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# **ASGARD Inventory Analyzer Manual**

**Nextron Systems**

**Apr 02, 2024**



# CONTENTS

<b>1</b>	<b>Before You Begin</b>	<b>3</b>
1.1	General Understanding . . . . .	3
1.2	Requirements . . . . .	3
1.3	Verify the Downloaded ISO (Optional) . . . . .	5
<b>2</b>	<b>Setup Guide</b>	<b>7</b>
2.1	Create a new ESX VM and Mount the ISO . . . . .	7
2.2	Navigate through the installer . . . . .	7
2.3	Network Configuration . . . . .	7
2.4	Choosing a password . . . . .	13
2.5	Partitioning the Hard Disk . . . . .	13
2.6	Proxy Configuration . . . . .	13
2.7	Install the Inventory Analyzer Service . . . . .	13
2.8	Changing the IP-Address . . . . .	18
2.9	Changing the Web Password . . . . .	18
<b>3</b>	<b>Assets View</b>	<b>21</b>
3.1	Assets . . . . .	21
3.2	Columns . . . . .	22
3.3	Views . . . . .	23
<b>4</b>	<b>Data Sources</b>	<b>25</b>
4.1	ASGARDs . . . . .	25
4.2	NMAP Agents . . . . .	26
4.3	CSV Templates . . . . .	29
<b>5</b>	<b>Discovery</b>	<b>33</b>
5.1	History . . . . .	33
5.2	Assignment Rules . . . . .	35
5.3	Tasks . . . . .	37
5.4	Scheduled Tasks . . . . .	40
<b>6</b>	<b>Settings</b>	<b>45</b>
6.1	Users . . . . .	45
6.2	Roles . . . . .	46
6.3	TLS . . . . .	46
6.4	Password . . . . .	46
<b>7</b>	<b>Known-Issues</b>	<b>49</b>
7.1	Open Issues . . . . .	49
7.2	Fixed Issues . . . . .	49

<b>8</b>	<b>Index</b>	<b>51</b>
	<b>Index</b>	<b>53</b>

The ASGARD Inventory Analyzer is used to create an inventory of all your assets. There are several methods to feed asset data into the Inventory Analyzer, which are all described throughout this document.



## BEFORE YOU BEGIN

This is an introductory chapter to ASGARD Inventory Analyzer. Please read this chapter before you start installing or even configure your new ASGARD Inventory Analyzer.

This chapter contains Hardware Requirements, Licensing and other topics.

### 1.1 General Understanding

The ASGARD Inventory Analyzer is used to create and inventory of your endpoints. Data can be fed into it by connecting existing ASGARD instances or by deploying NMAP Agents. By specifying Assignment Rules you can decide if a new asset will be created or an existing one updated.

#### 1.1.1 Performance Considerations

Since your Inventory Analyzer is running on a separate instance, it will not create a big performance impact on your existing environment.

### 1.2 Requirements

#### 1.2.1 Hardware Requirements

The Inventory Analyzers hardware requirements [...]

Connected Endpoints	Minimum Hardware Requirements
TBA	System memory: TBA, Hard disk: TBA, CPU Cores: TBA

#### 1.2.2 NMAP Agent Requirements

Our NMAP Agent is running only on current debian based distributions.

The NMAP Agent needs `nmap` installed. You can either do this before installing the agent, or let `apt` resolve the dependency.

### 1.2.3 Network Requirements

The Inventory Analyzer requires the following open firewall ports.

#### From Management Workstation to Inventory Analyzer

Description	Ports
Administrative web interface	8443/tcp
Command line administration	22/tcp

#### From Inventory Analyzer to NMAP Agent

Description	Ports
Task distribution	4545/tcp

#### From Inventory Analyzer to the Internet

The Inventory Analyzer is configured to retrieve updates from the following remote systems via HTTPS on port 443/tcp:

Product	Remote Systems
ASGARD packages	update3.nexttron-systems.com

---

**Hint:** All proxy systems should be configured to allow access to these URLs without TLS/SSL interception. (We use client-side SSL certificates for authentication). It is possible to configure a proxy server, username and password during the setup process of the underlying platform. Only BASIC authentication is supported (no NTLM authentication support).

---

#### Time Synchronization

The application tries to reach the public Debian time servers by default.

Server	Port
0.debian.pool.ntp.org	123/udp
1.debian.pool.ntp.org	123/udp
2.debian.pool.ntp.org	123/udp

---

**Hint:** The NTP server configuration can be changed.

---



## DNS

The application needs to be able to resolve internal and external IP addresses.

**Warning:** Please make sure that you install your Inventory Analyzer with a domain name (see [Network Configuration](#)). If you do not set the Domain Name and install the Inventory Analyzer, you might encounter certain problems with future integrations.

All components you install should have a proper domain name configured to avoid issues further during the configuration.

## 1.3 Verify the Downloaded ISO (Optional)

You can do a quick hash check to verify that the download was not corrupted. We recommend to verify the downloaded ISO's signature as this is the cryptographically sound method.

The hash and signature file are both part of the ZIP archive you download from our [portal server](#).

### 1.3.1 Via Hash

Extract the ZIP and check the sha256 hash:

On Linux

```
user@host:~$ sha256sum -c nextron-universal-installer.iso.sha256
nextron-universal-installer.iso: OK
```

or in Windows command prompt

```
C:\Users\user\Desktop\asgard2-installer>type nextron-universal-installer.iso.sha256
efccb4df0a95aa8e562d42707cb5409b866bd5ae8071c4f05eec6a10778f354b nextron-universal-
↪installer.iso
C:\Users\user\Desktop\asgard2-installer>certutil -hashfile nextron-universal-installer.
↪iso SHA256
SHA256 hash of nextron-universal-installer.iso:
efccb4df0a95aa8e562d42707cb5409b866bd5ae8071c4f05eec6a10778f354b
CertUtil: -hashfile command completed successfully.
```

or in Powershell

```
PS C:\Users\user\Desktop\asgard2-installer>type .\nextron-universal-installer.iso.sha256
efccb4df0a95aa8e562d42707cb5409b866bd5ae8071c4f05eec6a10778f354b nextron-universal-
↪installer.iso
PS C:\Users\user\Desktop\asgard2-installer>Get-FileHash .\nextron-universal-installer.iso

Algorithm      Hash
↪Path
-----
↪--
SHA256          EFCCB4DF0A95AA8E562D42707CB5409B866BD5AE8071C4F05EEC6A10778F354B
↪C:\Users\user\Desktop\asgard2-installer\nextron-universal-installer.iso
```

### 1.3.2 Via Signature (Recommended)

Extract the ZIP, download the public signature and verify the signed ISO:

On Linux

```
user@host:~$ wget https://www.nextron-systems.com/certs/codesign.pem
user@host:~$ openssl dgst -sha256 -verify codesign.pem -signature nextron-universal-
↳ installer.iso.sig nextron-universal-installer.iso
Verified OK
```

or in powershell

```
PS C:\Users\user\Desktop\asgard2-installer>Invoke-WebRequest -Uri https://www.nextron-
↳ systems.com/certs/codesign.pem -OutFile codesign.pem
PS C:\Users\user\Desktop\asgard2-installer>"C:\Program Files\OpenSSL-Win64\bin\openssl.
↳ exe" dgst -sha256 -verify codesign.pem -signature nextron-universal-installer.iso.sig
↳ nextron-universal-installer.iso
Verified OK
```

---

**Note:** If openssl is not present on your system you can easily install it using winget: `winget install openssl`.

---

## SETUP GUIDE

This chapter contains the setup guide with an example on how to create a new ESXi virtual machine and installing the ASGARD Inventory Analyzer.

### 2.1 Create a new ESX VM and Mount the ISO

Create a new VM with your virtualization software. In this case, we will use VMWare ESXi managed through a VMWare VCenter.

The new VM must be configured with a Linux base system and Debian GNU/Linux 10 (64 bits) as target version. It is recommended to upload the `nextron-universal-installer.iso` to an accessible data store and mount the same to your newly created VM.

Please make sure to select a suitable v-switch or physical interface that reflects the IP address scheme you are planning to use for the new Inventory Analyzer. Only use one Hard Disk for the installation.

### 2.2 Navigate through the installer

The installation Process is started by selecting ASGARD Installation. The installer then loads the additional components from the ISO and lets you select location and language.

**Warning:** Please make sure to select the correct Country, as this will also set your local timezone!

If DHCP is available, network parameters will be configured automatically. Without DHCP, the installer drops into the manual network configuration dialogue.

Without DHCP, the installer proceeds with the manual network configuration dialogue.

### 2.3 Network Configuration

**Warning:** ASGARD needs to be able to resolve internal and external IP addresses.

## New Virtual Machine

### 1 Select a creation type

- 2 Select a name and folder
- 3 Select a compute resource
- 4 Select storage
- 5 Select compatibility
- 6 Select a guest OS
- 7 Customize hardware
- 8 Ready to complete

### Select a creation type

How would you like to create a virtual machine?

- Create a new virtual machine
- Deploy from template
- Clone an existing virtual machine
- Clone virtual machine to template
- Clone template to template
- Convert template to virtual machine

This option guides you through creating a new virtual machine. You will be able to customize processors, memory, network connections, and storage. You will need to install a guest operating system after creation.

CANCEL

BACK

NEXT

## New Virtual Machine

### ✓ 1 Select a creation type

### 2 Select a name and folder

- 3 Select a compute resource
- 4 Select storage
- 5 Select compatibility
- 6 Select a guest OS
- 7 Customize hardware
- 8 Ready to complete

### Select a name and folder

Specify a unique name and target location

Virtual machine name: asgard.nextron

Select a location for the virtual machine.

