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.

😸 SWEAP Setup	
•	Welcome to the SWEAP Setup Wizard
SLÚEAP	The Setup Wizard will install SWEAP on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	Back Next Cancel

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

岁 😼	WEAP Setup			23
E	nd-User License Agreement			
	Please read the following license agreement carefully			~
	END-USER LICENSE AGREEMENT FOR SWEAP			<u>^</u>
	PLEASE READ THE TERMS AND CONDITIONS OF THIS LIC AGREEMENT CAREFULLY BEFORE CONTINUING WITH THI PROGRAM INSTALL.	ENS IS	E	
	LigoWave's End-User License Agreement ("EULA") is a legal a between you (either an individual or a single entity) and LigoWa SWEAP software product which may include associated software components, media, printed materials, and "online" or electroni documentation ("SOFTWARE PRODUCT"). By installing, copy	greer ive fo are c ing, c	ment r the or	Ŧ
	☑ I accept the terms in the License Agreement			
	Print Back Next		Cano	el

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

SWEAP Setup	- • ×
Destination Folder Click Next to install to the default folder or click Change to choose another.	•>
Install SWEAP to:	
C:\SWEAP\	
Back Next	Cancel

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

B SWEAP Configuration
SWEAP Configuration
Enter essential configuration settings here and click Next to continue.
Please take a moment to enter some essential configuration settings for this installation of SWEAP: a URL of a VMIMS server to report to, and a name that will help you identify this instance of SWEAP on the server.
Note that you can modify these settings later by making changes to the configuration file. Please consult the accompanying documentation for detailed information.
WNMS server URL:
http://wnms.yourcompany.com
Test
Name of this SWEAP instance:
SWEAP
Back Next Cancel

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



Step 6. Click Install to proceed SWEAP installation:

늻 SWEAP Se	tup				- 🗆 🗙
Installin	g SWEAP				∽
Please wai	t while the Setup Wizard installs SWI	EAP.			
Status:	Starting services				
	[Back	Nex	xt	Cancel

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

🗒 SWEAP Setup	
•	Completed the SWEAP Setup Wizard
SLÍĚAP	Click the Finish button to exit the Setup Wizard.
	Back Finish Cancel

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

	•,		
4	UNMS		
 Usemame	admin		
Password			
	Login		

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.

>/	WIRELESS NETWO	RK MANAGEMENT SYSTEM			Home	Alerts Inventory S	WEAP Tasks Netwo	ks Statistics
SWEAP								
SWEA								
R	emove selected Refresh 🗹 A	uto refresh						
	SWEAP name	MAC	IP address	Firmware		Managed devices	Availability	Status
	SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328		0	Up	Unregistered

Uninstallation

Follow the steps to remove SWEAP on Windows OS:

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

	-					
Control Panel +	All Control Panel Items Programs and Features	•	∳ Search	Programs and F	eatures 🔎	
Control Panel Home View installed updates Turn Windows features on or off	Uninstall or change a program To uninstall a program, select it from the list and then Organize - Uninstall Repair	click Uninstall, Change, or Repair.			# • Ø	
	Name	Publisher	Installed On	Size	Version 4	
	Sony Ericsson Update Engine	Sony Ericsson Communications	2012-07-11		2.12.8.23	
	Sony PC Companion 2.10.079	Sony	2012-07-11	19.2 MB	2.10.079	
	SWEAP	Ligowave LLC	2012-07-18	4.18 MB	1.0.0.40328	
	Synaptics Gesture Suite featuring SYNAPTICS Scrybe	Synaptics Inc.	2012-05-28	14.0 MB	1.6.5.17120	
	Synaptics Pointing Device Driver	Synaptics Incorporated	2012-05-28	46.4 MB	15.0.24.0	
	1.7.7.22907 (64 bit)	TortoiseSVN	2012-05-31	55.1 MB	1.7.22907	
	😼 uTorrentControl2 Toolbar	uTorrentControl2	2012-05-31		6.8.9.0	
	Validity Fingerprint Driver	Validity Sensors, Inc.	2012-05-24	14.8 MB	4.0.15.0	
	📥 VLC media player 2.0.1	VideoLAN	2012-05-28		2.0.1	
	Windows 7 Default Setting	Hewlett-Packard Company	2012-05-24	32.0 KB	1.0.1.7	
	🕿 Windows Driver Package - Broadcom Bluetooth (07/	Broadcom	2012-05-24		07/30/2009 6.2.0.	
	🕿 Windows Driver Package - Broadcom Bluetooth (12/	Broadcom	2012-05-24		12/16/2009 6.2.0.	
	🕿 Windows Driver Package - Broadcom HIDClass (07/2	Broadcom	2012-05-24		07/28/2009 6.2.0.	
	₩inPcap 4.1.2	CACE Technologies	2012-05-29		4.1.0.2001	
	🖳 WinZip 14.5	WinZip Computing, S.L.	2012-05-24	19.4 MB	14.5.9095	
	Wireshark 1.6.8 (64-bit)	The Wireshark developer comm	2012-05-29	81.1 MB	1.6.8	
	Ligowave LLC Product version: 1.0.0.40328 Size: 4.18 MB	Comments: © 2011-20	12 Ligowave Ll	.C		

