

WNMS Sweap

Quick Start Guide

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About this Guide

Prerequisite Skills and Knowledge

To use this document effectively, you should have a working knowledge of basic networking concepts and wireless Internet access infrastructures.

Conventions Used in this Document

The following typographic conventions and symbols are used throughout this document:



Additional information that may be helpful but which is not required.



Important information that should be observed.

bold Menu commands, buttons, input fields, links, and configuration keys are displayed in bold

italic References to sections inside the document are displayed in italic.

`<code>` File names, directory names, form names, system-generated output, and user typed entries are displayed in constant-width type

Introduction

WNMS SWEAP stands for SNMP-to-WNMS External Agent/Proxy and is a solution that enables monitoring of third-party network equipment in WNMS server. SWEAP periodically polls network devices using the SNMP protocol thus converting the information retrieved to a heartbeat XML format to be reported to the WNMS server.

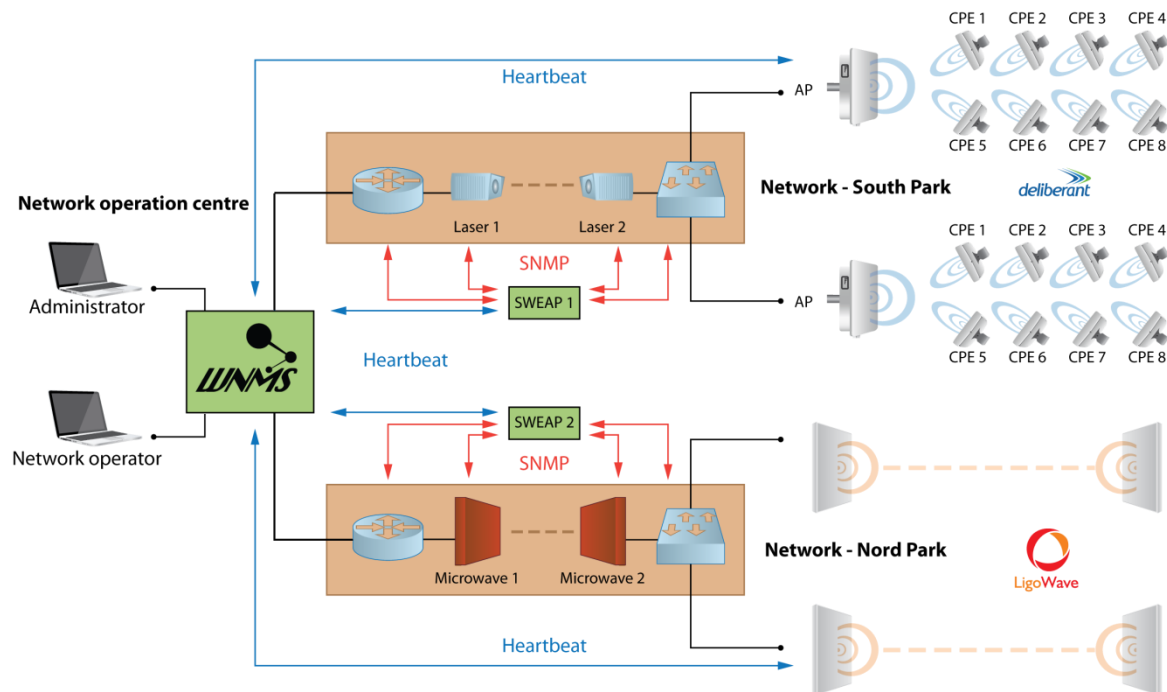


Figure 1 – SWEAP Working Scheme

System Requirements

In order to install SWEAP instance, the system must match following requirements:

- Operating system:
 - Ubuntu 9.10 – 11.10
 - Debian 6.0 ("squeeze")
 - Windows (Windows XP, Windows Server 2003, Windows VISTA, Windows Server 2008 and Windows 7)
- Minimum hardware requirement
 - 1 GHz x86 processor
 - At least 64 MB of free RAM
 - Network/Internet access

SWEAP Installation

SWEAP Installation on Windows OS

This section provides instructions on how to install and uninstall SWEAP instance on Windows OS (Windows XP, Windows Server 2003, Windows VISTA, Windows Server 2008 and Windows 7).