▼  vcenter

CANCEL

BACK

NEXT

## New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- ✓ 5 Select compatibility
- 6 Select a guest OS**
- 7 Customize hardware
- 8 Ready to complete

### Select a guest OS

Choose the guest OS that will be installed on the virtual machine

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

Guest OS Family:

Guest OS Version:

Compatibility: ESXi 6.7 and later (VM version 14)

CANCEL

BACK

NEXT

New Virtual Machine

- ✓ 1 Select a creation type
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Select storage
- ✓ 5 Select compatibility
- ✓ 6 Select a guest OS
- 7 Customize hardware**
- 8 Ready to complete

Customize hardware  
Configure the virtual machine hardware

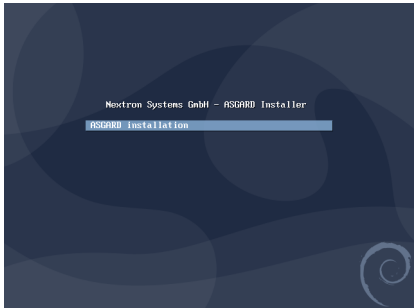
Virtual Hardware    VM Options


ADD NEW DEVICE

> CPU *	1		
> Memory *	16	GB	
> New Hard disk *	100	GB	
> New SCSI controller *	VMware Paravirtual		
> New Network *	VM Network		<input checked="" type="checkbox"/> Connect...
> New CD/DVD Drive *	Datastore ISO File		<input checked="" type="checkbox"/> Connect...
> Video card *	Specify custom settings		
VMCI device		Device on the virtual machine PCI bus that provides support for the virtual machine communication interface	
> Other	Additional Hardware		

Compatibility: ESXi 6.5 and later (VM version 13)

CANCEL    BACK    NEXT






Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

This is a shortlist of locations based on the language you selected. Choose "other" if your location is not listed.

Country, territory or area:

- Ireland
- Israel
- New Zealand
- Nigeria
- Philippines
- Seychelles
- Singapore
- South Africa
- United Kingdom
- United States
- Zambia
- Zimbabwe
- Other




Select your location

The selected location will be used to set your time zone and also for example to help select the system locale. Normally this should be the country where you live.

Listed are locations for: Europe. Use the <Go Back> option to select a different continent or region if your location is not listed.

Country, territory or area:

- Denmark
- Estonia
- Faroe Islands
- Finland
- France
- Georgia
- Germany
- Gibraltar
- Greece
- Greenland
- Guernsey
- Holy See (Vatican City State)
- Hungary




Configure locales


There is no locale defined for the combination of language and country you have selected. You can now select your preference from the locales available for the selected language. The locale that will be used is listed in the second column.

Country to base default locale settings on:


Latvia	- en_LV.UTF-8
Hong Kong	- en_HK.UTF-8
India	- en_IN
Ireland	- en_IE.UTF-8
Israel	- en_IL
New Zealand	- en_NZ.UTF-8
Nigeria	- en_NG
Philippines	- en_PH.UTF-8
Seychelles	- en_SC.UTF-8
Singapore	- en_SG.UTF-8
South Africa	- en_ZA.UTF-8
United Kingdom	- en_GB.UTF-8
United States	- en_US.UTF-8
Zambia	- en_ZM
Zimbabwe	- en_ZW.UTF-8



Configure the network

 **Network autoconfiguration failed**

Your network is probably not using the DHCP protocol. Alternatively, the DHCP server may be slow or some network hardware is not working properly.



### Configure the network

From here you can choose to retry DHCP network autoconfiguration (which may succeed if your DHCP server takes a long time to respond) or to configure the network manually. Some DHCP servers require a DHCP hostname to be sent by the client, so you can also choose to retry DHCP network autoconfiguration with a hostname that you provide.

Network configuration method:

- ☐ Retry network autoconfiguration
- ☐ Retry network autoconfiguration with a DHCP hostname
- ☒ Configure network manually

Do not configure the network at this time

Screenshot

Go Back Continue



### Configure the network

The IP address is unique to your computer and may be:

- \* four numbers separated by periods (IPv4);
- \* blocks of hexadecimal characters separated by colons (IPv6).

You can also optionally append a CIDR netmask (such as /24).

If you don't know what to use here, consult your network administrator.

IP address:

Screenshot

Go Back Continue



### Configure the network

The name servers are used to look up host names on the network. Please enter the IP addresses (not host names) of up to 3 name servers, separated by spaces. Do not use commas. The first name server in the list will be the first to be queried. If you don't want to use any name server, just leave this field blank.

Name server addresses:

Screenshot

Go Back Continue



### Configure the network

The gateway is an IP address (four numbers separated by periods) that indicates the gateway router, also known as the default router. All traffic that goes outside your LAN (for instance, to the Internet) is sent through this router. In rare circumstances, you may have no router; in that case, you can leave this blank. If you don't know the proper answer to this question, consult your network administrator.

Gateway:

Screenshot

Go Back Continue





**Warning: Important:** Make sure that the combination of hostname and domain creates an FQDN that can be resolved from the endpoints on which you intend to install the ASGARD agents. If you've configured a FQDN (hostname + domain) that cannot be resolved on the clients, no agent will be able to find and connect to the ASGARD server.

## 2.4 Choosing a password

## 2.5 Partitioning the Hard Disk

**Warning:** ASGARD is intended to be installed with only one disk. Do not configure your server with multiple disks. The system won't configure additional disks. Make sure that your disk has the recommended size. See [Hardware Requirements](#) for more information.

Finally, write your configuration to the disk by selecting "Yes" and clicking "Continue".

## 2.6 Proxy Configuration

If you are using a proxy to access the internet, enter the proxy details in the next step. Please note, Internet connectivity is required for the next step – the installation of the Inventory Analyzer service.

The base installation is now complete. In the next step we will install the service. For this step Internet connectivity is required.

## 2.7 Install the Inventory Analyzer Service

Use SSH to connect to the appliance using the user `nextron` and the password you specified during the installation. Now you can run the following command:

```
nextron@inventory:~$ sudo nextronInstaller -inventory
```

This will install the Inventory Analyzer

CHANGE PICTURE HERE



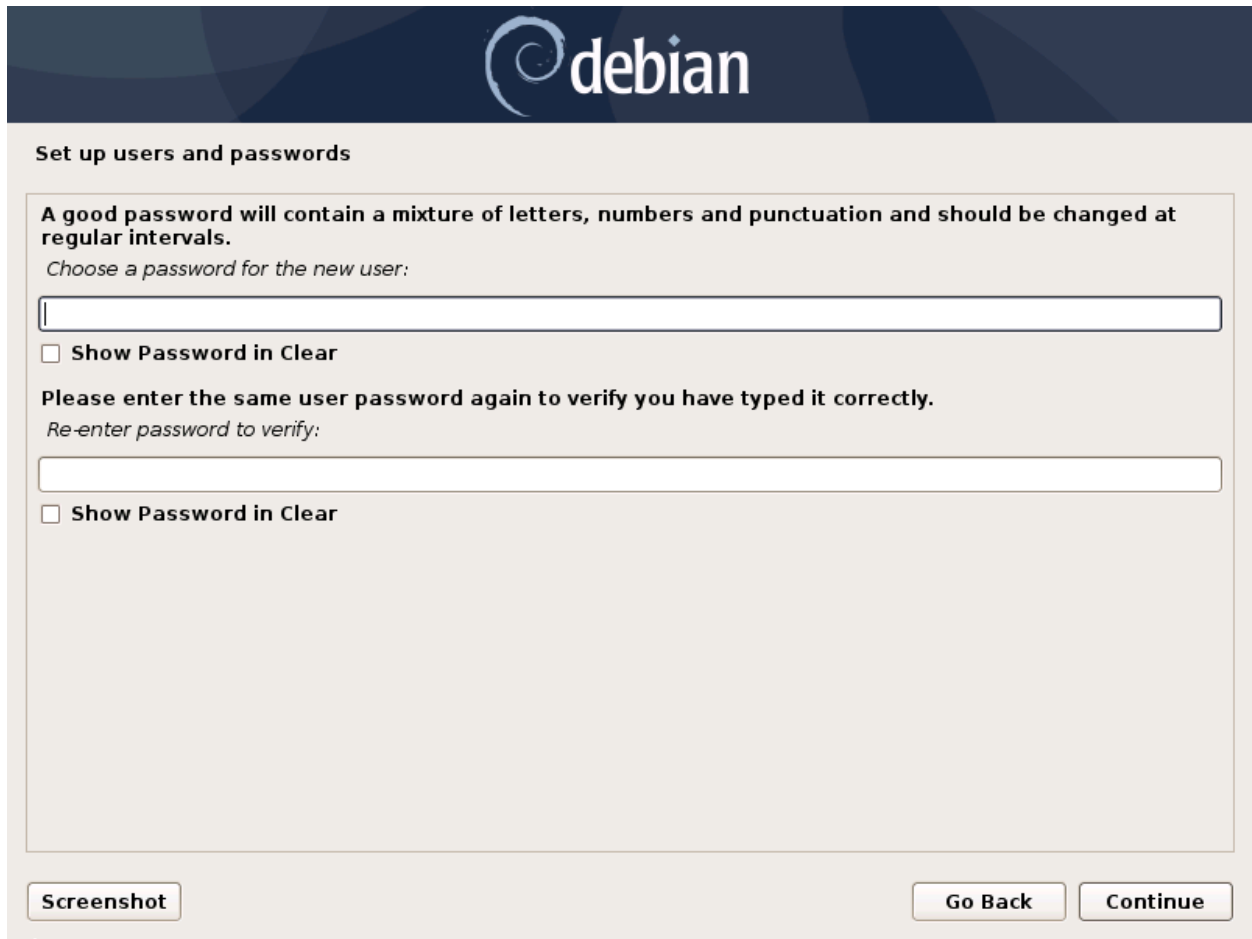
### Configure the network

The domain name is the part of your Internet address to the right of your host name. It is often something that ends in .com, .net, .edu, or .org. If you are setting up a home network, you can make something up, but make sure you use the same domain name on all your computers.

