Access Point

SX-AP-4800AN2

User's Manual

silex technology

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WA103160XB

Index

1. Introduction 1

1-1. Introduction 1

Disclaimers 1

Trademarks 1

1-2. Safety Instructions 2

1-3. Product Information and Customer Services 5

Product Information 5

Customer Support Center 5

2. About SX-AP-4800AN2 7

2-1. Features 7

2-2. Parts and Functions 9

2-3. Hardware Specification 11

2-4. Software Specification 13

2-5. Power Supply 14

2-6. Wireless Interference Information 15

Notes 15

DFS 17

3. Setup 19

3-1. Setup Using Configuration Mode 19

Starting in Configuration Mode 19
Setup 21
Connecting to Network 25
3-2. Setup via a Network 26
Connecting to Network 26
Changing Network Settings on the PC 28
Setup 30
3-3. Setup Using an External Registrar 41
Setup Using Windows Network Setup Feature 41
Setup Wirelessly from the PC 44
4. Connecting Your Wireless Device 45
4-1. Connecting Your PC 45
4-2. Connecting Your Wireless Device 47
Making a Connection Using Smart Wireless Setup Switch 47
Making a Connection Using a PIN Code 50
5. Other Features 51
5-1. Device Server Feature 51
Downloading & Installing SX Virtual Link 52
Sharing USB Devices over the Network 56
Uninstalling SX Virtual Link 59
5-2. Log Output 61

Getting Started 61
Log Output Settings 62
Retrieving the Log saved into USB storage device 64
Notice When Using the Log Output 68
5-3. Configuration Import/Export 69
Exporting/Importing Using the Web Page 70
Exporting/Importing Using the FTP Client 76
5-4. Product Search Utility 81
Downloading & Installing the Product Search Utility 81
Using Product Search Utility 85
Uninstalling the Product Search Utility 88
5-5. DHCP Server Feature 90
5-6. Checking System Status at Web Page 92
5-7. Maintenance Feature 93
Restarting 93
Factory Default Configuration 95
Firmware Update 97
5-8. WDS Feature 98
WDS Connection 99
WDS Configuration 101
What If WDS Connection Fails? 108
Checking WDS Connection Status from Web Page 113

5-9. VLAN Feature 116
VLAN Configuration.....117
A. Appendix 123
A-1. List of All Settings 123

1. Introduction

Thank you for purchasing the Access Point SX-AP-4800AN2 (called "SX-AP-4800AN2" below).

1-1. Introduction

This manual provides information on how to configure and use SX-AP-4800AN2.
Please read the Safety Instructions carefully before you begin.

Disclaimers

- The unauthorized transfer or copying of the content of this manual, in whole or in part, without prior written consent is expressly prohibited by law.
- The content of this manual is subject to change without notice.
- This manual was prepared to accurately match the content of each OS, but the actual information shown on the computer monitor may differ from the content of this manual due to future OS version upgrades, modifications, and other changes.
- Although every effort was made to prepare this manual with the utmost accuracy, Silex Technology will not be held liable for any damages as a result of errors, setting examples, or other content.

Trademarks

- Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.
- Ethernet is a trademark of Xerox Corporation.
- Other company names and product names contained in this manual are trademarks or registered trademarks of their respective companies.

1-2. Safety Instructions

This page provides the safety instructions for safe use of SX-AP-4800AN2.
To ensure safe and proper use, please read the following information carefully before using SX-AP-4800AN2. The safety instructions include important information on safe handling of SX-AP-4800AN2 and on general safety issues.

< Indication of the warning >

	Danger	"Danger" indicates the existence of a hazard that could result in bodily injury if the safety instruction is not observed.
	Warning	"Warning" indicates the existence of a hazard that could result in material damage if the safety instruction is not observed.

< Indication of the symbol >

	This symbol indicates the warning and notice. (Example: "Danger of the electric shock")
	This symbol indicates the prohibited actions. (Example: "Disassembly is prohibited")
	This symbol indicates the necessary actions. (Example: "Remove the AC plug from an outlet")

Danger

	* Do not allow physical impact: When damaged, turn off your network device, unplug the AC plug of SX-AP-4800AN2 from power outlet (unplug the network cable from Ethernet HUB when receiving power over the Ethernet) and contact your point of purchase. Failure to take this action could cause fire or an electrical shock. * In the following cases, turn off your network device, unplug the AC plug of SX-AP-4800AN2 from power outlet (unplug the network cable from Ethernet HUB when receiving power over the Ethernet) and contact your point of purchase. Failure to take this action could cause fire or an electrical shock. * When SX-AP-4800AN2 emits a strange smell, heat, smoke or sound. * When foreign objects (liquid, metal, etc) gets into SX-AP-4800AN2.
	* Keep the cord and cables away from children. They may be injured or receive a shock.
	* If your network device has a ground wire, it must be used to prevent electrocution and power surges.
	* Do not disassemble or modify SX-AP-4800AN2. Contact your point of purchase about repairing SX-AP-4800AN2. * Do not disassemble or alter the AC adapter bundled with SX-AP-4800AN2.

Warning

	* When unplugging SX-AP-4800AN2, do not pull on the cord. The cord may break resulting in fire and/or electric shock. Pull only on the plug.
	* When moving SX-AP-4800AN2, turn off your network device and SX-AP-4800AN2 by unplugging the power cables from the outlet (if you are receiving power over the Ethernet (PoE), unplug the network cable from the HUB). * Always use the AC adapter bundled with SX-AP-4800AN2. Other AC adapters may cause SX-AP-4800AN2 to malfunction. * Verify all cables are connected properly and safely before using SX-AP-4800AN2. * When SX-AP-4800AN2 will not be used for an extended time, disconnect and unplug the power cable.
	* Do not use or store SX-AP-4800AN2 under the following conditions to avoid potential damage to SX-AP-4800AN2. - Hard vibrations - Tilted or unstable places - Exposure to the direct rays of the sun - Humid or dusty places - Wet place (kitchen or bathroom) - Heated places (near stove or heater) - Wide temperature change - Strong electromagnetic field (near magnet, radio or wireless device)

1-3. Product Information and Customer Services

Product Information

The services below are available from the Silex Technology website. For details, please visit the Silex Technology website.

URL	
USA / Europe	https://www.silextechnology.com/

- Latest firmware download
- Latest software download
- Latest manual download
- Support information (FAQ)

Customer Support Center

Customer Support is available by e-mail or telephone for any problems that you may encounter. If you cannot find the relevant problem in this manual or on our website, or if the corrective procedure does not resolve the problem, please contact Silex Technology Customer Support.

Contact Information		
USA	+1-657-218-5199	support@silexamerica.com
Europe	+49-2154-88967-0	support@silexeurope.com

Note

- Refer to the Silex Technology website (https://www.silextechnology.com/) for the latest FAQ and product information.

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2. About SX-AP-4800AN2

SX-AP-4800AN2 is an Access Point that supports IEEE 802.11a/b/g/n (delivers up to 300Mbps) and can be used as a base station to connect your wireless client devices each other. In addition to high performance wireless connectivity, SX-AP-4800AN2 also supports enterprise-level wireless security and PoE (Power over Ethernet).

Note

- PoE is a technology to supply electrical power over Ethernet cable (Category 5 or above). This technology allows you to connect your PoE supported devices to the Ethernet even in a location without electrical outlet nearby.

2-1. Features

SX-AP-4800AN2 has the following features:

- Works as an Access Point that can connect up to 100 wireless devices. (*1)
- Supports IEEE 802.11a/b/g/n (Up to 300Mbps can be achieved) and Dual Band (2.4GHz and 5GHz)
- Higher security with IEEE 802.1X authentication
- Multi SSID (Up to 4 wireless interfaces can be used)
- Easy configuration using Smart Wireless Setup feature
- Web configuration interface
- DHCP server function
- USB Device Server feature allows sharing of various USB devices connected to SX-AP-4800AN2.
- WDS (Wireless Distribution System) feature allows wireless communication between the Access Points (SX-AP-4800AN2).
- VLAN (Virtual Local Area Network) feature allows to establish virtual network groups.

*1 Up to 50 wireless devices can be connected when TKIP or AUTO is used as wireless encryption.

- Supports the total management software, AMC Manager (non-free program / free program) / AMC Finder (free program)
- Using the AMC Manager, you can maintain as well as monitor the Silex devices from a remote place, including the bulk configuration, firmware update, etc.

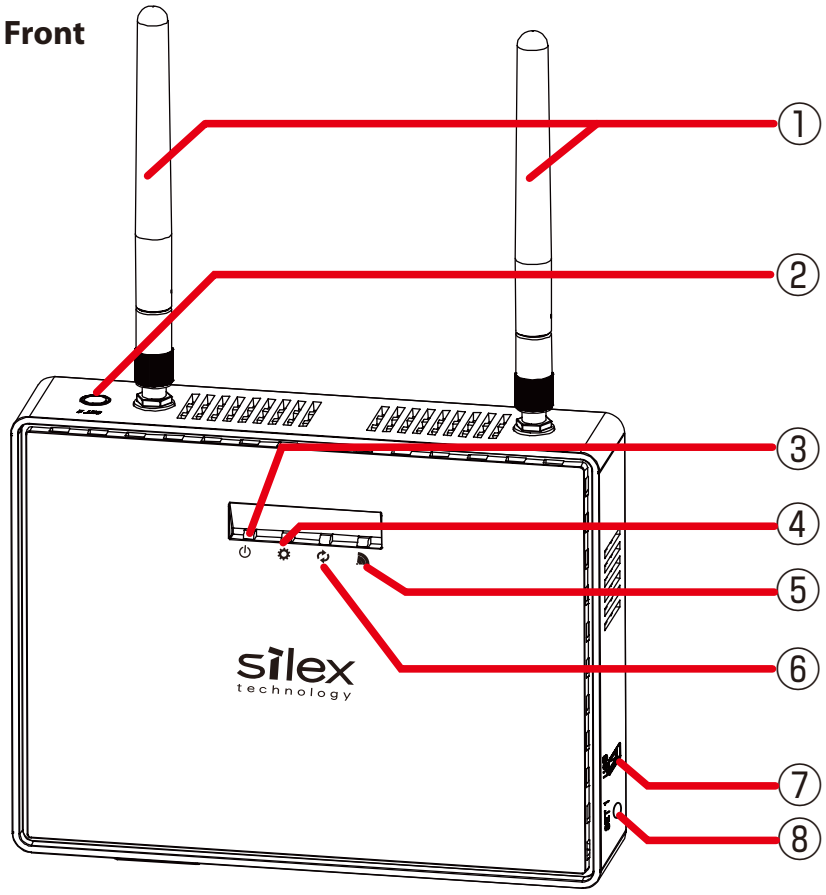
Note

- For details on the "AMC Manager" and "AMC Finder", please visit our homepage.

2-2. Parts and Functions

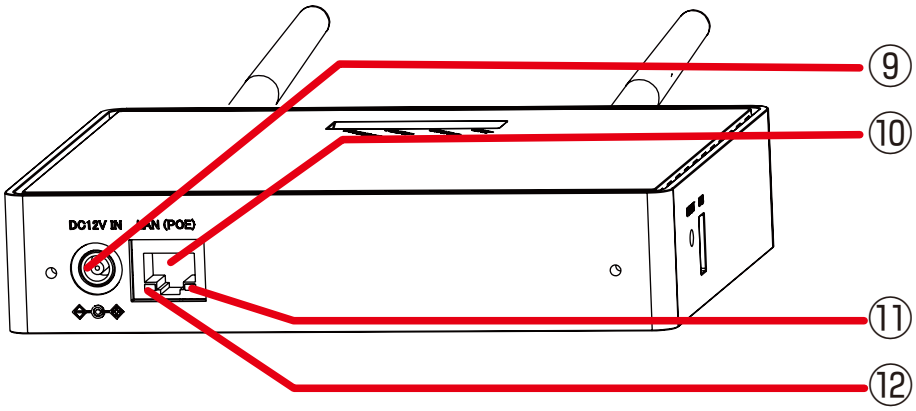
The parts name and functions are as follows:

Front



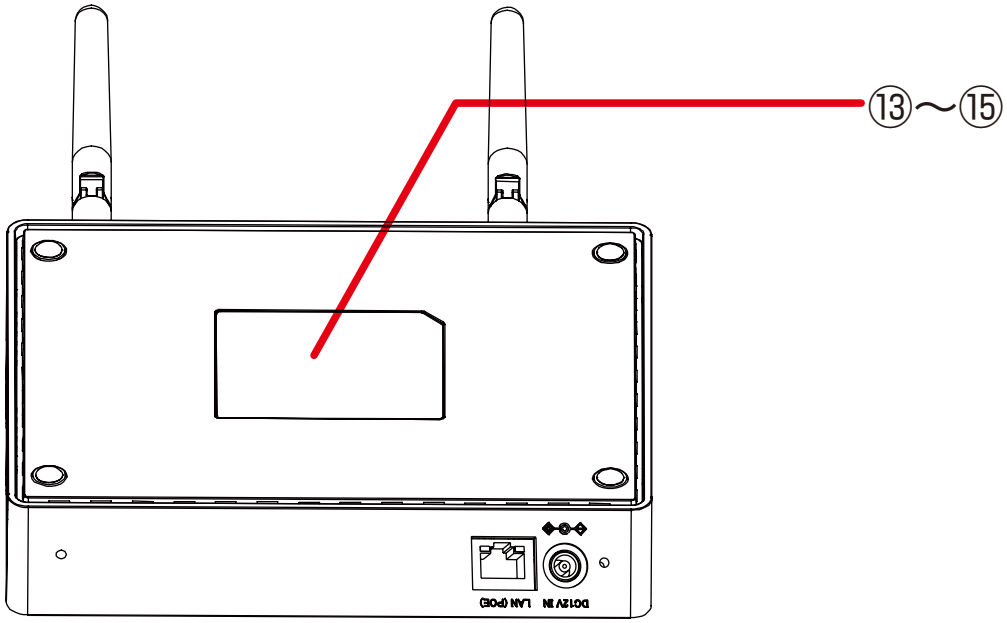
(1)	Wireless LAN Antenna	Wireless antenna for wireless communication	
(2)	Smart Wireless Setup Switch (SET2)	When pressed together with the one on your wireless device while SX-AP-4800AN2 is active, wireless configuration can be performed. (Smart Wireless Setup)	
(3)	Power LED (Green/Orange/Red)	BLINK(Orange)	Powering on
		ON(Green)	Ready
		BLINK(Red)	If blinks in Red, see the **Notice When Using the Log Output**.
		OFF	Powered off
(4)	Mode LED (Green/Orange/Red)	BLINK(Orange)	Running in **Configuration Mode**
		BLINK(Green)	Smart Wireless Setup is in progress
		ON(Green)	Smart Wireless Setup is completed (* Turns off in 3 mins)
		ON(Red)	Smart Wireless Setup failed (* Turns off in 3 mins)
(5)	WSTAT LED (Green/Red)	BLINK(Green)	Wireless data communication is active
		BLINK(Red)	DFS is running (Communication is disabled then)
(6)	Band LED (Green/Red)	BLINK(Green)	Connected to Root AP at 2.4GHz band using WDS
		ON(Green)	Communicating in 2.4GHz band
		BLINK(Red)	Connected to Root AP at 5GHz band using WDS
		ON(Red)	Communicating in 5GHz band
		OFF	Wireless communication is disabled
(7)	USB Port	Connect a USB cable (A-type connector).	
(8)	Push Switch (SET1)	Start in **Configuration Mode**	Press and hold this switch for more than 3 sec while SX-AP-4800AN2 is active.
		Factory default configuration	Press and hold this switch for more than 5 sec while turning on SX-AP-4800AN2.

Bottom



(9)	AC Connector	Connect an AC adaptor.
(10)	Network Port	Connect a network cable.
(11)	Status LED (Yellow)	Blinks while communicating in a wired LAN.
(12)	Link LED (Green)	Turns on when connected to a wired LAN.

Back



(13)	Default	
	SSID	SSID (default value)
	Key	Network key (default value)
	Authentic	Authentication mode (default value)
	Encryption	Encryption mode (default value)
	PIN Code	PIN code (default value)
	Password	Login password (default value)
	IP Address	IP Address (default value)
(14)	E/A	Ethernet Address
(15)	S/N	Serial Number

2-3. Hardware Specification

Operating environment	Temperature : +0 C to +40 C , +32 F to +104 F	
	Humidity : 20% to 80%RH (Non-condensing)	
Storage environment	Temperature : -10 C to +50 C , +14 F to +122 F	
	Humidity : 20% to 90%RH (Non-condensing)	
EMI	VCCI Class B	
	FCC Part15 SubPart B Class B	
	ICES-003 Class B	
CPU	32bit RISC CPU	
Memory	RAM: 64MByte	
	ROM: 16MByte	
Wired network interface	10BASE-T/100BASE-TX/1000BASE-T(Auto-sensing) : 1 port	
	Auto MDI/MDIX	
	Power over Ethernet PoE	
Wireless network interface	IEEE 802.11a/b/g/n	
	(For channels you can use, check the regulations in your country.)	
Antenna	Non-directional antenna	
USB interface	USB2.0 Hi-Speed port (A type) : 1 port	
Push Switch	2	For Smart Wireless Setup : 1
		For factory default configuration : 1
LED	Front	Power LED (Green/Orange/Red)
		Mode LED (Green/Orange/Red)
		Band LED (Green/Red)
		WSTAT LED (Green/Red)
	Network Port	Status LED (Yellow)
		Link LED (Green)

FCC / IC Notice

FCCID : **N6C-SXPCEAN2**
IC : 4908A-SXPCEAN2

Channel Selection
For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Fcc Rules Part 15
FCC CAUTION
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Rules, Part 15 §15.19(a)(3) / IC RSS Gen §8.4
Below sentences must be indicated on the final product which contains this module inside.
This device complies with Part 15 of FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

Le présent appareil est conforme à la partie 15 des règles de la FCC et CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

FCC Rules Part 15 Subpart C §15.247 and Subpart E / IC RSS-102 §2.6
This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles les radioélectriques (RF) de la FCC lignes directrices d'exposition et d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le radiateur et le corps humain.

FCC Rules Part 15 Subpart E §15.407(c)
Compliance with FCC requirement 15.407(c)
Data transmission is always initiated by software, which is the passed down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets are initiated by the MAC. These are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets is being transmitted.
In other words, this device automatically discontinue transmission in case of either absence of information to transmit or operational failure.

FCC Rules Part 15 Subpart E §15.407(g)
Frequency Tolerance: +/-20 ppm

FCC Rules Part 15 Subpart C §15.247(g) / Subpart E
This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

RSS-Gen §8.3
This radio transmitter 4908A-SXPCEAN2 has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le numéro IC du présent émetteur radio 4908A-SXPCEN2 a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué pour ce type, sont strictement interdits pour l'exploitation avec cet appareil.

- Antenna type
  Pole antenna

- Model
  TD17027A3S0

- Antenna Gain
  2.4GHz : 1.5dBi
  5GHz : 2.1 dBi

RSS-210
5150-5250 MHz and 5250-5350 MHz bands are restricted to indoor operations only.
High-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

La bandes 5150-5250 MHz et 5250-5350 MHz ont restreinte à une utilisation à l'intérieur seulement.
Les radars de haute puissance sont désignés comme utilisateurs principaux (c'est-à dire utilisateurs prioritaires) pour les bandes 5250-5350 MHz et 5650-5850 MHz, et que ces radars peuvent provoquer du brouillage et/ou des dommages aux dispositifs LAN-EL.

WARNING

The FCC / The Industry Canadaregulations provide that changes or modifications not expressly approved by the party responsible for compliance could void the user'sauthority to operate the equipment.

CE Notice

CE

2-4. Software Specification

TCP/IP	Network layer	ARP, IP, ICMP
	Transport layer	TCP, UDP
	Application layer	BOOTP, DHCP(Client/Server), HTTP, WINS(NBNS), NTP, JCP(Silex proprietary protocol), SXUPTP(Silex proprietary protocol), SX-KeepAlive(Silex proprietary protocol), SNMP, FTP, SSH

2-5. Power Supply

SX-AP-4800AN2 can receive electrical power via a AC adaptor or network cable.

SX-AP-4800AN2 can receive electrical power from the IEEE802.3af compliant power supply unit over a network cable. For details, please see the operating manual that came with your power supply devices.

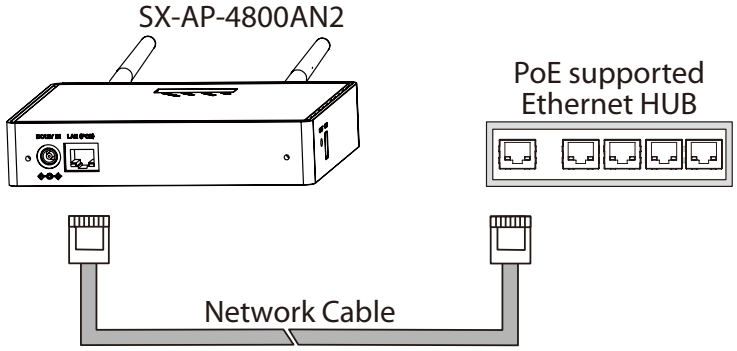
Note

- PoE is a technology to supply electrical power over Ethernet cable (Category 5 or above). This technology allows you to connect your PoE supported devices to the Ethernet even in a location without electrical outlet nearby.

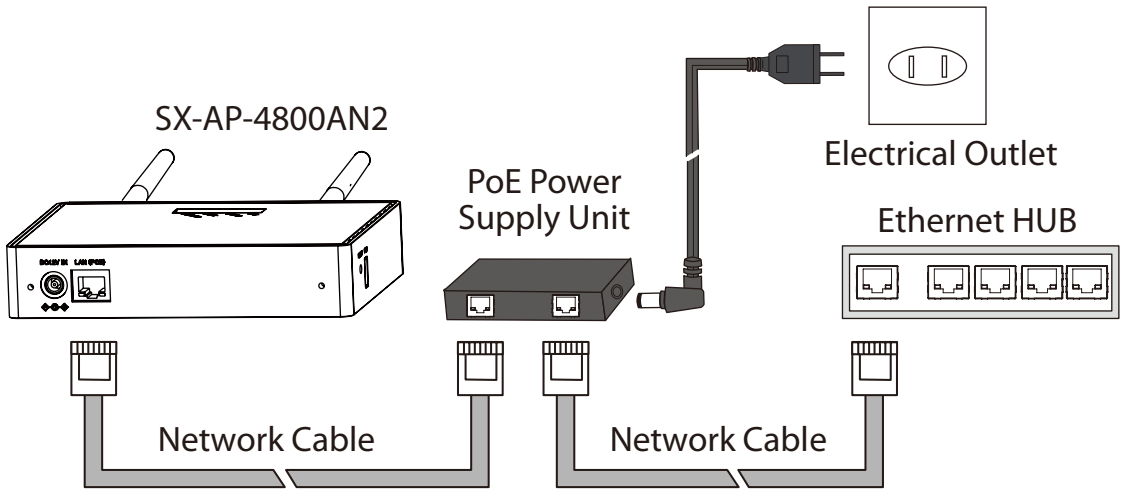
TIP

- When receiving power over Ethernet, you do not have to use the AC adaptor that came with SX-AP-4800AN2.
- Please remember that power is supplied from the AC adaptor if it is connected to SX-AP-4800AN2.

Sample connection1: When using a PoE supported HUB



Sample connection2: When using a PoE power supply unit



2-6. Wireless Interference Information

Notes

Do not use SX-AP-4800AN2 near the following devices or places.

- Microwave, scientific instruments, pacemaker or other medical equipment, etc.
- Licensed radio station in a factory
- Small power radio station (A non-licensed radio station)

These devices may use the same band. If you use SX-AP-4800AN2 near these devices, the radio waves emitted from SX-AP-4800AN2 may interfere with them.

Do not use SX-AP-4800AN2 near a cellular phone, TV or Radio.

A cellular phone, TV and radio use a different radio band than our products. Generally, if they are used near SX-AP-4800AN2, it will not cause any problems. However, when they approximate SX-AP-4800AN2, sound or image noise may occur.

If there is reinforced concrete/metal between wireless devices, they may not connect.

SX-AP-4800AN2 can connect through wood or glass, but may have troubles connecting through reinforced concrete/metal.

SX-AP-4800AN2 complies with the certification of conformance to technical standards. Please pay attention to the following points:

- Please do not disassemble or remodel the product. Such action is prohibited by law.
- Please do not remove the certificate label. Using the product without a label is prohibited.

Wireless devices using 2.4GHz band

The same frequency band of SX-AP-4800AN2 is used for a microwave, industry, science, medical equipment and licensed in room or low power (non-licensed) radio stations.

- Before you use SX-AP-4800AN2, check that it does not interfere with other devices.
- If interference occurs, stop using SX-AP-4800AN2 or change the wireless band. Please consider to create a wall between these devices to avoid interference. Contact us to for possible solution.

* The meaning of the symbols in the bottom of the unit:

2.4	: Wireless devices using 2.4GHz frequency band
DS/OF	: DS-SS or OFDM is used as modulation.
4	: The range of interference is equal to or lower than 40m.
	: All bands can be used to avoid interference.

Notes on using 5GHz band

- Use of 5.2GHz band (W52) and 5.3GHz band (W53) outdoors is prohibited by the radio regulations.

DFS

SX-AP-4800AN2 supports DFS (Dynamic Frequency Selection) of the IEEE 802.11h wireless standard. When radar signals are detected, the channel will automatically be switched to avoid interference with radar systems (e.g. weather radar, etc).

One alternative channel can individually be set for W53/W56 channels beforehand, which will be used when radar signals are detected and the channel needs to be switched.
When alternative channels are not specified or radar signals are detected even for that channel, SX-AP-4800AN2 switches the channel in order of the following:

DFS Channels (5GHz band)

Japan /EU

W53	HT20		52 > 56 > 60 > 64 > 36
	HT40	+	52 > 60 > 36
		-	56 > 64 > 40
W56	HT20		100 > 104 > 108 > 112 > 116 > 120 > 124 > 128 > 132 > 136 > 140
	HT40	+	100 > 108 > 116 > 124 > 132
		-	104 > 112 > 120 > 128 > 136

US/Canada

W53	HT20		52 > 56 > 60 > 64 > 36
	HT40	+	52 > 60 > 36
		-	56 > 64 > 40
W56	HT20		100 > 104 > 108 > 112 > 116 > 132 > 136 > 140 > 149
	HT40	+	100 > 108 > 116 > 132 > 149
		-	104 > 112 > 136 > 153

TIP

- SX-AP-4800AN2 checks if there are radar signals on the DFS channels when it is powered on. During this time, no wireless communication is allowed to SX-AP-4800AN2.
- If radar signals are detected during or after SX-AP-4800AN2 is powered on, the channel needs to be changed in order to avoid wireless interference. Therefore, if DFS channels are selected, the channel could be changed automatically.
- The radar signals are monitored for a certain amount of time (*) after it is detected, while wireless communication is disabled on SX-AP-4800AN2 then. Once radar signals are detected, the channel will not be available for 30 mins. (* This time period differs depending on the country.)

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3. Setup

This chapter explains how to configure SX-AP-4800AN2.
Following configuration methods are available:

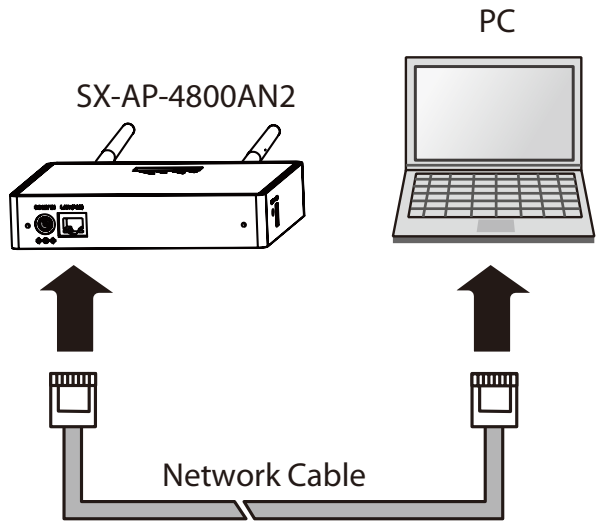
- Setup using **Configuration Mode** (recommended)
- Setup via a network
- Setup using an external registrar

3-1. Setup Using Configuration Mode

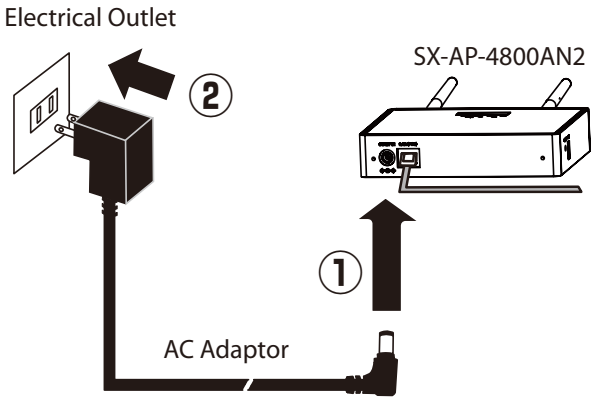
How to configure SX-AP-4800AN2 using the **Configuration Mode** is explained. In this setup method, you have to connect SX-AP-4800AN2 directly to the PC and configure it one by one.

Starting in Configuration Mode

1. Connect SX-AP-4800AN2 and the PC (to use for setup) using a network cable.

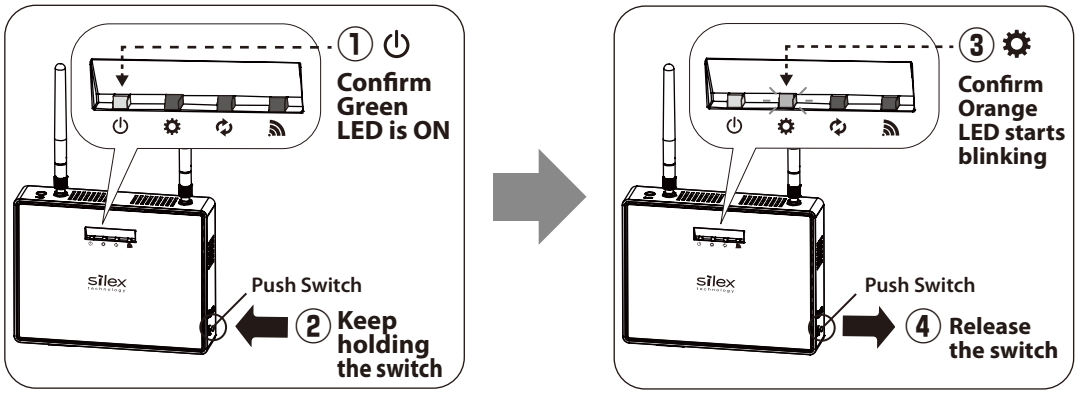


2. Connect the AC adapter to SX-AP-4800AN2, and the AC adapter's plug to an electrical outlet.



TIP - If wireless LAN is enabled on your PC, please disable it.