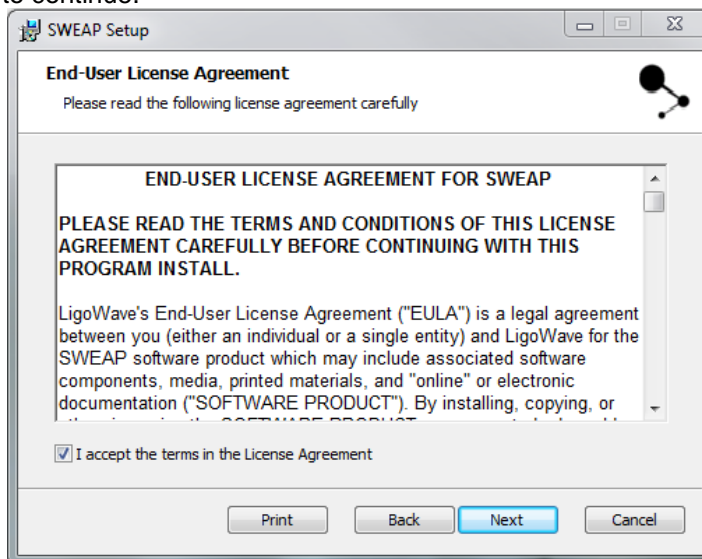
SWEAP requires Visual C++ 2010 SP1 x86 Runtime (included into the SWEAP installation package) to be installed first.

Follow these steps to download and install SWEAP instance on Windows OS.

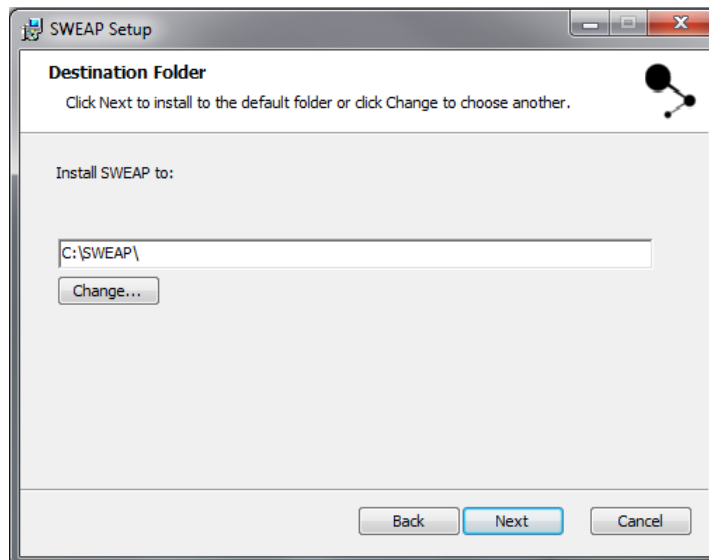
- Step 1.** Run the executable installer and follow the instructions provided by the installation wizard.



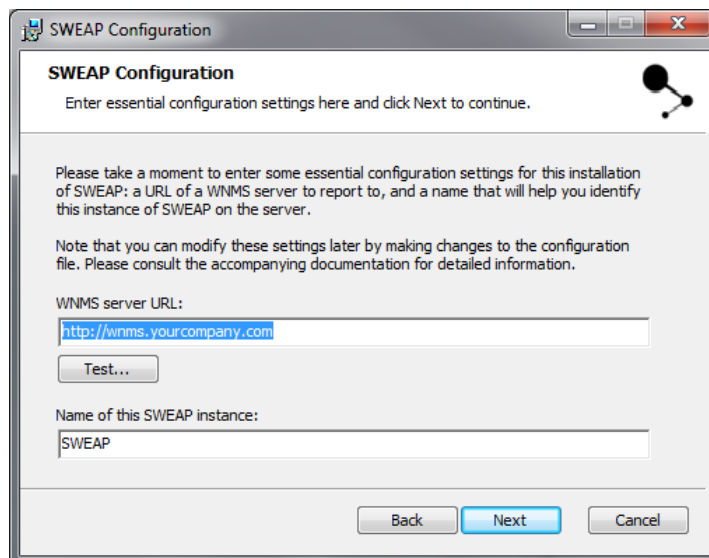
- Step 2.** The **License Agreement** window will appear. Please read carefully and select **I Accept** to continue.