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



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



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 libper15.10 (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.

•>⊿		SS NETWORK MANAGEMENT SYSTEM			Home	Alerts Inventory	SWEAP Tasks	Networks Statistics
SWEAP	Property mapping profiles		-					
SWE	AP							
F	Remove selected Refres	h 🗹 Auto refresh						
	SWEAP name	MAC	IP address	Firmware		Managed devices	Availability	Status
	SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328		0	Up	Unregistered

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 libper15.10 libsnmp-base libsnmp15
Suggested packages:
    snmp-mibs-downloader
The following NEW packages will be installed:
    libctemplate0 libper15.10 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.q. http://192.168.2.131) and the login page will be displayed:

	UNMS	
Username	admin	
Password	*****	
	Login	

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.

. /	112/24	•					Log					
24		WIRELESS NETWORK MANAGEMENT SYSTEM			Home 🕕 Alerts Inventory	SWEAP Tasks	Networks Statistics Syste					
	WEAP Property mapping profiles											
SWEAR												
Re	move selected	Refresh Auto refresh										
	move selected	Auto remean										
	SWEAP name	MAC	IP address	Firmware	Managed devices	Availability	Status					
	o sw	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:28	192.168.101.15	SWEAP v1.0.0.40328	0	Down	Unregistered					
	SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328	0	Up	Unregistered					



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 SWE	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:

	>1	WIRELESS NETWO	RK MANAGEMENT SYSTEM			Home	Alerts Inventory SW	EAP Tasks	Networks Statistic	System		
sw	WEAP Property mapping profiles											
-	SWEAP											
	Rem	ove selected Refresh 🗸 A	uto refresh							- 1		
	-	SWEAP name	MAC	IP address	Firmware	_	Managed devices	Availability	Status			
		Sw Sw	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:28	192.168.101.15	SWEAP v1.0.0.40328		0	Down	Unregistered			
		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:

	ping profiles			
T roparcy map	ping prones			
erty mapping pr	ofiles			
ofile name				
51000 based FSG	O Head			
goPTP 620S				
ird-party units				
\dd new De	alete			
Add new De	alete			
Add new De	alete ofile details			
Add new De	alete			
Add new De erty mapping pr ofile name	alete cfile details blird-party units			
idd new De erty mapping pr ofile name	niete ofile details third-party units Name	Mapping type	Value	
erty mapping pr	slete ofile details third-party units Name MAC	Mapping type SNMP OLD	Value .1.3.6.1.4.1.17997.2.1.3.1.0	
dd new De erty mapping pr ofile name	elete ofile details third-party units Harne MAC Friendly name	Mapping type SMMP OID SMMP OID	Value .1.3.6.1.4.1.17997.2.1.3.1.0 .1.3.6.1.2.1.1.5.0	
dd new Dt erty mapping pr ofile name	neto file details thid-party units Marc Friendly name Location Location	Mapping type SNMP OID SNMP OID Fixed value	Value .1.3.6.1.4.1.17587.2.1.3.1.0 .1.3.6.1.2.1.15.0 location	
Add new D4 erty mapping pr ofile name	alata stile details third-party units MAC Friendly name Location Firmware	Mapping type SRMP OID SRMP OID Fixed value SRMP OID	Value 1.3.6.1.4.1.17587.2.1.3.1.0 1.3.6.1.2.1.1.5.0 location 1.3.6.1.4.1.1757.2.1.1.6.0	
dd new De erty mapping pr ofile name VMS properties	niete ofile details third-party units Name MAC Friendly name Location Firmware Sarial number	Mapping type SNMP OID SNMP OID Fixed value SNMP OID SNMP OID	Value .1.3.6.1.4.1.17397.2.1.3.1.0 .1.3.6.1.2.1.1.5.0 leastion .1.3.6.1.4.1.1797.2.1.1.6.0 .1.3.6.1.4.1.17397.2.1.1.4.0	

0

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.