3. When the front Power LED starts blinking in Orange and then turns on to Green, press and hold the push switch with a fine tipped object such as a pen or pencil.
Release the push switch when Mode LED starts blinking in Orange (It may take 3sec until blinking).
SX-AP-4800AN2 will start running in the **Configuration Mode** and you will be ready to configure SX-AP-4800AN2 from the PC.



Setup

1. Check for proper connection between the PC and SX-AP-4800AN2.

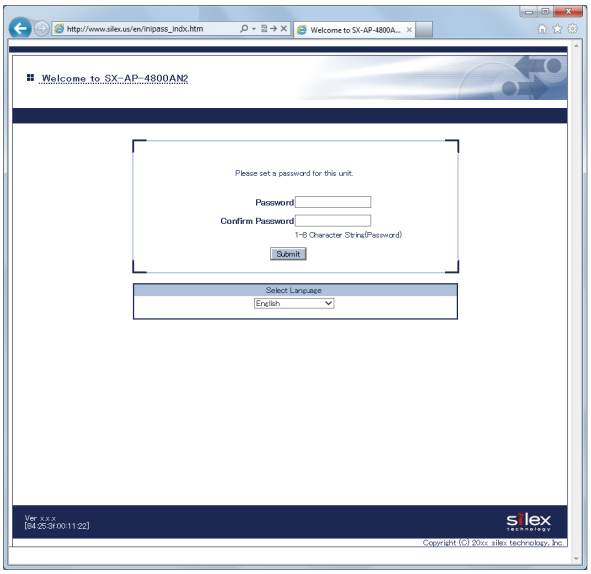
- Confirm that an IP Address is correctly configured to the PC.

Note

- How to check on Windows 7
  See the tasktray icon ( ) to check the wired LAN is enabled on the PC.

- Confirm that a wireless LAN is disabled on the PC.

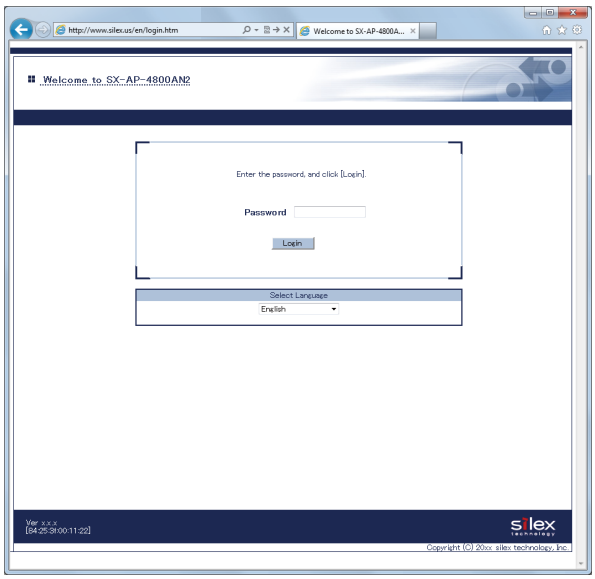
2. Start a Web browser (Internet Explorer, Safari, etc) on the PC you are using for the setup. When the login password configuration page appears, enter the password to configure for SX-AP-4800AN2 and click **Submit**.



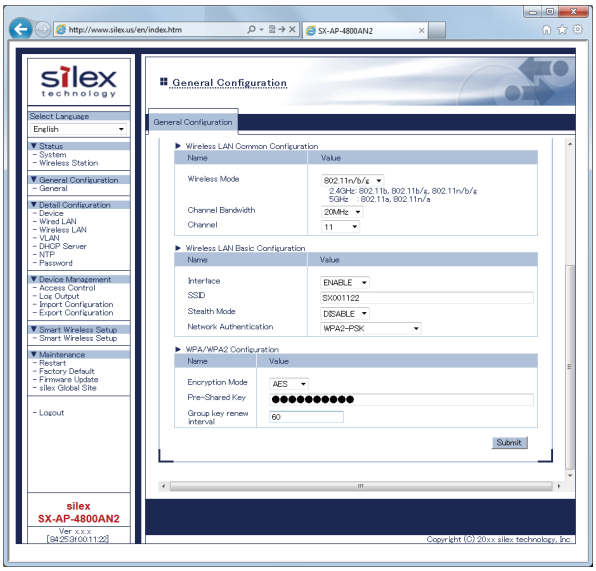
Note

- If the Web page is not displayed, enter "**http://silex**" in the address bar of the Web browser and press the Enter key.
- If a password is set to SX-AP-4800AN2, the login page is displayed. Enter the password and click **Login**.

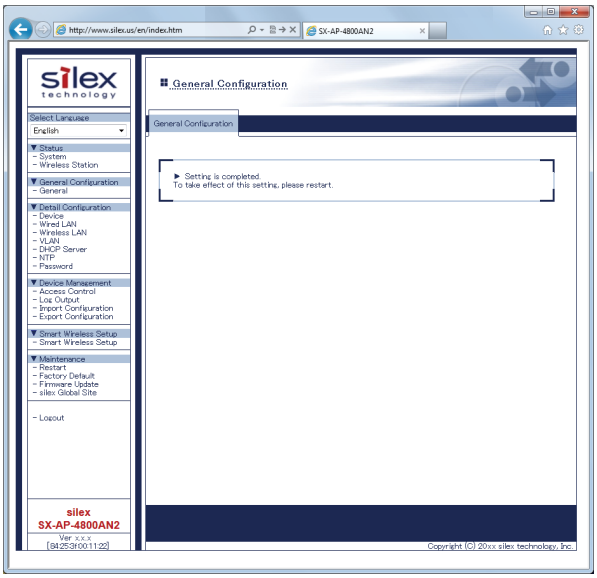
3. The login page of SX-AP-4800AN2 is displayed.
Enter the password of SX-AP-4800AN2 and click **Login**.



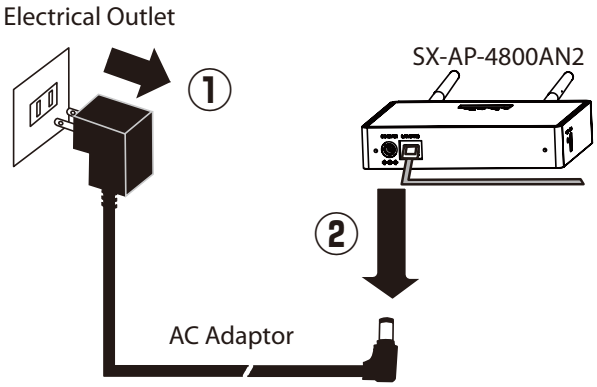
4. The Web page of SX-AP-4800AN2 is displayed.
In the Web page, configure the necessary settings.
For details on each setting, see **Appendix** - **A-1. List of All Settings** on this User's Manual. When finished, click **Submit** on the bottom right of Web page.



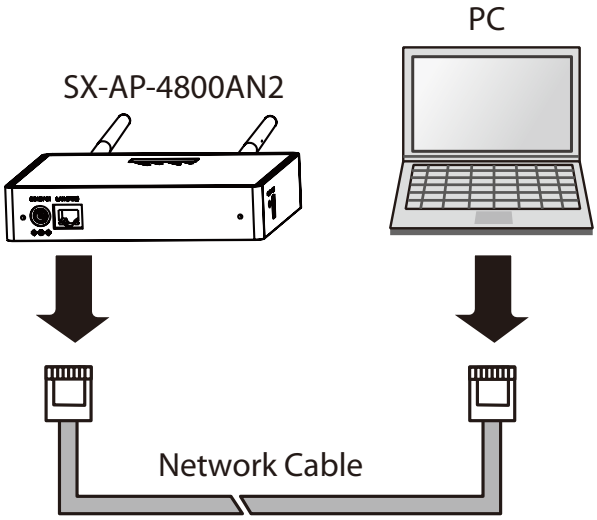
5. If "**Setting is completed**" is displayed, the configuration is finished.



6. Unplug the AC plug from the outlet and then AC adaptor from SX-AP-4800AN2.

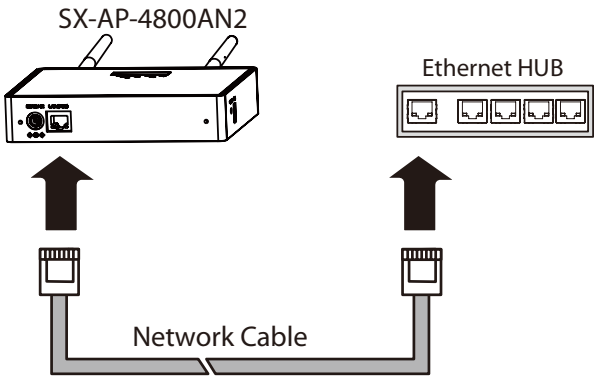


7. Unplug the network cable from SX-AP-4800AN2 and PC.

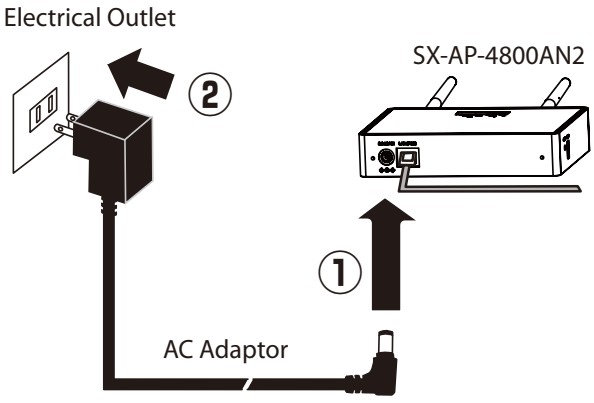


Connecting to Network

1. Connect SX-AP-4800AN2 and Ethernet Hub via a network cable.



2. Connect the AC adapter to SX-AP-4800AN2 and AC plug to a power outlet.



3-2. Setup via a Network

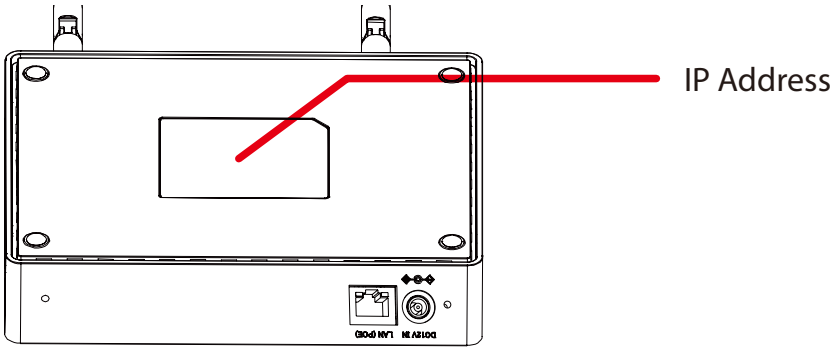
How to setup SX-AP-4800AN2 from your PC via a network is explained. In this method, two or more of SX-AP-4800AN2 can be configured at once by connecting them to a network.

- To continue this configuration, the network settings on your PC needs to be changed temporarily.

Connecting to Network

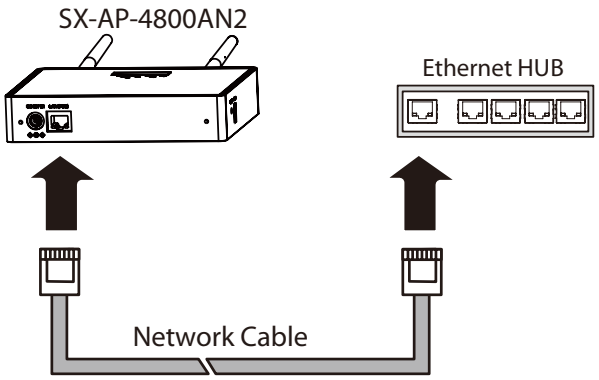
Check the default settings on SX-AP-4800AN2

If you are to configure SX-AP-4800AN2 for the first time, check the default IP Address which can be found on the bottom label of SX-AP-4800AN2.
If you have already completed the configuration, go on to the next.

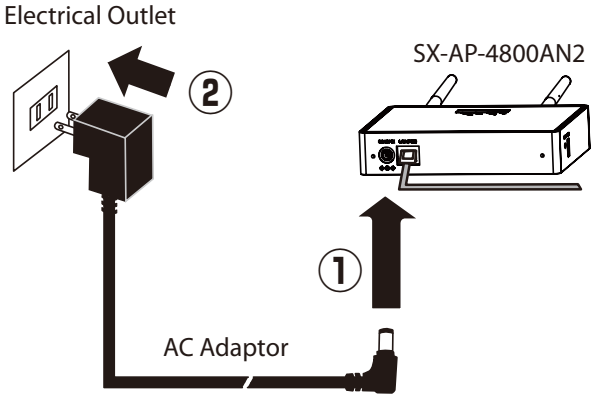


Connect SX-AP-4800AN2 to a network

1. Connect SX-AP-4800AN2 and Ethernet Hub via a network cable.



2. Connect the AC adapter to SX-AP-4800AN2 and AC plug to a power outlet.



Note

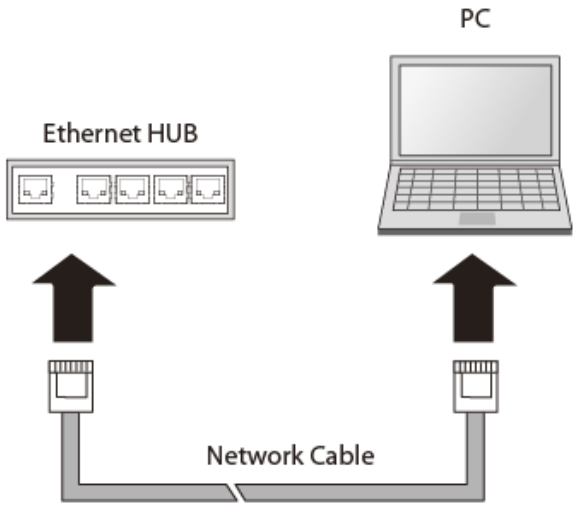
- Repeat the same process if you are to configure two or more of SX-AP-4800AN2.

Changing Network Settings on the PC

Change the network settings on your PC so that you can access SX-AP-4800AN2 from the PC.

Connect the PC to a network

Connect the PC (to use for setup) and Ethernet Hub using a network cable.



Following Web browsers are recommended:

- Microsoft Internet Explorer 5.5 or newer
- Firefox 2.0.0 or newer

Change the network settings on the PC

Change the network settings on the PC to access SX-AP-4800AN2.

Example:

In case the default IP Address of SX-AP-4800AN2 is 10.0.17.34, change the network settings on your PC to the following:

- IP Address : 10.1.2.3
- Subnet Mask : 255.0.0.0

TIP

- By default, a Class A address (10.xxx.xxx.xxx) is set to SX-AP-4800AN2.
  Please be sure to set a unique address to your PC, that is not used for SX-AP-4800AN2.

Note

How to change the network settings on Windows 7:

1. Click **Start** - **Control Panel** - **Network and Internet** - **View network status and tasks**.
2. In **Network and Sharing Center**, click **Local Area Connection**.
3. In **Local Area Connection Status**, click **Properties**.
4. In **Local Area Connection Properties**, select **Internet Protocol (TCP/IP)** and click **Properties**.
5. Change the **IP address**, **Subnet mask** and **Default gateway** as necessary.

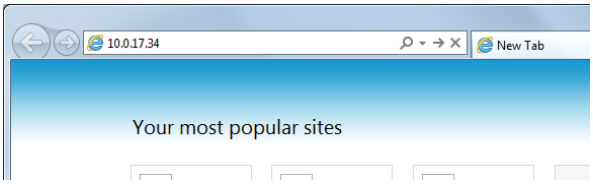
Setup

How to access the Web page:

Note

- The following instructions will use the screenshots captured using Windows 7 and Internet Explorer 9.0. They may vary depending on the version of operating systems or Web browsers.

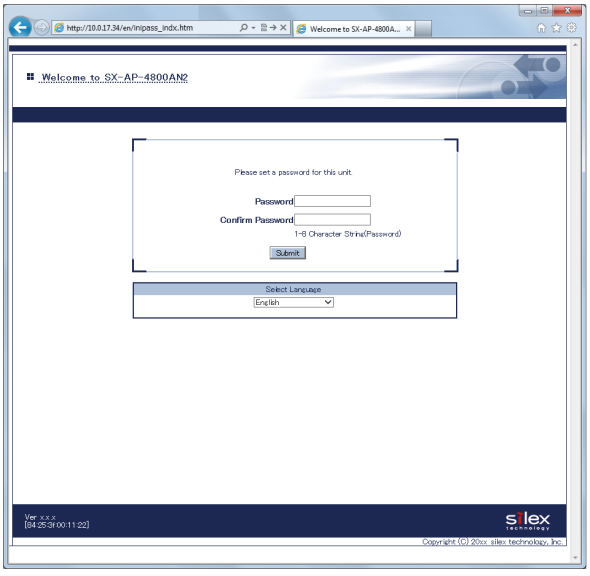
1. Start a Web browser (Internet Explorer, Safari, etc) on the PC you are using for the setup, enter the IP address of SX-AP-4800AN2 in the address bar and press the ENTER key.



Note

- The default IP Address can be found on the bottom label of SX-AP-4800AN2.

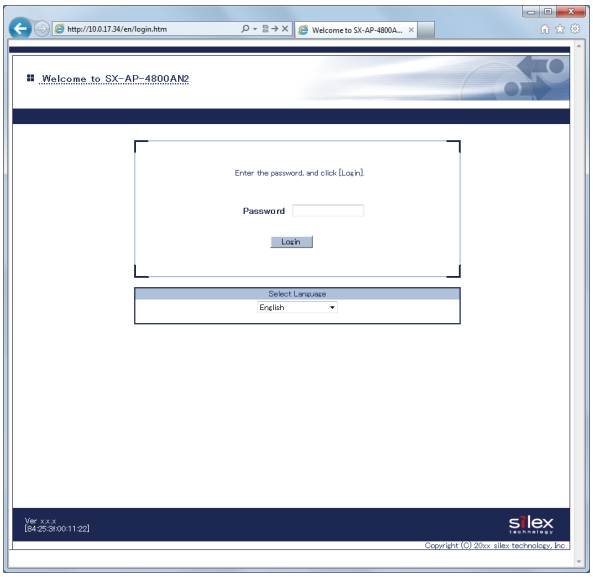
2. When the login password configuration page appears, enter the password to configure for SX-AP-4800AN2 and click **Submit**.



Note

- If a password is set to SX-AP-4800AN2, the login page is displayed. Enter the password and click **Login**.

3. The login page of SX-AP-4800AN2 is displayed.
Enter the password of SX-AP-4800AN2 and click **Login**.

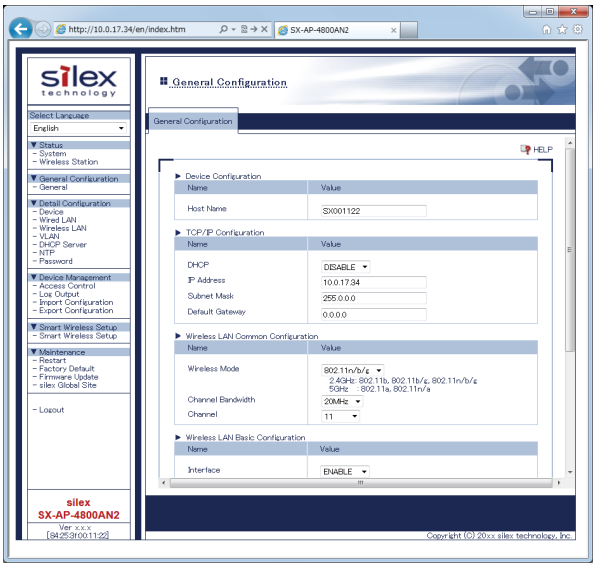


General Configuration

Basic settings to operate SX-AP-4800AN2 can be configured.

1. From the left menu on the Web page, click **General Configuration** - **General**.

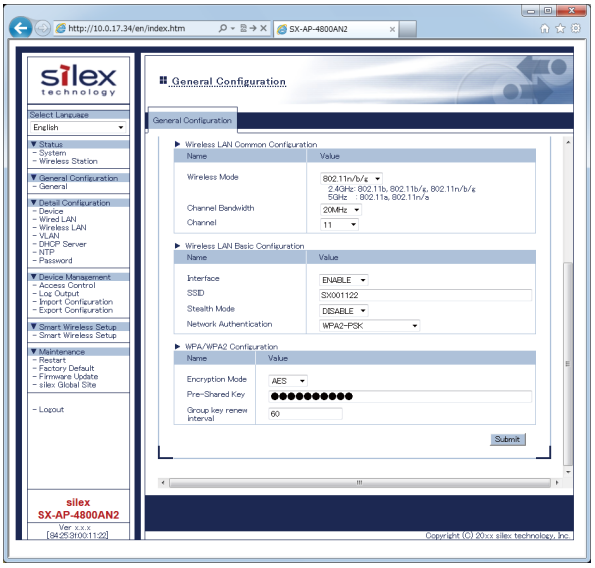
2. In the **General Configuration** page, configure each setting.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.

3. After entering the settings, click **Submit** on the bottom right of Web page.



4. When finished, restart SX-AP-4800AN2.

Note

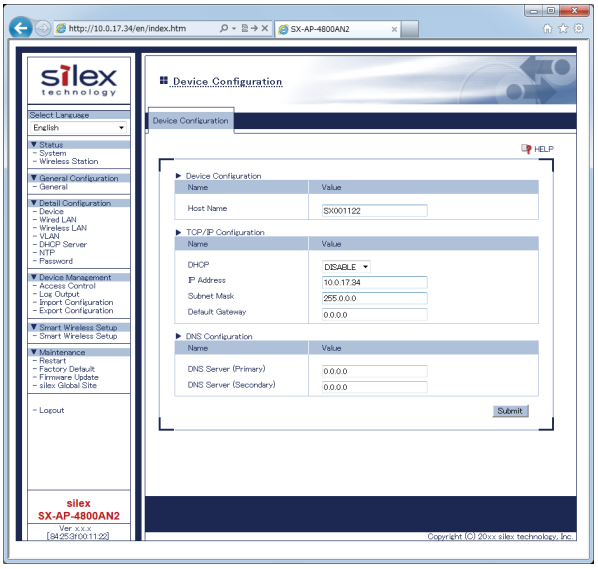
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature - Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

Device Configuration

Host name or IP address, etc. can be configured.

1. From the left menu on the Web page, click **Detail Configuration** - **Device**.

2. In the **Device Configuration** page, configure each setting.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.

3. After entering the settings, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

Note

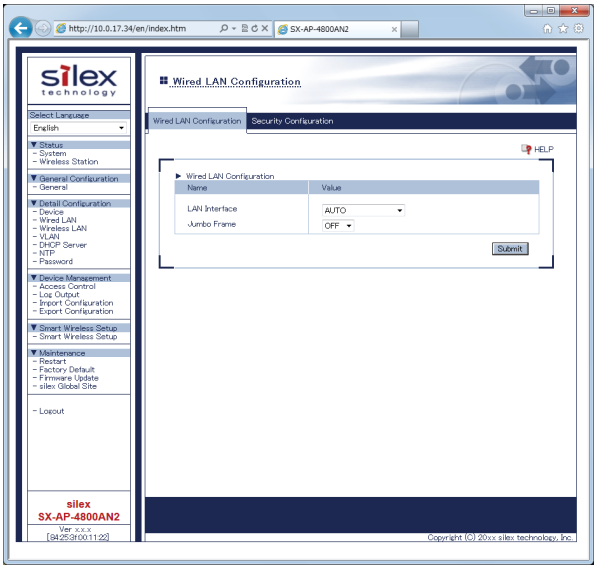
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature - Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

Wired LAN Configuration

Wired LAN settings can be configured.

1. From the left menu on the Web page, click **Detail Configuration** - **Wired LAN**.

2. In the **Wired LAN Configuration** page, configure each setting.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- You can switch between 2 tabs on the **Wired LAN Configuration** page.
  It is not necessary to click **Submit** each time you have switched the tab.
- The **Security Configuration** tab provides the security configuration for a wired LAN.

3. After entering the settings, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

Note

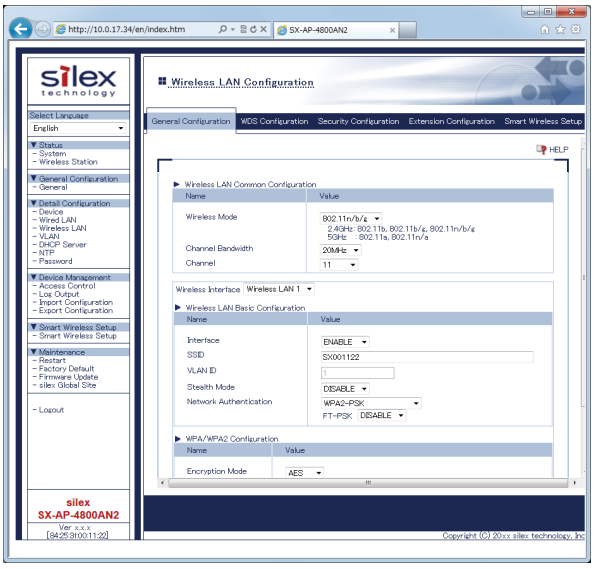
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature - Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

Wireless LAN - General Configuration

Basic wireless settings can be configured.

1. From the left menu on the Web page, click **Detail Configuration** - **Wireless LAN**.

2. In the **General Configuration** page, configure each setting.



Note

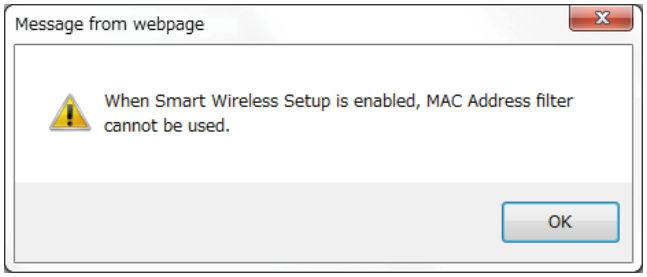
- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- You can switch between 4 tabs on the **Wireless LAN Configuration** page.
  It is not necessary to click **Submit** each time you have switched the tab.
- The **WDS Configuration** tab provides WDS configuration.
- The **Security Configuration** tab provides the security configuration for a wireless LAN.
- The **Extension Configuration** tab provides extended functions for a wireless LAN.
- The **Smart Wireless Setup** tab provides easy wireless configuration.

TIP

- Please be sure to use encryption when you connect SX-AP-4800AN2 to the wireless network.
- Wireless bands for IEEE 802.11b/g or IEEE 802.11b/g/n are often in use by other people because the number of devices supporting these standards is growing rapidly. If these wireless modes are used, you may run into issues with having enough communication bandwidth.
- When using SX-AP-4800AN2 outdoors, you must observe the radio regulations of each country. In some countries, the use of particular wireless bands (channels) outdoors is strictly prohibited.
- When using W53 (52/56/60/64ch) or W56 (100/104/108/112/116/132/136/140ch) channels, please be careful of the restrictions addressed at **2. About SX-AP-4800AN2** - **2-6. Wireless Interference Information** - **DFS**.

TIP

- If Smart Wireless Setup is enabled on the wireless interface, MAC Address filtering cannot be used. In such a case, the message below is displayed.



In order to use MAC Address filtering, disable Smart Wireless Setup at **Smart Wireless Setup** tab or select the wireless interface which does not have MAC Address filter setting at **Smart Wireless Setup** tab.

3. After entering the settings, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

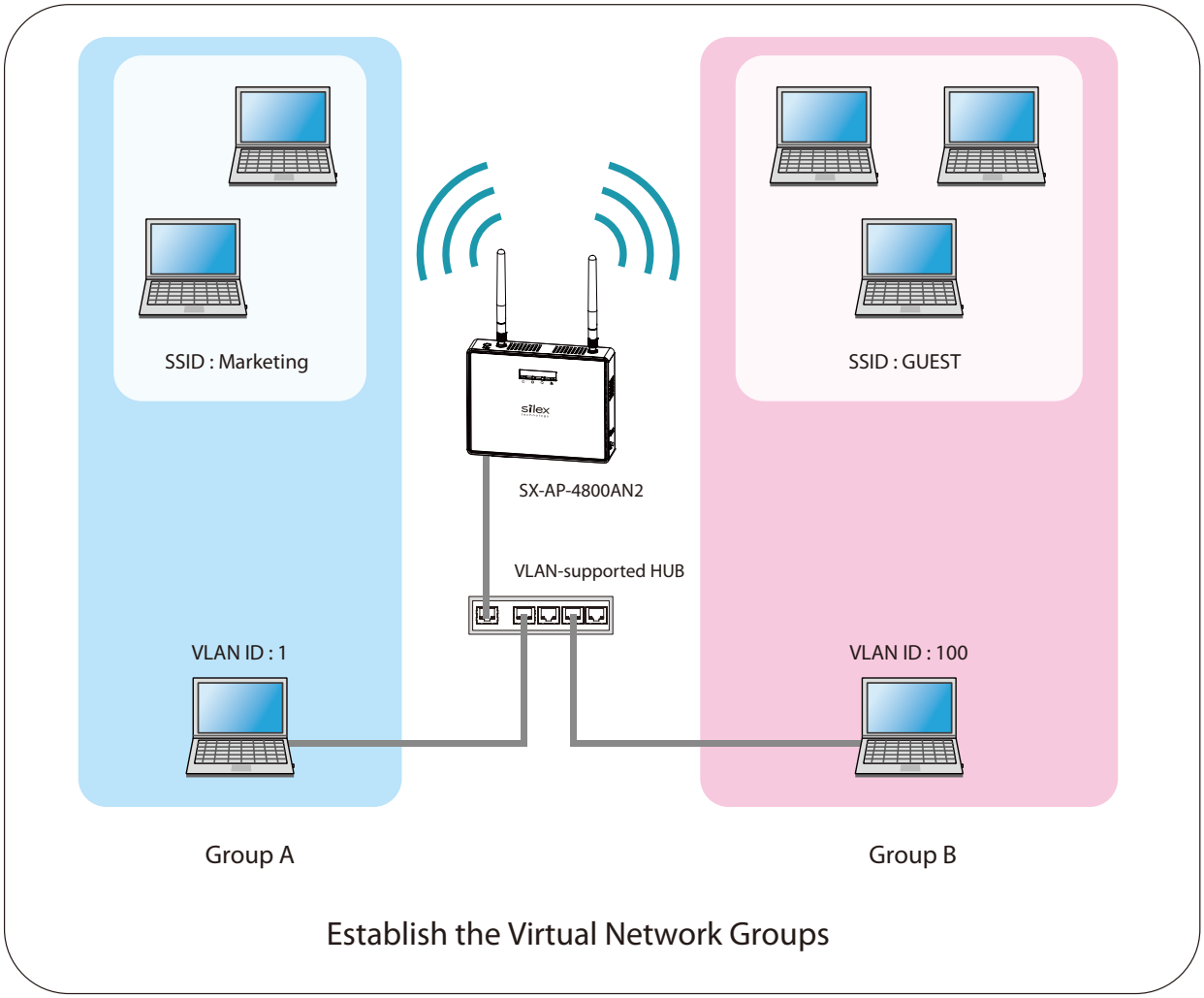
Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature - Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

VLAN Configuration

VLAN settings can be configured.

