

Networks

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Introduction

As we run Discoveries and collect device results we populate the list of networks. The [Blessed Subnets](#) feature uses this list of networks to only accept data from devices on those networks.

Creating a Network

To make another network go to menu: Manage -> Networks -> Create Network. Provide a name and an optional description.

The screenshot shows the 'Manage' menu open, with 'Networks' selected. The main table displays a list of networks, including their type, description, edited by, edited date, device count, and delete option. A new row is being added, with 'Name' set to 'List Networks' and 'Description' set to 'auto-generated by util:queue'. The 'Create Networks' button is highlighted with a green background and a red border. The top navigation bar includes links for Home, View, Discover, Report, Admin, Help, Modules, Licenses, and User: admin.

Devices	Details	Name	Network	Type	Description	Edited By	Edited Date	Device Count	Delete	
118.127.185.32/27	118.127.185.32/27	118.127.185.32/27	al Area	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1		
127.0.0.0/8	127.0.0.0/8	127.0.0.0/8	al Area	Auto inserted local server subnet	auto-generated by logon:index	2020-03-04	09:26:36	0		
192.168.84.0/24	192.168.84.0/24	192.168.84.0/24	Network	List Networks	auto-generated by util:queue	2020-03-04	12:51:50	1		
192.168.86.0/24	192.168.86.0/24	192.168.86.0/24	Orgs	Create Networks	auto-generated by util:queue	2020-03-04	12:51:50	1		
192.168.87.0/24	192.168.87.0/24	192.168.87.0/24	Queries	Import Networks from CSV	auto-generated by util:queue	2020-03-04	12:51:50	1		
192.168.88.0/24	192.168.88.0/24	192.168.88.0/24	Racks	al Area work	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:50	1	
192.168.89.0/24	192.168.89.0/24	192.168.89.0/24	Roles	al Area work	Auto inserted local server subnet	auto-generated by logon:index	2020-03-04	09:26:36	22	
192.168.90.16/30	192.168.90.16/30	192.168.90.16/30	Summaries	al Area work	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
192.168.90.2/32	192.168.90.2/32	192.168.90.2/32	Users	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
192.168.90.20/30	192.168.90.20/30	192.168.90.20/30	Widgets	Default Organisation	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
			Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
			Network	Default Organisation	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
				Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	
				Default Organisation	Inserted from audit result.	auto-generated by util:queue	2020-03-04	12:51:38	1	

The screenshot shows the Open-Audit Enterprise 4.0.2 interface. At the top, there's a navigation bar with 'Open-Audit Enterprise 4.0.2' and links for View, Discover, Report, Manage, Admin, Help, Modules, Licenses, and User: admin. Below the navigation is a search bar with 'Home / Networks 192.168.1.0/24'. The main area has two sections: '192.168.1.0/24' and 'Devices'.

192.168.1.0/24: This section displays network configuration details. Fields include ID (2), Name (192.168.1.0/24), Org ID (Default Organisation), Description (Auto inserted local server subnet), Network (192.168.1.0/24), Type (Local Area Network), Location, DHCP Servers (192.168.1.1), DNS Servers (192.168.1.1), Gateways (192.168.1.1), IPs Total (254), IPs Used (16), and IPs Available (238). It also shows Edited By (auto-generated by logon:index) and Edited Date (2021-02-11 12:22:26).

Devices: This section lists 15 devices. The table columns are View, Icon, Name, IP, MAC Address, Interface, Device Status, and IP Last Seen. The devices listed are:

View	Icon	Name	IP	MAC Address	Interface	Device Status	IP Last Seen
	localhost	localhost	127.0.0.1			production	2021-02-18 13:33:41
	router	192.168.1.1	10:0c:2c:05:48:b7		eth0	production	2021-02-18 14:38:39
	switch	192.168.1.7	10:0c:2c:c7:7d:6a	CPU Interface: 5/1		production	2021-02-18 14:38:39
	192.168.1.19	192.168.1.19	a8:47:4a:f1:38:63			production	2021-02-18 14:38:38
	dev	192.168.1.36	08:02:27:1c:f8:90		enp0s3	production	2021-02-18 14:38:38
	marks-ipad	192.168.1.52	12:23:04:96:65:x2			production	2021-02-18 14:38:38
	ubuntu-server	192.168.1.57				production	2021-02-18 14:38:58
	lbenrns	192.168.1.64				production	2021-02-18 14:38:45
	appliance	192.168.1.65				production	2021-02-18 14:38:58
	192.168.1.66	192.168.1.66				production	2021-02-18 14:38:45
	macbook	192.168.1.141	4c:32:75:8b:b3:37		en0	production	2021-02-18 14:38:37
	android-837fe1e1b5d98eaf	192.168.1.142				production	2021-02-18 14:34:04
	192.168.1.158	192.168.1.158	b8:78:26:97:6e:0d			production	2021-02-18 14:38:41
	desktop	192.168.1.200	1c:1b:0d:60:81:3b		enp0s31f6	production	2021-02-18 14:38:43
	ubuntu-mate	192.168.1.237				production	2021-02-18 14:38:58

Showing 1 to 15 of 15 entries

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View Network Details

Go to menu: Manage -> Networks -> List Networks.

You will see a list of networks. You can view a networks by clicking on the blue view icon. You can also edit or delete your networks.

The screenshot shows the Open-Audit Enterprise 3.3.0 interface. At the top, there's a navigation bar with 'Open-Audit Enterprise 3.3.0' and links for View, Discover, Report, Manage, Admin, Help, Modules, Licenses, and User: admin. Below the navigation is a search bar with 'Home / Networks'.

Networks: This section lists 10 networks. The table columns are Devices, Details, Name, Network, Organisation, Type, Description, Edited By, Edited Date, Device Count, and Delete. The networks listed are:

Devices	Details	Name	Network	Organisation	Type	Description	Edited By	Edited Date	Device Count	Delete
		118.127.185.32/27	118.127.185.32/27	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:36	1	
		127.0.0.0/8	127.0.0.0/8	Default Organisation	Local Area Network	Auto inserted local server subnet	auto-generated by logon:index	2020-03-04 09:26:36	0	
		192.168.84.0/24	192.168.84.0/24	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:50	1	
		192.168.86.0/24	192.168.86.0/24	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:50	1	
		192.168.87.0/24	192.168.87.0/24	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:50	1	
		192.168.88.0/24	192.168.88.0/24	Default Organisation	Local Area Network	Auto inserted local server subnet	auto-generated by logon:index	2020-03-04 09:26:36	22	
		192.168.89.0/24	192.168.89.0/24	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:36	1	
		192.168.90.16/30	192.168.90.16/30	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:38	1	
		192.168.90.2/32	192.168.90.2/32	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:36	1	
		192.168.90.20/30	192.168.90.20/30	Default Organisation	Local Area Network	Inserted from audit result.	auto-generated by util:queue	2020-03-04 12:51:36	1	

Showing 1 to 10 of 10 entries

There is also a drop down in the upper right hand side for Advanced. Click it and you'll see useful information about your environment.

Types of Networks

Open-AudIT Professional and Enterprise now (as at 2.2.3) have an attribute for the "type" of network. This is set to Local Area Network by default, but can be changed by the user as they see fit. The types supported are below (With thanks to [Wikipedia](#)).

A network can be characterized by its physical capacity or its organizational purpose. Use of the network, including user authorization and access rights, differ accordingly.

Personal area network

A personal area network (PAN) is a computer network used for communication among computer and different information technological devices close to one person. Some examples of devices that are used in a PAN are personal computers, printers, fax machines, telephones, PDAs, scanners, and even video game consoles. A PAN may include wired and wireless devices. The reach of a PAN typically extends to 10 meters. A wired PAN is usually constructed with USB and FireWire connections while technologies such as Bluetooth and infrared communication typically form a wireless PAN.

Local area network

A local area network (LAN) is a network that connects computers and devices in a limited geographical area such as a home, school, office building, or closely positioned group of buildings. Each computer or device on the network is a node. Wired LANs are most likely based on Ethernet technology. Newer standards such as ITU-T G.hn also provide a way to create a wired LAN using existing wiring, such as coaxial cables, telephone lines, and power lines.