IIINMS				_		\frown	
Property mapping probles	NETWORK MANAGEMENT SYSTEM			Ho	me 🕕 Alerts Inventory 🕻	SWEAP Tasks N	letworks Statistics
Property mapping promes							
P							
emove selected Refresh	Auto refresh						
SWEAP name	MAC	IP address	Firmware		Managed devices	Availability	Status
Sw Sw	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:28	192.168.101.15	SWEAP v1.0.0.40328		0	Down	Unregistered
SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328		0	Up	Registered
ed devices							
IP address		SNMP version		SNMP community name	Prop	erty mapping profile	
192.168.101.250		SNMP V1		public	MSI	100 based FSO Head	
Select all Add new Rer	move selected Save						

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

IIIA/AAC							Log
WIRE	ELESS NETWORK MANAGEMENT SYS	STEM		Home	🚽 🕕 Alerts 🤇 Inventory	SWEAP Tasks Networks	Statistics Syste
					\sim		
Naturals filter							
Network filter	NAC	Status II Realist		TP MAC Serial	Search		
🔻 🖌 Select all	MAC	Clotos Vegist	ered 💽 onregistered	ing rates cannot the			
🖌 (No network)	Serial number	Availability 🖌 Up	Down				
Point-to-Point	Name	Device type (All)	•				
Multi-Point							
HotSpot	IP address						
Third's party	Firmware						
a vilaiusuna	Match e	vact phrases	Clear				
Viilius-wall		State					
(c.)			Page 1 of	1		Itoms r	
Export	Refresh	Auto remesti	te toge i of	•			25
Name	Network	MAC	IP address	Serial	Firmware	Availabi	ity Status
Test-vin03-1	Point-to-Point	00:19:3B:81:5B:CE	84.32.254.100	0101102900000DA	LIGO-PTP.FWBD-0100.v6.	78.rt2880.LIGO.PTP.en_US.3 Down	Registere
Test-vin03-2	Point-to-Point	00:19:3B:81:5B:CD	84.32.254.101	01011029000000D9	LIGO-PTP.FWBD-0100.v6.	78.rt2880.LIGO.PTP.en_US.3 Down	Registere
lest-vin02-1	Point-to-Point	00:0C:43:28:80:22	10.0.95.11	040411170000024B	LIGO-PTP.FWBD-1400.v6.	90.rt3883.ligowave.PTP.en_U Up	Registere
🕒 test-vin02-2	Point-to-Point	00:0C:43:28:80:19	10.0.95.10	040411170000024B	LIGO-PTP.FWBD-1400.v6.	90.rt3883.ligowave.PTP.en_U Up	Registere
Office switch1	Third's party	00:12:CF:5D:47:80	192.168.101.254	My-serial-01	1.5.0.93	Up	Register
test-vin01-2	Multi-Point	00:19:3B:FF:28:70	10.0.93.11	0202113800000943	WILI-S.FWBD-0200.v5.90-	DEVEL.rt3050.deliberant.AP-1 Down	Register
test-vln01-1	Multi-Point	00:19:3B:FF:64:7B	10.0.93.10	0202120700000245	WILI-S.FWBD-0200.v5.90-	DEVEL.rt3050.deliberant.AP-1 Up	Register
remote-console	Multi-Point	00:0C:43:28:80:C7	10.0.93.50	0606060606060606	LIGO-PTP.FWBD-1100.v6.	75.rt3883.LIGO.PTP.en_US.3 Up	Registere
GigaPico+ TP	None	00:50:C2:19:39:B2	192.168.101.250	534156	3.2.1224	Up	Unregiste

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:

-	Home Alerts Inventory SUEAD Tasks Network MANAGEMENT SYSTEM												
SWE													
s	NEAP												
6	Rem	ove selected Refresh 🗸 A	uto refresh										
	-												
	_	SWEAP name	MAC	IP address	Firmware	_	Managed devices	Availability	Status				
		SW SW	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:28	192.168.101.15	SWEAP v1.0.0.40328		0	Down	Unregistered				
	\checkmark	SWEAP	AC:81:12:57:8F:5F	192.168.100.234	SWEAP v1.0.0.40328		0	Up	Registered				
11													



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

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