SX-AP-4800AN2 allows to configure VLAN ID to SSID of the wireless LAN.
By using SX-AP-4800AN2 and the switching HUB supporting a tagged VLAN (hereinafter, the "VLAN HUB"), virtual network groups can be established.
As SX-AP-4800AN2 supports Multi SSID, up to 4 virtual network groups can be created.
For details, refer to **5-9. VLAN Feature**.



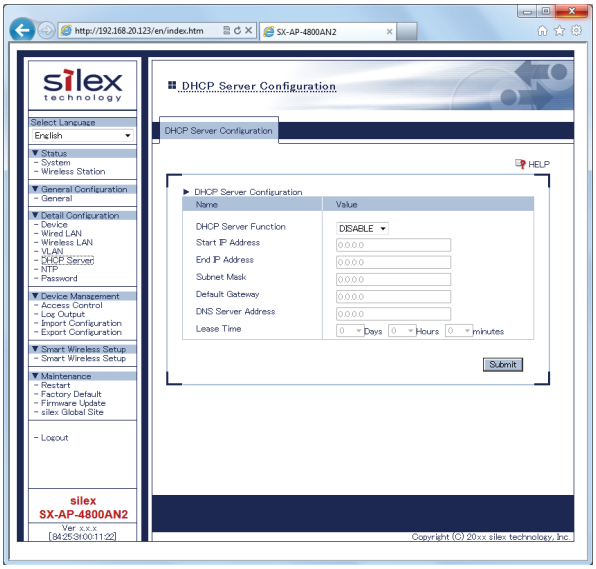
Establish the Virtual Network Groups

DHCP Server Configuration

DHCP server settings can be configured.

1. From the left menu on the Web page, click **Detail Configuration** - **DHCP Server**.

2. In the **DHCP Server Configuration** page, configure each setting.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.

3. After entering the settings, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

Note

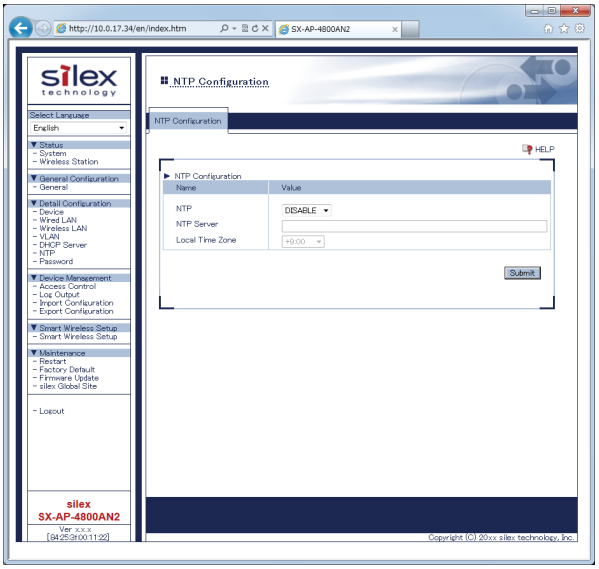
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

NTP Configuration

NTP settings can be configured.

1. From the left menu on the Web page, click **Detail Configuration** - **NTP**.

2. If **ENABLE** is selected for **NTP** in the **NTP Configuration** page, the **NTP Server** and **Local Time Zone** settings will become active. Once **Time synchronization** button is clicked, the time will be synchronized with those of NTP server registered to SX-AP-4800AN2.



3. After entering the settings, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

Note

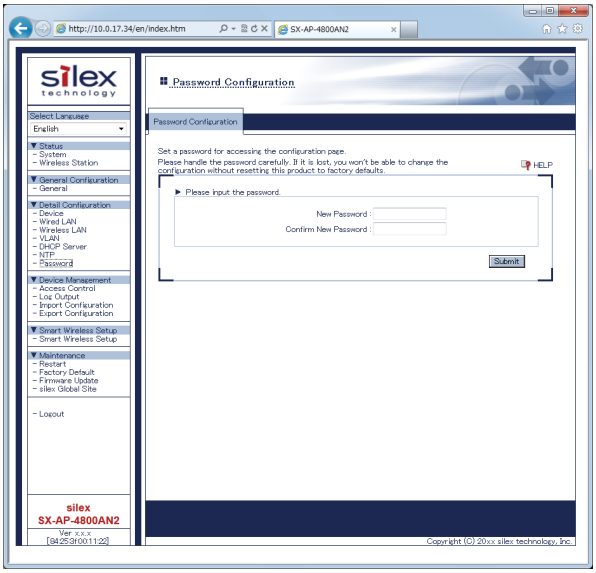
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

Password Change

The password can be changed.

1. From the left menu on the Web page, click **Detail Configuration** - **Password**.

2. In the **Password Configuration** page, enter a new password.



3. After entering the password, click **Submit** on the bottom right of Web page.

4. When finished, restart SX-AP-4800AN2.

Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

3-3. Setup Using an External Registrar

Setup Using Windows Network Setup Feature

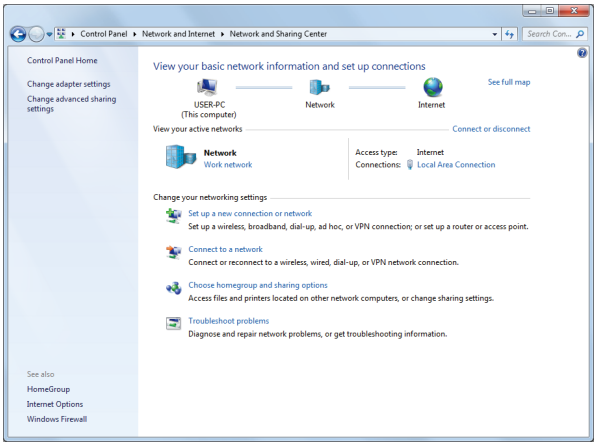
How to setup SX-AP-4800AN2 via network using the network setup feature of Windows 7 is explained.

TIP

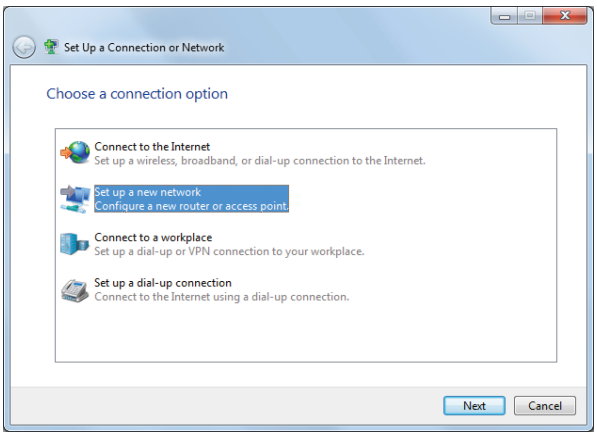
- To continue this configuration, **External Registrar** must be set to **ENABLE** and **Wireless LAN config status** needs to be **Unconfigured** on SX-AP-4800AN2. Before you begin, please check these settings at the **Smart Wireless Setup** page on the Web page.
- This configuration is available on Windows 7 (or newer) PC which is connected to a network via a wired LAN.
- If the PC has already been connected to a wireless LAN, please use your own wireless configuration utility. For details, refer to **Setup Wirelessly from the PC**.

1. Click **Start** - **Control Panel** - **View network status and tasks**.

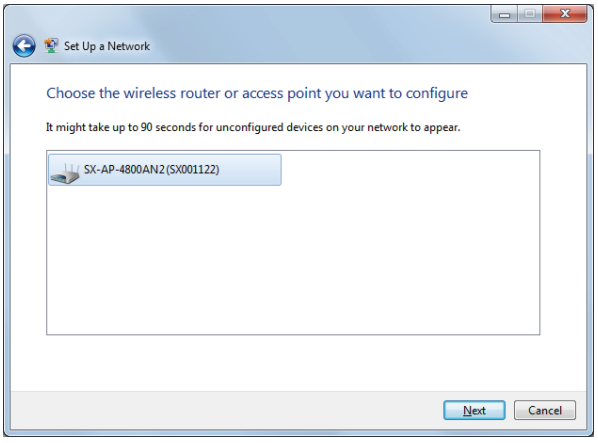
2. Click **Set up a new connection or network.**



3. Select **Set up a new network** and click **Next**.



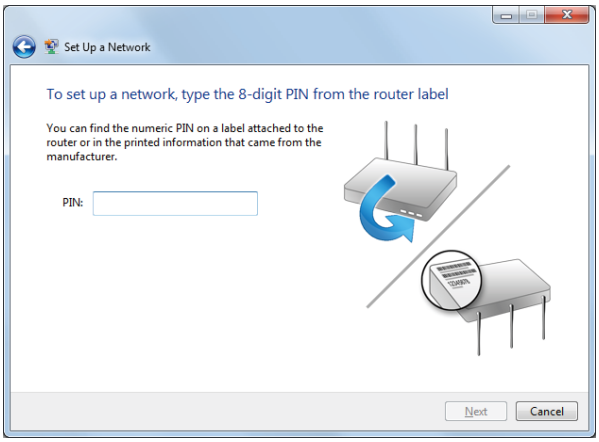
4. Select SX-AP-4800AN2 and click **Next**.



Note

- If two or more of SX-AP-4800AN2 are displayed, select the correct one by checking the host name on the right.

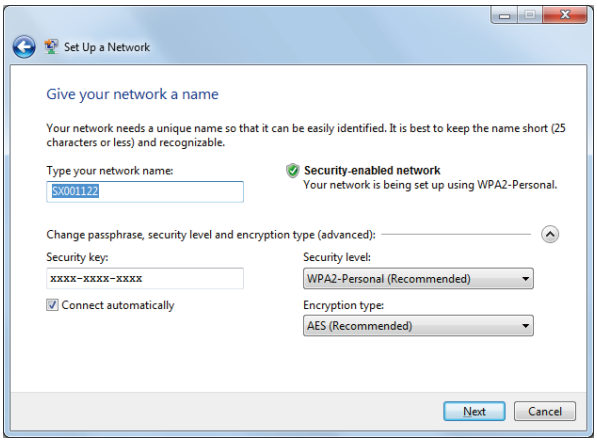
5. Enter the PIN code of SX-AP-4800AN2 to **PIN:** field and click **Next**.



TIP

- PIN code is a 8-digit number that can be found on the bottom label of SX-AP-4800AN2.

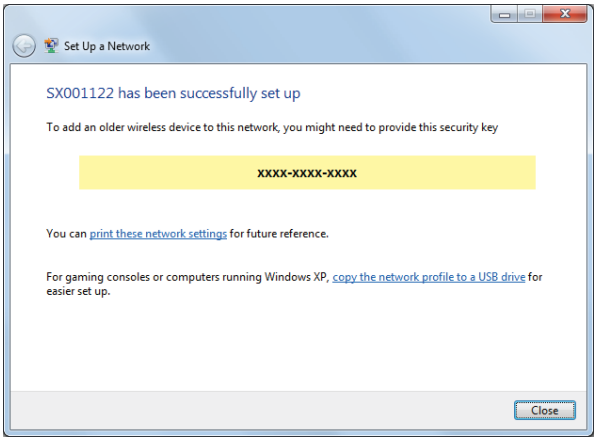
6. Enter an SSID to **Type your network name**.
Click the down arrow button on the right of **Change passphrase, security level and encryption type (advanced)** to configure **Security key**, **Security level, Encryption type** and **Connect automatically**. When finished entering the settings, click **Next**.



Note

- It is recommended to take notes of the security key.

7. Click **Close**.



Setup Wirelessly from the PC

SX-AP-4800AN2 can be configured via a wireless LAN using the wireless connection of your PC. In case of this configuration, please use your own wireless configuration utility.

TIP

- To continue this configuration, **External Registrar** must be set to **ENABLE** and **Wireless LAN config status** needs to be **Unconfigured** on SX-AP-4800AN2. Before you begin, please check these settings at the **Smart Wireless Setup** page on the Web page.
- Please refer to the operating manual that came with your wireless configuration utility to setup SX-AP-4800AN2.

4. Connecting Your Wireless Device

This chapter explains how to connect your PC and wireless devices to SX-AP-4800AN2.

4-1. Connecting Your PC

How to connect your PC to SX-AP-4800AN2 by changing the wireless settings of the PC using the wireless connection feature of Windows:

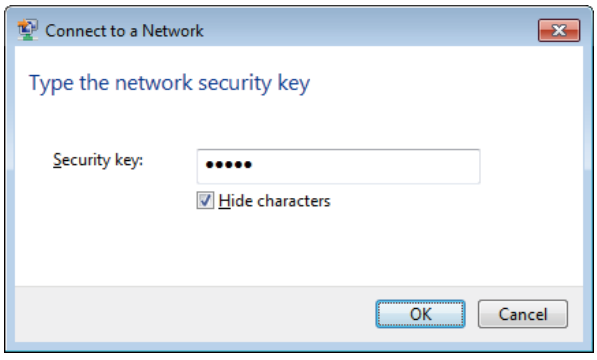
1. Click the network icon ( ) on the tasktray.

2. Select the SSID configured on SX-AP-4800AN2 from a list and click **Connect**.

Note

- The default SSID can be found on the bottom label of SX-AP-4800AN2.

3. Enter the WEP key (or Pre-Shared key if the network authentication mode is WPA-PSK, WPA2-PSK or WPA/WPA2-PSK) to **Security key** and click **OK**.



Note

- The default security key can be found on the bottom label of SX-AP-4800AN2. See the "**Key**" information in the label.

4-2. Connecting Your Wireless Device

How to connect your wireless device to SX-AP-4800AN2 by changing the wireless settings of your device using easy wireless setup feature:
Following methods are available to connect your wireless devices.

- Making a connection using the Smart Wireless Setup switch on SX-AP-4800AN2
- Making a connection using the Web page of SX-AP-4800AN2
- Making a connection using the PIN code

TIP

- When the **Stealth Mode** is enabled on SX-AP-4800AN2, wireless connection method using Smart Wireless Setup cannot be used.

Making a Connection Using Smart Wireless Setup Switch

How to connect your devices using Smart Wireless Setup switch on SX-AP-4800AN2:

TIP

- To continue, **Smart Wireless Setup** needs to be set to **ENABLE**. Before you begin, please check the setting at the **Smart Wireless Setup** page on the Web page.
- During this configuration, please place your wireless device closer to SX-AP-4800AN2 so that they can communicate better.

1. Check that your wireless device supports WPS and is powered on.

2. Press and hold the wireless setup switch (SET2). Release it when Mode LED start blinking in Green.

3. Press the wireless setup switch also on your wireless device.

TIP

- The name, position and shape of the wireless setup switch(WPS button) will differ depending on your wireless device. For details, refer to the operation manual that came with your wireless device.
- Please use only one wireless device. Even if two or more devices are waiting for wireless connections, SX-AP-4800AN2 can configure only one device which has replied first.

4. SX-AP-4800AN2 will start to communicate with your wireless device and configure the same wireless settings. The Mode LED will turn to Green when the configuration is completed.

Note

- If Mode LED turns to Red, the configuration would have failed. Read the notes on this configuration and try again.
- Mode LED (Green/Red) will turn off in 3 mins.

How to connect your devices using the Web page of SX-AP-4800AN2:

TIP

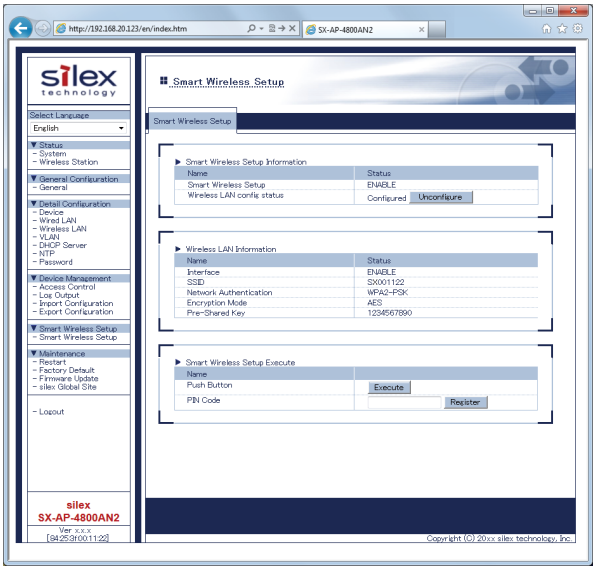
- To continue, **Smart Wireless Setup** needs to be set to **ENABLE**. Before you begin, please check the setting at the **Smart Wireless Setup** page on the Web page.
- During this configuration, please place your wireless device closer to SX-AP-4800AN2 so that they can communicate better.

1. Check that your wireless device supports WPS and is powered on.

2. Login to the Web page of SX-AP-4800AN2 using your Web browser.

3. From the left menu on the Web page, click **Smart Wireless Setup** - **Smart Wireless Setup**.

4. Click **Execute** at **Push Button**.



5. Press the wireless setup switch on your wireless device.

TIP

- The name, position and shape of the wireless setup switch(WPS button) will differ depending on your wireless device. For details, refer to the operation manual that came with your wireless device.
- Please use only one wireless device. Even if two or more devices are waiting for wireless connections, SX-AP-4800AN2 can configure only one device which has replied first.

6. SX-AP-4800AN2 will start to communicate with your wireless device and configure the same wireless settings. The Mode LED will turn to Green when the configuration is completed.

Note

- If Mode LED turns to Red, the configuration would have failed. Read the notes on this configuration and try again.
- Mode LED (Green/Red) will turn off in 3 mins.

Making a Connection Using a PIN Code

TIP

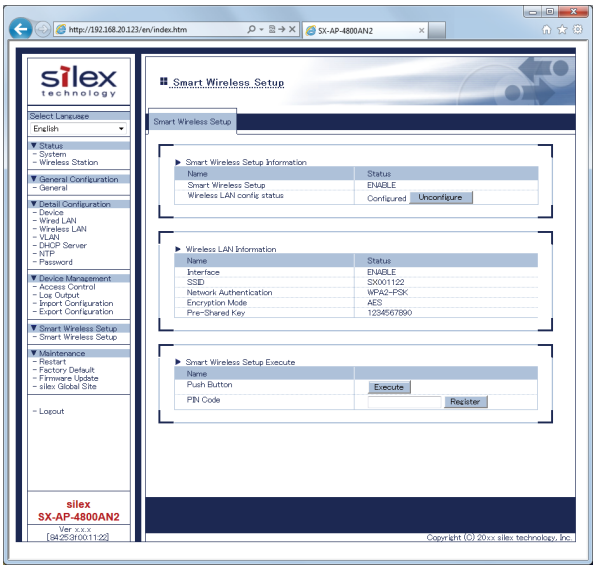
- To continue, **Smart Wireless Setup** needs to be set to **ENABLE**. Before you begin, please check the setting at the **Smart Wireless Setup** page on the Web page.
- During this configuration, please place your wireless device closer to SX-AP-4800AN2 so that they can communicate better.

1. Check that your wireless device supports WPS and is powered on.

2. Login to the Web page of SX-AP-4800AN2 using your Web browser.

3. From the left menu on the Web page, click **Smart Wireless Setup** - **Smart Wireless Setup**.

4. Enter the PIN code configured to your wireless device to **PIN Code** and click **Register**.



5. SX-AP-4800AN2 will start to communicate with your wireless device and configure the same wireless settings. The Mode LED will turn to Green when the configuration is completed.

Note

- If Mode LED turns to Red, the configuration would have failed. Read the notes on this configuration and try again.
- Mode LED (Green/Red) will turn off in 3 mins.

5. Other Features

This chapter explains the other features of SX-AP-4800AN2.

5-1. Device Server Feature

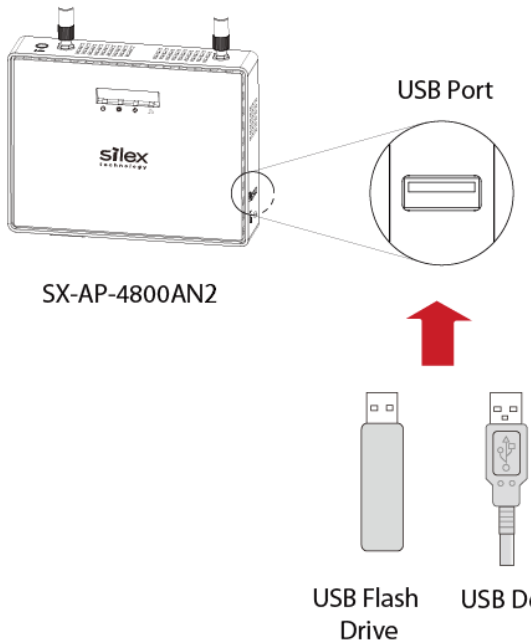
The USB devices connected to SX-AP-4800AN2 can be shared over the network.
To use the device server feature, the USB connection utility, "SX Virtual Link" is required.
How to install and use SX Virtual Link is as follows:

TIP

- To use this feature, the following conditions must be met.
  If you are using older version of the software, please install the newest one from our website at **https://www.silextechnology.com**.
  - SX Virtual Link (for Windows) : Ver.3.11.0 or newer
  - SX Virtual Link (for Macintosh) : Ver.3.11.2 or newer
- In the following instructions, Windows 7 is used as an example.
- If you are using Macintosh, the screens will be different, but the procedure will be very similar.

Note

- SX Virtual Link is also used for the log output feature.



Connect the USB device that you wish to shared over the network to the USB port of SX-AP-4800AN2.

Downloading & Installing SX Virtual Link

What is SX Virtual Link?

SX Virtual Link allows you to connect your PC to a USB device that is connected to SX-AP-4800AN2. Use SX Virtual Link when you connect/disconnect to/from the USB device.

SX-AP-4800AN2 allows you to use USB devices as if they were connected directly to your PC.

How to download SX Virtual Link:

1. Access our website below.

URL	
USA / Europe	**https://www.silextechnology.com/**

2. Go to the support section and download SX Virtual Link.

TIP

- There are two versions of SX Virtual Link; one is for Windows and the other is for Macintosh. Please download the one appropriate for your environment.

How to install SX Virtual Link:

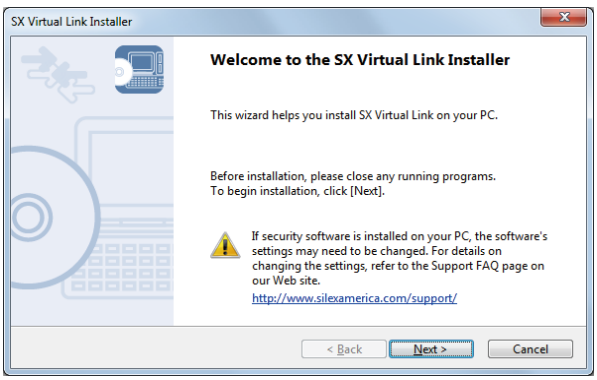
> *TIP*
> - Administrator privilege is required for installation.

1. Decompress the file you have downloaded and then double-click **Cosetup.exe**.

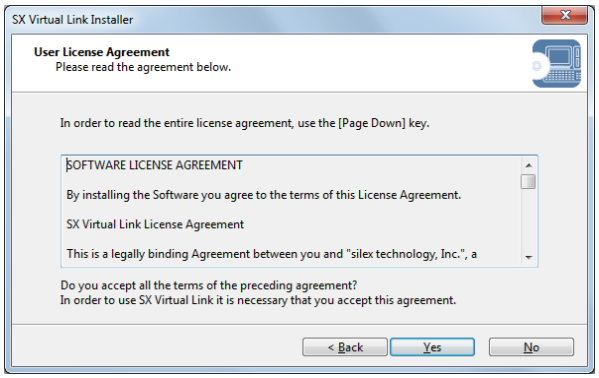
2. The User Account Control message is displayed
In Windows 7, click **Yes**.
In Windows Vista, click **Continue**.

3. SX Virtual Link installer is started and the language selection menu is displayed.
Select **English** and click **Next**.

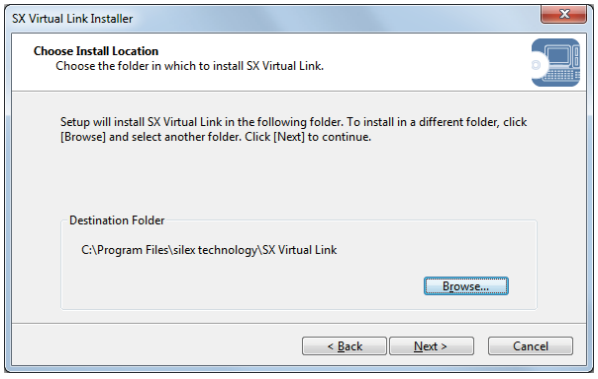
4. Click **Next**.



5. Read the **SOFTWARE LICENSE AGREEMENT** and click **Yes**.



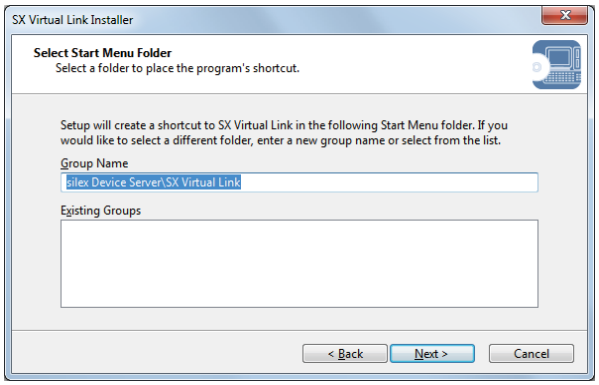
6. Select a folder to install into and click **Next**.



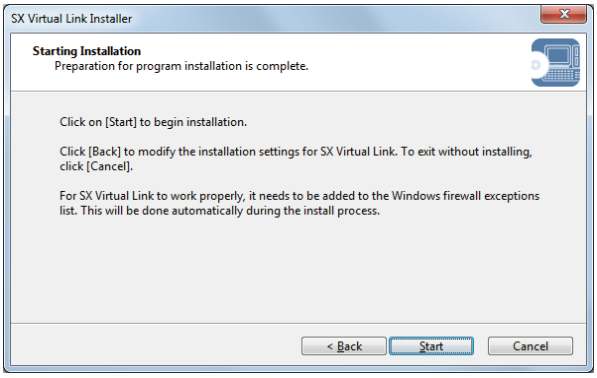
- By clicking **Browse**, the folder can be changed.

Note

7. Enter a group name to be displayed in the start menu and click **Next**.

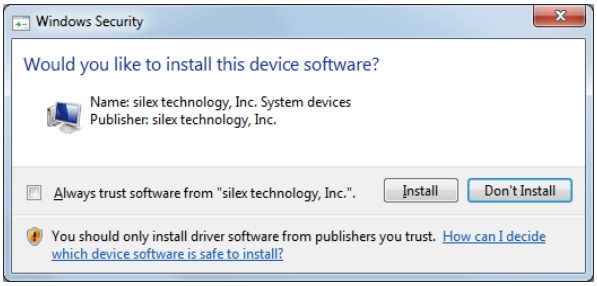


8. Click **Start** to begin the installation.

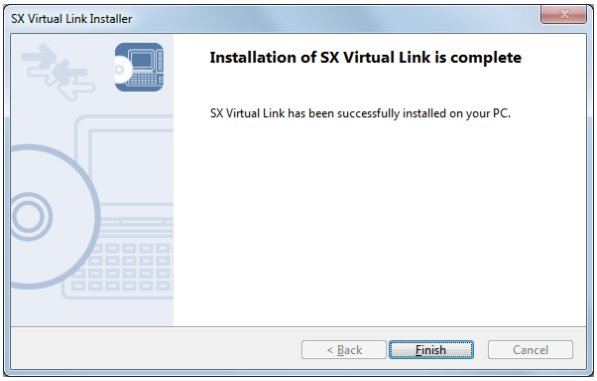


TIP

- When **Windows Security** screen is displayed, click **Install**.



9. SX Virtual Link has been installed. Click **Finish**.



TIP

- If using a firewall function of commercial security software, please add SX Virtual Link to the exception list in your security software. Refer to the FAQ on our website (**https://www.silextechnology.com/**) for details on adding an application to the exception list.

Sharing USB Devices over the Network

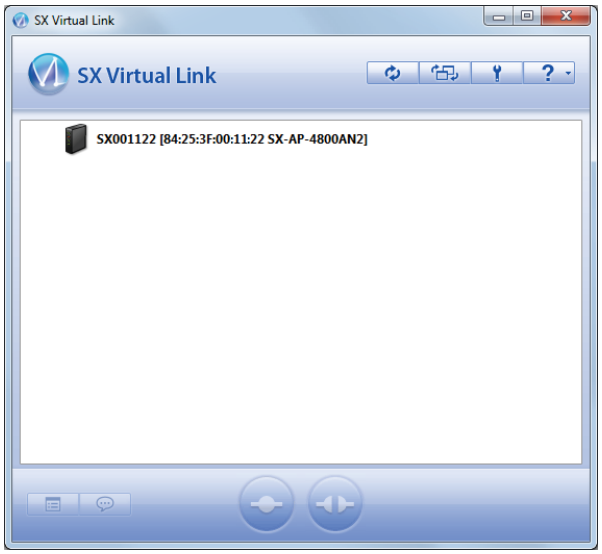
How to start SX Virtual Link:

1. Click the SX Virtual Link icon ( ) in the task tray.

Note

- If SX Virtual Link is not running, click **Start** - **All Programs** - **silex Device Server** - **SX Virtual Link** - **SX Virtual Link**.
- In Windows 7, click the ( ) button on the notification area (bottom right corner of your desktop) to display the tasktray icons.