Domain name:

Screenshot

Go Back Continue



**Set up users and passwords**

A good password will contain a mixture of letters, numbers and punctuation and should be changed at regular intervals.  
Choose a password for the new user:

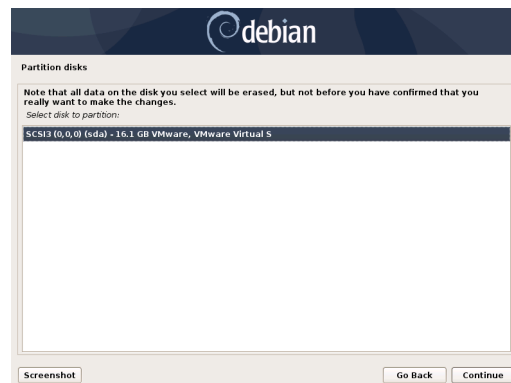
☐ Show Password in Clear

Please enter the same user password again to verify you have typed it correctly.  
Re-enter password to verify:

☐ Show Password in Clear

Screenshot Go Back Continue

Fig. 1: Choosing a password for the nexttron user

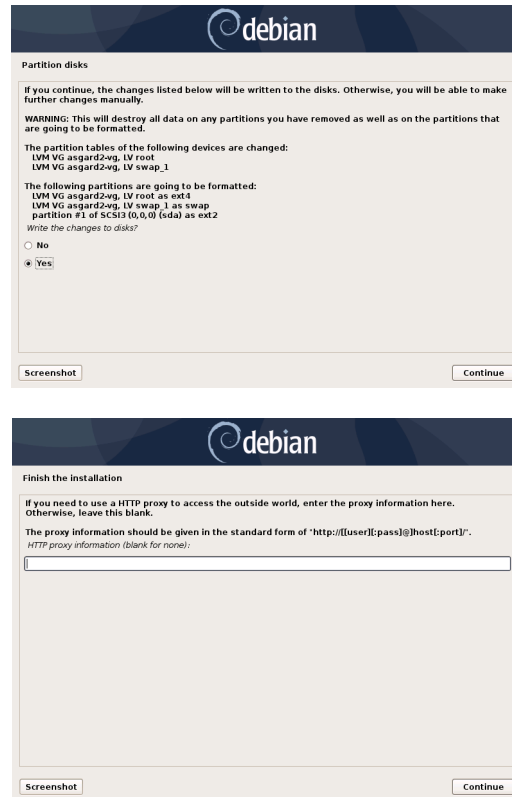


**Partition disks**

Note that all data on the disk you select will be erased, but not before you have confirmed that you really want to make the changes.  
Select disk to partition:

SCSI3 (0,0,0) (sda) - 16.1 GB VMware, VMware Virtual S
--

Screenshot Go Back Continue



After installation is complete type `sudo systemctl status asgard2`.

The output should look something like this (note the status `Active: active (running)`):

```
nextron@inventory:~$ sudo systemctl status asgard-inventory.service
[sudo] password for nextron:
asgard-inventory.service - ASGARD Inventory
   Loaded: loaded (/lib/systemd/system/asgard-inventory.service; enabled; vendor┐
   └─┐ preset: enabled)
      Active: active (running) since Fri 2023-03-03 21:26:40 CET; 45s ago
      Process: 701 ExecStartPre=/etc/asgard-inventory/pre_run_asgard_inventory.sh┐
   └─┐ (code=exited, status=0/SUCCESS)
     Main PID: 718 (bash)
        Tasks: 9 (limit: 4633)
       Memory: 22.3M
          CPU: 140ms
      CGroup: /system.slice/asgard-inventory.service
              └─718 /bin/bash /etc/asgard-inventory/run_asgard_inventory.sh
                └─719 asgard-inventory

Mar 03 21:26:40 inventory systemd[1]: Starting ASGARD Inventory...
Mar 03 21:26:40 inventory systemd[1]: Started ASGARD Inventory.
```

The installation is now completed, you are ready to log into the web-based GUI via:

`https://<your-FQDN>:8443`



## 2.8 Changing the IP-Address

Your servers IP-Address can be changed in `/etc/network/interfaces`. The IP is configured with the address variable.

```
nextron@inventory:~$ sudoedit /etc/network/interfaces
```

```
allow-hotplug ens32
iface ens32 inet static
address 192.0.2.7
netmask 255.255.255.0
gateway 192.0.2.254
```

The new IP can be applied with the command `sudo systemctl restart networking`.

**Warning:** It might be the case where the name of the network adaptor (in this example: `ens32`) is different. Please consider this when changing the values and leave the interface name how it is currently set in the configuration.

### 2.8.1 Verifying DNS Settings

To verify if your Inventory Analyzer is using the correct DNS Server, you can inspect the file `/etc/resolv.conf` and look for the `nameserver` parameter. Multiple parameters could be set here.

```
nextron@inventory:~$ cat /etc/resolv.conf
search example.org
nameserver 172.16.200.2
```

If you see errors in this configuration, you can change it with the following command:

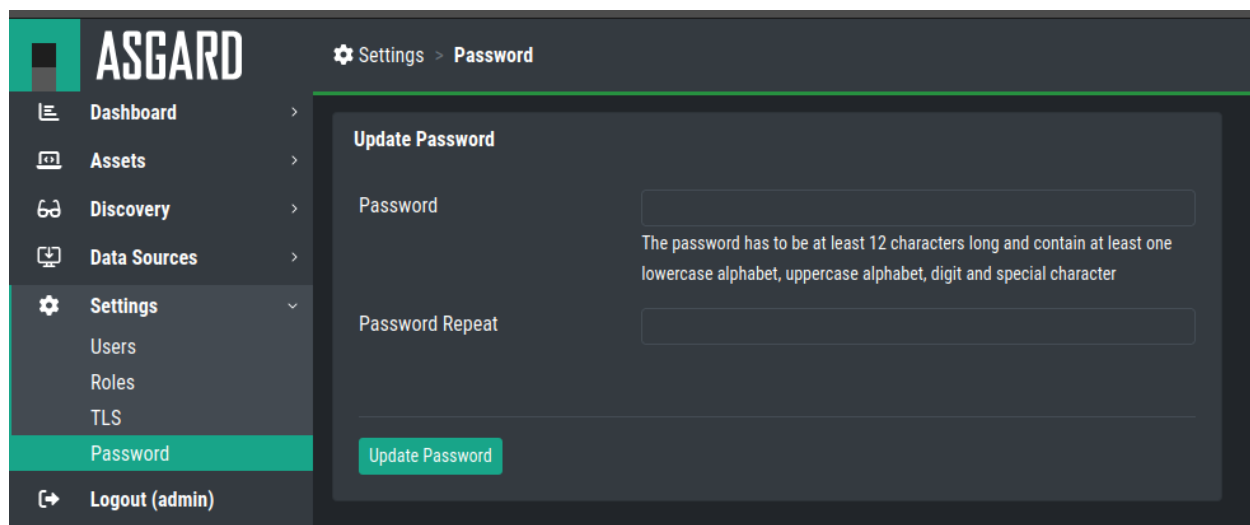
```
nextron@inventory:~$ sudoedit /etc/resolv.conf
```

## 2.9 Changing the Web Password

The default username and password is `admin`.

You should change the password for the `admin` user after the installation is finished.

To do this, navigate to `Settings > Password`. Please see the chapter [Password](#).





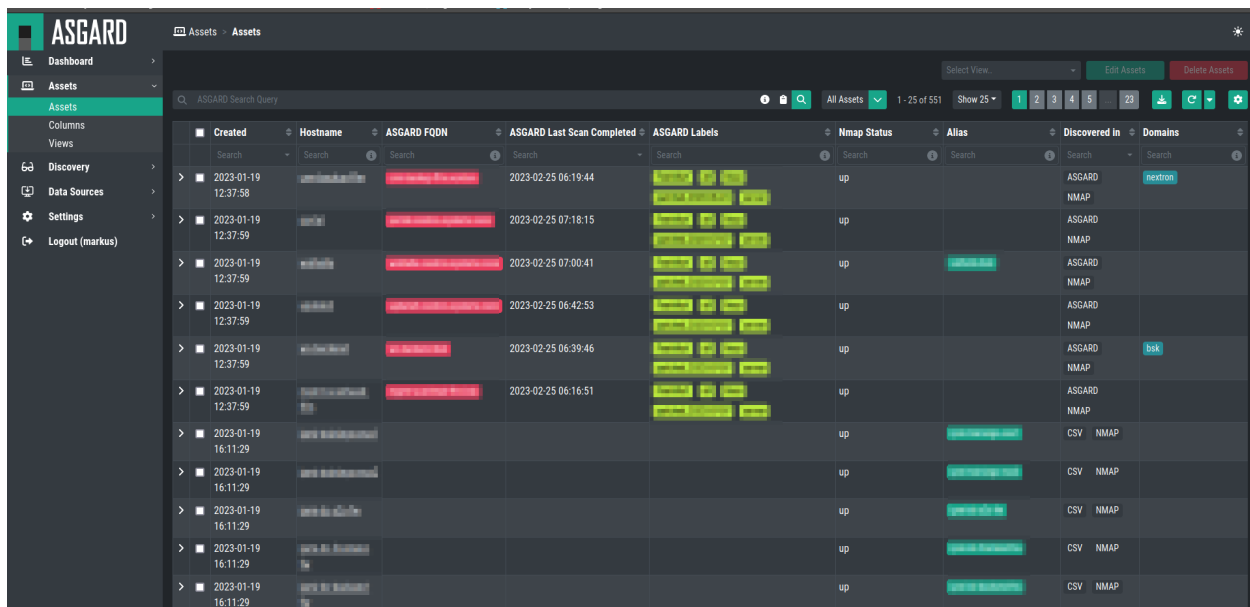


## ASSETS VIEW

In this chapter we will explain what Assignment Rules are and how to use them, how to create Tasks, and information found in the History.

### 3.1 Assets

In the Assets section you will find all imported assets. You can also use the ASGAR Search Query to find assets. You will also be able to change the View in the top right corner. To create a new view, please see [Views](#).



Created	Hostname	ASGAR FQDN	ASGAR Last Scan Completed	ASGAR Labels	Nmap Status	Alias	Discovered in	Domains
2023-01-19 12:37:58	192.168.1.1	192.168.1.1	2023-02-25 06:19:44	192.168.1.1	up		ASGAR NMAP	nextion
2023-01-19 12:37:59	192.168.1.2	192.168.1.2	2023-02-25 07:18:15	192.168.1.2	up		ASGAR NMAP	
2023-01-19 12:37:59	192.168.1.3	192.168.1.3	2023-02-25 07:00:41	192.168.1.3	up	192.168.1.3	ASGAR NMAP	
2023-01-19 12:37:59	192.168.1.4	192.168.1.4	2023-02-25 06:42:53	192.168.1.4	up		ASGAR NMAP	
2023-01-19 12:37:59	192.168.1.5	192.168.1.5	2023-02-25 06:39:46	192.168.1.5	up		ASGAR NMAP	192.168.1.5
2023-01-19 12:37:59	192.168.1.6	192.168.1.6	2023-02-25 06:16:51	192.168.1.6	up		ASGAR NMAP	
2023-01-19 16:11:29	192.168.1.7				up	192.168.1.7	CSV NMAP	
2023-01-19 16:11:29	192.168.1.8				up	192.168.1.8	CSV NMAP	
2023-01-19 16:11:29	192.168.1.9				up	192.168.1.9	CSV NMAP	
2023-01-19 16:11:29	192.168.1.10				up	192.168.1.10	CSV NMAP	
2023-01-19 16:11:29	192.168.1.11				up	192.168.1.11	CSV NMAP	

---

**Hint:** If you created a personalized view and use it, all the column settings and ordering of columns will be saved.

---

## 3.2 Columns

The Column section gives you the option to define new columns for your view. The Inventory Analyzer comes with predefined and non removable columns.

