

Hardware Health Switch SNMPv1v2 - Switch-SNMPv1v2-detailed

Overview

This document describes how you can import hosts and users from Active Directory.

There are some steps you'll need to follow in order to be able to import hosts and users :

- Enable the Active Directory source,
- Configure the Active Directory module,
- Configure the connection to Active Directory,
- Configure the mapping rules,
- Configure the import rules.

What is already available in the Shinken Installation

To make your life a bit easier, a few configuration tasks have already been done for you:

1. Installation of the Active Directory import module,
2. Availability of an example of pre configured active directory source ready to be customized.

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Setup the pre-installed source

Installation and update script of Shinken will set up a default active directory source already configured:

- You can see it in the source table of the UI Configuration home page.
- This source uses 2 kinds of configuration files
 - **Source definition files**
 - **Configuration files** to customize the data mining.
 - available in folder (/etc/shinken-user/source-data-active-directory-sample).



Advice

The first time, we are advising you to only update Configuration files.

You will then decide if you want to have 1 or more active directory sources (if you have a big active directory, it might be interesting to have many sources pointing of specific entries for performance gain).

Source definitions:

Enable the activ-dir-import Source:

In the **Automatic Detection Modules** panel, clic on the selector to enable the module.



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You can find the following parameters in the source file :

Property	Example	Description
source_name	active-dir	Name of this source. Must be unique.
order	2	Order in the merge algorithm of this source data. Look in the Synchronizer page for more information about it.
import_interval	5	Launch this source every <i>import_interval</i> minutes.
modules	active-dir	<i>(module used by shinken to parse active directory data)</i>
enabled	0	Activate or Disable the source.
description	This source is about loading hosts from active directories	

Configure the Active Directory Module

- The source If necessary, the file `/etc/shinken/modules/activ-dir-import.cfg`
 - Uncomment and change the following parameters to point to the file located in `/etc/shinken-user/source-data/source-data-active-directory`

Property	Value
module_name	active-dir
module_type	active-dir-import
connection_configuration_file	<code>/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-connection.json</code>
rules_configuration_file	<code>/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-rules.json</code>
mapping_configuration_file	<code>/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-mapping.json</code>

Connection configuration

This file is used to make the connexion to your Active Directory server.

Edit the file `/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-connection.json`

Property	Default	Description
url	<code>ldap://YOUR-DC-FQDN/</code>	URL of your Active Directory server.
base	<code>dc=YOUR,dc=DOMAIN,dc=com</code>	Base OU for your objects discovery.
hosts_base	<code>OU=DataCenter Servers,dc=YOUR,dc=DOMAIN,dc=com</code>	Base OU for the hosts discovery.
contacts_base	<code>dc=YOUR,dc=DOMAIN,dc=com</code>	Base OU for the contacts discovery.
username	<code>SHINKEN@YOURDOMAIN.com</code>	Username used to connect to the Ldap server.
password	<code>PASSWORD</code>	Password used by the user to connect to the Ldap server.

Example

`/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-connection.json`

```
{
  "url": "ldap://vm-w2k8r2.shinkendom.local/",
  "base": "dc=shinkendom,dc=local",
  "hosts_base": "OU=serveurs,dc=shinkendom,dc=local",
  "hostgroups_base": "OU=serveurs,dc=shinkendom,dc=local",
  "contacts_base": "OU=utilisateurs,DC=shinkendom,DC=local",
  "username": "administrateur@shinkendom.local",
  "password": "P@ssword1"
}
```



Tip

The account used to request LDAP only need read-only access. You should create a user account with read-only access dedicated to the Active Directory import module.

Mapping rules configuration

This file allow you to do the mapping between Active Directory and Shinken properties.

Unless you know what you're doing here, you should keep this file unmodified.

You can find some customization in the How to section.

File `/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-mapping.json`

`/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-mapping.json`

```
# IMPORTANT: Do not edit this file.
# To have your own mapping, copy it under the /etc/shinken-users directory and edit your copy instead.
# Note: comments should be with a # starting the line, NOT after a value
{
# first hosts propertyes (computer object in Active Directory)
  "host.name": "name",
  "host.dNSHostName": "dNSHostName",
  "host.operatingSystem": "operatingSystem",
  "host.operatingSystemServicePack": "operatingSystemServicePack",
  "host.distinguishedName": "distinguishedName",
  "host.filter": "(objectClass=computer)",

# Now contact properties
  "contact.name": "name",
  "contact.telephoneNumber": "telephoneNumber",
  "contact.mobile": "mobile",

# Co: for country
  "contact.co": "co",

# l: for city
  "contact.l": "l",
  "contact.company": "company",
  "contact.filter": "(&(objectCategory=person)(objectClass=user))",

# By default hostgroup are not requested. Setup a filter to enabled it
  "hostgroup.filter": ""
}
```

Import rules configuration

This file is used to apply **host template**, **contact template** and tags to the hosts and contacts while the import.