2. The SX Virtual Link's main window appears. The USB devices running on a network are displayed in the device list.



Note

- SX Virtual Link can be set to automatically run at startup as a minimized application in the task tray by changing the optional settings. For details on optional settings, refer to Online Help.

How to connect/disconnect to/from USB devices:

1. Select the USB device in SX Virtual Link's main window and connect to it.

2. When successfully connected to the USB device, Windows Plug and Play will run and the USB device will become ready to use.

3. When finished using the USB device, disconnect it using SX Virtual Link.

How to connect:

Double-click	Double-click the USB device in SX Virtual Link's main window.
Use a button	Select the USB device and click the Connect button in SX Virtual Link's main window. If you select two or more USB devices, you can connect to them at once.
Right-click	Right-click on the USB device in SX Virtual Link's main window and click Connect in the menu displayed. If you select two or more USB devices, you can connect to them at once.
Use a keyboard	Select the USB device using the up/down arrow keys and press Alt+C on your keyboard.

How to disconnect:

Double-click	Double-click the USB device in SX Virtual Link's main window.
Use a button	Select the USB device and click the Disconnect button in SX Virtual Link's main window.
Right-click	Right-click on the USB device in SX Virtual Link's main window and click Disconnect in the menu displayed.
Use a keyboard	Select the USB device using the up/down arrow keys and press Alt+D on your keyboard.

TIP

- If a USB device is shared among several users, make sure that each user disconnects from the USB device after they have finished using it. Otherwise, other users will not be able to connect to the USB device.

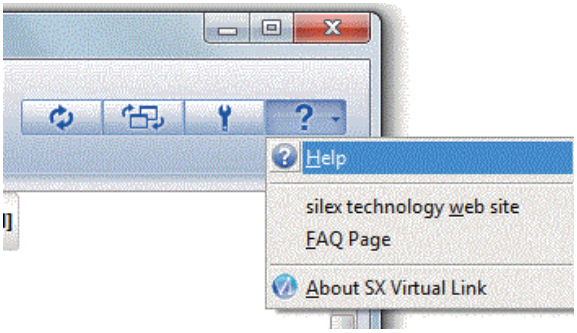
Note

- For details on how to use SX Virtual Link, refer to the Online Help.

How to open the SX Virtual Link's Online Help

1. Start SX Virtual Link.

2. In SX Virtual Link's main window, click the Help button ( ) and select **Help** from the menu displayed.



3. Online Help will open.

Uninstalling SX Virtual Link

How to uninstall the USB device connection utility, SX Virtual Link is explained.
Follow the procedures below to uninstall SX Virtual Link.

TIP

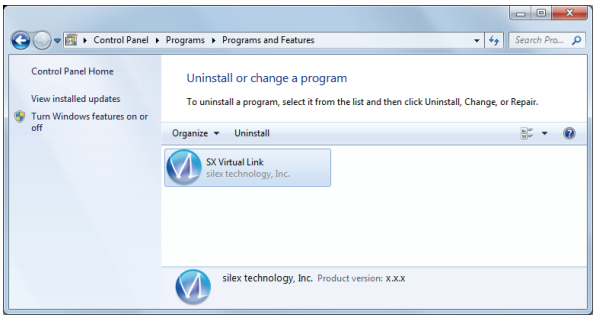
- To uninstall SX Virtual Link, administrator privilege is required.

1. Click **Start** - **Control Panel** - **Uninstall a program**.

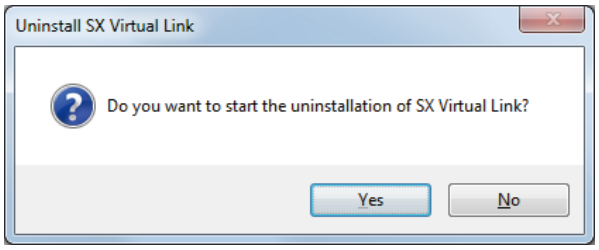
Note

- In Windows XP, click **Add or Remove Programs**.

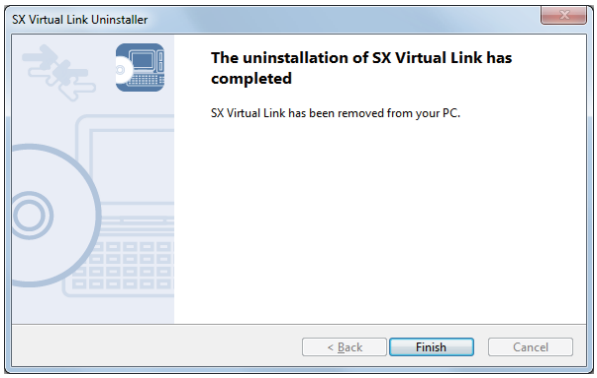
2. Select SX Virtual Link from the list and click **Uninstall**.



3. A confirmation message is displayed. Click **Yes** to start the uninstallation.



4. When the below window is displayed, click **Finish**.



5-2. Log Output

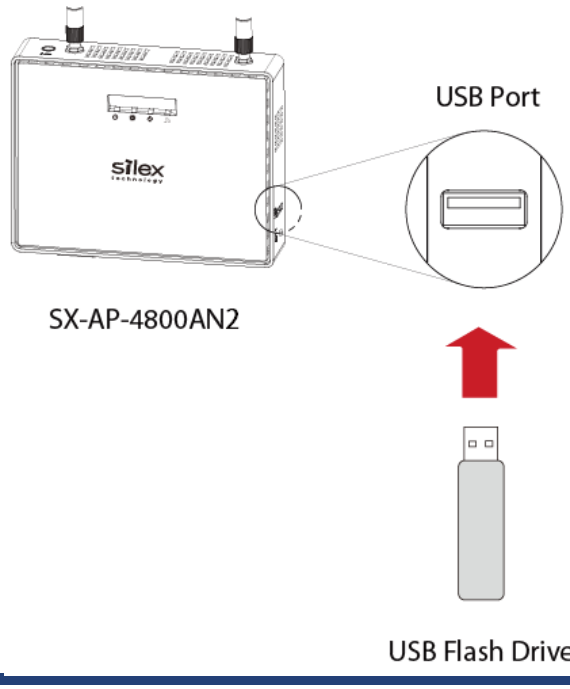
The log information (access log, etc.) can be sent to the Syslog server as well as saved to the USB storage device connected to SX-AP-4800AN2. Once the log file is saved to the USB storage device, it can be retrieved over a network using SX Virtual link. How to output the log and retrieve it from the USB storage device is explained.

TIP

- To use this feature, the following conditions must be met. If you are using older version of the software, please install the newest one from our website at **https://www.silextechnology.com**.
  - SX Virtual Link (for Windows) : Ver.3.11.0 or newer
  - SX Virtual Link (for Macintosh) : Ver.3.11.2 or newer
- In the following instructions, Internet Explorer 9 and Windows 7 are used as example. Display may vary depending on the Web browser.
- The log can be sent to the Syslog server and saved to the USB storage device at the same time.
- Only one USB storage device can be connected to SX-AP-4800AN2 to save the log to the USB storage device. Also, the connected storage device cannot be used over network using SX Virtual Link.
- When removing the USB storage device from SX-AP-4800AN2, please disable the log output feature beforehand.

Getting Started

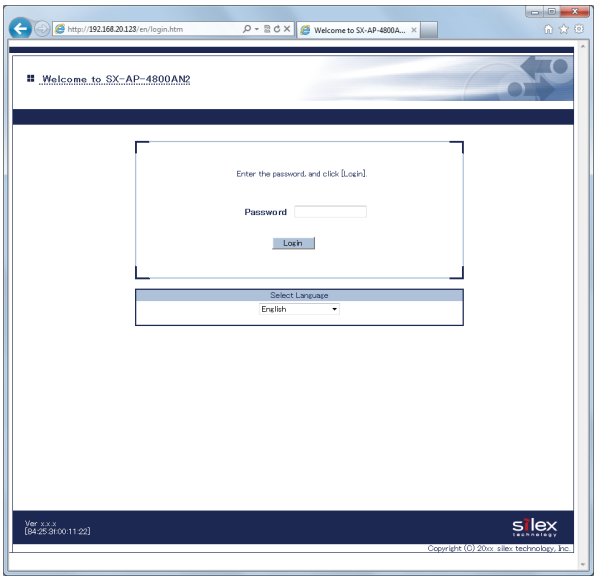
To retrieve the log information, the USB connection utility, SX Virtual Link is required. For how to install, refer to **5-1. Device Server Feature**. When you send the log to the Syslog server, please check the IP Address of the Syslog server.



In order to save the log to USB storage device, prepare a USB storage device such as USB flash drive, etc. and connect it to SX-AP-4800AN2.

Log Output Settings

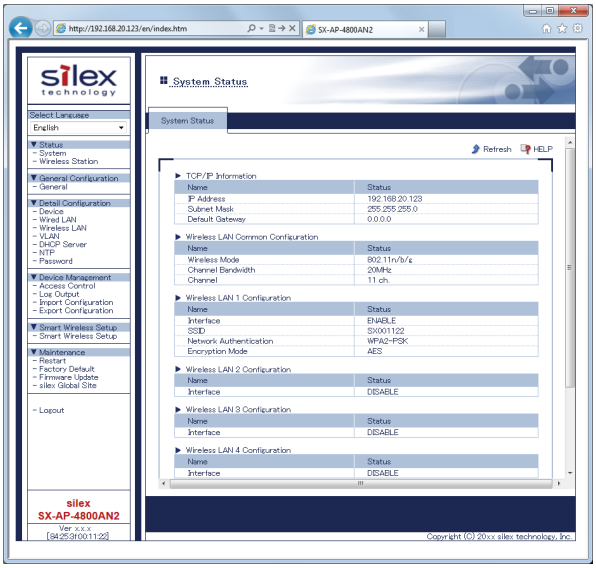
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.



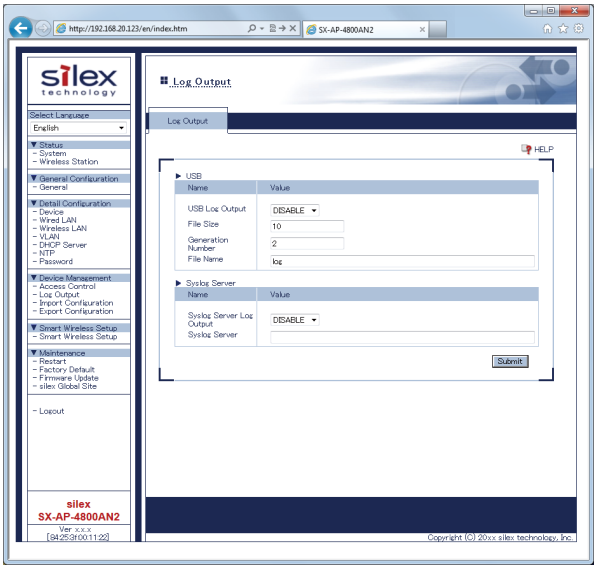
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu on the Web page, click **Log Output**.



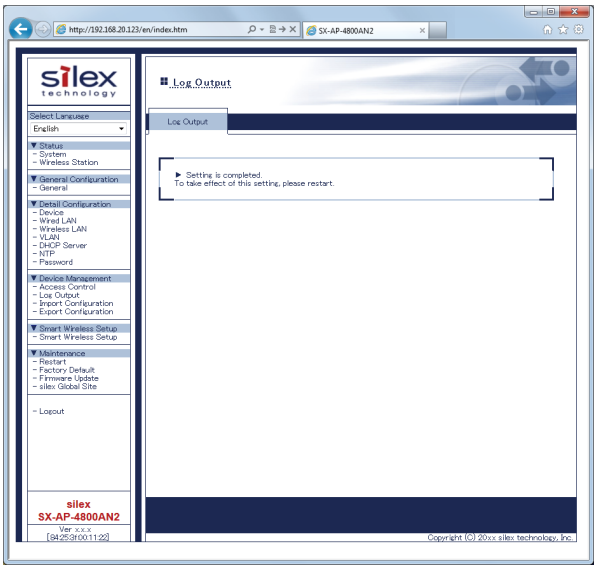
3. In the **Log Output** page, specify where to output the log and file names and then click **Submit**.



Note

- To save the log to USB storage device, select **ENABLE** for **USB Log Output** and configure the settings such as a file name, etc.
- To send the log to Syslog server, select **ENABLE** for **Syslog Server Log Output** and set the address of Syslog server.
- The log can be saved to USB storage device and sent to Syslog server at the same time. The same log information will be output for both side.
- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.

4. When finished, restart SX-AP-4800AN2.



Note

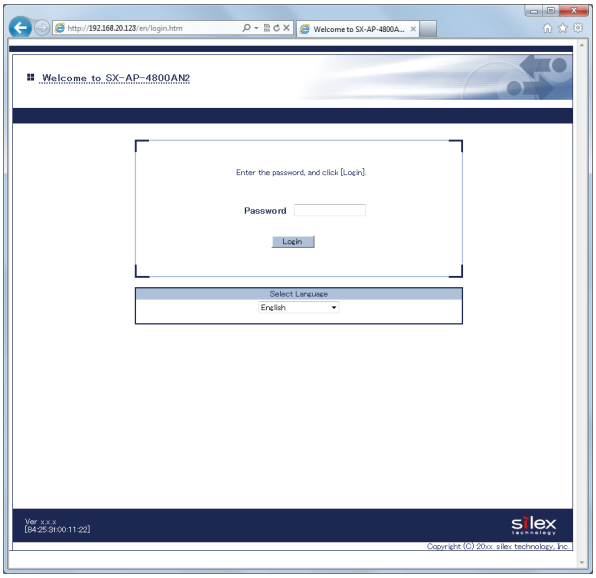
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.
- The log output will not be started unless SX-AP-4800AN2 is restarted.
- If the log output feature is enabled, the USB storage device connected to SX-AP-4800AN2 are not displayed in SX Virtual Link.

Retrieving the Log saved into USB storage device

To retrieve the log files saved in the USB storage device connected to SX-AP-4800AN2, disable the USB log output feature first. The log can be retrieved using SX Virtual Link.

How to disable the USB log output:

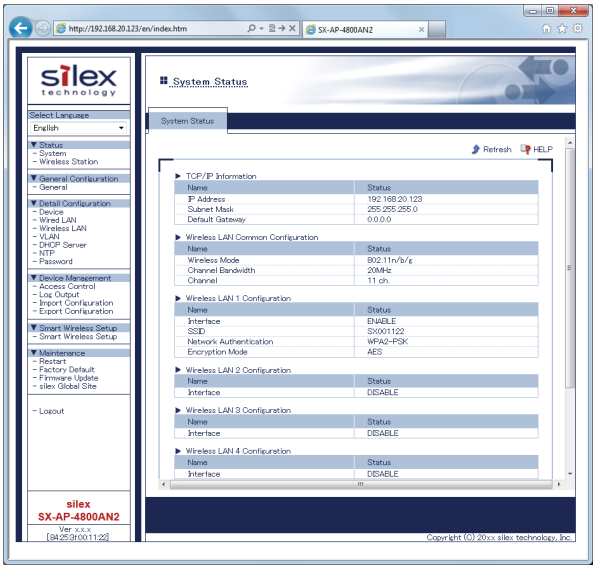
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.



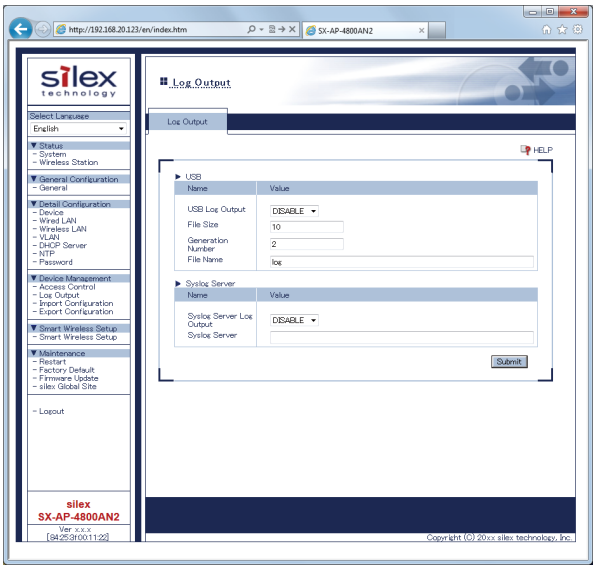
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu on the Web page, click **Log Output**.



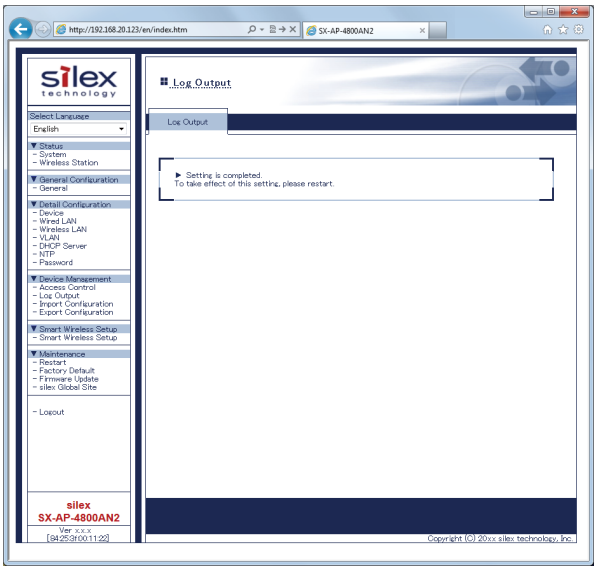
3. In the **Log Output** page, select **DISABLE** for **USB Log Output** and click **Submit**.



Note

- It is not necessary to disable **Syslog Server Log Output** if it is enabled to send the log also to Syslog server.

4. When finished, restart SX-AP-4800AN2.



Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.

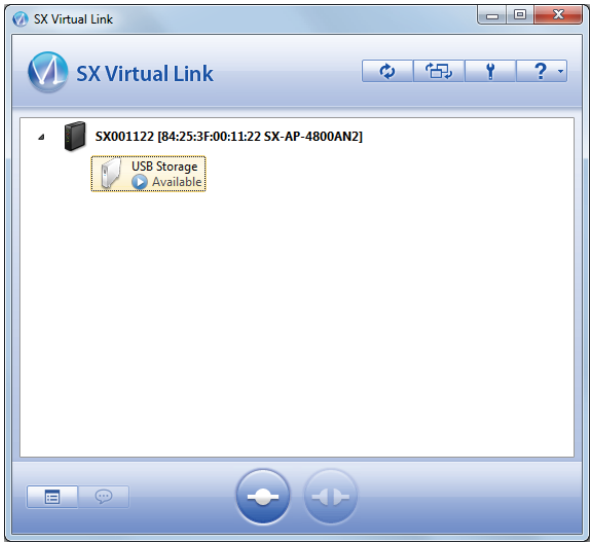
How to retrieve the log files:

1. Click the SX Virtual Link icon ( ) in the task tray.

Note

- If SX Virtual Link is not running, click **Start** - **All Programs** - **silex Device Server** - **SX Virtual Link** - **SX Virtual Link**.
- In Windows 7, click the ( ) button on the notification area (bottom right corner of your desktop) to display the tasktray icons.

2. The SX Virtual Link's main window appears. The USB devices running on a network are displayed in the device list.
Select the USB storage device containing the log file and click **Connect** button.



Note

- For details on SX Virtual Link, refer to **Sharing USB Devices over the Network**.

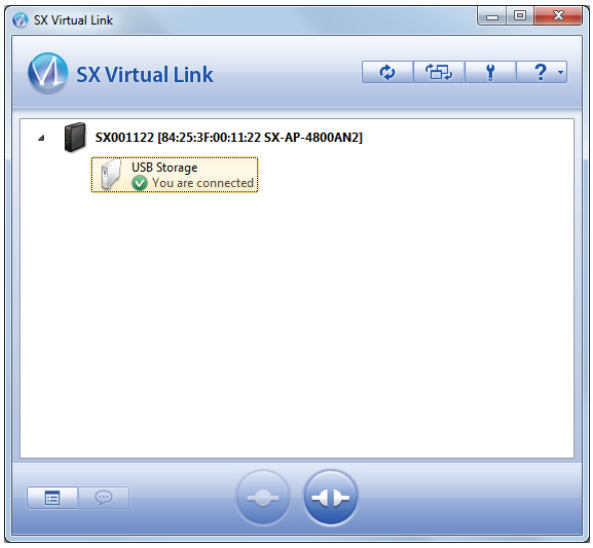
3. When successfully connected, Windows Plug and Play will run and the USB storage device will become ready to use. Now you can retrieve the saved log files.

Note

- The log files are saved as the following formats:

Format		<Date> <Program> <Message>
Details	Date	System time when the event occurred.
	Program	Name of the program at which the event occurred.
	Message	Log message for each event - Connection of the stations - Connection/Disconnection request of the stations
Output Sample		Jan 1 09:38:38 kernel: sxsyslogd: VAP-0: Connect station.(00:80:92:01:01:01)

4. When finished retrieving the log files, click **Disconnect** button in SX Virtual Link.

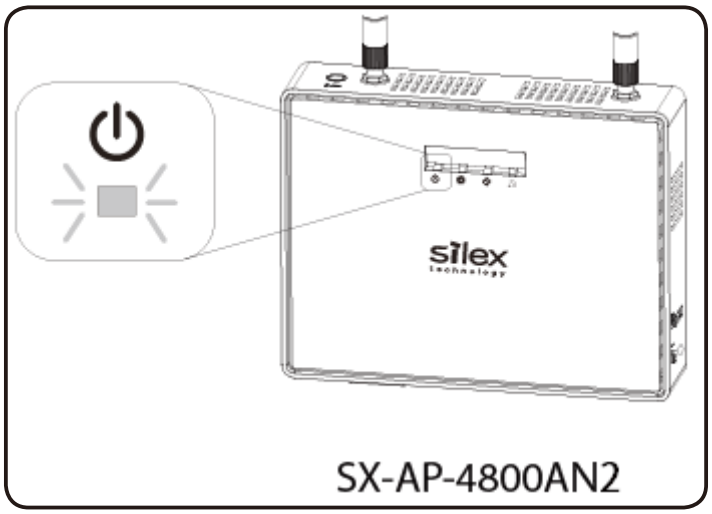


Note

- For details on SX Virtual Link, refer to **Sharing USB Devices over the Network**.
- To restart the log output, configure the log output settings again.

Notice When Using the Log Output

Please DO NOT remove the USB storage device while the USB log output is enabled.
When you remove the USB storage device, be sure to disable the USB log output feature beforehand. For how to disable the USB log output, refer to **Retrieving the Log saved into USB storage device** - **How to disable the USB log output**.
If the USB storage device is removed without turning off the USB log output feature, the POWER LED on SX-AP-4800AN2 will blink in Red.



If the POWER LED blinks in Red, follow the instructions below to recover from it:

1. Connect the removed USB storage device to the PC to verify that it has not be damaged or corrupted.

Note
- Please format the USB storage device if the data is corrupted.

2. Remove the USB storage device from the PC and reconnect it to SX-AP-4800AN2.

3. Restart SX-AP-4800AN2.

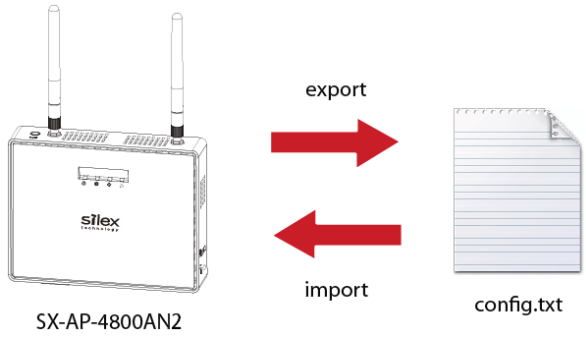
Note
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- The log output will not be started unless SX-AP-4800AN2 is restarted.

5-3. Configuration Import/Export

By exporting the configuration, the current settings can be saved on to an external device. Once the configuration is saved, it can be imported back to SX-AP-4800AN2 anytime to restore the settings.

Use a Web browser or FTP client software to export/import the configuration file since HTTP or FTP transfer is available for this operation.

In the following instructions, how to export/import configuration file using Web page and command prompt is explained.



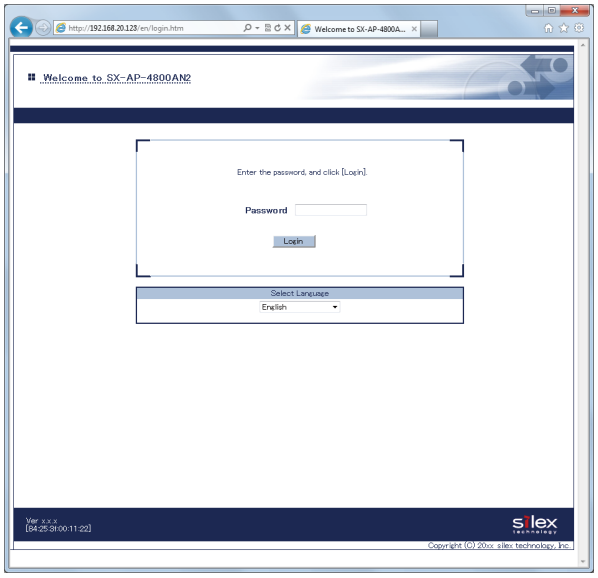
TIP

- This feature can be used only when SX-AP-4800AN2 firmware version is 2.0.0 or newer.
  If you are using the older version of the firmware, please download the latest firmware from our website at **https://www.silextechnology.com**.
- The following instructions will use the screenshots captured using Windows 7 and Internet Explorer 9.0. They may vary depending on the version of operating systems or Web browsers.
- The configuration file you can import to SX-AP-4800AN2 must be the one you had exported from SX-AP-4800AN2.
- After the configuration file is exported, please do not change the file name as well as edit the information. If the file is altered, you may not be able to import.
- If there are differences in firmware versions on SX-AP-4800AN2 between the one exporting the configuration file and the one importing the configuration file, the file may not be imported correctly.

Exporting/Importing Using the Web Page

How to export using the Web page:

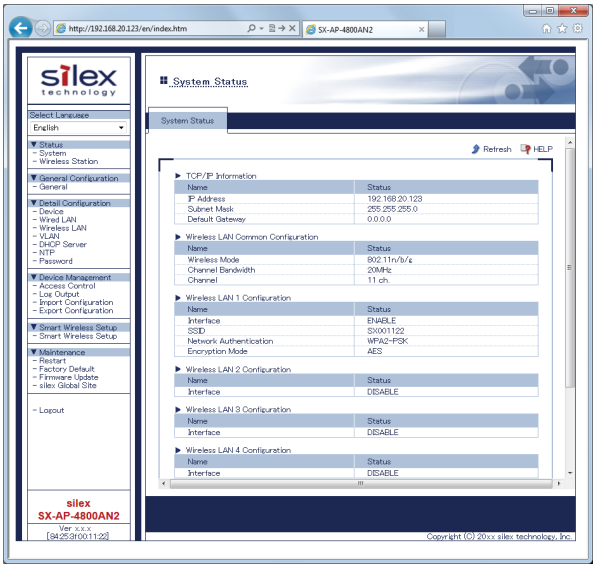
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.



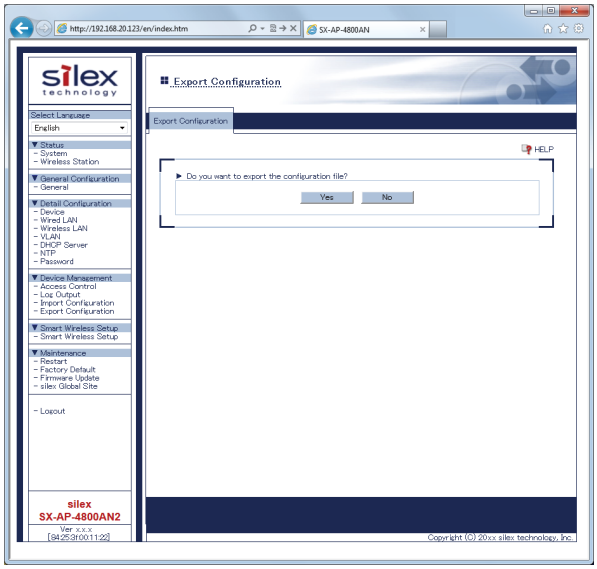
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

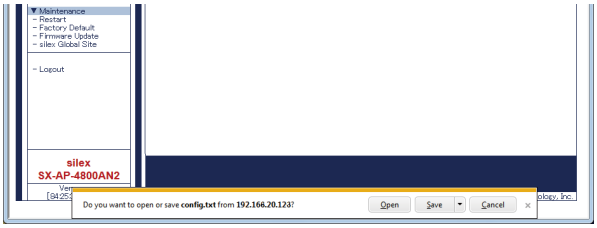
2. From the left menu on the Web page, click **Export Configuration**.



3. In the **Export Configuration** page, click **Yes**.



4. A message dialog to confirm where to save the configuration file (**config.txt**) is displayed. Click **Save**.

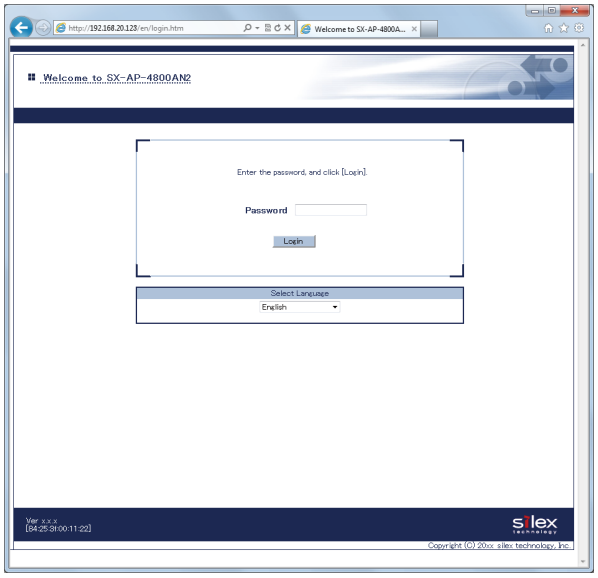


- By clicking ▼, you can select **Save as** option.