All columns created here can also be used to import asset data in your *Assignment Rules*.

Dashboard	
Assets	
Assets	
Columns	
Views	
Discovery	
Data Sources	
Settings	
Logout (markus)	

Reserved for	Pretty Name	Type	Show as Badge
A	Search	Search	Search
>	NMAP Nmap Status	Text	No
>	NMAP Nmap OS Guesses	Splitted String	#ea133e
>	NMAP Nmap Ports	Splitted String	#ea913e
>	NMAP Nmap Addresses	Splitted String	#3ebaea
>	NMAP Nmap FQDNs	Splitted String	#3e8cea
>	NMAP Nmap Hostnames	Splitted String	#3e8cea
>	ASGARD ASGARD Netbios Domain	Text	#6E8387
>	ASGARD ASGARD Labels	Splitted String	#baea3e
>	ASGARD ASGARD Addresses	Splitted String	#eaa73e
>	ASGARD ASGARD Version	Text	No
>	ASGARD ASGARD Is DC	Boolean	No
>	ASGARD ASGARD Total Memory	Text	No
>	ASGARD ASGARD CPU Count	Text	No
>	ASGARD ASGARD Updated	Date	No
>	ASGARD ASGARD Last Scan Completed	Date	No

### 3.2.1 Creating new Columns

To create a new Column, click the Add Column button in the top right corner.

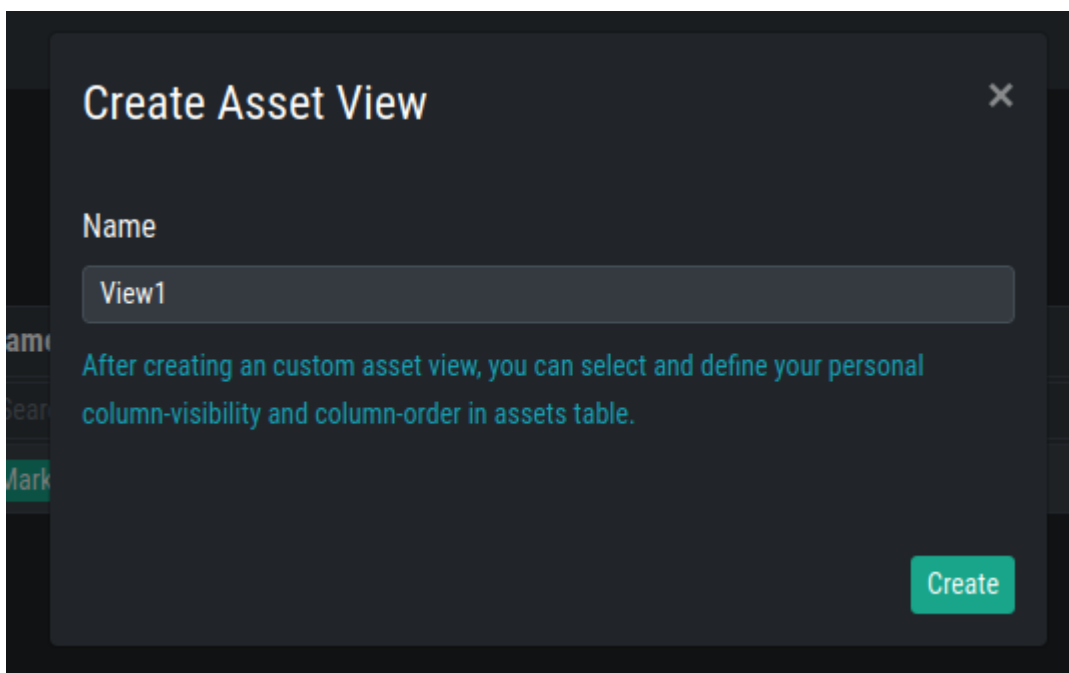
You can chose between different Column Types:

Column Type	Options
Text	Normal Text. If Show as Badge is enabled, your text will be surrounded by colored background
Splitted String	String is split into multiple badges with the chosen color. Separator can be defined
Boolean	True or False, for searching
Multi Select	Multiple Values can be defined and selected in for the Column. If Show as Badge is enabled, your text will be surrounded by colored background
Date	Date field (XYZ Format?)

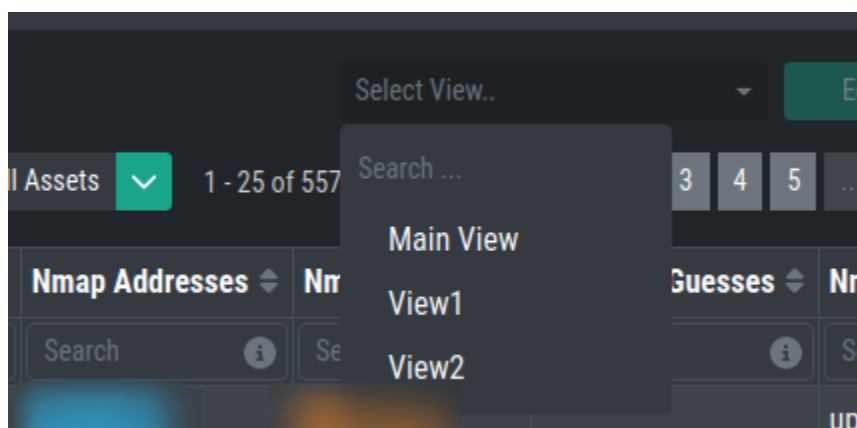
### 3.3 Views

In the Views section you can create personal Asset Views. Those views are used to save a current view in the Assets section. All the views are personalized, meaning they are only visible by your user.

To create a new personalized view, click the **Create Asset View** button and give the view a name.



You can now choose the view in the Assets section. When choosing a view and changing column visibility or sort order, the changes will be saved to this view.





## DATA SOURCES

In this chapter we will explain what Data Sources are and how to use them. We need to define data sources before we can create **Discovery** tasks to collect information from those data sources.

This step should be the first thing you set up in a new environment.

Currently we have three data sources available for asset import:

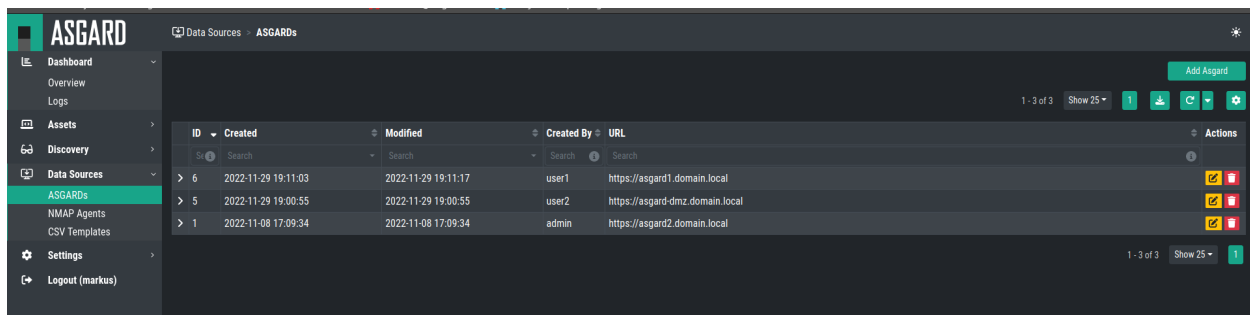
- ASGARDs
- NMAP Agents
- CSV Templates

### 4.1 ASGARDs

The ASGARD data source are your existing ASGARDs. You can use them to directly import any asset which is known to your ASGARDs.

To do this, navigate to **Data Sources > ASGARDs**.

You can see your connected ASGARDs in the overview, or add a new ASGARD as a data source.

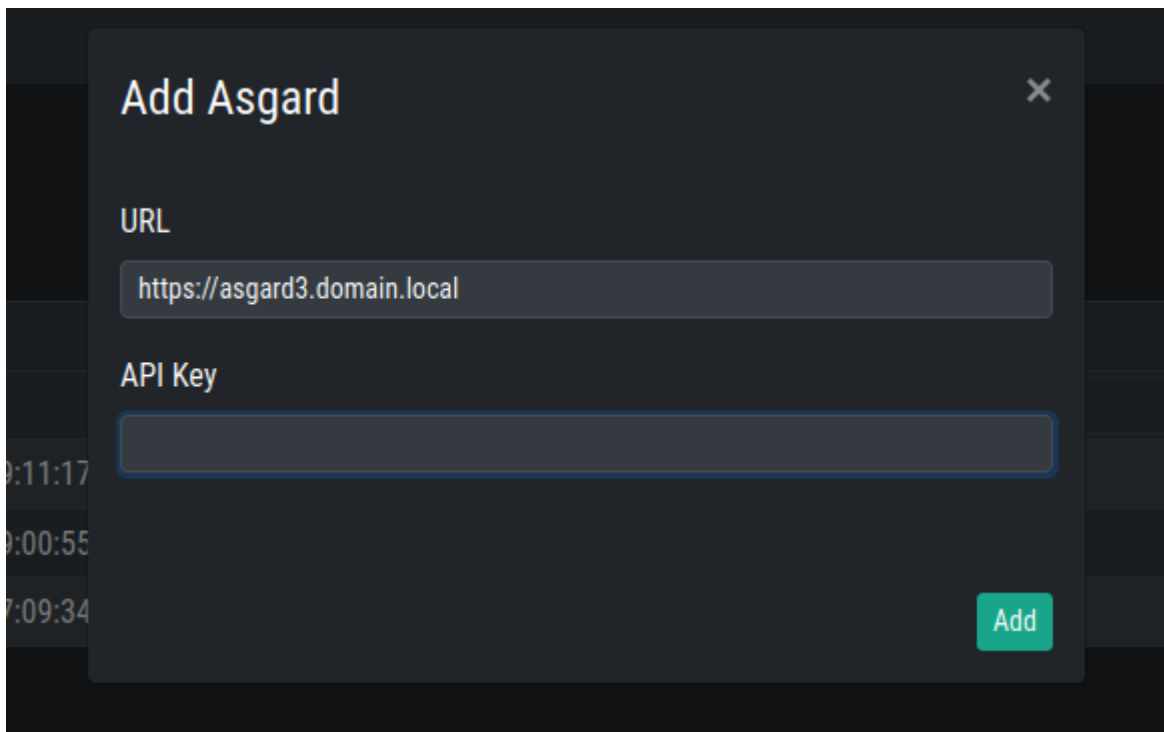


The screenshot shows the ASGARD web interface. On the left is a sidebar with navigation links: Dashboard, Assets, Discovery, Data Sources (selected), Settings, and Logout (markus). The main content area is titled 'Data Sources' and 'ASGARDs'. It features a table with columns: ID, Created, Modified, Created By, URL, and Actions. There are three entries in the table. Above the table is an 'Add Asgard' button and pagination controls showing '1 - 3 of 3' and 'Show 25'. Below the table, there is another pagination control showing '1 - 3 of 3' and 'Show 25'.