The defining characteristics of a LAN, in contrast to a wide area network (WAN), include higher data transfer rates, limited geographic range, and lack of reliance on leased lines to provide connectivity. Current Ethernet or other IEEE 802.3 LAN technologies operate at data transfer rates up to 100 Gbit/s, standardized by IEEE in 2010. Currently, 400 Gbit/s Ethernet is being developed.

A LAN can be connected to a WAN using a router.

Home area network

A home area network (HAN) is a residential LAN used for communication between digital devices typically deployed in the home, usually a small number of personal computers and accessories, such as printers and mobile computing devices. An important function is the sharing of Internet access, often a broadband service through a cable TV or digital subscriber line (DSL) provider.

Storage area network

A storage area network (SAN) is a dedicated network that provides access to consolidated, block level data storage. SANs are primarily used to make storage devices, such as disk arrays, tape libraries, and optical jukeboxes, accessible to servers so that the devices appear like locally attached devices to the operating system. A SAN typically has its own network of storage devices that are generally not accessible through the local area network by other devices. The cost and complexity of SANs dropped in the early 2000s to levels allowing wider adoption across both enterprise and small to medium-sized business environments.

Campus area network

A campus area network (CAN) is made up of an interconnection of LANs within a limited geographical area. The networking equipment (switches, routers) and transmission media (optical fiber, copper plant, Cat5 cabling, etc.) are almost entirely owned by the campus tenant / owner (an enterprise, university, government, etc.).

For example, a university campus network is likely to link a variety of campus buildings to connect academic colleges or departments, the library, and student residence halls.

Backbone network

A backbone network is part of a computer network infrastructure that provides a path for the exchange of information between different LANs or sub-networks. A backbone can tie together diverse networks within the same building, across different buildings, or over a wide area.

For example, a large company might implement a backbone network to connect departments that are located around the world. The equipment that ties together the departmental networks constitutes the network backbone. When designing a network backbone, network performance and network congestion are critical factors to take into account. Normally, the backbone network's capacity is greater than that of the individual networks connected to it.

Another example of a backbone network is the Internet backbone, which is the set of wide area networks (WANs) and core routers that tie together all networks connected to the Internet.

Metropolitan area network

A Metropolitan area network (MAN) is a large computer network that usually spans a city or a large campus.

Wide area network

A wide area network (WAN) is a computer network that covers a large geographic area such as a city, country, or spans even intercontinental distances. A WAN uses a communications channel that combines many types of media such as telephone lines, cables, and air waves. A WAN often makes use of transmission facilities provided by common carriers, such as telephone companies. WAN technologies generally function at the lower three layers of the OSI reference model: the physical layer, the data link layer, and the network layer.

Enterprise private network

An enterprise private network is a network that a single organization builds to interconnect its office locations (e.g., production sites, head offices, remote offices, shops) so they can share computer resources.

Virtual private network

A virtual private network (VPN) is an overlay network in which some of the links between nodes are carried by open connections or virtual circuits in some larger network (e.g., the Internet) instead of by physical wires. The data link layer protocols of the virtual network are said to be tunneled through the larger network when this is the case. One common application is secure communications through the public Internet, but a VPN need not have explicit security features, such as authentication or content encryption. VPNs, for example, can be used to separate the traffic of different user communities over an underlying network with strong security features.

VPN may have best-effort performance, or may have a defined service level agreement (SLA) between the VPN customer and the VPN service provider. Generally, a VPN has a topology more complex than point-to-point.

Global area network

A global area network (GAN) is a network used for supporting mobile across an arbitrary number of wireless LANs, satellite coverage areas, etc. The key challenge in mobile communications is handing off user communications from one local coverage area to the next. In IEEE Project 802, this involves a succession of terrestrial wireless LANs.

Database Schema

The database schema can be found in the application if the user has database::read permission by going to menu: Admin -> Database -> List Tables, then clicking on the details button for the table.

API / Web Access

You can access the collection using the normal Open-AudIT JSON based API. Just like any other collection. Please see [The Open-AudIT API](#) documentation for further details.