Note

How to import using the Web page:

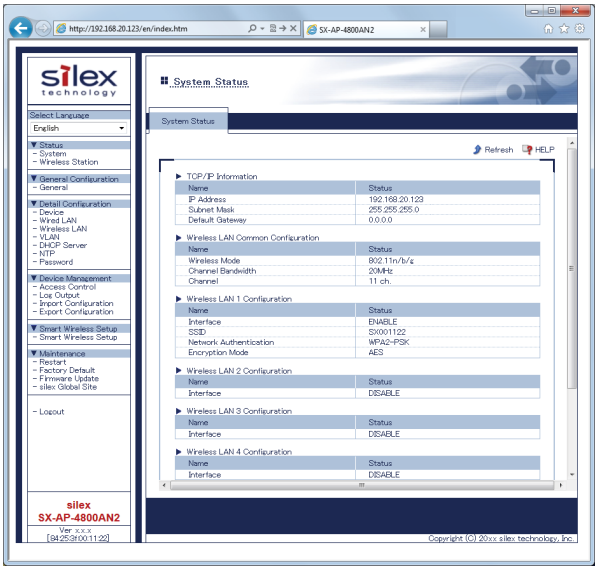
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.



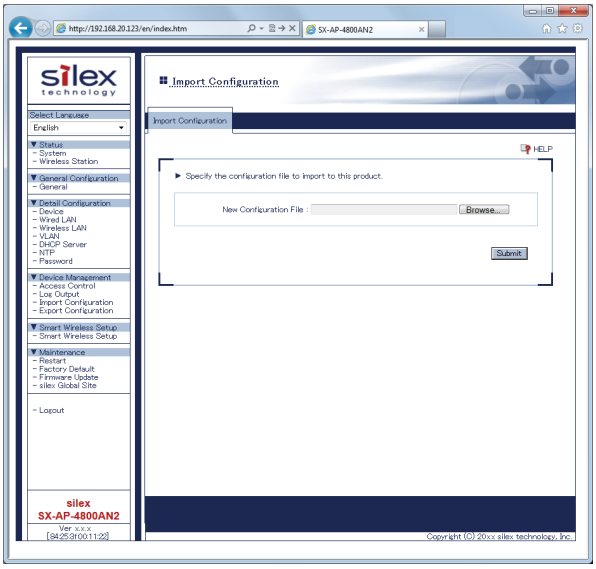
- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

Note

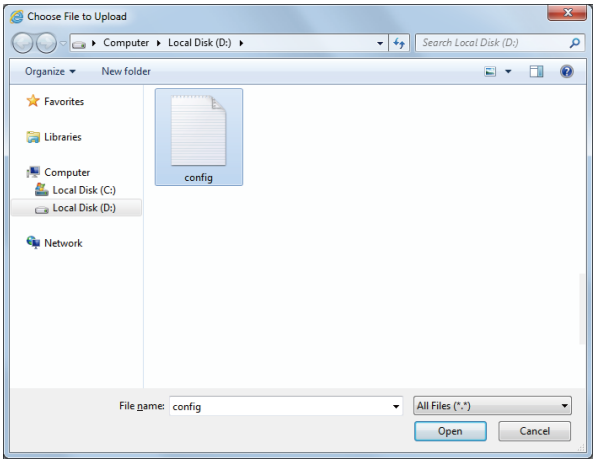
2. From the left menu on the Web page, click **Import Configuration**.



3. In the **Import Configuration** page, click **Browse**.



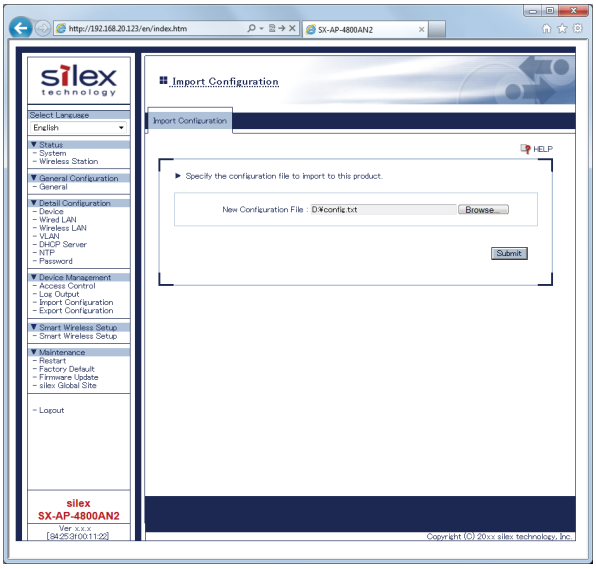
4. A window to select the configuration file (**config.txt**) is displayed.
Select the file to upload and click **Open**.



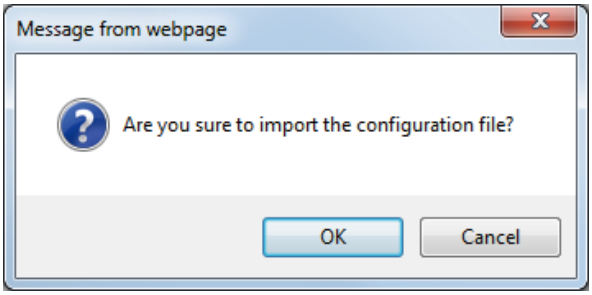
TIP

- The configuration file you can import to SX-AP-4800AN2 must be the one you had exported from SX-AP-4800AN2.

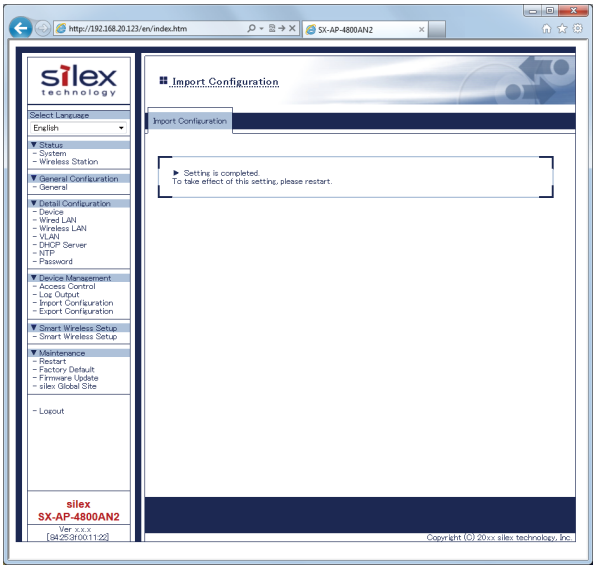
5. In the **Import Configuration** page, check the configuration file you have selected is displayed at the **New Configuration File** field. Click **Submit**.



6. Click **OK** in a confirmation message.



7. After the import is completed, a completion message is displayed.
Please restart SX-AP-4800AN2 to take effect of the changes.



- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.

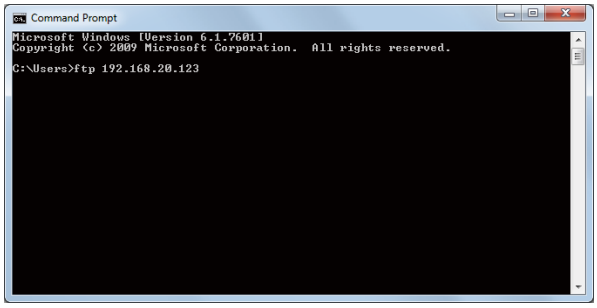
Note

Exporting/Importing Using the FTP Client

How to export using Command Prompt:

1. Click **Start** - **All Programs** - **Accessories** - **Command Prompt**.

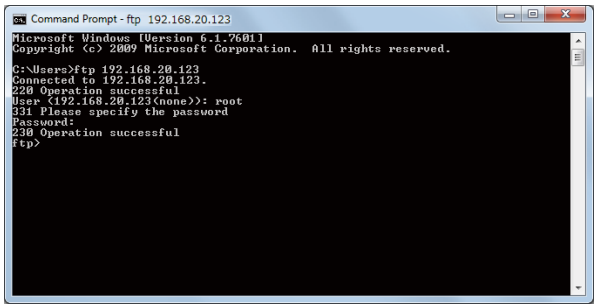
2. In the Command Prompt window, connect to SX-AP-4800AN2 using the FTP command.



Sample:

C:¥Users>ftp 192.168.20.123

3. Enter "root" for the user name and the password that is configured on SX-AP-4800AN2 for password.



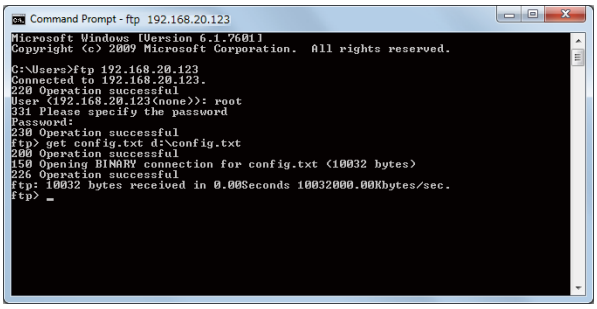
Sample

User (192.168.20.123:(none)) : root

331 Please specify the password

Password : xxxxxxxx

4. After you have logged in SX-AP-4800AN2, download the configuration file (**config.txt**) using the get command.



Sample

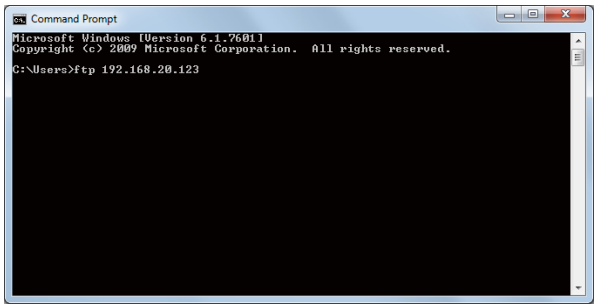
ftp>get config.txt d:¥config.txt

5. When the file download is finished, the export is complete.
Terminate the FTP connection using the bye command.

How to import using Command Prompt:

1. Click **Start** - **All Programs** - **Accessories** - **Command Prompt**.

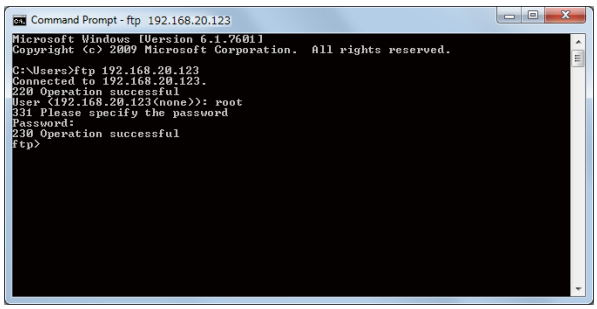
2. In the Command Prompt window, connect to SX-AP-4800AN2 using the FTP command.



Sample:

C:¥Users>ftp 192.168.20.123

3. Enter "root" for the user name and the password that is configured on SX-AP-4800AN2 for password.



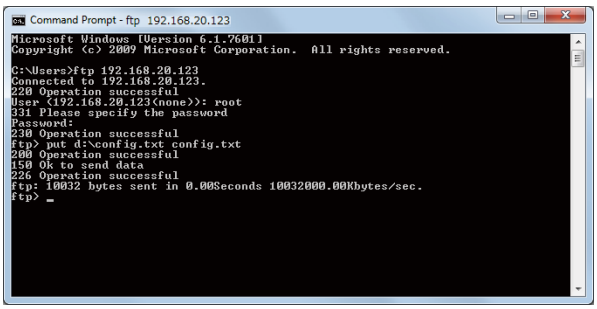
Sample

User (192.168.20.123:(none)) : root

331 Please specify the password

Password : xxxxxxxx

4. After you have logged in SX-AP-4800AN2, upload the configuration file using the put command.



Sample

ftp>put d:¥config.txt config.txt

5. When the file upload is finished, the import is complete.
Terminate the FTP connection using the bye command.

6. Please restart SX-AP-4800AN2 to take effect of the changes.

Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.

5-4. Product Search Utility

How to install and use the product search utility, "SX Finder" is explained.

Downloading & Installing the Product Search Utility

How to download the product search utility:

1. Access our website below.

URL	
USA / Europe	**https://www.silextechnology.com/**

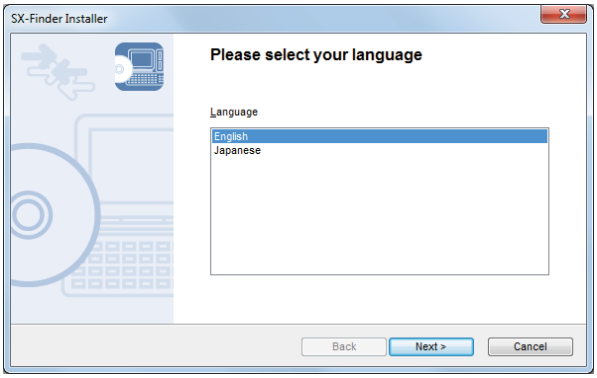
2. Go to the support section and download SX-Finder.

How to install the product search utility:

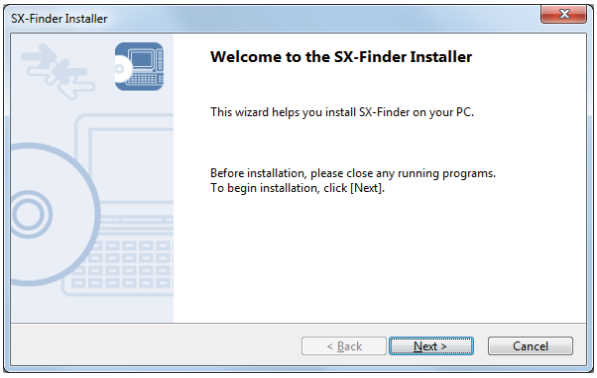
1. Decompress the file you have downloaded and then double-click **Setup.exe**.

2. The User Account Control message is displayed
In Windows 7, click **Yes**.
In Windows Vista, click **Continue**.

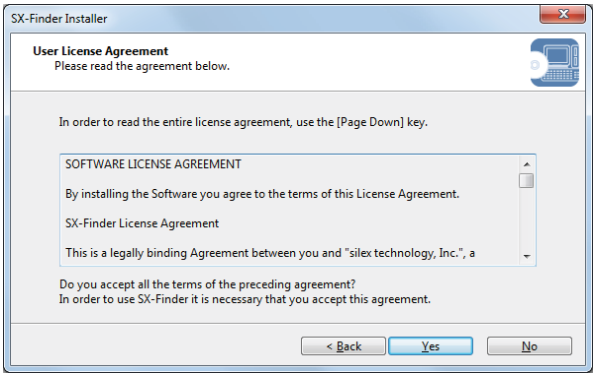
3. SX-Finder installer is started and the language selection menu is displayed.
Select **English** and click **Next**.



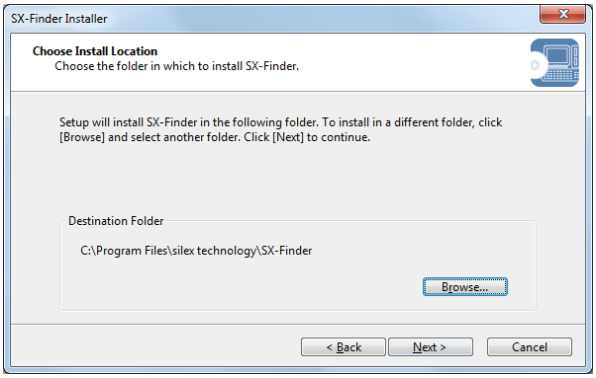
4. Click **Next**.



5. Read the **SOFTWARE LICENSE AGREEMENT** and click **Yes**.



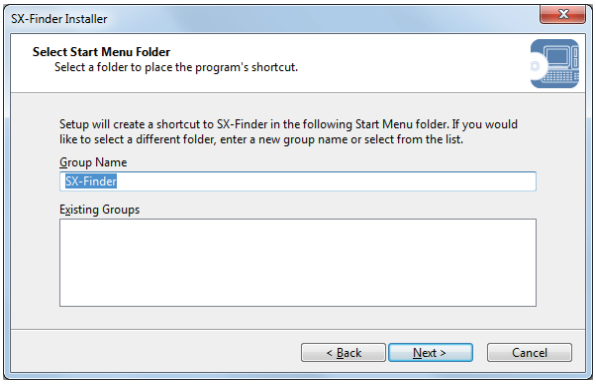
6. Select a folder to install into and click **Next**.



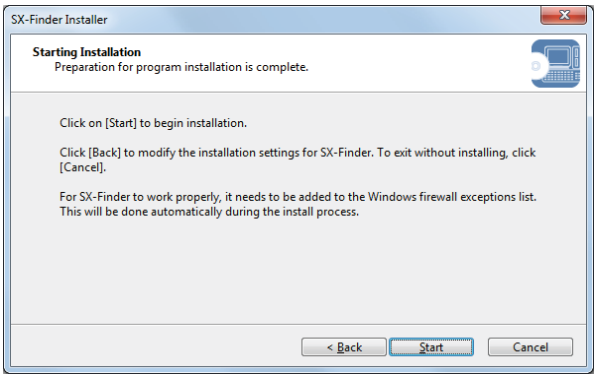
- By clicking **Browse**, the folder can be changed.

Note

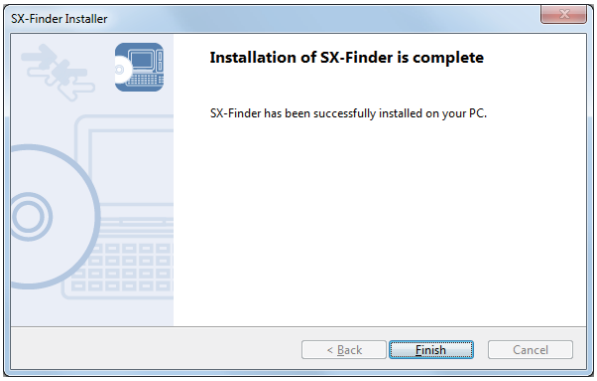
7. Enter a group name to be displayed in the start menu and click **Next**.



8. Click **Start** to begin the installation.



9. SX-Finder has been installed. Click **Finish**.



Using Product Search Utility

The product search utility, "SX-Finder" displays a list of SX-AP-4800AN2 running on a network. If SX-Finder is used, the Web page can be opened easily.

TIP

- The PC used for this configuration needs to have a proper IP address to communicate with SX-AP-4800AN2. If you fail to access the Web page of SX-AP-4800AN2, check the IP address of the PC first. If the IP address is not correct, configure a correct address.
(Example: If the IP address of SX-AP-4800AN2 is "192.168.20.123", the PC must have the address such as "192.168.20.1" which is not used by other network devices.)

Following Web browsers are recommended:

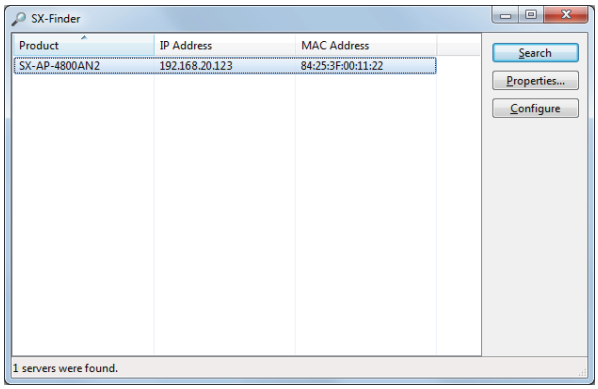
- Microsoft Internet Explorer 5.5 or newer
- Firefox 2.0.0 or newer

Note

- The following instructions will use the screenshots captured using Windows 7 and Internet Explorer 9.0. They may vary depending on the version of operating systems or Web browsers.

How to search for SX-AP-4800AN2:

Start SX-Finder. SX-AP-4800AN2 running on the network will be displayed.

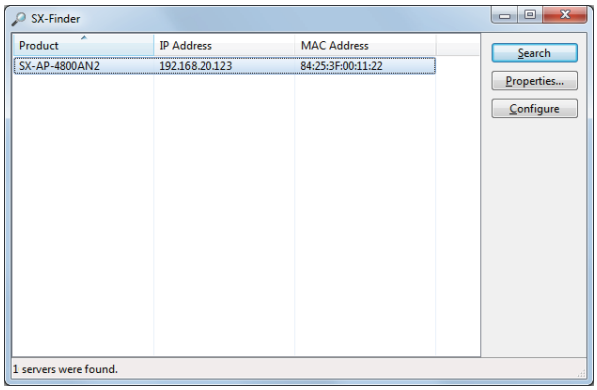


Note

- If SX-AP-4800AN2 is not displayed in the list, click **Search** again.

How to access the Web page:

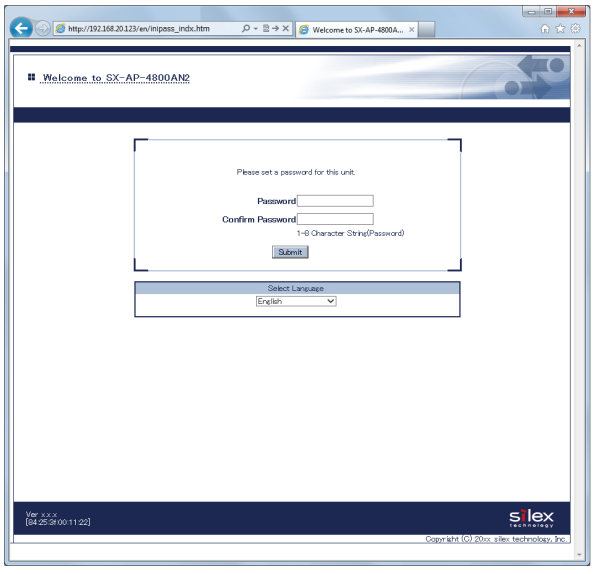
1. Select SX-AP-4800AN2 to configure and click **Configure**.



Note

- If two or more of SX-AP-4800AN2 are displayed, select the correct one by checking the IP address and MAC address.

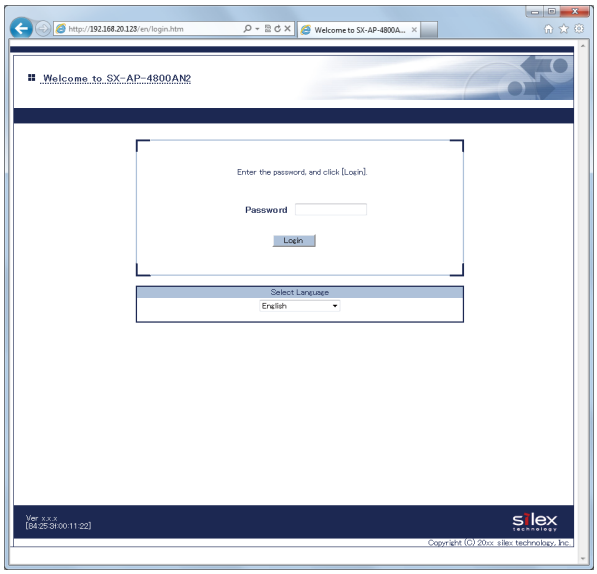
2. When the login password configuration page appears, enter the password to configure for SX-AP-4800AN2 and click **Submit**.



Note

- If a password is set to SX-AP-4800AN2, the login page is displayed. Enter the password and click **Login**.

3. The Web browser runs and the login menu for SX-AP-4800AN2 is displayed. Enter the password and click **Login**.



Uninstalling the Product Search Utility

How to uninstall the product search utility, "SX-Finder" is explained.
If SX-Finder is not necessary, you can uninstall it by following the instructions below.

TIP

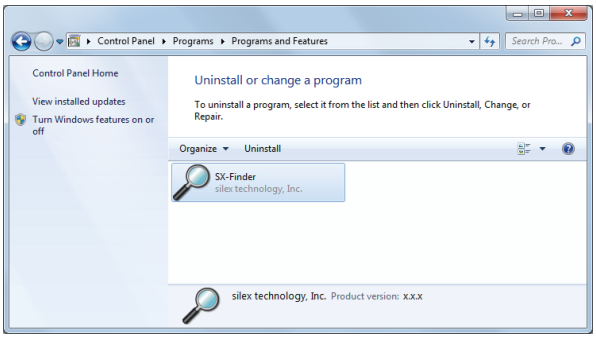
- To uninstall SX-Finder, administrator privilege is required.

1. Click **Start** - **Control Panel** - **Uninstall a program**.

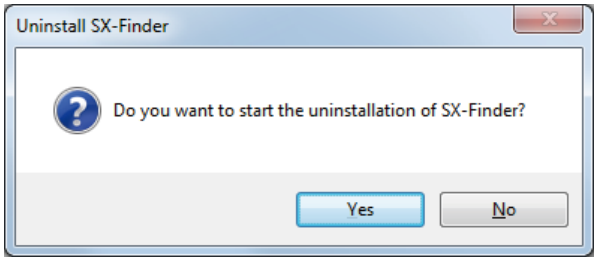
Note

- In Windows XP, click **Add or Remove Programs**.

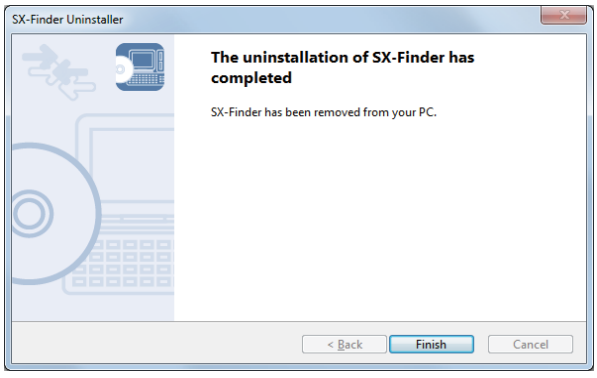
2. Select SX-Finder from the list and click **Uninstall**.



3. A confirmation message is displayed. Click **Yes** to start the uninstallation.



4. When the below window is displayed, click **Finish**.



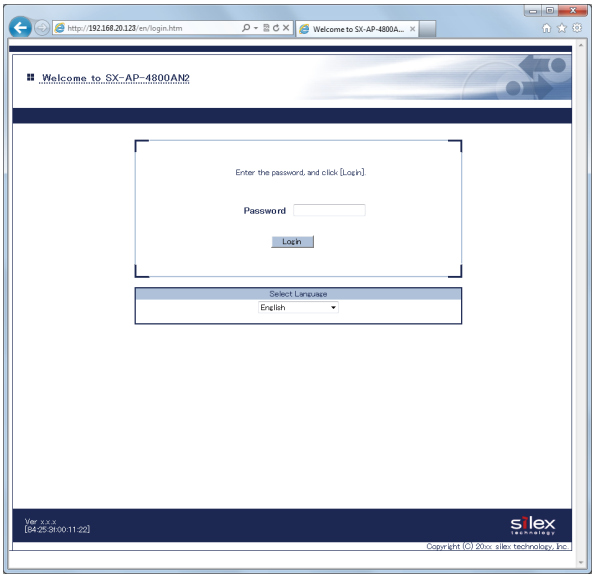
5-5. DHCP Server Feature

If **DHCP Server Function** is used, an IP address can automatically be assigned to PCs or network devices.

TIP

- To assign an IP address to your PC automatically using the DHCP server feature of SX-AP-4800AN2, your PC must be set to **Obtain an IP address automatically**.

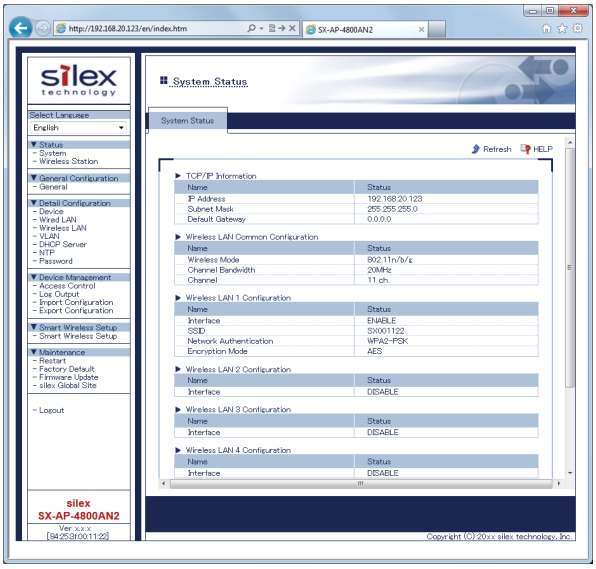
1. Log in to the Web page of SX-AP-4800AN2 using your Web browser.



Note

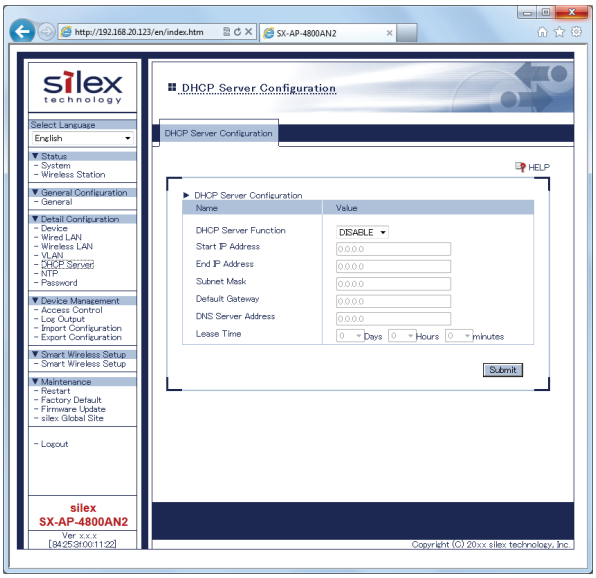
- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **Detail Configuration** - **DHCP Server**.



3. Enter the necessary settings at **DHCP Server Configuration**.
If **ENABLE** is selected at **DHCP Server Function**, the following settings will become available.

