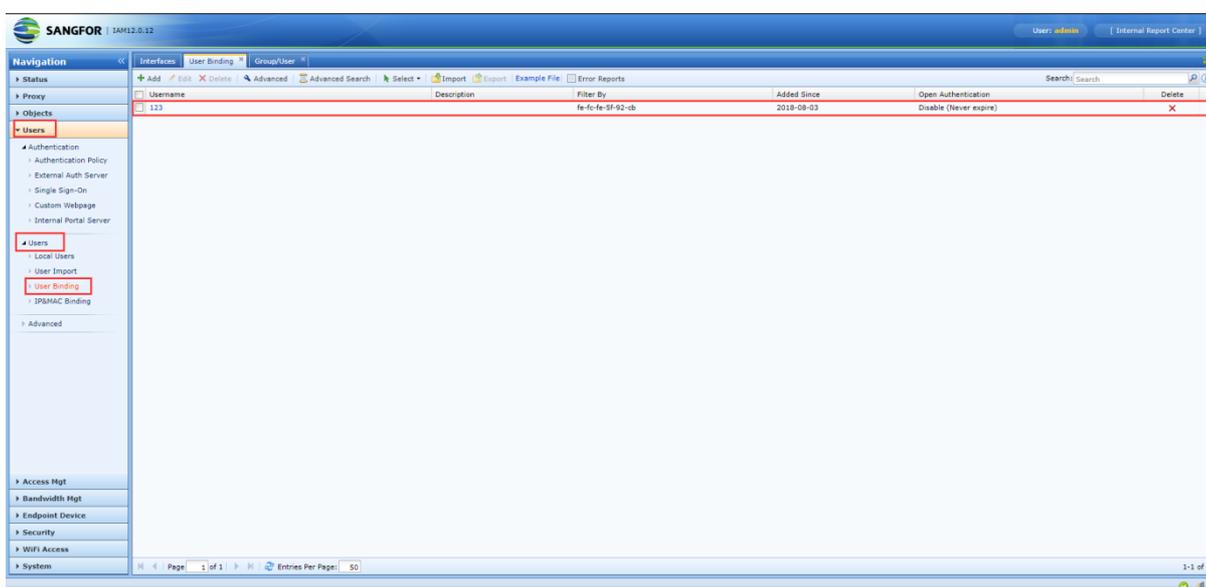
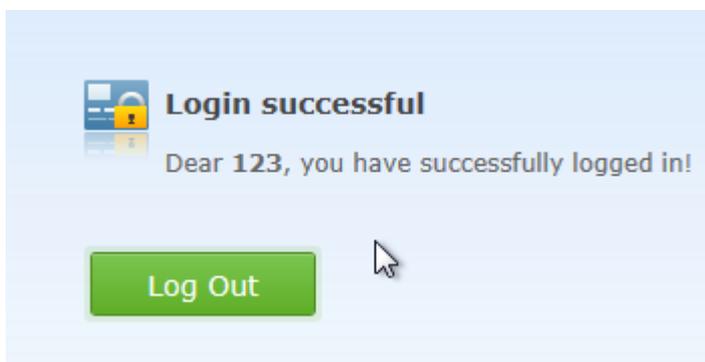
- Add Non-Local/Domain Users To Group: (i)
- Add user account to local user database (i)
- Automatic binding **Do not check it**
-

At the bottom of the window, there are 'Back' and 'Commit' buttons.