ID	Created	Modified	Created By	URL	Actions
> 6	2022-11-29 19:11:03	2022-11-29 19:11:17	user1	https://asgard1.domain.local	[Edit] [Delete]
> 5	2022-11-29 19:00:55	2022-11-29 19:00:55	user2	https://asgard-dmz.domain.local	[Edit] [Delete]
> 1	2022-11-08 17:09:34	2022-11-08 17:09:34	admin	https://asgard2.domain.local	[Edit] [Delete]

### 4.1.1 Adding a new ASGARD

To add a new ASGARD to your data sources, click the Add ASGARD button. Here you can set the URL and API Key.



You can now use this ASGARD as Data Source for a new Discovery Task. Please see chapter [Tasks](#).

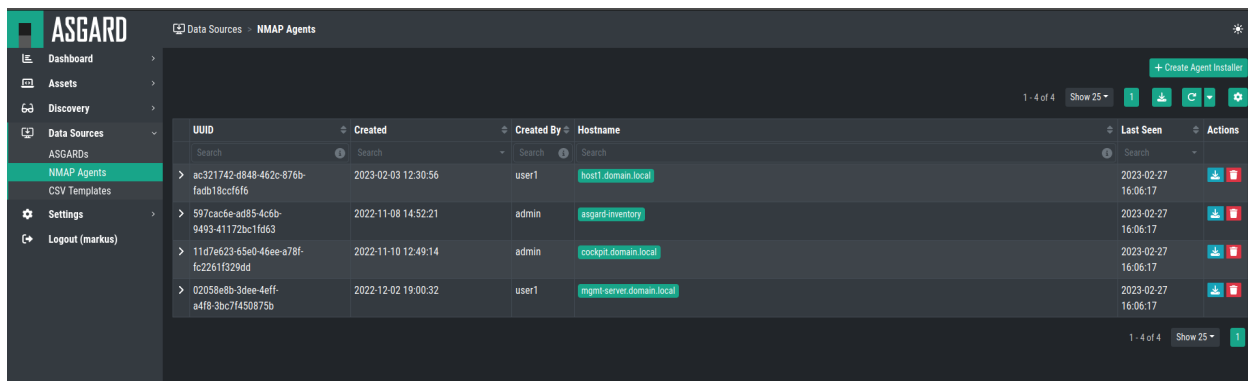
## 4.2 NMAP Agents

We created an NMAP Agent which can be installed and used on endpoints to be used for Discovery. This Agent can scan a IP subnet to detect and inventory endpoints/assets.

To do this, navigate to Data Sources > NMAP Agents.

You will see all currently created NMAP Agents, but also be able to create a new one by clicking + Create Agent Installer in the top right corner.

You will also be able to see when the Agent communicated the last time with your Inventory Analyzer (Last Seen).

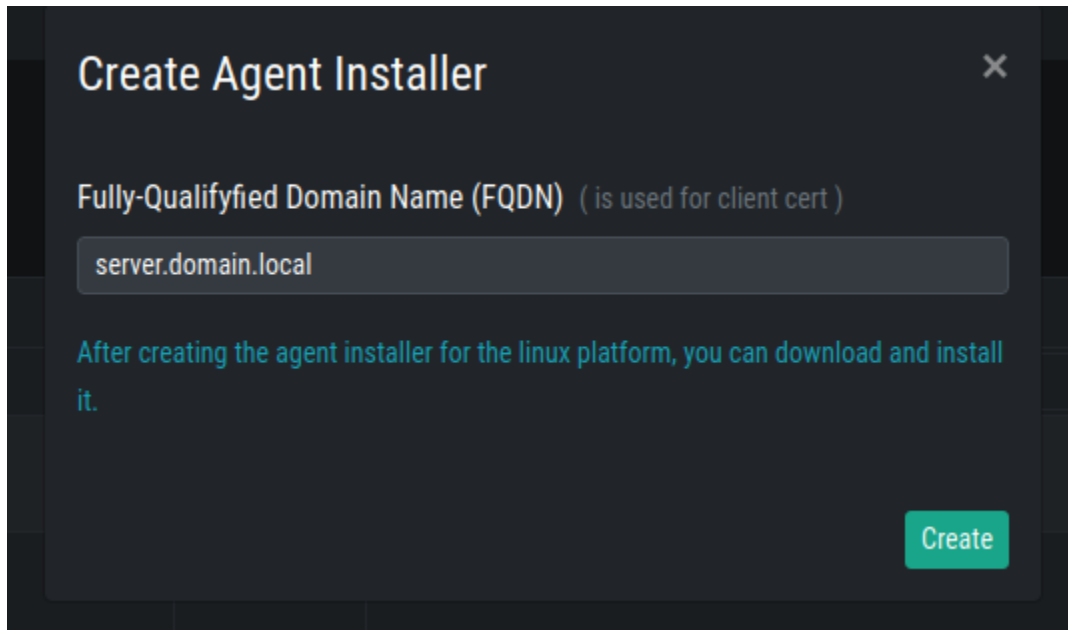


UUID	Created	Created By	Hostname	Last Seen	Actions
ac321742-d848-462c-876b-fadb18cfc6f6	2023-02-03 12:30:56	user1	host1.domain.local	2023-02-27 16:06:17	[Download] [Delete]
597cac6e-ad85-4cbb-9493-41172bc1fd63	2022-11-08 14:52:21	admin	asgard-inventory	2023-02-27 16:06:17	[Download] [Delete]
11d7e623-65e0-46ee-a78f-fc2261f329dd	2022-11-10 12:49:14	admin	cockpit.domain.local	2023-02-27 16:06:17	[Download] [Delete]
02058e8b-3dee-4eff-a4f8-3bc71430875b	2022-12-02 19:00:32	user1	mgmt-server.domain.local	2023-02-27 16:06:17	[Download] [Delete]

### 4.2.1 Creating a new NMAP Agent Installer

When creating a new NMAP Agent Installer, you will need to provide a FQDN. This is needed for the Client Certificate, which will be built into the Agent. This Client Certificate is used for TLS communication with your Inventory Analyzer.

After specifying your FQDN, you can click **Create** to create your new NMAP Agent Installer.



After creating and installing your NMAP Agent, you can later use it while creating a new NMAP Agent Task. Please see the chapter *Tasks*.

---

**Hint:** Unused Agent Installers can be deleted if they are no longer needed.

---

### 4.2.2 Installing an NMAP Agent

The created NMAP Agent Installer is a .deb file. You should be able to install it on any debian based linux distribution. Download the file and transfer it to your chosen server.

You can install it via **apt**, since this will also resolve dependencies (nmap):

```
nexttron@server:~$ sudo apt install ./server.domain.local_agent.deb
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Note, selecting 'asgard-inventory-agent' instead of './debian-demo.pi_agent.deb'
The following additional packages will be installed:
  nmap
Suggested packages:
  ncat ndiff zenmap
The following NEW packages will be installed:
  asgard-inventory-agent nmap
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
```

(continues on next page)

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```

Need to get 1,899 kB/7,990 kB of archives.
After this operation, 25.4 MB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 /home/nextron/server.domain.local_agent.deb asgard-inventory-agent amd64 1.0.0~
↳pre+20221101.0 [6,092 kB]
Get:2 http://deb.debian.org/debian bullseye/main amd64 nmap amd64 7.91+dfsg1+really7.
↳80+dfsg1-2 [1,899 kB]
Fetched 1,899 kB in 0s (10.5 MB/s)
Selecting previously unselected package nmap.
(Reading database ... 260986 files and directories currently installed.)
Preparing to unpack .../nmap_7.91+dfsg1+really7.80+dfsg1-2_amd64.deb ...
Unpacking nmap (7.91+dfsg1+really7.80+dfsg1-2) ...
Selecting previously unselected package asgard-inventory-agent.
Preparing to unpack .../server.domain.local_agent.deb ...
Unpacking asgard-inventory-agent (1.0.0~pre+20221101.0) ...
Setting up nmap (7.91+dfsg1+really7.80+dfsg1-2) ...
Setting up asgard-inventory-agent (1.0.0~pre+20221101.0) ...
Created symlink /etc/systemd/system/multi-user.target.wants/asgard-inventory-agent.
↳service → /lib/systemd/system/asgard-inventory-agent.service.
Processing triggers for man-db (2.9.4-2) ...
  
```

You can check if the Inventory Analyzer Agent is running:

```

nextron@server:~$ systemctl status asgard-inventory-agent.service
asgard-inventory-agent.service - ASGARD Inventory Agent
   Loaded: loaded (/lib/systemd/system/asgard-inventory-agent.service; enabled; vendor_
↳preset: enabled)
   Active: active (running) since Mon 2023-02-27 15:19:58 UTC; 1min 10s ago
 Main PID: 3027 (bash)
    Tasks: 6 (limit: 14230)
   Memory: 2.0M
    CGroup: /system.slice/asgard-inventory-agent.service
            └─3027 /bin/bash /etc/asgard-inventory-agent/run_asgard_inventory_agent.sh
              └─3029 asgard-inventory-agent run

Feb 27 15:19:58 server systemd[1]: Started ASGARD Inventory Agent.
Feb 27 15:19:58 server asgard-inventory-agent[3029]: 2023/02/27 15:19:58 {"CA":"/etc/
↳asgard-inventory-agent/ca-inventory.pem","HOST":"0.0.0.0","KEY":"/etc/asgard-inventory-
↳agent/se>
  
```

### 4.2.3 Uninstall an NMAP Agent

To uninstall your NMAP Agent from an endpoint, run the following command:

```

nextron@server:~$ sudo apt purge asgard-inventory-agent
[sudo] password for nextron:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages will be REMOVED:
  asgard-inventory-agent
  
```

(continues on next page)



(continued from previous page)

```
0 upgraded, 0 newly installed, 1 to remove and 41 not upgraded.
After this operation, 22.0 MB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 71815 files and directories currently installed.)
Removing asgard-inventory-agent (1.0.0~pre+20221101.0) ...
nextron@server:~$ sudo rm -r /var/lib/asgard-inventory-agent
```

You can also remove the dependencies which came with the NMAP Agent (nmap):

