



# IAG

## Endpoint Visibility Configuration Guide

**Version 13.0.15**



## Change Log

Date	Change Description
Sep 25, 2020	Version 13.0.15 Release

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# Chapter 1 Endpoint Visibility Requirement Background

Network administrator unable to visible the Internal network hardware, including endpoint, server and other network devices, so the unknown device unable to be controlled and it will bring the security risk to the internal network.If network administrator doesn't know the IP usage, resulting in a waste of IP resources

At the same time cause difficulties in management and operation.

Endpoint visibility: auto detect the type of endpoint, system and the related information and auto sort.

# Chapter 2 Endpoint visibility function description

Endpoint visibility: auto detect the type of endpoint, system and the related information and auto sort.

There are two ways to realize the terminal identification function: active and passive

1. The proactive is to extend the detection mechanism developed through the nmap framework, mainly as follows:

onvif: camera standard protocol, detect and identify other dumb terminal device types;

SMB detection: mainly for MSFT PC, which can obtain information such as the host name, operating system, and working group of the host

SNMP: Available equipment: routing table, arp table, machine type, system description, mac address operating system identification;

2. Passively identify the terminal information by identifying the UA field in http traffic and the option field in dhcp data;

The active mode is to scan which segment of the IP is configured, and the passive mode requires traffic to pass through the AC

To accurately identify the MAC across the three-layer device, you need to enable the **MAC acquisition across L3 network**.

## IP segment presentation mechanism in IP management

1. In the IP segment list, the 24-bit mask network segment where the IP is located will only be displayed when there is a surviving IP, or when it is recognized that the IP has traffic (the IP exists in online users or it is displayed in users who failed to access the network for 7 days ) The network segment of the 24-bit mask where the IP is located will also be displayed;

## Chapter 2.1 Configuration Guide

1. Navigate to the Endpoint visibility -> Endpoint scan and enable the endpoint scan function.
2. Configure the network segment that required to scan.
3. In order to improve the identification, it is required to enable the switch and enable the SNMP function and set the community string.
4. if required to enable the mac address in L3 environment, it required to enable the **MAC acquisition across L3 network** function

**Navigation**

- ▼ Status
  - Dashboard
  - Endpoint Visibility
  - Endpoints
  - IP Ranges
  - Endpoint Scan
- Users
- Rule Check
- Troubleshooting Center
- Traffic Statistics
- Internet Activities
- Locked Users
- SaaS Applications
- Security Events

**Endpoint Scan**

☒ Enable endpoint scan ⓘ

If enabled, it will scan internal endpoints automatically.

**Asset Subnets**

LAN Subnet: ⓘ

192.168.20.0/24

**SNMP v1/v2**

+ Add - Delete

Name	Type	Community	Operation
public	snmpv1/v2	public	-

**MAC Address Acquisition**

For better identification, please enable MAC acquisition across L3 network  
[Enable MAC acquisition across L3 network](#)

☐ Auto delete long-undiscoverable endpoints

Undiscoverable Days: 180

Commit

Online Chat

## Chapter 2.1.1 Endpoint Identification result

Inside the endpoint list, you can see the type of endpoint, you can click on the detail to view the description

1. General endpoint and some network equipment will display names;
2. Online status: Online refers to whether there is the IP of the endpoint in the online user information. The presence of the IP indicates that the user has used the terminal to go online, and the user information and the status of the group will be displayed. Offline means that the endpoint IP is currently not used by users.