- Start IP Address
- End IP Address
- Subnet Mask
- Default Gateway
- DNS Server Address
- Lease Time



4. After entering the settings, click **Submit** on the bottom right of Web page.

5. When finished, restart SX-AP-4800AN2.

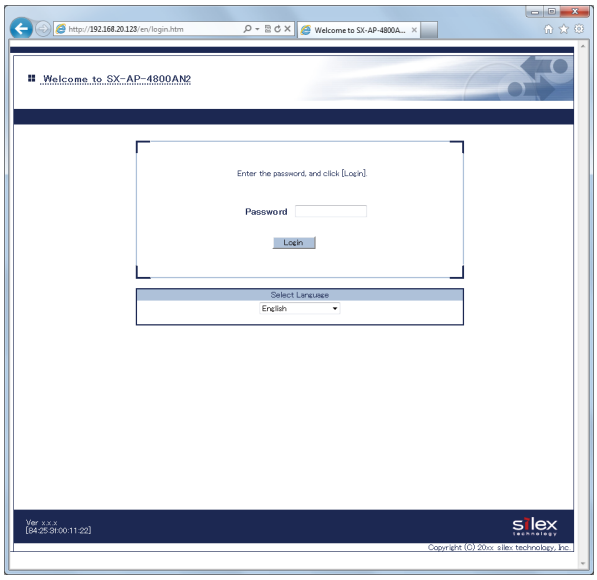
Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.

5-6. Checking System Status at Web Page

How to check the system status from the Web page is explained.

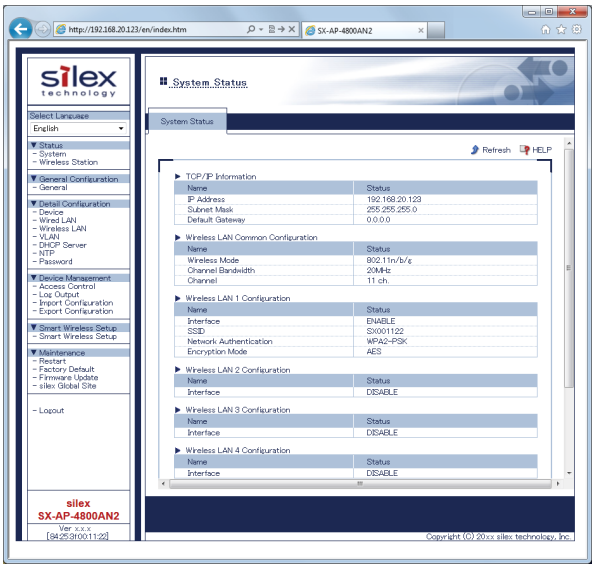
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.



Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. The system status page will be displayed after you have logged into the Web page. This page shows the general settings such as TCP/IP information, Wireless LAN settings, etc.



Note

- If you had logged in the Web page, click **Status** - **System** from the left menu.
- If you click **Status** - **Wireless Station**, the status page for wireless station devices is displayed. In this page, you can check the MAC Address, RSSI (wireless signal strength) and IP Address for the connected wireless station devices.

5-7. Maintenance Feature

Restarting

How to restart SX-AP-4800AN2 by unplugging the AC adaptor:

1. Unplug the AC adaptor of SX-AP-4800AN2 from the outlet.

Note - When receiving power over the Ethernet (PoE), unplug the network cable from the HUB.

2. Plug the AC adaptor back into the outlet.

Note - When receiving power over the Ethernet (PoE), plug the network cable back into the HUB.

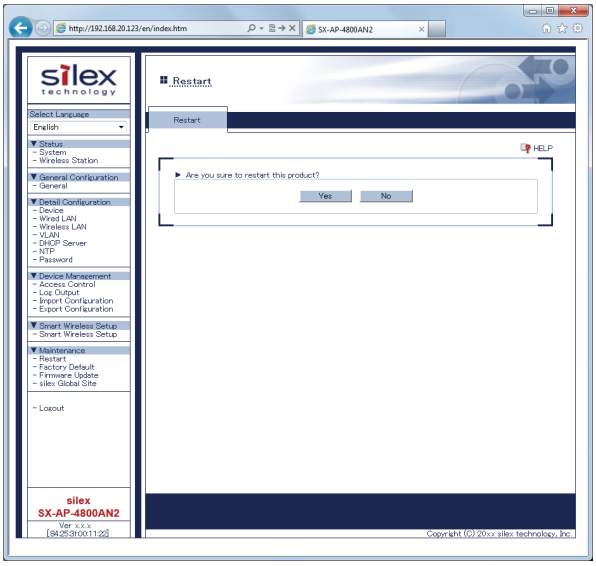
3. When Power LED starts blinking in Orange and then turns to Green, the restart is completed.

How to restart SX-AP-4800AN2 using the Web Page:

1. Login to the Web page of SX-AP-4800AN2 using your Web browser.

2. From the left menu on the Web page, click **Maintenance** - **Restart**.

3. In the page displayed, click **Yes**.



4. When Power LED starts blinking in Orange and then turns to Green, the restart is completed.

5. Close your Web browser.

Factory Default Configuration

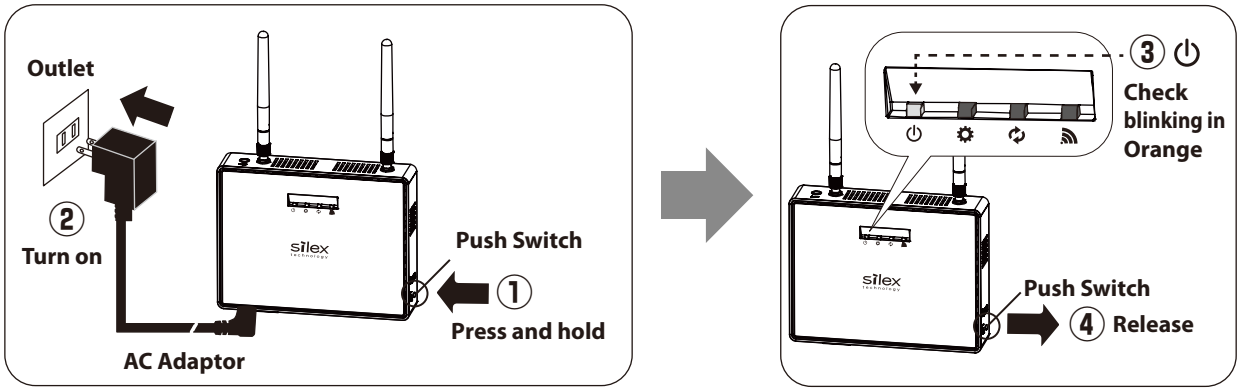
How to reset SX-AP-4800AN2 to factory defaults using the Push Switch:

1. Unplug the AC adaptor of SX-AP-4800AN2 from the outlet.

Note

- When receiving power over the Ethernet (PoE), unplug the network cable from the HUB.

2. Press and hold the push switch (SET1) on SX-AP-4800AN2 while inserting the AC plug back into the electrical outlet. When the Power LED (Orange) starts to blink, release the push switch.



Note

- When receiving power over the Ethernet (PoE), press and hold the push switch (SET1) on SX-AP-4800AN2 while inserting the network cable back into the HUB.

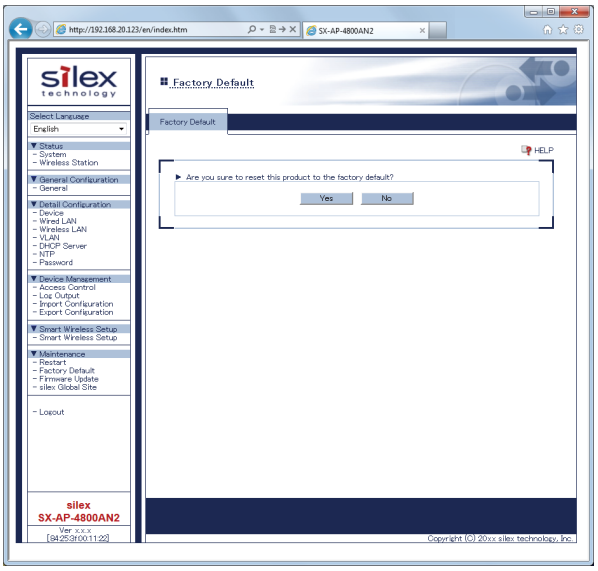
3. When Power LED starts blinking in Orange and then turns to Green, the factory default configuration is completed.

How to reset SX-AP-4800AN2 to factory defaults using the Web page:

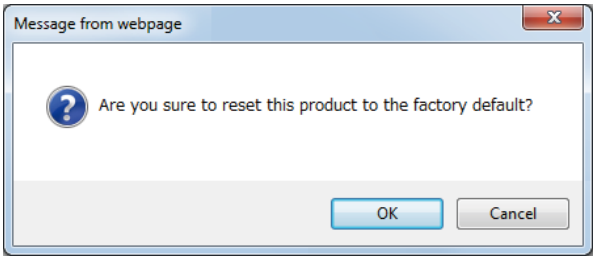
1. Login to the Web page of SX-AP-4800AN2 using your Web browser.

2. From the left menu on the Web page, click **Maintenance** - **Factory Default**.

3. In the page displayed, click **Yes**.



4. When a confirmation message is displayed, click **OK**.



5. When Power LED starts blinking in Orange and then turns to Green, the factory default configuration is completed.

6. Close your Web browser.

Firmware Update

The latest firmware file can be downloaded from our website.
See the instructions below to download the firmware file. For how to upload the firmware file to SX-AP-4800AN2, refer to the firmware update procedure sheet file contained in the firmware file you download.

Note

- The current firmware version can be identified at the bottom left of the Web page.

How to download the firmware file:

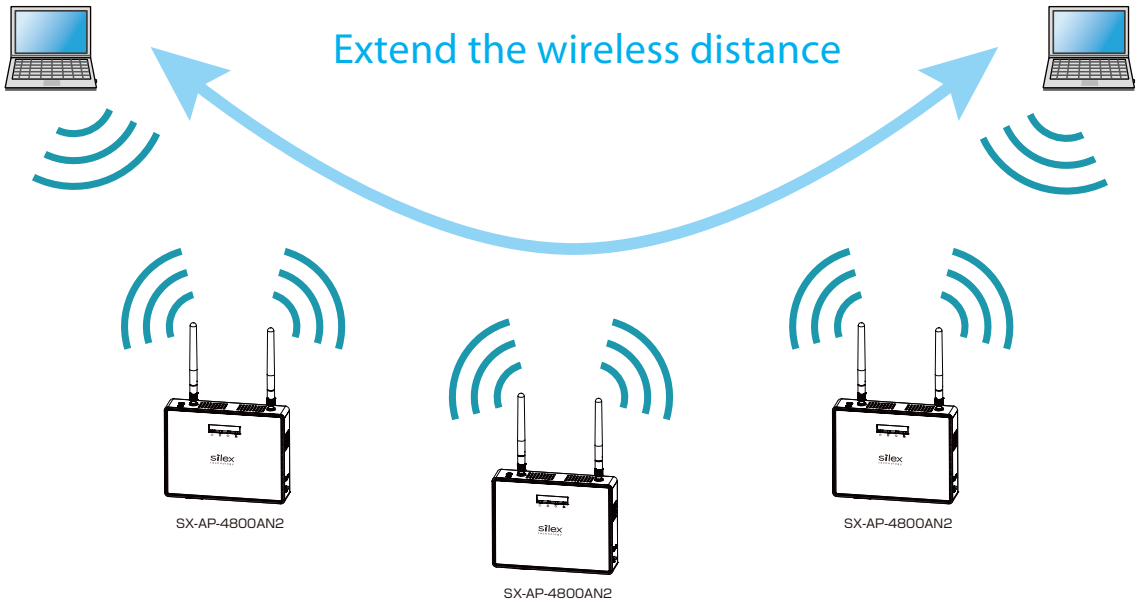
1. Access our website below.

	URL
USA / Europe	**https://www.silextechnology.com/**

2. Go to the support section and download the firmware file.

5-8. WDS Feature

If this mode is used, two or more SX-AP-4800AN2 Access Points can communicate each other. By linking several Access Points wirelessly, wireless distance can be expanded as well as wireless dead spots can be eliminated. The connection and configuration methods to use WDS are explained.



TIP

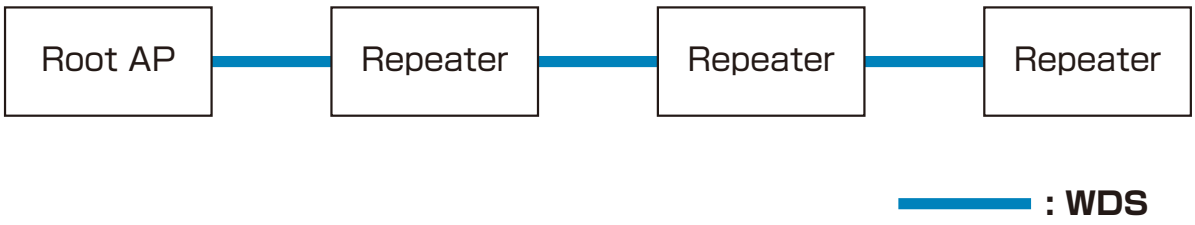
- Please check that all SX-AP-4800AN2 Access Points are running on the same version of firmware.
- In the following instructions, Internet Explorer 9 and Windows 7 are used as example. Display may vary depending on the Web browser.
- We do not guarantee the WDS connection if wireless devices other than SX-AP-4800AN2 are used.

Note

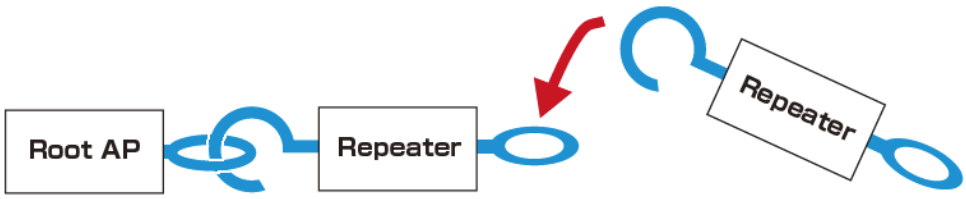
- The version of current firmware can be identified at the bottom left of the Web page.

WDS Connection

The WDS(Wireless Distribution System) is composed of one Root AP (running as a host device) and plural Repeater APs (running as client devices).

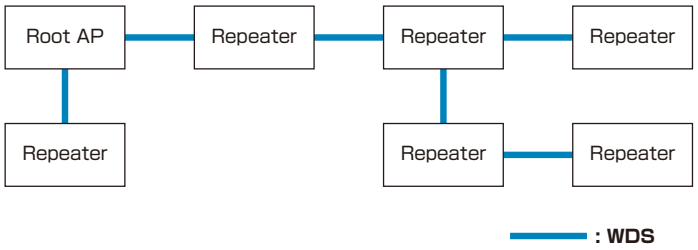


When connecting Access Points, use the first AP as Root AP and the second or later APs as Repeater APs. As shown in below image, connect APs starting from the Root AP.



TIP

- Only one Repeater AP can be connected in WDS mode. Please do not allow the settings to connect two or more Repeater APs to Root AP or Repeater AP.
  We do not guarantee a successful connection between two or more Repeater APs as shown blow.



TIP

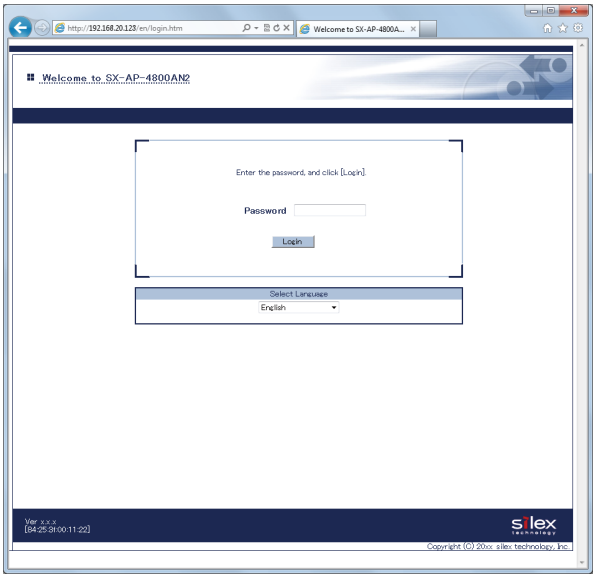
- For Root AP and Repeater APs to connect in WDS mode, configure the same wireless settings.
  Following settings must be the same:
  - Wireless channel
  - SSID
  - Network authentication
  - Encryption
- When using WDS, the following features cannot be used.
  - **802.1X**, **WPA-Enterprise**, **WPA2-Enterprise**, **WPA/WPA2-Enterprise** (of network authentication)
  - **AUTO** (of channel setting) and DFS band channels (W53(52/56/60/64ch), W56(100/104/108/112/116/132/136/140ch))
  - Privacy Separator
- When numbers of SX-AP-4800AN2 Access Points are connected in WDS, wireless communication speed may slow down.
- We do not guarantee the WDS connection if wireless devices other than SX-AP-4800AN2 are used.

WDS Configuration

How to configure Root AP:

Configure the first unit of SX-AP-4800AN2 as Root AP.

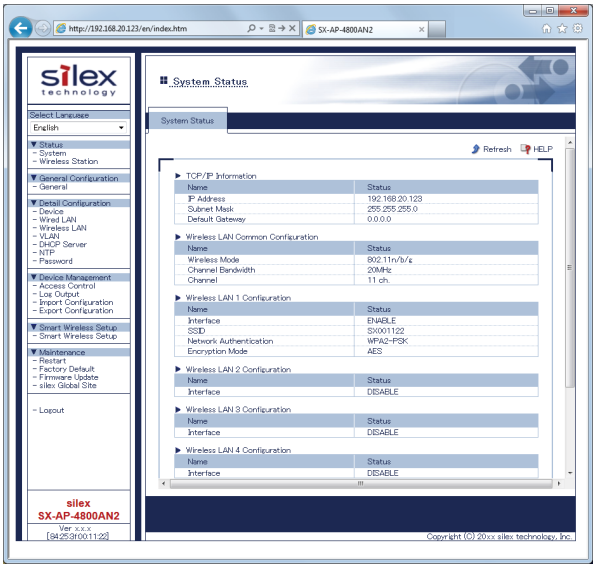
1. Log in to the Web page of SX-AP-4800AN2 to use as Root AP using your Web browser.



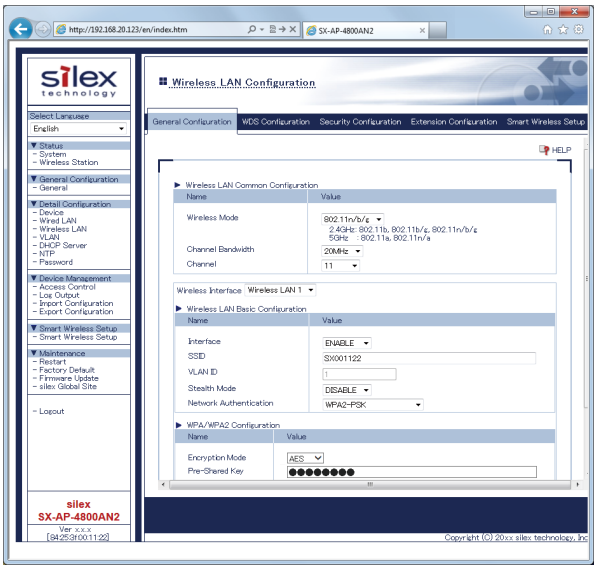
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **Wireless LAN** - **General Configuration**.



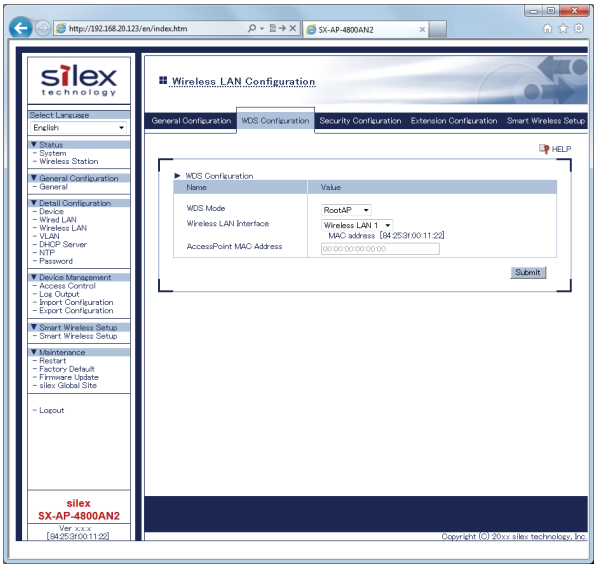
3. Select a wireless interface to use for WDS connection and click **WDS Configuration** tab.



Note

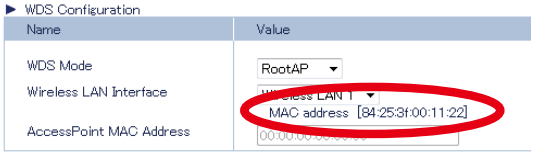
- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The wireless settings of the selected interface will be necessary again when you configure Repeater AP. Please take notes of the settings such as channel, SSID, network authentication, encryption mode, etc.

4. Select **Root AP** for **WDS Mode** and select the wireless interface that you have selected to use for WDS connection. Click **Submit** on the bottom right of Web page.

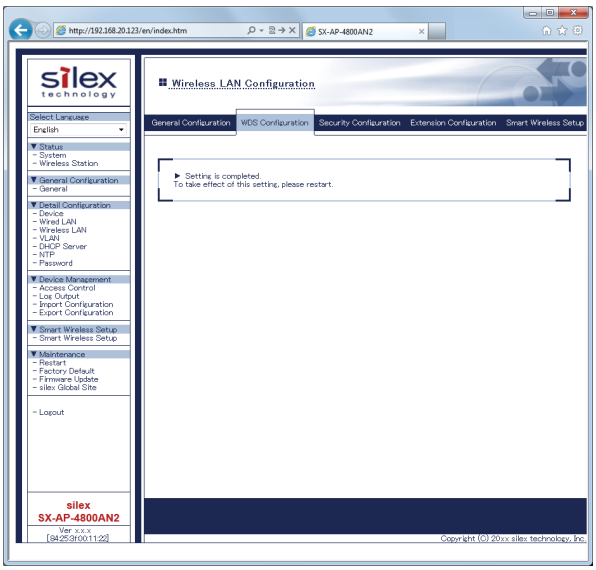


Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The MAC Address displayed under the selected interface will be necessary again when you configure Repeater AP. Please take a note of the MAC Address.



5. When finished, restart SX-AP-4800AN2.



Note

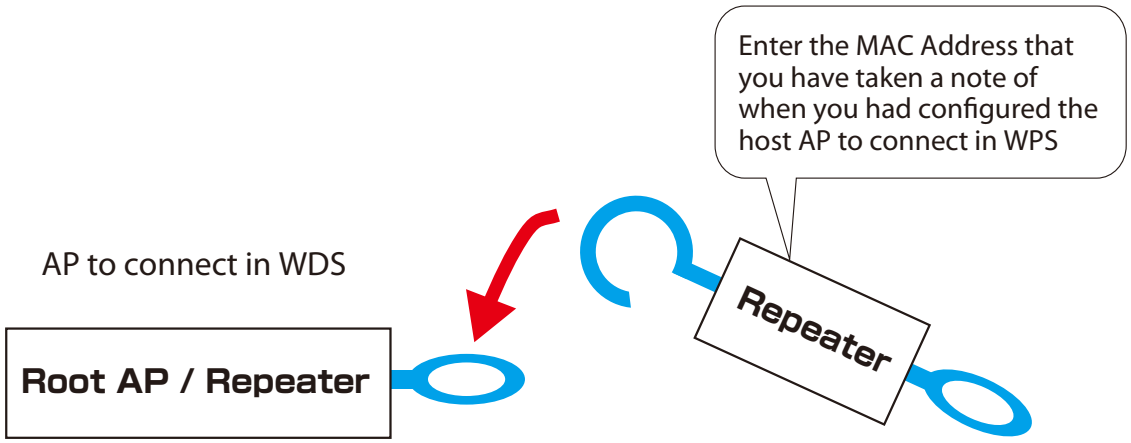
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.
- The WDS setting will not take effect unless you restart SX-AP-4800AN2.
- If MAC Address filtering is active, it can block access from the Repeater AP's MAC Address. If the Repeater AP is blocked, you will need to change the filter settings at **Wireless LAN** - **Security Configuration** - **MAC Address Filter Configuration**.

The Root AP setting is completed.

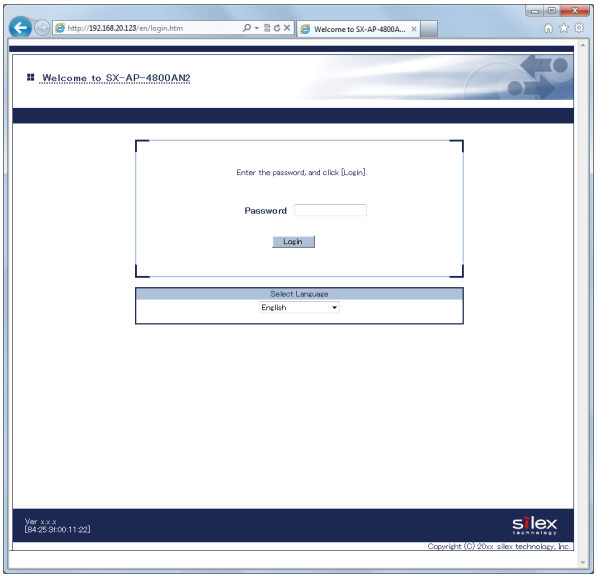
Please continue to Repeater AP configuration.

How to configure Repeater AP:

Set the second or later SX-AP-4800AN2 Access Points as Repeater APs.
The Access Point to connect in WPS can be specified using the MAC Address.
In order to make WDS connection, specify the MAC Address of the host AP to connect in WDS and configure the same wireless settings.



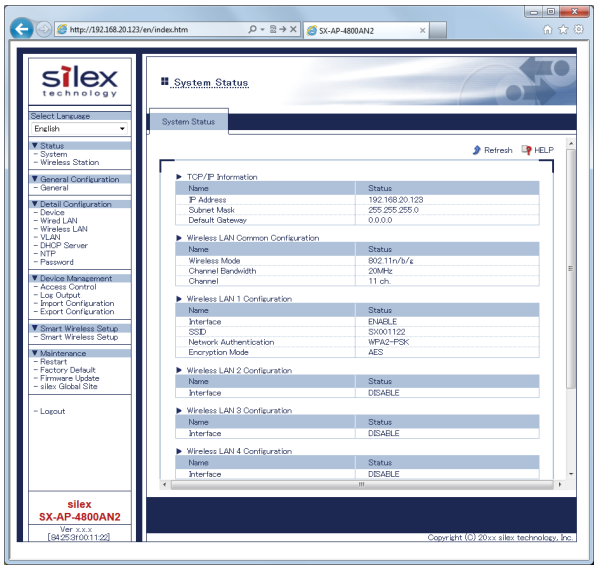
1. Log in to the Web page of SX-AP-4800AN2 to use as Repeater AP using your Web browser.



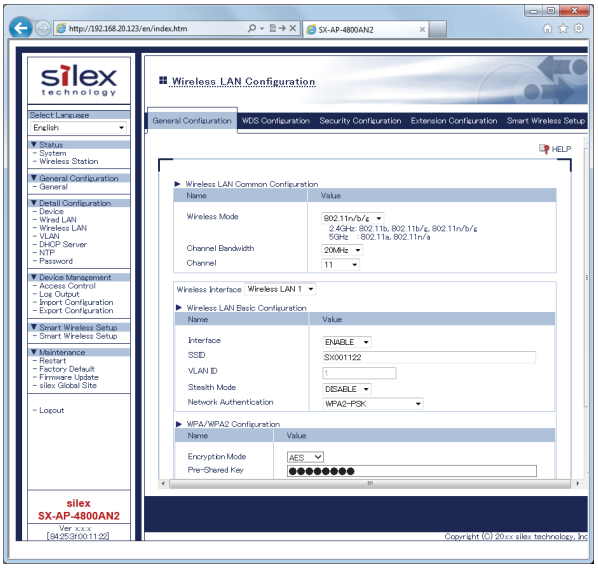
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **Wireless LAN** - **General Configuration**.



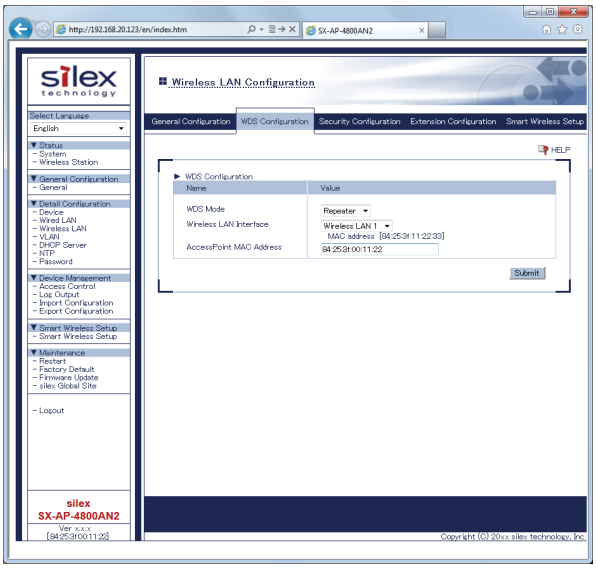
3. Select a wireless interface to use for WDS connection and click **WDS Configuration** tab.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- For the wireless interface, use the same interface as the Root AP which is assigned for WDS connection. Please refer to Step 3 of the Root AP configuration and see the note about wireless settings (channel, SSID, network authentication, and encryption mode).

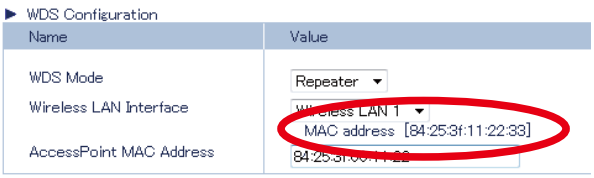
4. Configure the settings according to the table below and click **Submit**.