```
nextron@server:~$ sudo apt autoremove
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages will be REMOVED:
  liblinear4 nmap nmap-common
0 upgraded, 0 newly installed, 3 to remove and 0 not upgraded.
After this operation, 25.9 MB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 261013 files and directories currently installed.)
Removing nmap (7.91+dfsg1+really7.80+dfsg1-2) ...
Removing liblinear4:amd64 (2.3.0+dfsg-5) ...
Removing nmap-common (7.91+dfsg1+really7.80+dfsg1-2) ...
Processing triggers for man-db (2.9.4-2) ...
Processing triggers for libc-bin (2.31-13+deb11u3) ...
```

## 4.3 CSV Templates

You can also create CSV Templates to import assets.

You can freely design multiple templates to your liking and import the data later.

To do this, navigate to Data Sources > CSV Templates.

You will see all currently existing CSV Templates, but also be able to create a new template by clicking + Create Template in the top right corner.

ID	Created	Modified	Created By	Name	Columns	Actions
3	2023-01-19 16:43:21	2023-01-19 16:43:21	user1	IPMI Monitoring	1. Hostname 2. IP 3. Serial Number 4. MAC Address 5. Software Version 6. Log to Appliance required 7. Manufacturer 8. IPMI License 9. Comment 1	[Edit] [Delete]
2	2022-12-08 16:31:50	2022-12-15 15:20:21	user2	CSV Something	1. Hostname 2. Appliance IP 3. Appliance DNS Resolve 4. Appliance Name 5. Appliance Valid DNS 6. Appliance Endpoints 7. Appliance Userchanges	[Edit] [Delete]
1	2022-12-04 11:12:32	2022-12-05 00:11:07	user2	Loni Test	1. Hostname 2. Tag 3. Public FQDN 4. Managed By	[Edit] [Delete]

### 4.3.1 Creating a new CSV Template

When creating a new template, you will be able to customize how the structure of the CSV file should look like.

Chose your `Column Separator` and `Columns` as you need. Please keep in mind, that you can choose any column, either system defaults or manually created ones. Please see chapter [Columns](#).

After creating your CSV template, you can later use it while creating a new `CSV Template Task`. Please see chapter [Tasks](#).

## Create Template ×

Template Name

New CSV Template

Column Separator

;

Example:

```
hostname;status;owner  
myhost1;up;kyle  
myhost2;down;john,sarah
```

Column 1

🗑️ Hostname

Column 2

🗑️ Manufacturer

Column 3

🗑️ IP

+ Add Column

Create Template



## DISCOVERY

The Discovery Chapter describes how asset data is collected, how the asset data is being handled and how to create reoccurring tasks to keep the inventory up to date.

The first step should be to create Assignment Rules.

### 5.1 History

The Discovery History shows you all the Tasks which ran on your Inventory Analyzer. Here you can see which Data Source the tasks used (Discovered In), if new Assets were found or existing ones were updated, and the status of the Task. You can also see which Template was used and the NMAP Arguments of the your NMAP Task.

ID	TaskID	Created	Discovered in	Discovered in (Detailed)	New Assets Count	Updated Assets Count	Status
> 779	425	2023-02-27 04:01:27	NMAP	192.168.1.100	0	31	Done
> 778	251	2023-02-27 01:46:22	ASGARD	192.168.1.100	0	9	Done
> 777	250	2023-02-27 01:45:41	ASGARD	192.168.1.100	0	89	Done
> 776	239	2023-02-27 00:37:08	ASGARD	192.168.1.100	0	60	Done
> 775	227	2023-02-26 18:15:41	NMAP	192.168.1.100	0	23	Done
> 774	226	2023-02-26 17:55:54	NMAP	192.168.1.100	0	57	Done
> 773	225	2023-02-26 17:47:39	NMAP	192.168.1.100	0	21	Done
> 772	339	2023-02-26 15:31:04	NMAP	192.168.1.100	0	1	Done
> 771	337	2023-02-26 13:00:43	NMAP	192.168.1.100	0	10	Done
> 770	427	2023-02-26 05:06:11	NMAP	192.168.1.100	0	54	Done
> 769	251	2023-02-26 01:46:18	ASGARD	192.168.1.100	0	9	Done

To see the New Assets from a Task, click on the number in the New Assets Count Column.

To see the Updates Assets from a Task, click on the number in the Updates Assets Count Column. You can see which Rule triggered the Update.

>	770	427	2023-02-26 05:06:11	NMAP	Asset ID: 5461
>	769	251	2023-02-26 01:46:18	ASGARD	Asset ID: 4964
>	768	250	2023-02-26 01:45:37	ASGARD	Asset ID: 4963
>	767	239	2023-02-26 00:37:05	ASGARD	Asset ID: 4962
>	766	251	2023-02-25 01:46:30	ASGARD	Asset ID: 5460
>	765	250	2023-02-25 01:45:49	ASGARD	Asset ID: 4928
>	764	430	2023-02-25 01:30:19	NMAP	Asset ID: 4965
>	763	239	2023-02-25 00:37:02	ASGARD	Asset ID: 5459
>	762	317	2023-02-24 20:00:38	NMAP	Asset ID: 5458
>	761	334	2023-02-24 19:01:07	NMAP	Asset ID: 5457
>	760	227	2023-02-24 18:15:36	NMAP	Asset ID: 5456
>	759	226	2023-02-24 17:56:04	NMAP	Asset ID: 5455
>	758	225	2023-02-24 17:47:33	NMAP	Asset ID: 5454
>	757	427	2023-02-24 05:06:39	NMAP	Asset ID: 5453
>	756	251	2023-02-24 01:46:18	ASGARD	Asset ID: 5452

New Assets x

New Assets

Discover ID: 761

1 - 2 of 2

Show 25

1

Hostname	New / Updated
Search	Search
> Asset ID: 5461	NEW
> Asset ID: 4964	NEW

1 - 2 of 2

Show 25

1

>	779	425	2023-02-27 04:01:27	NMAP	Asset ID: 5461
>	778	251	2023-02-27 01:46:22	ASGARD	Asset ID: 4964
>	777	250	2023-02-27 01:45:41	ASGARD	Asset ID: 4963
>	776	239	2023-02-27 00:37:08	ASGARD	Asset ID: 4962
>	775	227	2023-02-26 18:15:41	NMAP	Asset ID: 4960
>	774	226	2023-02-26 17:55:54	NMAP	Asset ID: 4928
>	773	225	2023-02-26 17:47:39	NMAP	Asset ID: 4965
>	772	339	2023-02-26 15:31:04	NMAP	Asset ID: 5459
>	771	337	2023-02-26 13:00:43	NMAP	Asset ID: 5458
>	770	427	2023-02-26 05:06:11	NMAP	Asset ID: 5457
>	769	251	2023-02-26 01:46:18	ASGARD	Asset ID: 5456
>	768	250	2023-02-26 01:45:37	ASGARD	Asset ID: 5455

Updated Assets x

Updated Assets

Discover ID: 779

1 - 31 of 31

Show 25

1

2

Hostname	New / Updated
Search	Search
> Asset ID: 5461	UPDATE Asset ID: 5461 Matched Rule ID: 13
> Asset ID: 4964	UPDATE Asset ID: 4964 Matched Rule ID: 9
> Asset ID: 4963	UPDATE Asset ID: 4963 Matched Rule ID: 9
> Asset ID: 4962	UPDATE Asset ID: 4962 Matched Rule ID: 9
> Asset ID: 5460	UPDATE Asset ID: 5460 Matched Rule ID: 13
> Asset ID: 4928	UPDATE Asset ID: 4928 Matched Rule ID: 9
> Asset ID: 4965	UPDATE Asset ID: 4965 Matched Rule ID: 9
> Asset ID: 5459	UPDATE Asset ID: 5459 Matched Rule ID: 13
> Asset ID: 5458	UPDATE Asset ID: 5458 Matched Rule ID: 13
> Asset ID: 5457	UPDATE Asset ID: 5457 Matched Rule ID: 10
> Asset ID: 5456	UPDATE Asset ID: 5456 Matched Rule ID: 13
> Asset ID: 5455	UPDATE Asset ID: 5455 Matched Rule ID: 13
> Asset ID: 5454	UPDATE Asset ID: 5454 Matched Rule ID: 13
> Asset ID: 5453	UPDATE Asset ID: 5453 Matched Rule ID: 13
> Asset ID: 5452	UPDATE Asset ID: 5452 Matched Rule ID: 13
> Asset ID: 4966	UPDATE Asset ID: 4966 Matched Rule ID: 9
> Asset ID: 5451	UPDATE Asset ID: 5451 Matched Rule ID: 13
> Asset ID: 5450	UPDATE Asset ID: 5450 Matched Rule ID: 13
> Asset ID: 5449	UPDATE Asset ID: 5449 Matched Rule ID: 13

## 5.2 Assignment Rules

Assignment Rules are used to determine if an existing asset should be updated, or if a new asset should be created instead.

Your system comes with two predefined Assignment Rules, one for ASGARDs and one for NMAP, which cannot be deleted or changed.

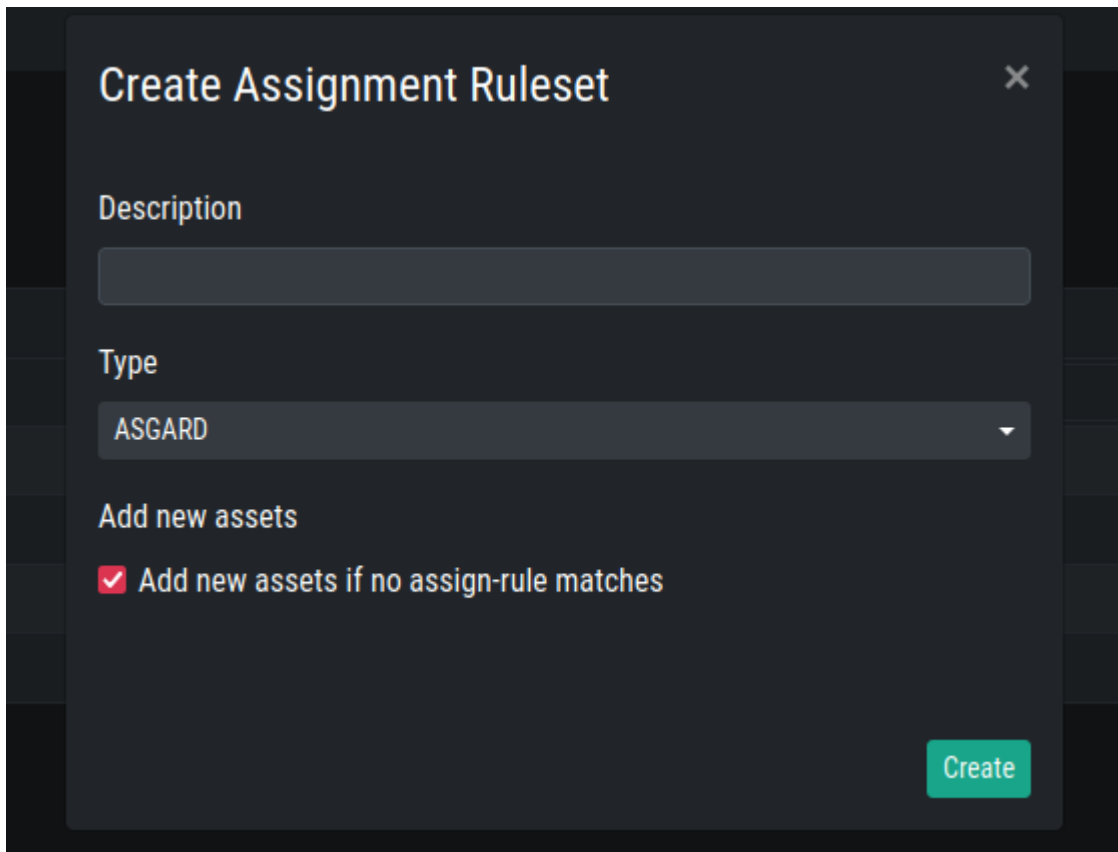
You can create Assignment Rules based on a Rule Type. Those Rule Types are the same as your Data Sources: *ASGARDs*, *NMAP Agents* and *CSV Templates*.

### 5.2.1 Creating Assignment Rules

An Assignment Rule is stored inside an Assignment Set. One Assignment Set can contain multiple Assignment Rules. One Assignment Rule can contain multiple Conditions.

To create new Assignment Set, click + **Create Set** in the top right corner. You will be able to set a **Description** and a **Type**.

You also have the option to set **Add new assets if no assign-rule matches**. This option is helpful if you want to add new assets to the inventory analyzer.

A dark-themed modal dialog box titled "Create Assignment Ruleset" with a close button (X) in the top right corner. The dialog contains three main sections: "Description" with a text input field, "Type" with a dropdown menu currently showing "ASGARD", and "Add new assets" with a checked checkbox labeled "Add new assets if no assign-rule matches". A green "Create" button is located in the bottom right corner of the dialog.

This will create a new Assignment Set, which in turn can then be used to Add Assignment Rules to it.

Expand your Set on the left hand side, you will see that no rules are defined yet.

Create a new Assignment Rule by clicking **Assignment Rule**. You can specify conditions for this specific Assignment Rule.

Add Assignment Rule - ASGARD Rule

Discovered Field	Condition	Value
ASGARD Addresses	STARTS WITH VALUE	172.16.100

Description  
If imported field ASGARD Addresses starts with value 172.16.100

Examples  
DISCOVERED\_VALUE: host1.testing.nexttron VALUE: host1 → match  
DISCOVERED\_VALUE: host1.testing.nexttron VALUE: host2 → no match

Discovered Field	Condition	Value
ASGARD Hostname	STARTS WITH VALUE	win-

Description  
If imported field ASGARD Hostname starts with value win-

Examples  
DISCOVERED\_VALUE: host1.testing.nexttron VALUE: host1 → match  
DISCOVERED\_VALUE: host1.testing.nexttron VALUE: host2 → no match

Add Condition

Add Rule

In our example we created:

- An Assignment Set with the type ASGARD
- An Assignment Rule within the ASGARD Assignment Set
- The rule contains the following conditions:
  - If imported field ASGARD Addresses starts with value 172.16.100
  - If imported field ASGARD Hostname starts with value win-

This means, if we create a Task to run a Discovery on one of our ASGARs, and an asset with the IP 172.16.100.22 and Hostname win-example-01 is found, it will be added to our inventory. If the asset was already present in our inventory, it will be updated.

You can reorder the priority of single rules. The first has the highest priority.

**Note:** Conditions within a rule are connected with an AND operator. Rules within a set are connected with an OR operator.

You can change the order of the Rules within your Set. To do this, you can use the Action Buttons on the right hand side.





### 5.3.1 ASGARD Task

The ASGARD Task will scan the selected ASGARD instance for all available, or rather connected, assets. How the assets are assigned will depend on your assignment rule.

The screenshot shows a 'Create Task' modal window. It has a dark background with white text. The title is 'Create Task' with a close icon (X) in the top right corner. There are three dropdown menus: 'Type' with 'ASGARD' selected, 'Assignment Ruleset' with 'ASGARD Default Ruleset' selected, and 'Asgard' with 'https://asgard1.domain.local' selected. A green 'Create' button is located at the bottom right of the modal.

After your task has finished, you can inspect the results:

You can also inspect the details of the found hostnames. Those details contain what RuleID matched in the task, where it was discovered and more.

### 5.3.2 NMAP Task

The NMAP Task will run an nmap scan from the defined data source. You have to provide the assignment ruleset, the agent and a scan target. The scan target can be in the following format:

- FQDN, for example `myhost.domain.local`
- Single IP, for example `192.168.0.122`
- Subnets, for example `192.168.0.0/24`
- Comma Separated, for example `192.168.0.1,5,10`
  - This would scan the hosts `192.168.0.1`, `192.168.0.5` and `192.168.0.10`
- Ranges, for example `192.168.1-10.1`
  - This would scan the hosts `192.168.1.1` until `192.168.10.1`
- Or combinations, for example `192.168.0-10,20,30.1-20,30,40`

Task ID: 543

1 - 60 of 60

Show 25

123

Hostname	New / Updated
> [redacted]	UPDATE Asset ID: 5044 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5043 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5042 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5041 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5040 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5039 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5038 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5037 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5036 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5035 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5034 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5033 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5032 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5031 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5030 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5029 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5028 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5027 Matched Rule ID: 1