Edit the file `/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-rules.json`

**Tip**

A host template called windows is already available in Shinken checking : Cpu, Disks, EventLogApplication, EventLogSystem, Memory, Network Interface, Reboot, Services, Swap.

As a good start, you can configure the property **hosts_tag** in this way :

hosts_tag	windows
-----------	---------

The mandatories properties to modify are in green.

Property	Default	Description
hosts_tag	yourdomain	Shinken host template applied during the import
contacts_tag	generic-contact	Shinken contact template applied during the import
contacts_filters	CN=Domain Admins,CN=Users,DC=YOUR,dc=DOMAIN,dc=com CN=OTHERGROUPS,OU=Groups,OU=Users Groups,DC=YOUR,dc=DOMAIN,dc=com	User group to import
hosts_tag_citrix	OU=Terminal Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com	host tag citrix
hosts_tag_database	OU=Database Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com	host tag database
hosts_tag_exchange	OU=Email Collaboration Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com	host tag exchange
hosts_tag_fileprint	OU=Files Print Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com	host tag fileprint
hosts_match_operatingSystem_windows	windows	host tag windows
hosts_match_operatingSystem_windows2008	windows*.2008(?!.*(?:r2))	host tag windows2008
hosts_match_operatingSystem_windows2008r2	windows*.2008*.r2	host tag windows 2008r2
hosts_match_operatingSystem_windows2003	windows*.2003	host tag windows2003
hosts_match_operatingSystem_windows2012	windows*.2012(?!.*(?:r2))	host tag windows2012
hosts_match_operatingSystem_windows2012r2	windows*.2012*.r2	host tag windows2012r2
hosts_match_operatingSystem_windows2000	windows*.2000	host tag windows 2000
hosts_match_operatingSystem_windowsxp	windows*.xp	host tag windows xp
hosts_match_operatingSystem_enterprise	Enterprise	host tag Enterprise
hosts_match_operatingSystemServicePack_sp1	Service Pack 1	host tag Service Pack 1
hosts_match_operatingSystemServicePack_sp2	Service Pack 2	host tag Service Pack 2
hosts_match_operatingSystemServicePack_sp3	Service Pack 3	host tag Service Pack 3
contacts_match_memberOf_domain-admins	CN=Domain Admins,CN=Users,DC=YOUR,dc=DOMAIN,dc=com	Contact tag domains-admins



Tip

See below about the tag functionality.

Example :

/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-rules.json

```
{
  "hosts_tag": "windows",
  "contacts_tag": "generic-contact",
  "contacts_filters": "CN=paris_shinken_users,OU=utilisateurs,DC=shinkendom,DC=local |
CN=bordeaux_shinken_users,OU=utilisateurs,DC=shinkendom,DC=local",
  "hosts_tag_citrix": "OU=citrix,OU=serveurs,dc=shinken,dc=local",
  "hosts_tag_database": "OU=database,OU=serveurs,dc=shinken,dc=local",
  "hosts_tag_exchange": "OU=exchange,OU=serveurs,dc=shinken,dc=local",
  "hosts_tag_fileprint": "OU=fileprint,OU=serveurs,dc=shinken,dc=local",
  "hosts_tag_windows": "OU=infra,OU=serveurs,dc=shinken,dc=local",
  "hosts_match_operatingSystem_windows": "windows",
  "hosts_match_operatingSystem_windows2008": "windows*.2008(?!.*(?:r2))",
  "hosts_match_operatingSystem_windows2008r2": "windows*.2008*.r2",
  "hosts_match_operatingSystem_windows2003": "windows*.2003",
  "hosts_match_operatingSystem_windows2012": "windows*.2012(?!.*(?:r2))",
  "hosts_match_operatingSystem_windows2012r2": "windows*.2012*.r2",
  "hosts_match_operatingSystem_windows2000": "windows*.2000",
  "hosts_match_operatingSystem_windowsxp": "windows*.xp",
  "hosts_match_operatingSystem_enterprise": "Enterprise",
  "hosts_match_operatingSystemServicePack_sp1": "Service Pack 1",
  "hosts_match_operatingSystemServicePack_sp2": "Service Pack 2",
  "hosts_match_operatingSystemServicePack_sp3": "Service Pack 3",
  "contacts_match_memberOf_domain-admins": "OU=shinken_admins,OU=utilisateurs,DC=shinkendom,DC=local"
}
```

Import the objects

Go in the Administration website, if your configuration is ok you should have an output "OK: Import clean."