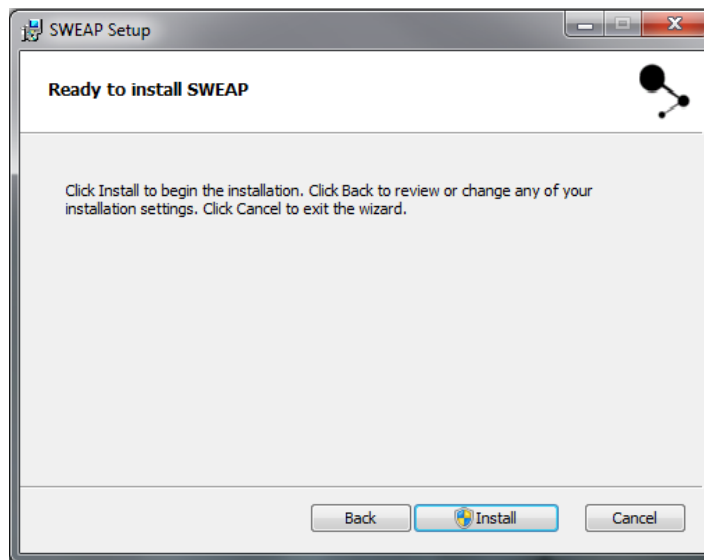
- Step 3.** Choose **install location** where to install the SWEAP. The default location `C:\SWEAP`, or click **Change...** to specify different path.



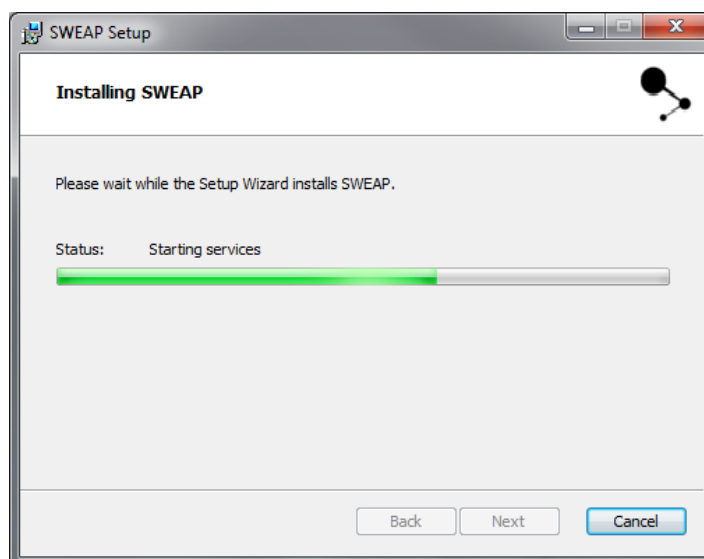
Step 4. Specify the exact URL of the WNMS server and enter the name of the SWEAP instance:



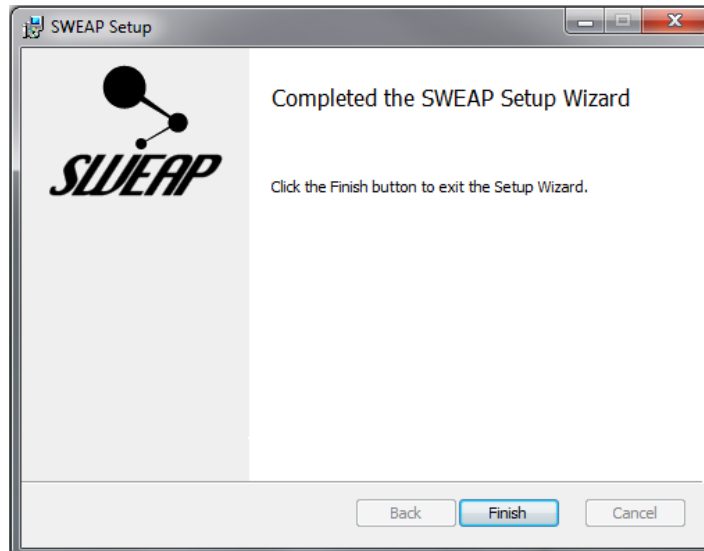
Step 5. Click **Next** to proceed the installation process of the SWEAP:



Step 6. Click **Install** to proceed SWEAP installation:



- Step 7.** Click **Finish** to complete the SWEAP installation and exit the setup wizard. SWEAP instant will appear on WNMS server shortly.



- Step 8.** Login in to the WNMS server web management interface. Default login credentials are: **admin/admin01**.



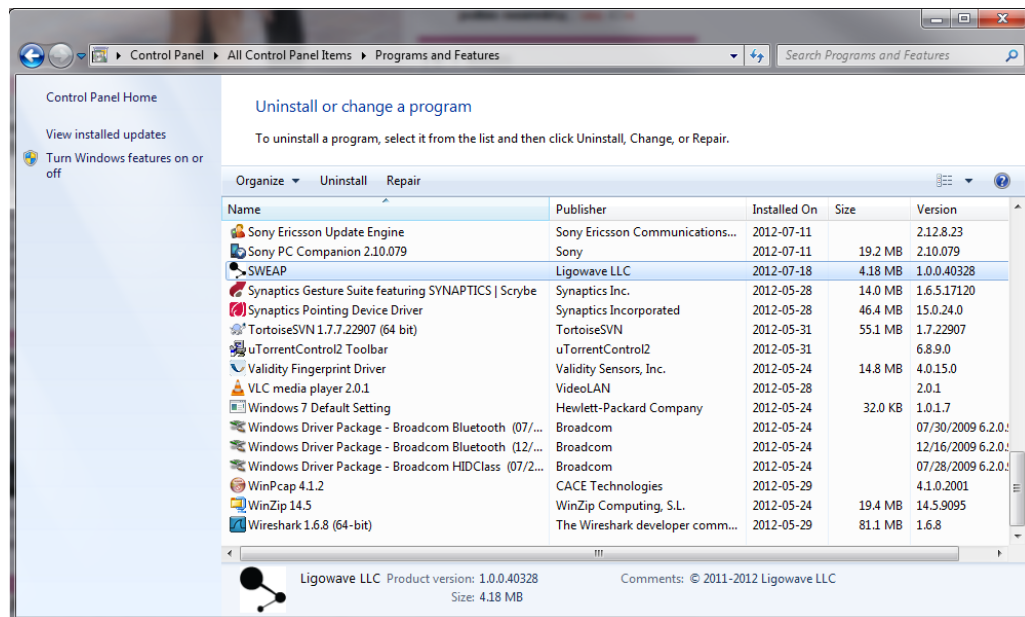
- Step 9.** Navigate the **SWEAP** tab under the main menu where the new installed SWEAP instance will appear. The SWEAP is now ready for configuration.