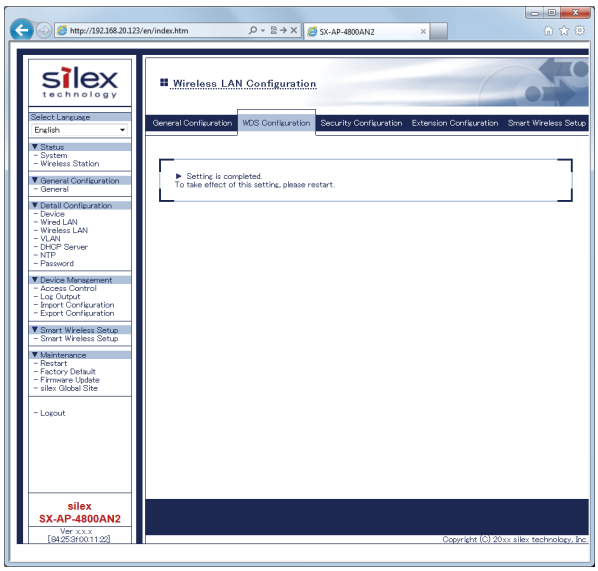
Name	Setting
WDS Mode	Repeater
Wireless Interface	Select the interface you have selected to use for WDS connection.
Access Point MAC Address	Enter the MAC Address of the host AP to connect in WDS.

Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The MAC Address displayed under the selected interface will be necessary again when you configure another Repeater AP. Please take a note of the MAC Address.



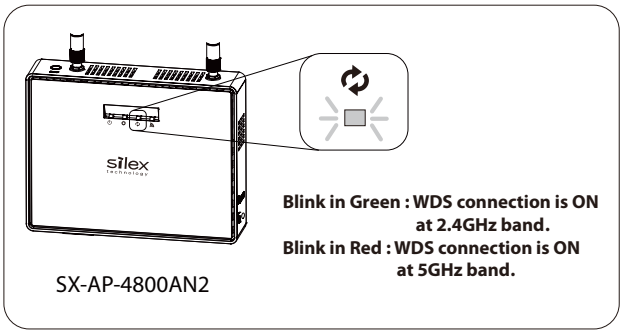
5. When finished, restart SX-AP-4800AN2.



Note

- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.
- The WDS setting will not take effect unless you restart SX-AP-4800AN2.

6. Check that the Band LED blinks in green or red.



Note

- If the Band LED does not blink, the WDS connection fails.
  See **What if WDS Connection Fails** for a possible solution.
- WDS connection status can also be checked from the Web page.
  For details, refer to **Checking WDS Connection Status from Web Page**.

The Repeater AP setting is completed.

To connect more Repeater APs in WDS mode, repeat the same process from Step1-6.

What If WDS Connection Fails?

If SX-AP-4800AN2 fails in WDS connection, one of followings might be the reason:

1) The client AP has different wireless settings from the host AP.

2) MAC Address filtering is active on the host AP and it blocks access from the client AP.

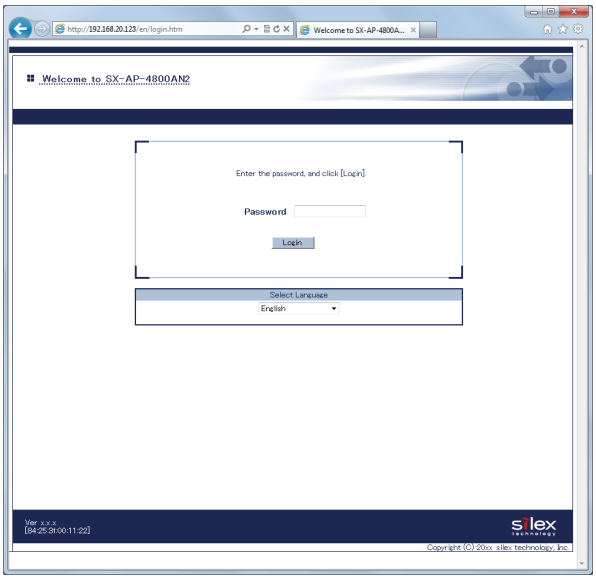
3) Too many station devices are connected to the host AP and it has reached the max number of connectable devices.

Follow the instructions below to identify the problems on WDS:

How to check the settings on client AP:

Check the Repeater setting on the client AP.

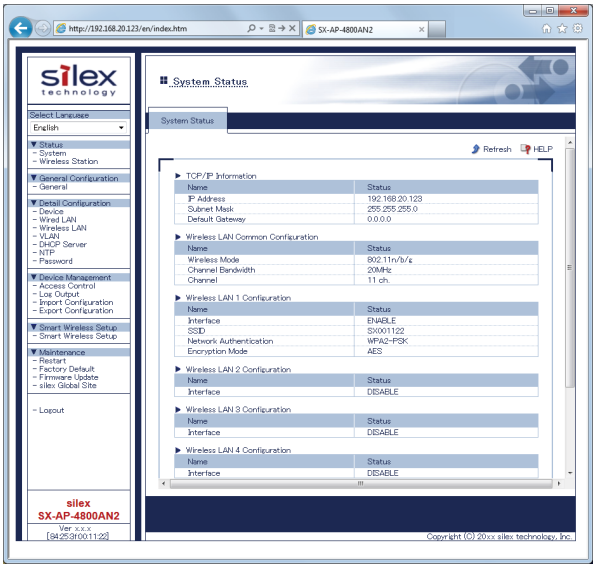
1. Log in to the Web page of SX-AP-4800AN2 (client AP) using your Web browser.



Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

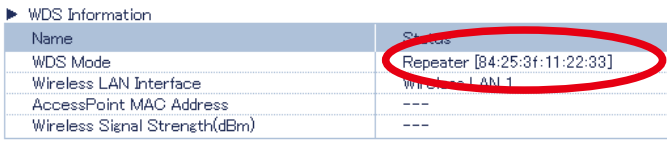
2. From the left menu in the Web page, click **System**.



3. In the **System Status** page, check the status information as shown in a table below:

Setting	Item
Wireless LAN Common Configuration	Channel
Wireless LAN Configuration	Interface
	SSID
	Network Authentication
	Encryption Mode
WDS Information	WDS Mode
	Wireless Interface

The MAC Address used to connect to the host AP in WDS is displayed at **WDS Mode** under **WDS Information**.



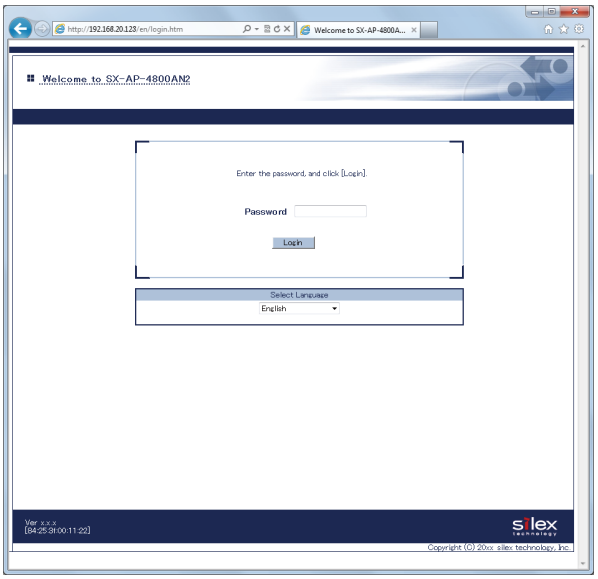
Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The confirmed status information will be necessary again when you check the settings on the host AP. Please take notes of the wireless settings such as channel, SSID, network authentication, encryption mode, etc. and the MAC Address.

How to check the settings on host AP:

Check the Root AP or Repeater AP settings of the host AP.

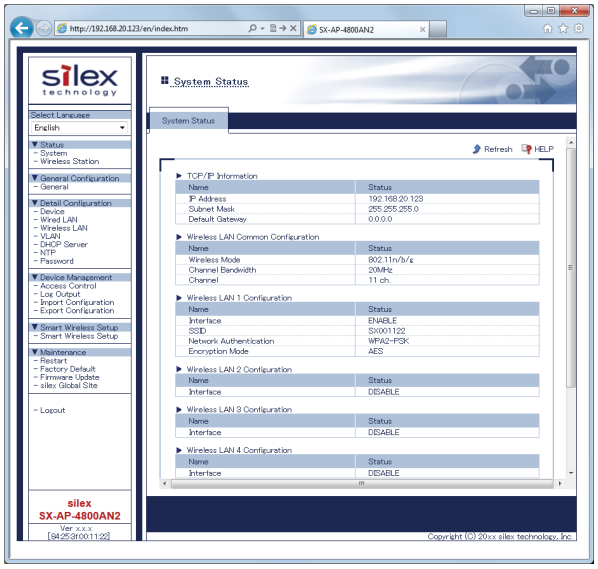
1. Log in to the Web page of SX-AP-4800AN2 (host AP) using your Web browser.



Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **System**.



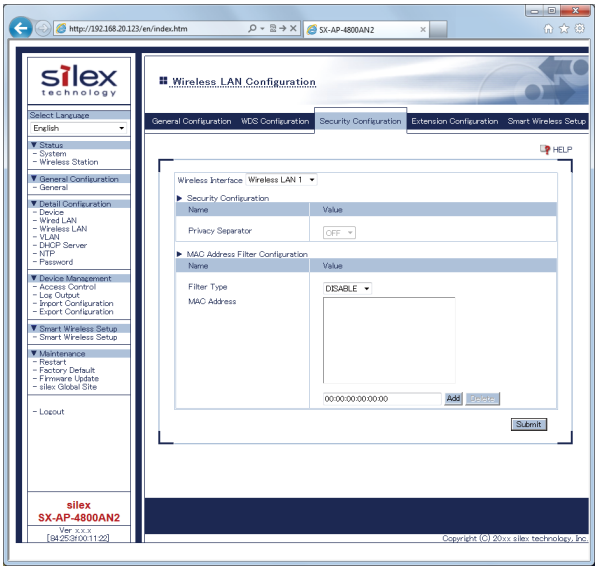
3. In the **System Status** page, check that **WDS Mode** is set to **Root AP** or **Repeater**.
Check that status information as show in a table below are the same as those you previously checked at the client AP.
From the left menu in the Web page, click **Wireless LAN - Security**.

Setting	Item
Wireless LAN Common Configuration	Channel
Wireless LAN Configuration	Interface
	SSID
	Network Authentication
	Encryption Mode
WDS Information	Wireless Interface

Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- If the settings are different between the host AP and client AP, change the settings of client AP to match those of host AP. For how to change the settings, refer to **5-8 WDS Feature** - **WDS Configuration**.

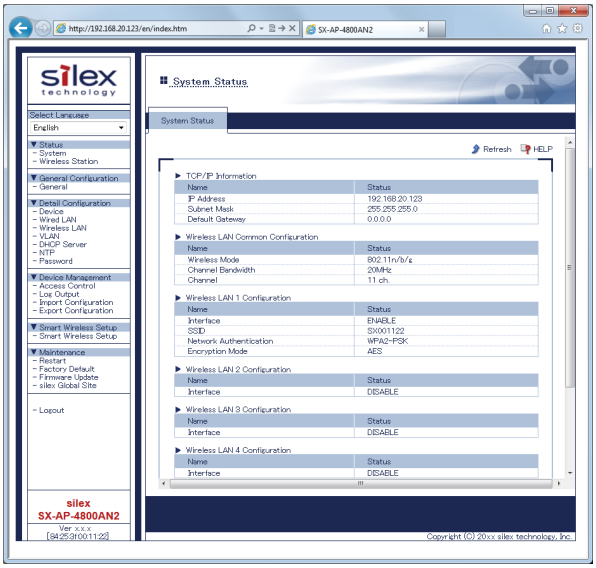
4. Select the wireless interface assigned for WDS connection and check that the MAC Address filter is not set to block access from the client AP.
From the left menu in the Web page, click **System**.



Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The client AP connects to the host AP using the "MAC Address used to connect to host AP in WDS" that you have previously checked at the client AP. If access from the client AP is denied, change the setting to allow it.

5. In the **System Status** page, check the **Encryption Mode** used for the wireless LAN. The max number of connectable devices for SX-AP-4800AN2 will differ depending on the encryption mode used. Please check that too many station devices or APs exceeding that number are not connected in your environment.

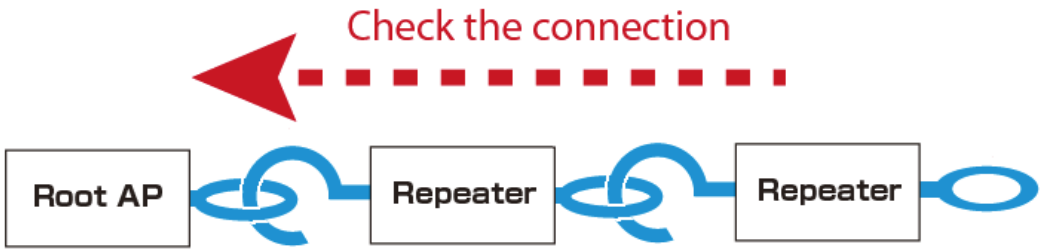


Note

- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- The max number of connectable station devices will differ depending on the encryption mode used.
  - When using AES only: 100 units
  - When using TKIP or AUTO: 50 units
- In Multi SSID environment, the number of connected devices will be the total number of devices connected on all wireless interfaces. Thus, the max number of connectable devices will differ depending on the encryption mode used on each interface.
  - When all wireless interfaces use AES only: 100 units
  - When one or some of the wireless interfaces use TKIP or AUTO: 50 units
- When using the WDS feature, the Repeater AP connected to SX-AP-4800AN2 as a client AP will consume one of the available connections, while Root AP or Repeater APs connected to SX-AP-4800AN2 as a host AP will NOT consume any connections.

Checking WDS Connection Status from Web Page

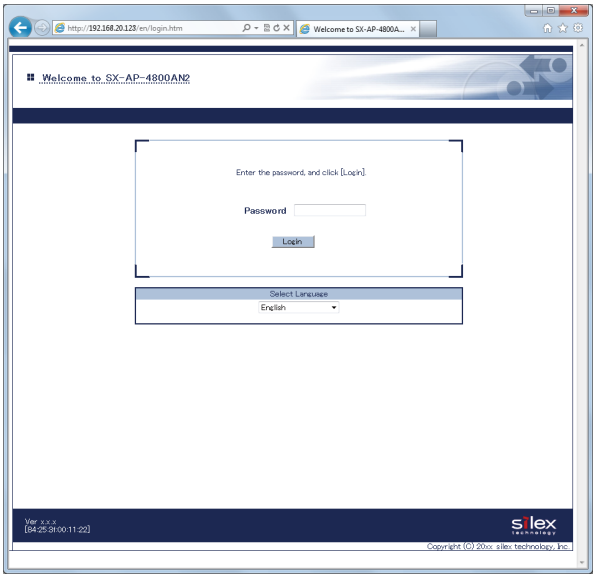
To see if SX-AP-4800AN2 is connected in WDS mode properly, check the status page on the Web page in the order from the client (Repeater AP) to the host (Root AP or Repeater AP). In the Web page, the host AP connected in WDS is displayed.



How to check the WPS connection to the host AP:

Check that Repeater AP is properly connected to the host AP in WDS mode.

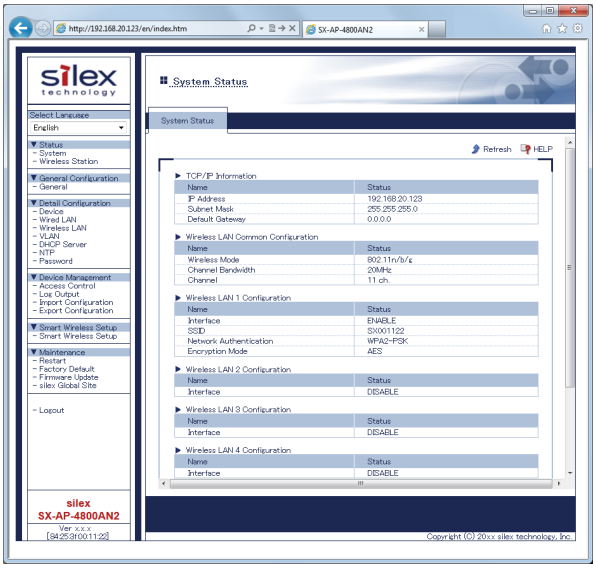
1. Log in to the Web page of the Repeater AP using your Web browser.



Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **System**.



3. In the **System Status** page, check the **WDS Information**.

If **Access Point MAC Address** and **Wireless Signal Strength(dBm)** are displayed, the WDS connection is established successfully.

To continue to see the connection status at the host AP, repeat the same process from Step1-3 at the host AP's Web page.

WDS Connection Success:

WDS Information

Name	Status
WDS Mode	Repeater [84:25:3f:11:22:33]
Wireless LAN Interface	Wireless LAN 1
AccessPoint MAC Address	84:25:3f:00:11:22
Wireless Signal Strength(dBm)	(-18)

WDS Connection Failure:

WDS Information

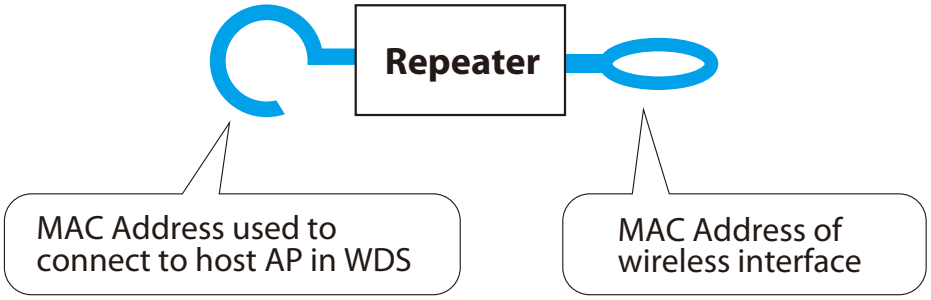
Name	Status
WDS Mode	Repeater [84:25:3f:11:22:33]
Wireless LAN Interface	Wireless LAN 1
AccessPoint MAC Address	---
Wireless Signal Strength(dBm)	---

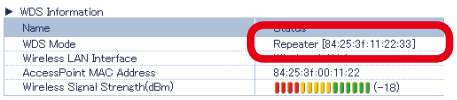
Note

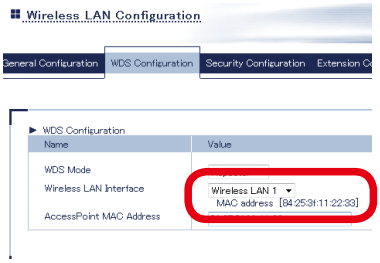
- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.
- If **Access Point MAC Address** and **Wireless Signal Strength (dBm)** are not displayed, the WDS connection is not established. In such a case, refer to **5-8. WDS Feature** - **What If WDS Connection Fails?** for possible solutions.
- In the Web page of Root AP, **Access Point MAC Address** and **Wireless Signal Strength (dBm)** are not displayed.

Note

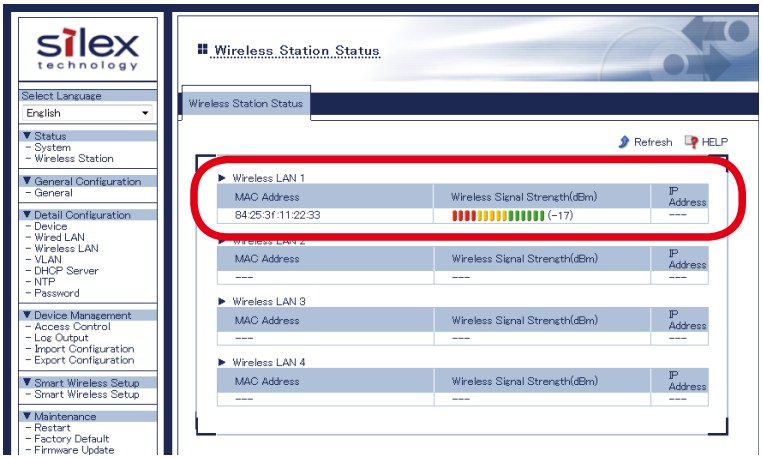
- SX-AP-4800AN2 uses two MAC Addresses for the WDS connection.
- The MAC Address used to connect to the host AP in WDS is displayed in the **System Status** page.
- The MAC Address of the wireless interface is displayed in **WDS Configuration** tab of **Wireless Configuration** page. This will be the MAC Address of the wireless interface assigned for WDS connection.





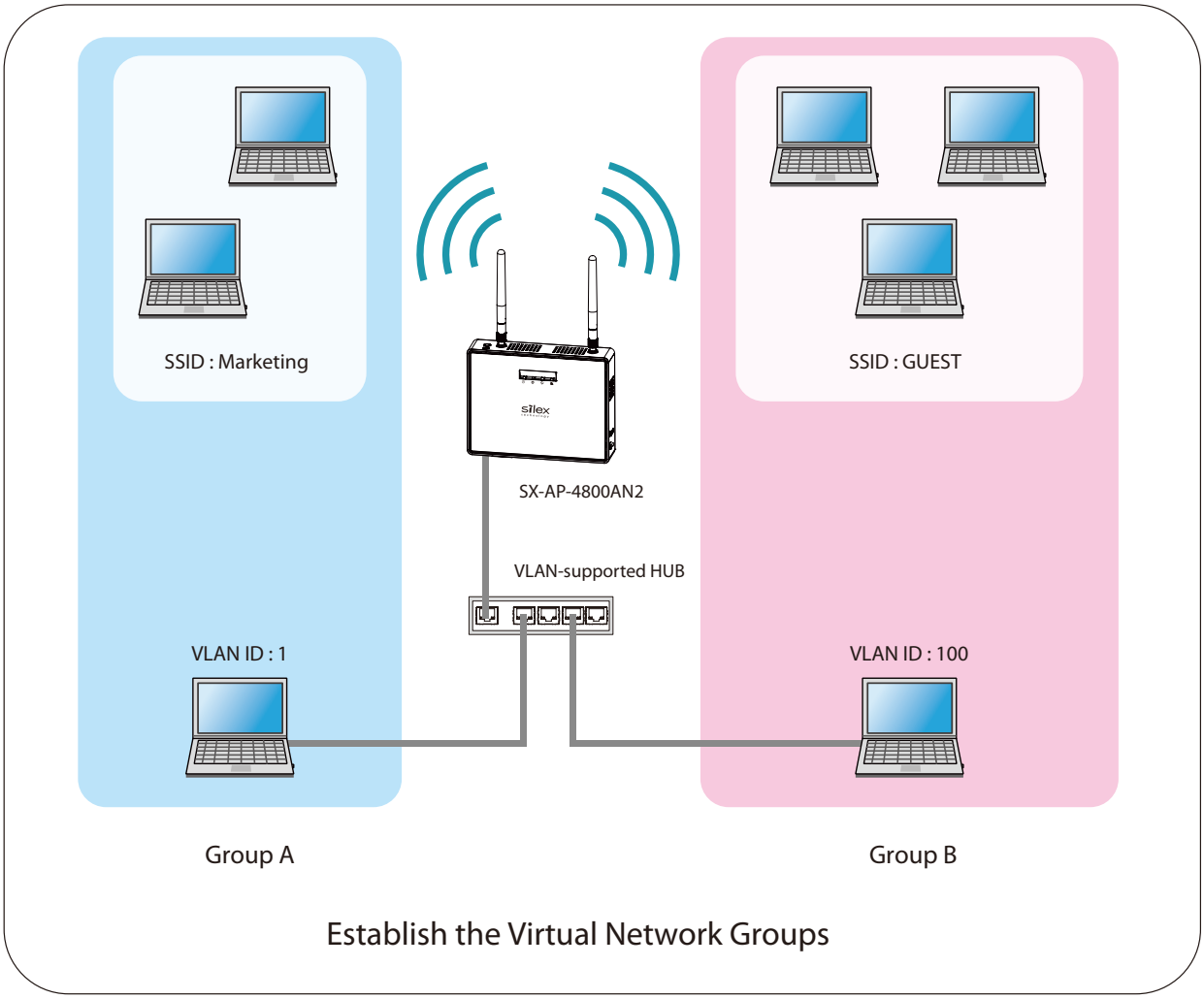


- When connected in WDS, the **Wireless Station Status** page of the host AP shows a list of connected client AP.
- The IP Address of the client AP is not displayed.
- The MAC Address of the client AP will be the MAC Address which the client AP uses to connect to the host AP in WDS mode.



5-9. VLAN Feature

A VLAN ID can be set to the SSID of wireless LAN structured by SX-AP-4800AN2.
If SX-AP-4800AN2 is used with the switching HUB that supports tagged-VLAN (hereinafter the "VLAN HUB"), you can establish the virtual network groups.
As SX-AP-4800AN2 supports Multi SSID, up to 4 virtual network groups can be established.



Establish the Virtual Network Groups

TIP

- In the following instructions, Internet Explorer 9 and Windows 7 are used as example. Display may vary depending on the Web browser.
- SX-AP-4800AN2 supports the tagged VLAN of IEEE802.1Q compliant.
- DynamicVLAN is not included.

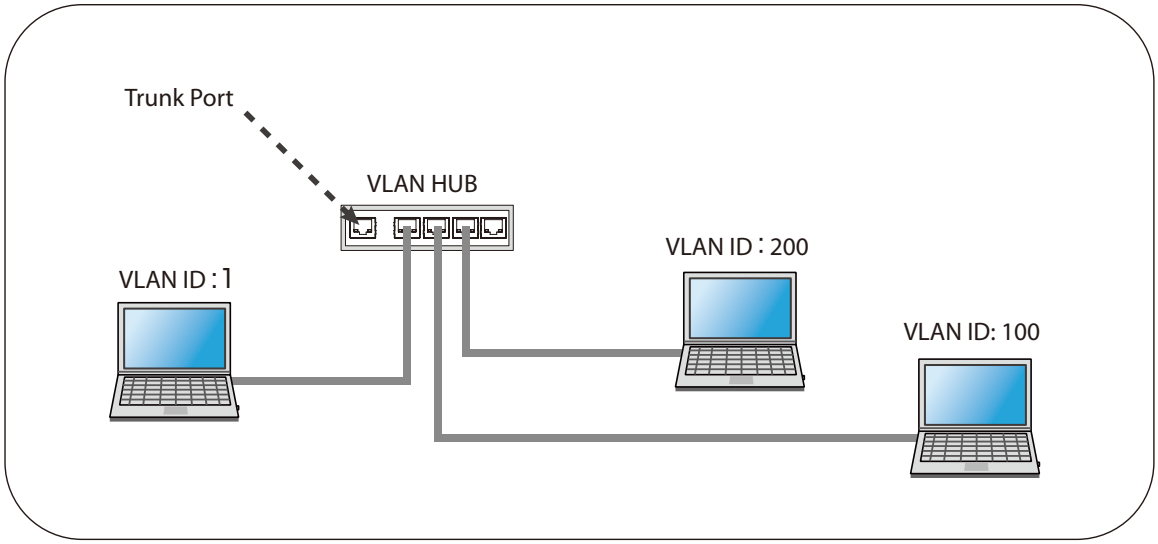
VLAN Configuration

The following explains how to install SX-AP-4800AN2 to where network groups have already been established using a VLAN HUB.

How to check the VLAN information on network:

Check the information below of the existing network.
For details on the VLAN HUB specifications, please see the operation manual that came with your VLAN HUB.

- Position of a trunk port on the VLAN HUB
- VLAN ID of the native VLAN
- VLAN ID of the devices connected to VLAN HUB



TIP

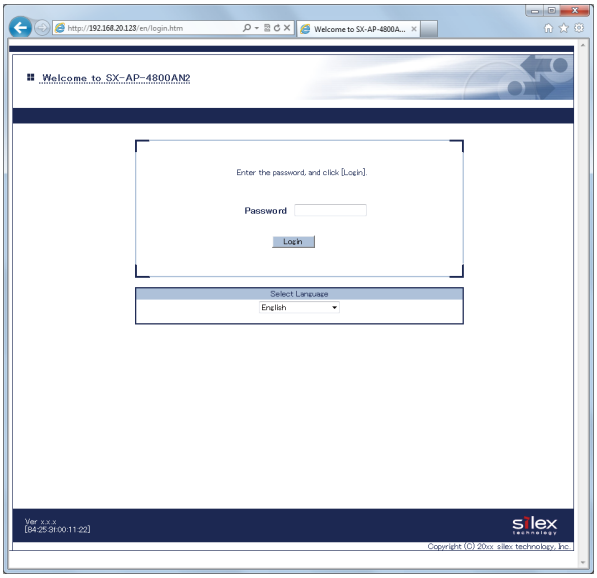
- If there is no available trunk port on the VLAN HUB, create a new one.
- For details on VLAN HUB specifications, please see the operation manual that came with your VLAN HUB.

Note

- The native VLAN is also referred to as untagged VLAN.

How to configure the VLAN setting on SX-AP-4800AN2:

1. Log in to the Web page of SX-AP-4800AN2 using your Web browser.



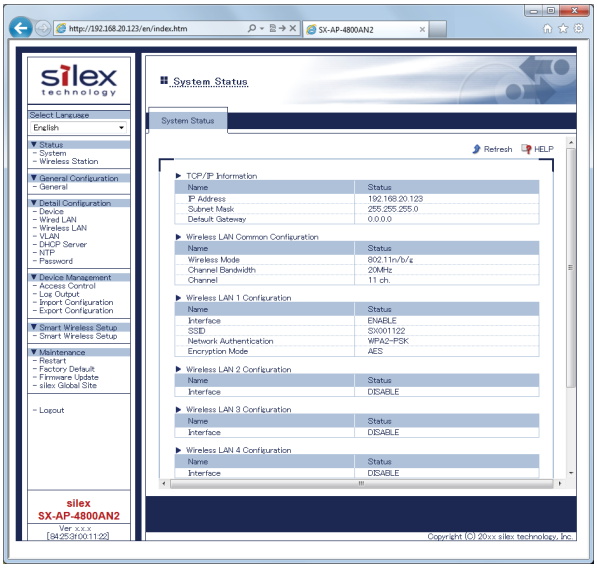
TIP

- When using a VLAN HUB during the configuration, please make sure that you connect SX-AP-4800AN2 to the port that can communicate with your PC.