IP Address	MAC Address	User	Group	Endpoint De...	Operating S...	First Detecte...	Last Login	Operation
192.168.20.100	fe-fc-fe-1c-0-...	--	--	--	--	2020-09-25 ...	--	<a href="#">View Details</a>
192.168.20.101	fe-fc-fe-12-3-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.102	fe-fc-fe-12-3-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.103	fe-fc-fe-77-c-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.104	fe-fc-fe-12-3-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.105	fe-fc-fe-f3-e-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.106	fe-fc-fe-11-9-...	--	--	Others	--	2020-09-22 ...	--	<a href="#">View Details</a>
192.168.20.107	fe-fc-fe-28-a-...	--	--	Others	--	2020-09-21 ...	--	<a href="#">View Details</a>
192.168.20.108	fe-fc-fe-c5-1-...	--	--	Windows PC	Windows 7 P...	2020-09-21 ...	--	<a href="#">View Details</a>
192.168.19.109	00-90-0b-47-...	192.168.19.109	/UserGroup	--	--	2020-09-18 ...	2020-09-17 ...	<a href="#">View Details</a>
192.168.20.110	fe-fc-fe-12-2-...	--	--	Others	--	2020-09-17 ...	--	<a href="#">View Details</a>
192.168.19.111	fe-fc-fe-65-1-...	192.168.19.111	/UserGroup	--	--	2020-09-17 ...	2020-09-17 ...	<a href="#">View Details</a>
192.168.20.112	fe-fc-fe-8a-a-...	--	--	Linux PC	Linux 3.2 - 4...	2020-09-11 ...	--	<a href="#">View Details</a>
192.168.20.113	fe-fc-fe-8f-4-...	--	--	Windows PC	Microsoft Wi...	2020-09-10 ...	--	<a href="#">View Details</a>
192.168.20.114	fe-fc-fe-ef-8-...	--	--	--	--	2020-09-09 ...	--	<a href="#">View Details</a>
192.168.20.115	fe-fc-fe-aa-b-...	--	--	--	--	2020-09-09 ...	--	<a href="#">View Details</a>
192.168.20.116	fe-fc-fe-3d-e-...	--	--	--	--	2020-09-09 ...	--	<a href="#">View Details</a>
192.168.20.117	fe-fc-fe-0f-3-...	--	--	--	--	2020-09-09 ...	--	<a href="#">View Details</a>
192.168.20.118	fe-fc-fe-38-6-...	192.168.20.118	/UserGroup	Windows PC	Windows 7 P...	2020-09-09 ...	2020-08-10 ...	<a href="#">View Details</a>
192.168.20.119	fe-fc-fe-16-4-...	--	--	Windows PC	Windows 7 P...	2020-09-09 ...	--	<a href="#">View Details</a>

**sangfor-PC**

Status: Offline

**Summary**

Type: Windows PC

User: --

Group: --

IP: 192.168.20.144

MAC Address: fe-fc-fe-c5-1f-e8

Vendor: --

OS: Windows 7 Professional 7601 Ser...

First Detected: 2020-09-21 15:25:27

Last Login: --

Open Port: [Obtain Port](#)

[Close](#)

## Chapter 2.1.2 Effect of IP ranges

Navigate into the IP ranges,

click on each network segment to see the current IP segment address usage, click on a box to view the detailed usage

Normal use: refers to a period of time (the default is 30 days, configurable) to scan the IP to active, the online status is the same as previous chapter.

Free: Refers to the IP didn't use

Long offline: Refers to the IP that has been scanned for active before, and it is defined as offline if it is not scanned for a period of time (the default is 30 days, configurable).

The screenshot displays the Sangfor SAM13.0.8 IP Ranges management interface. The interface includes a navigation pane on the left with options like Dashboard, Endpoint Visibility, Endpoints, IP Ranges, Endpoint Scan, Users, Rule Check, Troubleshooting Center, Traffic Statistics, Internet Activities, Locked Users, SaaS Applications, and Security Events. The main area shows a grid of IP ranges with status indicators (Normal, Long-offline, Free). A tooltip is displayed for the IP range 192.168.20.88, showing its status as Normal and Offline, and providing details about the current user, MAC address, and last active time.

IP Range	Status
192.168.20.88	Normal

192.168.20.88 **Normal**  
 Status:Offline  
 Current User:192.168.20.88 (Not bound)  
 MAC Address:fe-fc-fe-2e-bd-02 (Not bound)  
 Last Active:2020-09-28 14:29:48

## Precaution:

1. Endpoint identification list only support to show maximum of 200,000 IP addresses.
2. IAM will actively scan the Local network, If a firewall exists in the environment, it will affect the identification result, it also need to ensure customer allow to do endpoint scanning inside the environment.
3. IP ranges support 1024 IP segments.
4. In L3 environment, it required to enable the mac address in L3 environment, it required to enable the MAC acquisition across L3 network function.
5. The endpoint type in the online user is not related to the operating system information in the endpoints of the entire network, two modules are independent
6. The endpoint scanning function of the entire network is enabled. If arp protection is enabled at the same time, the arp protection module will continue to alarm;





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