Task ID: 543

1 - 60 of 60

Show 25

123

Hostname	New / Updated
> [redacted]	UPDATE Asset ID: 5044 Matched Rule ID: 1
ID	24334
AssetID	5044
TaskID	543
DiscoverID	614
RuleID	1
Hostname	[redacted]
Discovered In	ASGARD
Discovered in (Detailed)	https://asgard1.domain.local
New / Updated	UPDATE Asset ID: 5044 Matched Rule ID: 1
Discovered Date	2023-02-03 12:45:52
> [redacted]	UPDATE Asset ID: 5043 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5042 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5041 Matched Rule ID: 1
> [redacted]	UPDATE Asset ID: 5040 Matched Rule ID: 1

- You can use a combination of all of the above, for example `myhost.domain.local 192.168.0.0/4 192.168.1-10.1-254`

---

**Hint:** For a full explanation of the target specification, please see the official nmap documentation [here](#).

---

For the Flags we also have a few predefined options:

- **Polite Scan** - Scan may take ten times longer than a default scan. This is recommended for cautious (less aggressive) scans.
- **Operating System Fingerprint** - Using TCP/IP stack fingerprinting. Nmap sends a series of TCP and UDP packets to the remote host and examines practically every bit in the responses.
- **Ports Top 100** - This option specifies the number of ports to scan in each protocol. This will pick the most popular ports for you based on the new frequency data. Default is **1000**
- **TCP Connect Scan** - TCP connect scan is the default TCP scan type when SYN scan is not an option. This is the case when a user does not have raw packet privileges

After choosing your input, you will see the Scan Arguments on the bottom.

You can inspect the results of your task just like any other task.

---

**Hint:** The result of a NMAP Task can be downloaded (XML file).

---

### 5.3.3 CSV Import

The CSV Import lets you upload a CSV file and import that way assets.

You can again choose an assignment ruleset and a template.

Inspecting the task will show you the columns which were used to import the file with additional information.

## 5.4 Scheduled Tasks

Scheduled Tasks are identical to normal tasks with the only exception to configure them for a specific Start Time and a schedule.

You can choose between the following Schedules:

Schedule
No (run only once)
Every day
Every 2 days
Every 4 days
Every week
Every 2 weeks
Every 3 weeks
Every month
Every 2 months

The overview will show you all of the scheduled tasks.

## Create Task ×

Type

NMAP

Assignment Ruleset

Nmap Default Ruleset

Agent

somehost.domain.local

Scan Target

192.168.0.0/24

Flags

☒ Polite Scan ⓘ

☒ Operating System Fingerprint ⓘ

☒ Ports Top 100 ⓘ

☐ TCP Connect Scan ⓘ

Scan Arguments

> nmap -O --top-ports 100 -T polite 192.168.0.0/24

Create

Create Task

×

Type

CSV Import

Assignment Ruleset

test

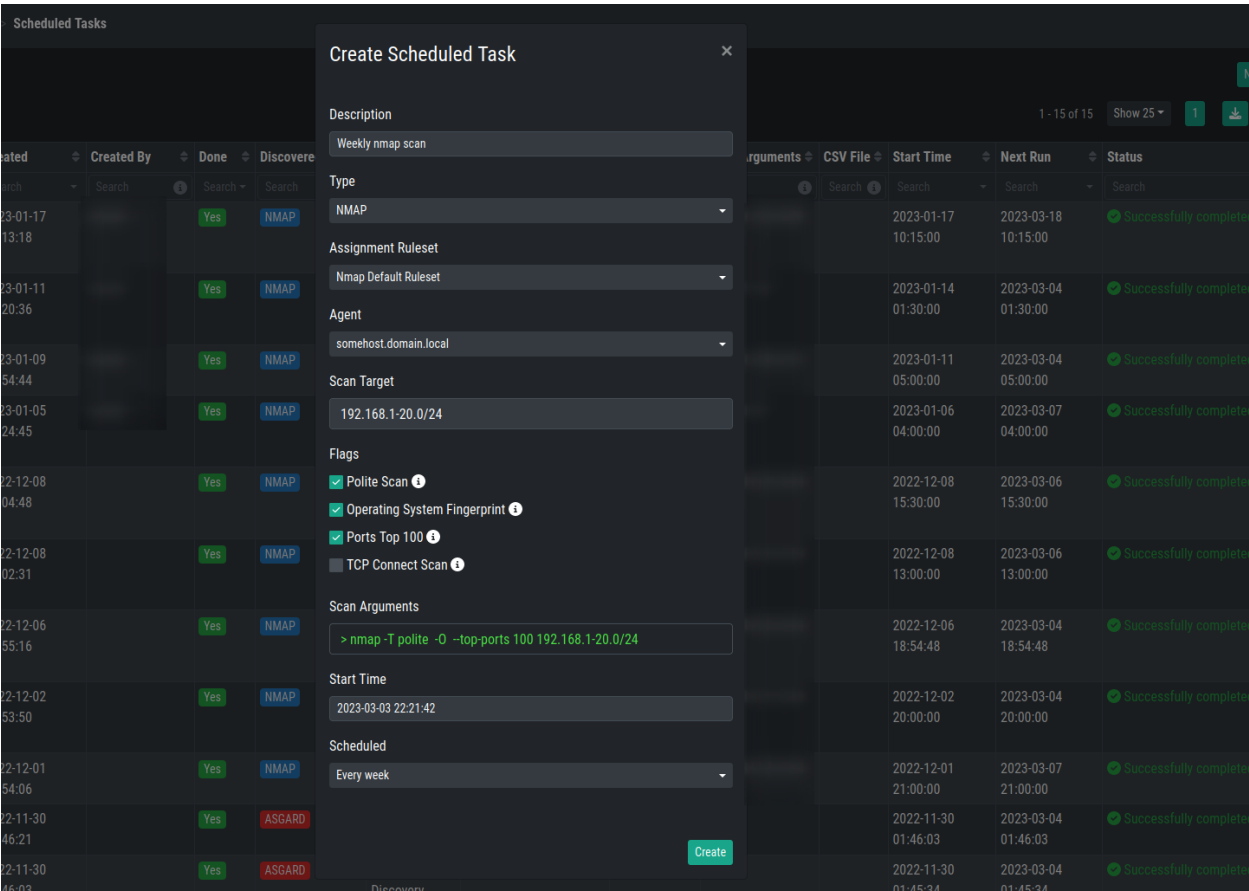
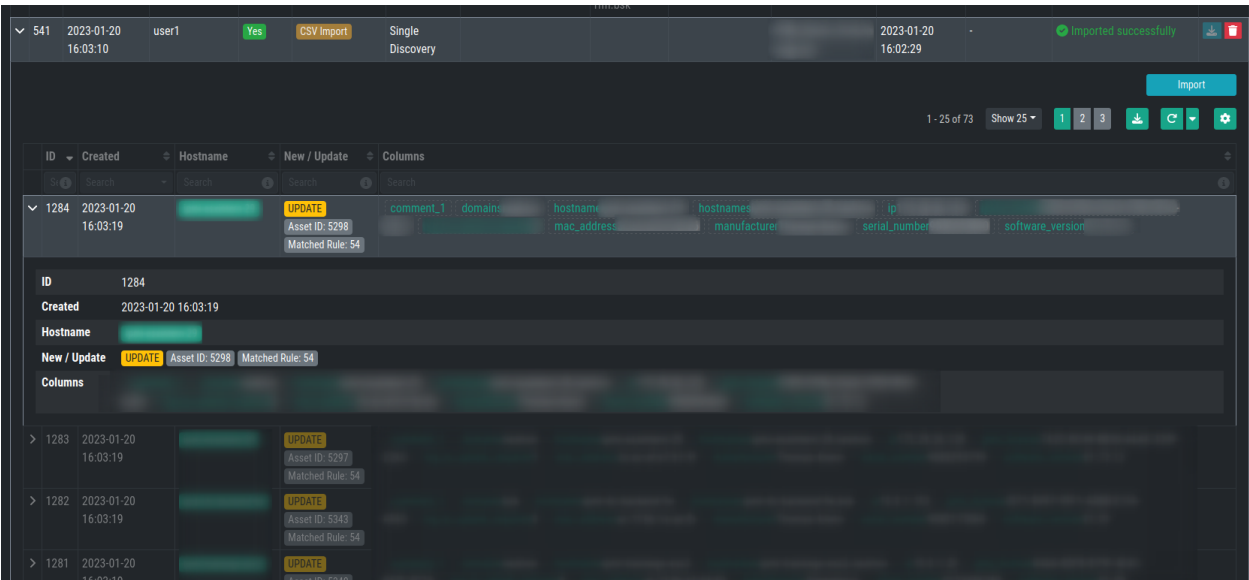
Template

New CSV Template

File

Drag 'n' drop your file here or click to select!

Create



---

**Hint:** The result of a scheduled NMAP Task can be downloaded (XML file).

---



## SETTINGS

The **Settings** Section gives you the option to change and set up different administrative options for your Inventory Analyzer. You can create new users, define roles and install a TLS Certificate to avoid browser warnings.

### 6.1 Users

In the Users section, you will be able to review, create or delete users.

ID	Created	Username	Full Name	Email	Comment	Role Name	Rights	2FA	Actions
> 1	2022-12-02T14:50:51Z	admin	admin		Initial Admin User	Admin	Manage Assign Rules, Manage CSV Templates, Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns	No	[Edit] [Delete]
> 2	2022-11-29T17:17:55Z	test	Drilon Kamberaj	drilon.kamberaj@company.com	Drilon Kamberaj	Admin	Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules, Manage CSV Templates	No	[Edit] [Delete]
> 3	2022-12-01T16:17:45Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules, Manage CSV Templates	No	[Edit] [Delete]
> 4	2022-12-01T16:18:23Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules, Manage CSV Templates, Manage Tasks	No	[Edit] [Delete]
> 5	2022-12-01T16:19:13Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Manage Assign Rules, Manage CSV Templates, Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns	No	[Edit] [Delete]
> 6	2022-12-01T16:19:51Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules, Manage CSV Templates, Manage Tasks, Admin	No	[Edit] [Delete]
> 7	2022-12-01T16:20:32Z	test	Harold Kamberaj	harold.kamberaj@company.com		CSV User	Manage Asset Columns, Manage CSV Templates, Manage Tasks	No	[Edit] [Delete]
> 9	2022-12-13T16:51:19Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Manage Assign Rules, Manage CSV Templates, Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns	No	[Edit] [Delete]
> 10	2022-12-16T10:08:56Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Manage CSV Templates, Manage Tasks, Admin, Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules	No	[Edit] [Delete]
> 11	2023-01-04T17:11:45Z	test	Harold Kamberaj	harold.kamberaj@company.com		CSV User	Manage CSV Templates, Manage Tasks, Manage Asset Columns	No	[Edit] [Delete]
> 12	2023-02-27T14:50:45Z	test	Harold Kamberaj	harold.kamberaj@company.com		Admin	Audit Log, Manage Agents, Manage ASGARDCONSOLE, Manage Asset Columns, Manage Assign Rules, Manage CSV Templates, Manage Tasks, Admin	No	[Edit] [Delete]

To create a new user, just click **Add User** in the top right corner and fill out the information. Roles can be created in the *Roles* view.

## 6.2 Roles

You can create different roles based on predefined sets of permissions/rights. After installation, you will only see the Admin role, but can add new roles as needed.

The following Rights can be configured:

Rights	Description
Admin	<b>Right:</b> User has administrative rights
Audit Log	<b>Right:</b> User can access Audit Logs
Manage ASGARDS	<b>Rights:</b> Adding, Removing and Updating ASGARDS
Manage Agents	<b>Rights:</b> Adding, Removing and Updating Agents
Manage Asset Columns	<b>Rights:</b> Adding, Removing and Updating Columns
Manage Assign Rules	<b>Rights:</b> Adding, Removing and Updating Assign Rulesets
Manage CSV Templates	<b>Rights:</b> Adding, Removing and Updating CSV Templates
Manage Tasks	<b>Rights:</b> Adding, Removing and Updating Tasks
Read Only	<b>Restriction:</b> User can only read

---

**Note:** Restrictions overwrite permissions. If you set Read Only for a Role, all users in the group will be restricted to read-only, regardless of other permissions in the same role.

---

## 6.3 TLS

You can install a TLS Certificate to avoid browser warnings when using your Inventory Analyzer.

To do this, navigate to **Settings > TLS**.

You need to generate a CSR (Certificate Signing Request) and let the CSR sign by your CA (Certificate Authority). Afterwards, you can install the certificate - generated and signed from your CA - in the same page.

### 6.3.1 Generating a CSR

To generate a CSR for your Certificate Authority, just fill in the correct information into the text fields. Most importantly is the **Common Name** field. Hostnames and IP Addresses are not needed, but are often used in organizations (subjectAlternativeName).

After filling out the information, click **Generate CSR**. You will be able to download the CSR now.

## 6.4 Password

This section allows the current user to change their password.

Settings > TLS

### Generate new CSR

Common Name [required]

Hostnames ⓘ IP Addresses ⓘ

Organization Organization Unit

Country Province Locality

Postal Code City Street Address

Generate CSR

### Install Certificate

Select Certificate

Browse

Upload Certificate

ASGARD

Dashboard >
Assets >
Discovery >
Data Sources >
Settings >
Users
Roles
TLS
Password
Logout (admin)

Settings > Password

### Update Password

Password

The password has to be at least 12 characters long and contain at least one lowercase alphabet, uppercase alphabet, digit and special character

Password Repeat

Update Password



## KNOWN-ISSUES

This sections gives you an overview of known issues with the Inventory Analyzer. You can find

### 7.1 Open Issues

This section contains all the issues which are currently open.

---

**Hint:** There are no open issues at the moment.

---

### 7.2 Fixed Issues

This section contains all the issues which have been fixed already.

---

**Hint:** There are no fixed issues at the moment.

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INDEX

- genindex





## INDEX

### A

ASGARDs, 25  
Assets, 21  
Assignment Rules, 33

### C

Changing IP-Address, 16  
Columns, 21  
CSV Templates, 29

### D

Default Credentials, 18  
DNS, 4

### E

ESXi VM, 7

### F

Fixed Issues, 49

### G

General Understanding, 3

### H

History, 33  
Home, 1

### I

Install Inventory Analyzer, 13  
Installer, 7  
Installing an NMAP Agent, 27

### N

Network Configuration, 7  
Network Requirements, 3  
New ASGARD, 25  
New Assignment Rule, 35  
New CSV Templates, 30  
New NMAP Agent Installer, 26  
NMAP Agents, 26  
NTP, 4

### O

Open Issues, 49  
Other, 13

### P

Password, 46

### R

Requirements, 3  
Roles, 45

### S

Scheduled Tasks, 40

### T

Tasks, 36  
TLS, 46

### U

Uninstalling an NMAP Agent, 28  
Users, 45

### V

Verify DNS Settings, 18  
Verify ISO, 5  
Views, 22