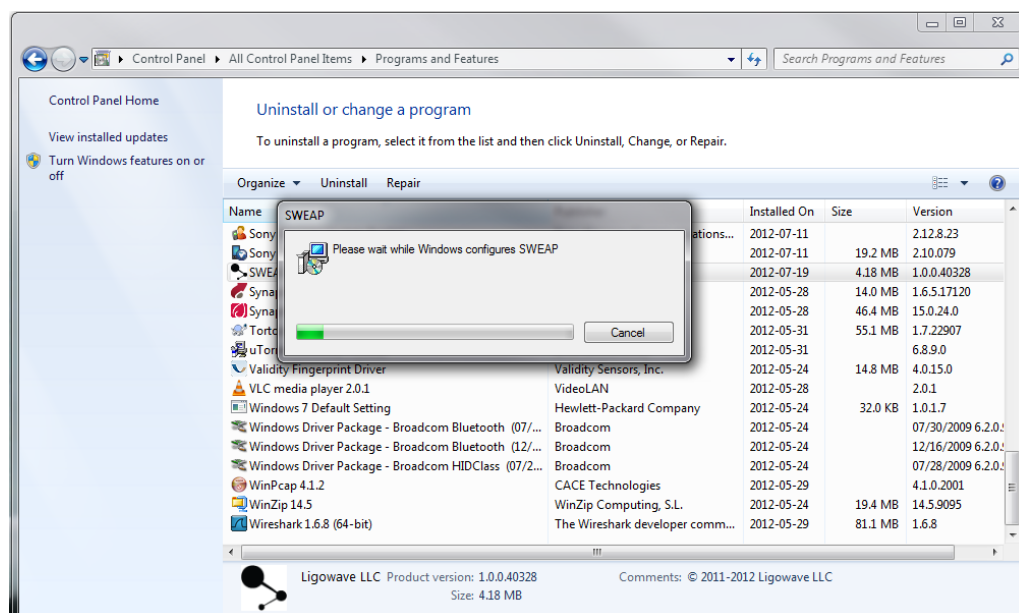
Uninstallation

Follow the steps to remove SWEAP on Windows OS:

Step 1. To remove SWEAP from the system, select **Start** → **Control Panel** → **Programs and Features**:



Step 2. Click **Uninstall** button and Confirm SWEAP uninstallation:



Step 3. The SWEAP instance has been successfully uninstalled.

SWEAP Installation on Linux OS



SWEAP installation package is on the same repository as WNMS server: deb
<http://wnms.ligowave.com/> stable main

Follow the steps to install SWEAP instance on Linux OS:

Step 1. Update local server package database. Type command:

```
$ sudo apt-get update
```

Step 2. Install SWEAP application. Type command:

```
$ sudo apt-get install sweap
```

```
wnms@server:/$  
wnms@server:/$ sudo apt-get install sweap  
[sudo] password for wnms:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following extra packages will be installed:  
  libctemplate0 libperl5.10 libsnmp-base libsnmp15  
Suggested packages:  
  snmp-mibs-downloader  
The following NEW packages will be installed:  
  libctemplate0 libperl5.10 libsnmp-base libsnmp15 sweap  
0 upgraded, 5 newly installed, 0 to remove and 17 not upgraded.  
Need to get 3,535kB of archives.  
After this operation, 9,769kB of additional disk space will be used.  
Do you want to continue [Y/n]? y
```

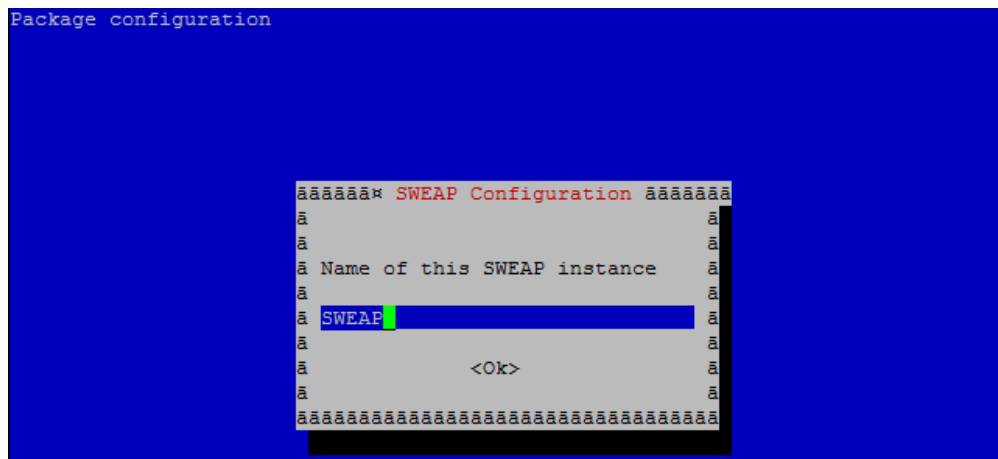
Step 3. Specify the exact URL of the WNMS server for the SWEAP:

Package configuration

```

SWEAP Configuration
WNMS server URL
http://wnms.yourcompany.com
<Ok>
```

Step 4. Enter the name of the SWEAP instance:



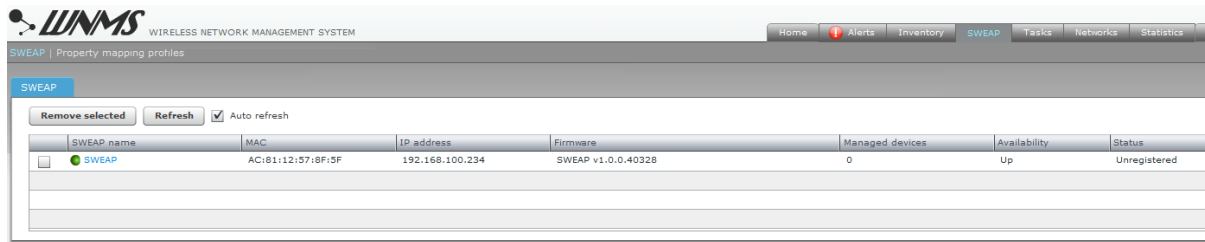
Step 5. The SWEAP instance has been successfully installed and will appear on WNMS server shortly:

```
Selecting previously deselected package libsnmp15.
Unpacking libsnmp15 (from .../libsnmp15_5.4.3~dfsg-1ubuntu3_i386.deb) ...
Selecting previously deselected package sweap.
Unpacking sweap (from .../sweap_1.0.0.40328_i386.deb) ...
Processing triggers for man-db ...
Processing triggers for ureadahead ...
ureadahead will be reprofiled on next reboot
Setting up libctemplate0 (0.97-1) ...
Setting up libperl5.10 (5.10.1-12ubuntu2.1) ...
Setting up libsnmp-base (5.4.3~dfsg-1ubuntu3) ...
Setting up libsnmp15 (5.4.3~dfsg-1ubuntu3) ...
Setting up sweap (1.0.0.40328) ...
Adding system startup for /etc/init.d/sweap ...
/etc/rc0.d/K20sweap -> ../init.d/sweap
/etc/rc1.d/K20sweap -> ../init.d/sweap
/etc/rc6.d/K20sweap -> ../init.d/sweap
/etc/rc2.d/S20sweap -> ../init.d/sweap
/etc/rc3.d/S20sweap -> ../init.d/sweap
/etc/rc4.d/S20sweap -> ../init.d/sweap
/etc/rc5.d/S20sweap -> ../init.d/sweap
Starting the SWEAP service ... success.
Processing triggers for libc-bin ...
ldconfig deferred processing now taking place
wnms@server:/$
```

Step 6. Login in to the WNMS server web management interface. Default login credentials are: **admin/admin01**.



- Step 7.** Navigate the **SWEAP** tab under the main menu where the new installed SWEAP instance will appear. The SWEAP is now ready for configuration.



Uninstallation

Follow the steps to remove SWEAP instance from the system:

- Step 1.** To remove SWEAP, type command:

```
$ sudo apt-get purge sweap
```

```
wnms@server:/$  
wnms@server:/$ sudo apt-get install sweap  
[sudo] password for wnms:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following extra packages will be installed:  
  libctemplate0 libperl5.10 libsnmp-base libsnmp15  
Suggested packages:  
  snmp-mibs-downloader  
The following NEW packages will be installed:  
  libctemplate0 libperl5.10 libsnmp-base libsnmp15 sweap  
0 upgraded, 5 newly installed, 0 to remove and 17 not upgraded.  
Need to get 3,535kB of archives.  
After this operation, 9,769kB of additional disk space will be used.  
Do you want to continue [Y/n]? y
```

- Step 2.** The SWEAP instance has been successfully uninstalled.