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Now do a "Force import" in clicking on

In the "Elements >" panel you will see new elements appearing (Hosts and Contacts).

The next step will be to import those new objects.

How to

Import host with specific names

Edit the file **/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-mapping.json**

`/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-mapping.json`

```
# IMPORTANT: Do not edit this file.
# To have your own mapping, copy it under the /etc/shinken-users directory and edit your copy instead.
# Note: comments should be with a # starting the line, NOT after a value
{
# first hosts properties (computer object in Active Directory)
  "host.name": "name",
  "host.dNSHostName": "dNSHostName",
  "host.operatingSystem": "operatingSystem",
  "host.operatingSystemServicePack": "operatingSystemServicePack",
  "host.distinguishedName": "distinguishedName",
  "host.filter": "(objectClass=computer)",

# Now contact properties
  "contact.name": "name",
  "contact.telephoneNumber": "telephoneNumber",
  "contact.mobile": "mobile",
# Co: for country
  "contact.co": "co",
# l: for city
  "contact.l": "l",
  "contact;company": "company",
  "contact.filter": "(&(objectCategory=person)(objectClass=user))",
# By default hostgroup are not requested. Setup a filter to enabled it
  "hostgroup.filter": ""
}
```

Modify the `host.filter`

```
"host.filter": "(&(objectClass=computer)(sAMAccountName=*SERVER_NAME*))",
```

Change `SERVER_NAME` by the server name pattern you want to import.

Import users of multiple groups

Edit the file `/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-rules.json`

`/etc/shinken-user/source-data/source-data-active-directory/_configuration/active-directory-rules.json`

```
"contacts_filters": "CN=shinken_admins,OU=utilisateurs,DC=shinkendom,DC=local | CN=shinken_users,
OU=utilisateurs,DC=shinkendom,DC=local",
```

In `contact_filters`, add the LDAP path to the different user groups separated by a pipe.

Tag hosts and users to add more properties before import

This source also includes other parameters that will allow you to automatically “tag” your servers based on your active directory information:

- **hosts_tag**: each loaded hosts will have at least this tag
- **contacts_tag**: each loaded contacts will have at least this tag

Contacts to load can be easily filtered with the **contacts_filters** parameter.

Tagging hosts based on their OU (Organization Unit) is possible. This is done with the **hosts_tag_*** parameters.

For example, if you want to add the **exchange** tag to all the servers which are below

the **OU=Email Collaboration Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com** OU,

you can set this parameter:

```
hosts_tag_exchange OU=Email Collaboration Servers,OU=DataCenter Servers,DC=YOUR,dc=DOMAIN,dc=com
```

Setting up ldap object matching with the **hosts_match_*** parameters is also possible.

For example, if you want to add the **enterprise** tag to all the ldap object that match the string **Enterprise** in their **operatingSystem** property,

you only need to setup :

```
hosts_match_operatingSystem_enterprise Enterprise
```

This also works with **groups**.

For example, if you want to add the **domain-admins** tag to the users that are in the **CN=Domain Admins,CN=Users,DC=YOUR,dc=DOMAIN,dc=com** OU,

setup :

```
contacts_match_memberOf_domain-admins CN=Domain Admins,CN=Users,DC=YOUR,dc=DOMAIN,dc=com
```

source-data-MY-active-directory

Creation of your own sources

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- You should keep them unmodified and create your source in copying them.
- Every time you have to customize Shinken Sources, you have to do it in the /etc/shinken-user folder.

To create your own import source, do the following :

```
cd /etc/shinken-user/source-data  
cp -r source-data-active-directory-sample source-data-MY-active-directory
```



Tip

Let's consider that the folder in which you will have your new Active Directory source is : /etc/shinken-user/source-data/source-data-MY-active-directory/
inside it, the folder _configuration contain all configuration file to customize the source behavior.