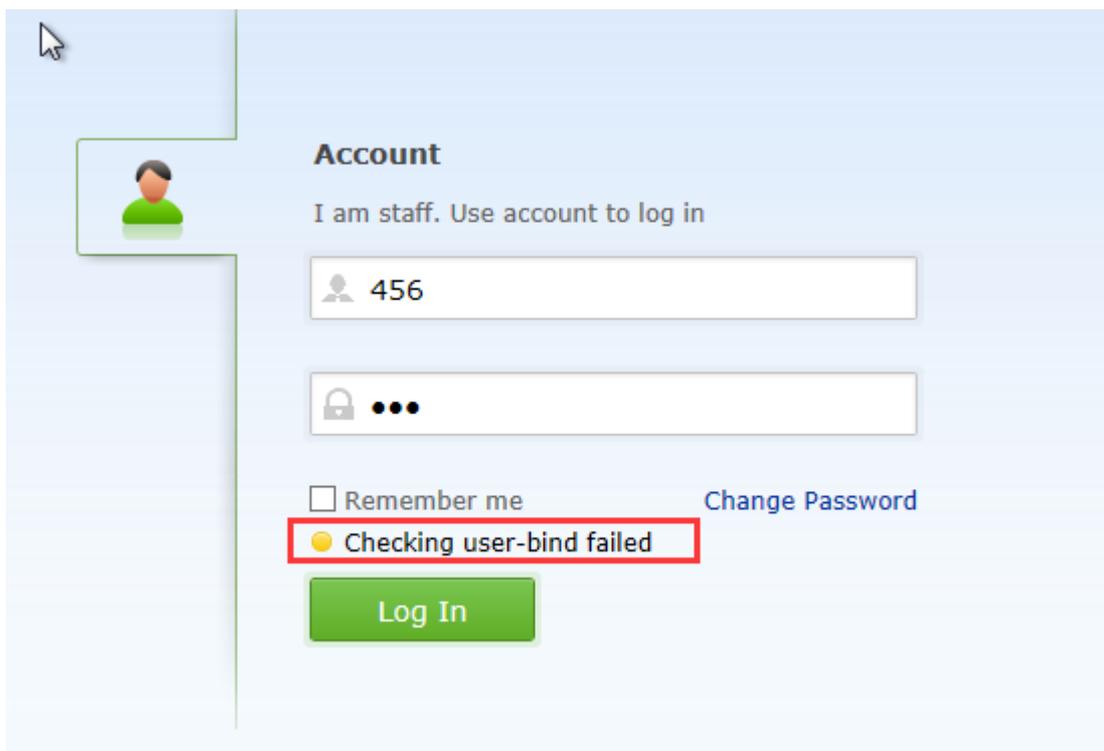
3. After configured the policy, you may see the username in [Status] > [Online User]. You can select a few users to compare the mac address inside the device and the intranet user pc when the usernames showing different mac addresses.
 - a. If the MAC address is the same, there is no problem for MAC acquisition across L3 network configuration. You can bind the user's mac address information.
 - b. If the MAC address is different, continue to check the configuration for MAC acquisition across L3 network until there are no problems;

1.5 Testing Result

1. The user who surf internet passing through the device will automatically bind the mac to the device. You can view the binding relationship in [Users]--[Users]-[User Binding].

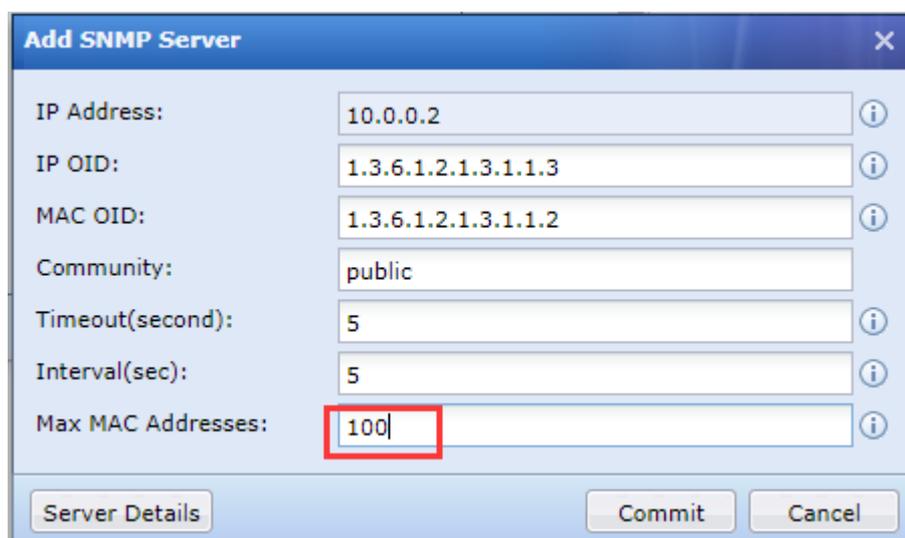


2. The user is unable to surf internet when using other account.



2 Precautious

1. In the case of a Layer 3 switch, if you correctly configure the " MAC acquisition across L3 network " but cannot obtain the correct MAC address of the user, it is recommended to change the value of "Maximum number of each acquisition" to a smaller value(50 or 100). Refer the following screen shot for configuration. This is because too much reading at a time will cause a timeout, the number is too large, the package will be fragmented.



2. Related oid values:

Cisco switches: The IP MAC OID are device defaults

IP OID: 1.3.6.1.2.1.3.1.1.3

MAC OID: 1.3.6.1.2.1.3.1.1.2

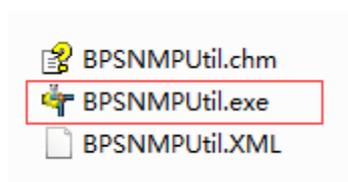
Huawei/Huasan switches: Most OID values are as follows:

IP OID::1.3.6.1.2.1.4.22.1.3

MAC OID: 1.3.6.1.2.1.4.22.1.2

3. How to get the OID value of a Layer 3 switch

- a. Contact the switch manufacturer to obtain oid value information
- b. use the tool to scan out the oid value of the switch





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