SWEAP Management

Access the WNMS Server



Default login settings are:

- Username: **admin**
- Password: **admin01**

Open a Web browser, type the server's IP address where the WNMS is installed (e.g. <http://192.168.2.131>) and the login page will be displayed:



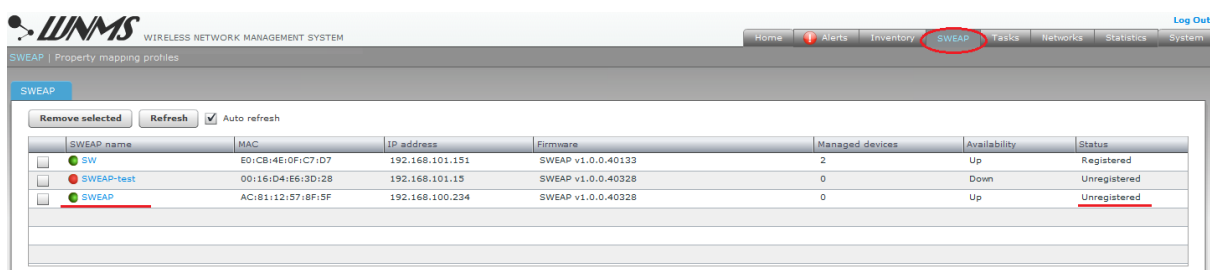
Figure 2 – WNMS Server Login Page

Enter the user's login details as requested and log on the WNMS server.

Register SWEAP Instance

By default successfully installed SWEAP instance gets “Unregistered” state on WNMS server. Follow the steps to register SWEAP on WNMS:

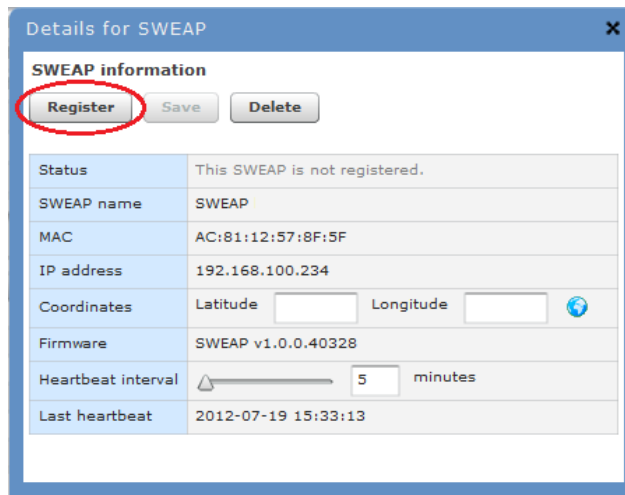
Step1. Navigate to the **SWEAP** menu to view list of connected SWEAPs to the WNMS server.



The color of the icon next to the SWEAP name indicates alert state:

- Green icon means that devices in SWEAP has no alert or has informational level alerts (active/inactive/closed).
- Yellow icon means that devices in SWEAP has active warning level alerts or had in the past critical/warning alerts but now they are closed (not cleared) or had inactive critical/warning alerts (not cleared)
- Red icon means that devices in SWEAP has active critical level alerts (not including inactive alerts)

- Step 2.** Click on a SWEAP name to load **Details** window where certain information about SWEAP instance is displayed. Click **Register** button for registration. Optionally the coordinates and heartbeat interval may be specified:



Details for SWEAP

SWEAP information

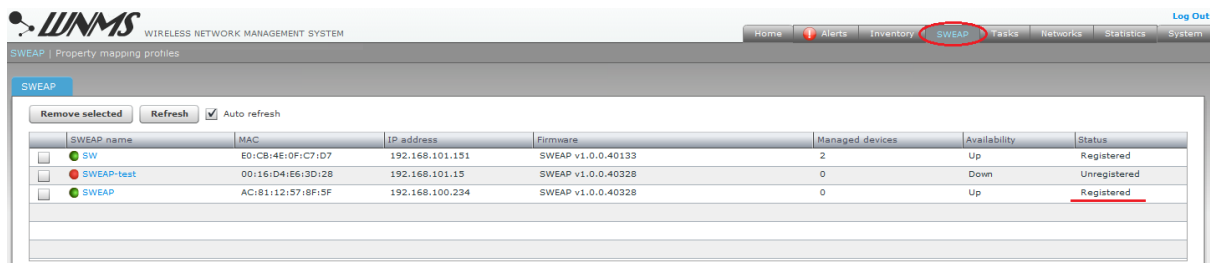
Register Save Delete

Status	This SWEAP is not registered.		
SWEAP name	SWEAP		
MAC	AC:81:12:57:8F:5F		
IP address	192.168.100.234		
Coordinates	Latitude	Longitude	
Firmware	SWEAP v1.0.0.40328		
Heartbeat interval	5 minutes		
Last heartbeat	2012-07-19 15:33:13		

There are 3 functional buttons that controls device settings:

- **Register** – click to register the SWEAP. This button is active only if state is “Unregistered”.
- **Save** – saves changes that were made on this page.
- **Delete** – deletes particular SWEAP from the WNMS server. If deleted SWEAP continues to send heartbeats to WNMS server, it will appear on WNMS server under “Unregistered” state as soon as the first heartbeat will be get.

- Step 3.** The registration of the SWEAP has been finished successfully:



WNMS WIRELESS NETWORK MANAGEMENT SYSTEM

Home Alerts Inventory **SWEAP** Tasks Networks Statistics System

SWEAP | Property mapping profiles

SWEAP

Remove selected Refresh ☒ Auto refresh

	SWEAP name	MAC	IP address	Firmware	Managed devices	Availability	Status
<input type="checkbox"/>	SW	E0:CB:4E:0F:C7:D7	192.168.101.151	SWEAP v1.0.0.40133	2	Up	Registered
<input type="checkbox"/>	SWEAP-test	00:16:D4:E6:3D:28	192.168.101.15	SWEAP v1.0.0.40328	0	Down	Unregistered
<input type="checkbox"/>	SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328	0	Up	Registered

Add Devices to SWEAP

After the SWEAP was successfully registered on the WNMS server, the required third-party devices can be added to the SWEAP for monitoring purposes. Follow the steps to add managed devices on the SWEAP:

- Step 1.** Create a **Property mapping profile** for the required third-party device. This profile will gather the main statistical information about third-party device (based on SNMP OIDs or specified by fixed value).

Click **Add new** button and fill all mandatory fields with specific statistical information on **SWEAP | Property mapping profiles** page:

Property mapping profiles

Profile name: MS1000 based FSO Head, LigoPTP 6205, **third-party units**

Add new Delete

Property mapping profile details

Profile name: third-party units

Name	Mapping type	Value
MAC	SNMP OID	.1.3.6.1.4.1.17587.2.1.3.1.0
Friendly name	SNMP OID	.1.3.6.1.2.1.1.5.0
Location	Fixed value	location
Firmware	SNMP OID	.1.3.6.1.4.1.17587.2.1.1.6.0
Serial number	SNMP OID	.1.3.6.1.4.1.17587.2.1.1.4.0

Save Cancel



The WNMS server has predefined several profiles for some third-party devices, accordingly the special profile must be created for each different type of the third-party devices.

Step 2. To add devices to a SWEAP, select it and the table of **Managed devices** will appear below. Specify the **IP address** of the device, select the **SNMP version**, **SNMP community**, choose the correct **Property mapping profile** for the monitored device and click the **Save** button.

SWEAP

Remove selected Refresh ☒ Auto refresh

SWEAP name	MAC	IP address	Firmware	Managed devices	Availability	Status
SWEAP	E0:CB:4E:0F:C7:D7	192.168.101.151	SWEAP v1.0.0.40133	2	Up	Registered
SWEAP-test	00:16:D4:E6:3D:2B	192.168.101.15	SWEAP v1.0.0.40328	0	Down	Unregistered
SWEAP	AC:81:12:57:BF:5F	192.168.100.234	SWEAP v1.0.0.40328	0	Up	Registered

Managed devices

IP address	SNMP version	SNMP community name	Property mapping profile
192.168.101.250	SNMP v1	public	MS1000 based FSO Head

Select all **Add new** Remove selected **Save**

Step 3. It will take a few minutes for the device to appear on the **Inventory** table with **Unregistered** state.

Step 4. The third's party device is now ready for management and monitoring. Refer to the respective document “WNMS Quick Start Guide” for detailed information how to register and monitor devices individually.

Delete SWEAP

Navigate to the **SWEAP** page, select required SWEAP instance and click the **Remove Selected** button:



Deleted SWEAP instance appears on WNMS server with “Unregistered” state if it continues to send heartbeats to the server.

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