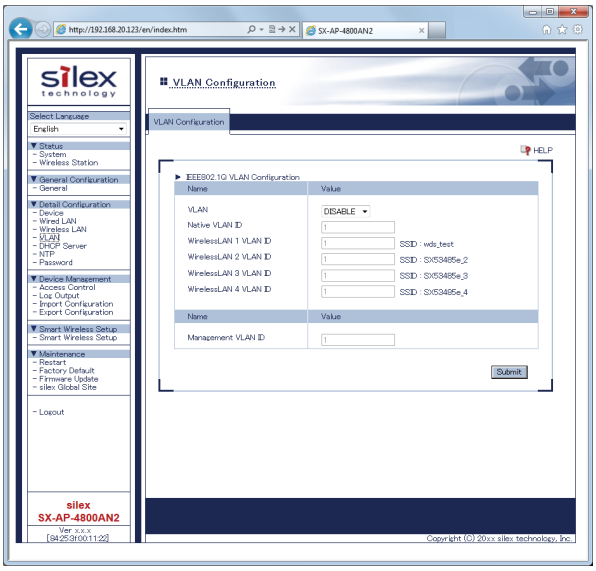
Note

- The Web page of SX-AP-4800AN2 can be opened using SX-Finder or SX Virtual Link.

2. From the left menu in the Web page, click **VLAN**.



3. If **VLAN** is set to **ENABLE**, the VLAN ID settings will become active.
Configure the VLAN ID appropriate for virtual network you wish to establish according to the existing network settings you have checked in advance.
When finished, click **Submit**.



Sample setting

	VLAN ID	SSID
Wireless LAN1	1	MARKETING
Wireless LAN2	100	GUEST
Wireless LAN3	200	SALES

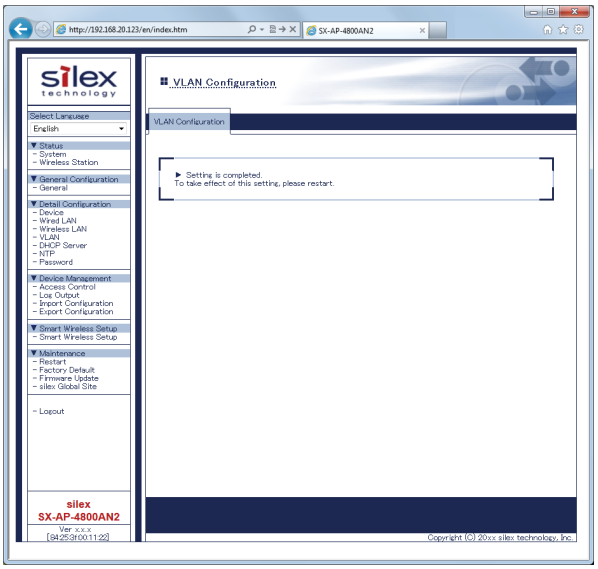
TIP

- For the **Management VLAN ID**, when VLAN feature is enabled and one of following authentication modes is set for **Network Authentication**, enter the same VLAN ID as that of network group where the RADIUS server is installed.
  - **802.1X** - **WPA-Enterprise** - **WPA2-Enterprise** - **WPA/WPA2-Enterprise**

Note

- For details on each configuration item, refer to **A. Appendix - A-1. List of All Settings**.
- For **Native VLAN ID**, enter the native VLAN ID of VLAN HUB that you have checked beforehand.
- For VLAN ID of the wireless LAN 1-4, enter VLAN ID of the devices connected to the HUB that you have checked beforehand.
- After VLAN feature is enabled, you will not be able to configure SX-AP-4800AN2 via the network with a different VLAN ID from management VLAN ID.
- When VLAN feature is set to **ENABLE**, the VLAN ID can also be configured from the wireless general configuration page.
- Even when VLAN feature is enabled, access from non-VLAN HUB is accepted if the same VLAN ID is set for both **Native VLAN ID** and **Management VLAN ID**. It is recommended to set a same VLAN ID for both of these.

4. When finished, restart SX-AP-4800AN2.

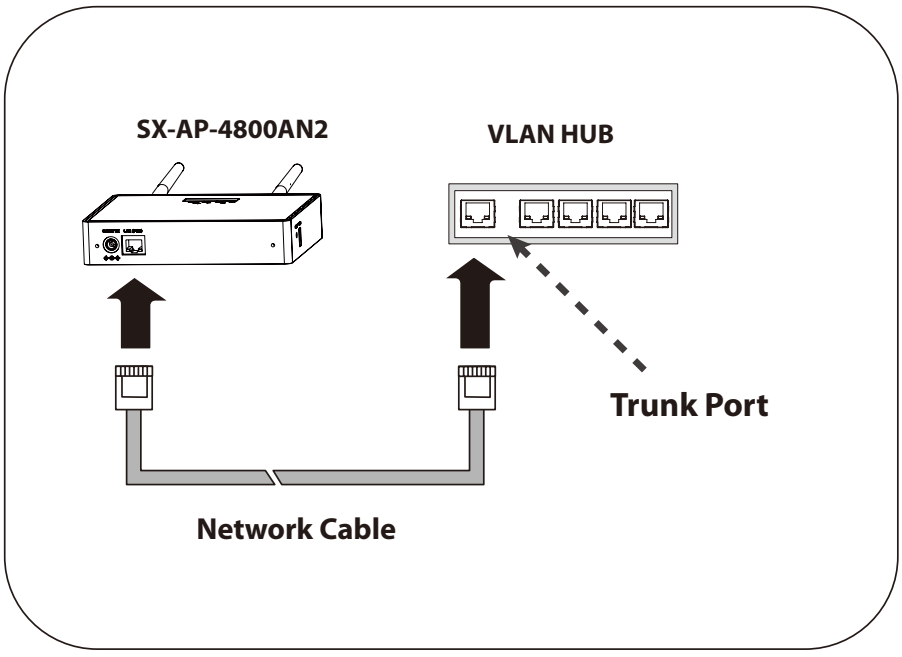


Note

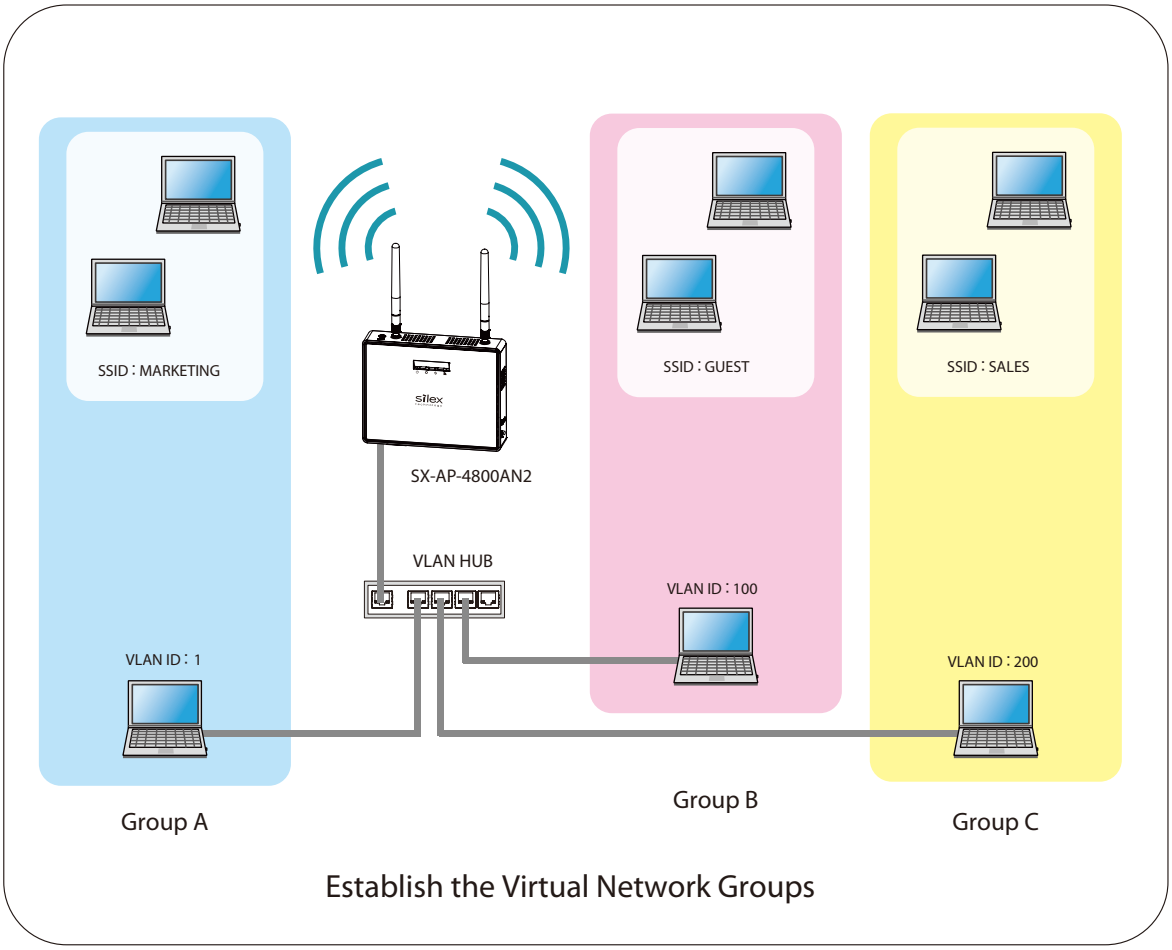
- For how to restart SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **Restarting**.
- If you continue to configure the other settings, you do not have to restart. Please restart when you completed all other settings.
- The VLAN setting will not take effect unless you restart SX-AP-4800AN2.

How to connect SX-AP-4800AN2 to a trunk port of VLAN HUB:

Connect a wired LAN port of SX-AP-4800AN2 and a trunk port of VLAN HUB (that you have checked beforehand) using a network cable.



The VLAN configuration is completed.
The virtual network groups will be active based on the VLAN ID setting you configured.



Establish the Virtual Network Groups

TIP

- After the VLAN feature is enabled, you will not be able to configure SX-AP-4800AN2 via the network with a different VLAN ID from management VLAN ID. If you are not sure of the VLAN ID of the management VLAN, you will need to initialize the settings and reconfigure SX-AP-4800AN2. For how to initialize SX-AP-4800AN2, refer to **Chapter 5-7 Maintenance Feature** - **How to reset SX-AP-4800AN2 to factory defaults using the Push Switch**.
- To configure SX-AP-4800AN2 wirelessly from a PC running on VLAN-enabled environment, the VLAN ID configured to SSID of the wireless LAN must be the same as management VLAN ID. By defaults, the configuration change via wireless LAN is restricted on SX-AP-4800AN2 since the **Access Control** feature is on. Please change the setting appropriate for your environment.
- For details on each configuration item, refer to **A. Appendix** - **A-1. List of All Settings**.

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A. Appendix

A-1. List of All Settings

This chapter explains each configuration item available on SX-AP-4800AN2. Some items can be configured only from the Detail Configuration page. For details, see explanation of each configuration item below.

Device - Device Configuration

Host Name		
	General Configuration	*
	Detail Configuration	*
Details	Set the host name. Be sure to use a unique name that is not used by other devices.	
Range	Up to 15 characters	
Default Value	SXxxxxxx (xxxxxx is a last 6-digit of the Ethernet Address)	

Device - TCP/IP Configuration

DHCP		
	General Configuration	*
	Detail Configuration	*
Details	Enable/Disable the DHCP protocol. To assign an IP address using DHCP, the DHCP server must be running in your subnetwork.	
Range	ENABLE/DISABLE	
Default Value	DISABLE	

IP Address		
	General Configuration	*
	Detail Configuration	*
Details	Set the IP address. If the DHCP is enabled on your network, the IP Address obtained from it will be applied.	
Range	0.0.0.0 - 255.255.255.255	
Default Value	The default value can be found on the product label (see the bottom of the unit).	

Subnet Mask		
	General Configuration	*
	Detail Configuration	*
Details	Set the subnet mask. If the DHCP is enabled on your network, the Subnet Mask obtained from it will be applied.	
Range	0.0.0.0 - 255.255.255.255	
Default Value	255.0.0.0	
Note	When set to "0.0.0.0", a subnet mask appropriate for the IP address is automatically assigned.	

Default Gateway		
	General Configuration	*
	Detail Configuration	*
Details	Set the gateway address. If "0.0.0.0" is set, this setting is disabled. When the DHCP is enabled on your network, the Default Gateway obtained from it will be applied.	
Range	0.0.0.0 - 255.255.255.255	
Default Value	0.0.0.0	

Device - DNS Configuration

DNS Server (Primary)

General Configuration	-
Detail Configuration	*

Details	Set a primary DNS server address. When DHCP is enabled, the DNS server address obtained from it will be given higher priority.
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

DNS Server (Secondary)

General Configuration	-
Detail Configuration	*

Details	Set a secondary DNS server address. When DHCP is enabled, the DNS server address obtained from it will be given higher priority.
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

Wired LAN Configuration

LAN Interface

General Configuration	-
Detail Configuration	*

Details	Configure the physical network type.
Range	AUTO/10Base-T-Half/10Base-T-Full/100Base-TX-Half/10Base-TX-Full/1000Base-T-Full
Default Value	AUTO
Note	Usually, "AUTO" is used. If a LED on your HUB does not light on when SX-AP-4800AN2 is powered on, change the network type to that of the HUB.

Jumbo Frame

General Configuration	-
Detail Configuration	*

Details	Enable/Disable Jumbo Frame (ON/OFF). If enabled, high speed data transmission up to 9696 bytes per frame (excluding FCS 4 bytes) can be utilized for TCP/IP communication.
Range	ON/OFF
Default Value	OFF
Note	Disable this setting if using SX-AP-4800AN2 on a 10/100Mbps network.

Wired LAN Configuration - MAC Address Filter Configuration

Filter Type

		General Configuration	-
		Detail Configuration	*
Details	Set a security type for MAC Address filter used over a wired LAN.		
Range	DISABLE/DENY/ALLOW		
Default Value	DISABLE		

MAC Address

		General Configuration	-
		Detail Configuration	*
Details	Set the MAC Address filter for a wired LAN. By registering the MAC Address filter, access via a wired LAN can be controlled.		
Range	00:00:00:00:00:01 - FF:FF:FF:FF:FF:FE		
Default Value	00:00:00:00:00:00		
Note	If a filter type is DISABLE, access from all devices is allowed. If a filter type is DENY, access from the devices registered to MAC Address filter list is denied. If a filter is ALLOW, only access from the devices registered to MAC Address filter list is allowed.		

Wireless LAN - Wireless LAN Common Configuration

Wireless Mode

General Configuration	*
Detail Configuration	*

Details	Select the IEEE 802.11wireless mode.
Range	802.11b, 802.11b/g, 802.11n/b/g, 802.11a, 802.11n/a
Default Value	802.11n/b/g
Note	802.11b/g : Uses IEEE802.11b or IEEE802.11g. 802.11a : Uses IEEE802.11a. 802.11n/b/g : Uses IEEE802.11n, IEEE802.11b or IEEE802.11g. 802.11n/a : Uses IEEE802.11n or IEEE802.11a.

Channel Bandwidth

General Configuration	*
Detail Configuration	*

Details	Set the frequency bandwidth. This setting is necessary when using 802.11n/b/g or 802.11n/a. In a wireless network, bandwidth is divided up so that more devices can communicate at a time. Each section of bandwidth is called a ' channel ' and each channel has a bandwidth of 20MHz. If 40MHz is selected, larger and faster data transmission can be realized.
Range	20MHz/40MHz
Default Value	20MHz
Note	40MHz (High speed) : Uses double bandwidth. Two neighboring bandwidths are combined together for high speed transmission. 20MHz (Standard) : Uses standard (single) bandwidth. If your network becomes unstable when using 40MHz, change it to 20MHz (Standard).

Channel

General Configuration	*
Detail Configuration	*

Details	Set the wireless channel. A channel is the divided frequency bandwidth. In a wireless network, bandwidth is divided up so that more devices can communicate at a time.
Range	(Japan) 1-13/ 36/40/44/48/52/56/60/64/ 100/104/108/112/116/120/124/128/132/136/140/AUTO (US/Canada) 1-11/ 36/40/44/48/52/56/60/64/ 100/104/108/112/116/132/136/140/149/153/157/161/165/AUTO (EU) 1-13/ 36/40/44/48/52/56/60/64/ 100/104/108/112/116/120/124/128/132/136/140/AUTO
Default Value	11
Note	If your network becomes unstable due to interference with other wireless devices, it could be improved by changing the channel. The channel you can use will differ depending on the country. If W53 or W56 channels are used when SX-AP-4800AN2 is turned on or a particular radar is detected, wireless communication is lost for certain period of time (*). The Ext Channel setting is dependent on this channel setting. (*) The time duration differs depending on the country.

Wireless LAN - Wireless LAN Common Configuration

DFS Primary Channel	General Configuration	-
	Detail Configuration	*

Details	Set the alternative channel used when radar signals are detected during DFS channels are used. If the alternative channel is not specified or radar signal is detected even for that channel, the channel is switched in a certain regulated order.
Range	NONE/52/56/60/64/ 100/104/108/112/116/132/136/140
Default Value	None
Note	When DFS is running on all of channels, SX-AP-4800AN2 will switch the channel in approximately 30 min, from the one specified previously to the other. While the channel switch is in process, WSTAT LED (Red) will blink.

Wireless LAN - Wireless LAN Basic Configuration

Interface

General Configuration	*
Detail Configuration	*

Details	Enable/Disable the wireless LAN interface 1-4.
Range	ENABLE/DISABLE
Default Value	Wireless LAN1: ENABLE, Wireless LAN2-4: DISABLE

SSID

General Configuration	*
Detail Configuration	*

Details	Set the SSID of the wireless network. The SSID is an ID that distinguishes a wireless LAN network from others. For wireless devices to communicate with each other on a wireless network, they must share the same SSID.
Range	Up to 32 characters
Default Value	Wireless LAN1: SXxxxxxx Wireless LAN2-4: SXxxxxxx_y (**xxxxxx** is the last 6 digits of the Ethernet Address and **y** indicates a number of the wireless interface.)

Stealth Mode

General Configuration	*
Detail Configuration	*

Details	Enable/Disable the Stealth Mode.
Range	ENABLE/DISABLE
Default Value	DISABLE
Note	If the Stealth Mode is enabled, the Smart Wireless Setup feature can no longer be used.

Wireless LAN - Wireless LAN Basic Configuration

Network Authentication

General Configuration	*
Detail Configuration	*

Details	Select the network authentication mode that will be used to connect to your wireless devices. To ensure a secure network, it is recommended to use WPA/WPA2. For IEEE 802.11n, only AES can be used
Range	Open, Shared, WPA-PSK, WPA2-PSK, WPA/WPA2-PSK, 802.1X, WPA-Enterprise, WPA2-Enterprise, WPA/WPA2-Enterprise
Default Value	Wireless LAN1 : WPA2-PSK Wireless LAN2 - 4 : Open
Note	Open (Open System): Allows all access without authentication. For encryption mode, WEP can be used. Shared (Pre-Shared Key): Uses WEP key for encryption and allows access only from those with the same WEP key. For encryption mode, WEP can be used. WPA-PSK: Uses PSK for network authentication. For encryption mode, TKIP/AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WEP key setting is not used for this mode. WPA2-PSK: Uses PSK for network authentication. For encryption mode, AES/AUTO can be selected. The encryption key will be generated by communicating with your wireless devices using a Pre-Shared key. WEP key setting is not used for this mode. WPA/WPA2-PSK: Uses both WPA-PSK and WPA2-PSK authentication. 802.1X: Uses IEEE 802.1X user authentication and WEP encryption. WPA-Enterprise: Uses IEEE 802.1X user authentication and TKIP/AES/AUTO encryption. WPA2-Enterprise: Uses IEEE 802.1X user authentication and AES/AUTO encryption. WPA/WPA2-Enterprise: Uses IEEE 802.1X user authentication and AES/AUTO encryption. When running in IEEE 802.11n, Shared and IEEE 802.1X authentication modes and WEP and TKIP encryption modes cannot be used.

Wireless LAN - WEP Configuration

WEP

General Configuration	*
Detail Configuration	*

Details	Enable/Disable WEP encryption. If WEP encryption is used, wireless communication will be encrypted using the settings for "WEP Key 1-4" and "Key Index".
Range	ON/OFF
Default Value	OFF
Note	If encryption is not enabled, data is not encrypted and is sent as is. To ensure higher security, enabling encryption is recommended.

Key Index

General Configuration	*
Detail Configuration	*

Details	Select the number of the WEP key to use for encryption (1-4). This setting must be the same as that of your wireless devices.
Range	1 - 4
Default Value	1

WEP Key1-4

General Configuration	*
Detail Configuration	*

Details	Set the WEP key for WEP encryption. Up to 4 WEP keys can be set. This setting must be the same as that of your wireless devices. A WEP key must be entered using hexadecimal or alphanumeric characters.
Range	5 or 13 characters 10 or 26 digit value
Default Value	(None)
Note	In most cases, alphanumeric characters are used. Enter 5 characters if the key size is 64bit or 13 characters if the key size is 128bit. For Hexadecimal, a value consists of numbers (0-9) and English letters (A-F). Enter a 10-digit value if the key size is 64bit or a 26-digit value if the key size is 128bit.

Wireless LAN - WPA/WPA2 Configuration

Encryption Mode

General Configuration	*
Detail Configuration	*

Details	Select the encryption mode to use for **WPA-PSK**, **WPA2-PSK**, **WPA/WPA2-PSK**, **WPA-Enterprise**, **WPA2-Enterprise**, **WPA/WPA2-Enterprise** authentication.
Range	TKIP/AES/AUTO
Default Value	AES
Note	When the network authentication mode is **WPA2-PSK**, **WPA/WPA2-PSK**, **WPA2-Enterprise**, **WPA/WPA2-Enterprise**, **TKIP** and **AUTO** cannot be used. * The max number of connectable station devices will differ depending on the encryption mode used. - When using **AES** only: 100 units - When using **TKIP** or **AUTO**: 50 units * In Multi SSID environment, the number of connected devices will be the total number of devices connected on all wireless interfaces. Thus, the max number of connectable devices will differ depending on the encryption mode used on each interface. - When all wireless interfaces use **AES** only: 100 units - When one or some of the wireless interfaces use **TKIP** or **AUTO**: 50 units * When using the WDS feature, the Repeater AP connected to SX-AP-4800AN2 as client AP will consume one connection, while Root AP or Repeater APs connected to SX-AP-4800AN2 as host AP will NOT consume any connections.

Pre-Shared Key

General Configuration	*
Detail Configuration	*

Details	Set the Pre-Shared Key to use for TKIP/AES encryption. The Pre-Shared Key is a keyword used to create the encryption key. It is also referred to as ' network key ' or ' password '.
Range	8-63 alphanumeric characters 64 hexadecimal value
Default Value	Wireless LAN1: xxxxxxxx Wireless LAN2-4: xxxxxxxx_y (**xxxxxxxx** is the sequence of numbers generated by a particular rule based on the Ethernet Address, while **y** indicates a number of the wireless interface.) * The default value can be found on the product label (see the bottom of the unit).
Note	In most case, alphanumeric characters are used (8-63 characters). For Hexadecimal, a value consists of numbers (0-9) and English letters (A-F). * This setting must be the same as that of your wireless devices.

Group key renew interval

General Configuration	*
Detail Configuration	*

Details	Set the refresh interval for Pre-Shared Key (min). If 0 is set, this setting is disabled.
Range	0 - 1440
Default Value	60

Wireless LAN - RADIUS Server Configuration

Server IP

General Configuration	*
Detail Configuration	*

Details	Set the IP Address of RADIUS server. This needs to be set only when the network authentication is 802.1X, WPA-Enterprise, WPA2-Enterprise or WPA/WPA2-Enterprise.
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

Port Number

General Configuration	*
Detail Configuration	*

Details	Set the port number used to communicate with RADIUS server.
Range	0 - 65535
Default Value	1812

Shared Secret

General Configuration	*
Detail Configuration	*

Details	Set the secret key used to communicate with RADIUS server.
Range	Up to 32 characters
Default Value	(None)

Wireless LAN - WDS Configuration

WDS Mode

General Configuration	*
Detail Configuration	*

Details	Set the WDS operation mode to make communication between the Access Points. The WDS network consists of one Root AP (host) and plural Repeater APs (client).
Range	DISABLE/Root AP/Repeater
Default Value	DISABLE
Note	DISABLE: Does not use WDS. Root AP: Runs as Root AP for WDS. This exchanges traffic among Repeater, wired LAN and wireless client device. Repeater: Runs as Repeater for WDS. This exchanges traffic among Root AP, Repeater, wired LAN and wireless client device by connecting to Root AP or Repeater.

Wireless Interface

General Configuration	*
Detail Configuration	*

Details	Select the wireless interface for WDS to make communication between the Access Points.
Range	1/2/3/4
Default Value	1
Note	The MAC Address displayed under the Wireless Interface is the MAC Address of SX-AP-4800AN2 to use for WDS. This information will be used on Repeater AP which sets SX-AP-4800AN2 as a host AP.

Access Point MAC Address

General Configuration	*
Detail Configuration	*

Details	Set the MAC Address for Root AP or Repeater AP to connect as host AP in WDS mode.
Range	00:00:00:00:00:00 - FF:FF:FF:FF:FF:FF
Default Value	00:00:00:00:00:00
Note	This setting is not necessary on Root AP. The MAC Address for Root AP or Repeater AP to connect as a host AP in WDS can be seen on the Web page of the host AP. Log in to the Web page of the host AP and click **Wireless LAN** - **WDS Configuration** - **Wireless Interface**. The MAC Address will be displayed under the **Wireless Interface**.

Wireless LAN - Security Configuration

Privacy Separator

General Configuration	-
Detail Configuration	*

Details	Allow/Deny communication among the wireless client devices connected to SX-AP-4800AN2. If the privacy separator is enabled on the wireless interface, wireless frames are not forwarded to the other wireless interfaces. It is only forwarded to a wired LAN interface.
Range	ON/OFF
Default Value	OFF

Wireless LAN - MAC Address Filter Configuration

Filter Type

General Configuration	-
Detail Configuration	*

Details	Set a security type for MAC Address filtering used over a wireless LAN.
Range	DISABLE/DENY/ALLOW
Default Value	DISABLE
Note	When the Smart Wireless Setup is set to **ENABLE**, MAC Address filtering will not function. To use MAC Address filtering, disable the Smart Wireless Setup or use the wireless interface which does not use MAC Address filtering for the Smart Wireless Setup.

MAC Address

General Configuration	-
Detail Configuration	*

Details	Set the MAC Address filter for a wireless LAN. By registering the MAC Address filter, access via a wireless LAN can be controlled.
Range	00:00:00:00:00:01 - FF:FF:FF:FF:FF:FE
Default Value	00:00:00:00:00:00
Note	If a filter type is DISABLE, access from all wireless stations is allowed. If a filter type is DENY, access from the wireless stations registered to MAC Address filter list is denied. If a filter type is ALLOW, only access from the wireless stations registered to MAC Address filter list is allowed.

Wireless LAN - Extension Configuration

Beacon Interval(msec)

General Configuration	-
Detail Configuration	*

Details	Set the beacon transmission interval (millsec).
Range	20 - 1000
Default Value	100

DTIM

General Configuration	-
Detail Configuration	*

Details	Set the DTIM interval for a wireless LAN.
Range	1 - 255
Default Value	1

Transmit Power(%)

General Configuration	-
Detail Configuration	*

Details	Set the transmission strength level. When a lower strength level is selected, the radio transmission distance is shortened and the scope of search for SX-AP-4800AN2 will be narrowed down. By narrowing down the scope of search, the risk of interference to the other wireless networks could be reduced.
Range	5 - 100
Default Value	100

RTS Threshold

General Configuration	-
Detail Configuration	*

Details	Set the RTS threshold value.
Range	1 - 2346
Default Value	2346

Short Preamble	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the Short Preamble (ON/OFF).	
Range	ON/OFF	
Default Value	ON	
Note	This can be set only when the Wireless Mode is 802.11b or 802.11b/g.	

A-MPDU	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the A-MPDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved.	
Range	ON/OFF	
Default Value	ON	
Note	This can be set only when the Wireless Mode is 802.11n/b/g or 802.11n/a.	

A-MPDU Size	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the A-MPDU frame size.	
Range	4096/8192/16384/32768/65535	
Default Value	65535	
Note	This can be set only when all of the following conditions are met: - A-MPDU is enabled (ON) - Wireless Mode is set to 802.11n/b/g or 802.11n/a	

A-MSDU	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the A-MSDU (ON/OFF). If this is enabled (ON), higher throughput could be achieved.	
Range	ON/OFF	
Default Value	OFF	
Note	This can be set only when Wireless Mode is 802.11n/b/g or 802.11n/a.	

Short Guard Interval	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the Short Guard Interval (ON/OFF). If this is enabled (ON), higher throughput could be achieved.	
Range	ON/OFF	
Default Value	ON	
Note	This can be set only when all of the following conditions are met: - Wireless Mode is set to 802.11n/b/g or 802.11n/a - Channel bandwidth is set to 40MHz.	

Wireless LAN - QoS(WMM) Configuration (for AP)

BE			
		General Configuration	-
		Detail Configuration	*
Details	Change the QoS setting for BE(Best Effort) of WMM-EDCA.		
Range	ECWmin: 1 - 15 ECWmax:1 - 15 AIFSN:1 - 15 TxOPLimit: 0 - 8192		
Default Value	ECWmin: 4 ECWmax: 6 AIFSN: 3 TxOPLimit: 0		
Note	TxOPLimit must be a hexadecimal value.		

BK			
		General Configuration	-
		Detail Configuration	*
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.		
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192		
Default Value	ECWmin: 4 ECWmax: 10 AIFSN: 7 TxOPLimit: 0		
Note	TxOPLimit must be a hexadecimal value.		

VI			
		General Configuration	-
		Detail Configuration	*
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.		
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192		
Default Value	ECWmin: 3 ECWmax: 4 AIFSN: 1 TxOPLimit: 3008		
Note	TxOPLimit must be a hexadecimal value.		

Wireless LAN - QoS(WMM) Configuration (for AP)

VO	General Configuration	-
	Detail Configuration	*
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.	
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192	
Default Value	ECWmin: 2 ECWmax: 3 AIFSN: 1 TxOPLimit: 1504	
Note	TxOPLimit must be a hexadecimal value.	

Wireless LAN - QoS(WMM) Configuration (for Station)

BE	General Configuration	-
	Detail Configuration	*
Details	Change the QoS setting for (BE: Best Effort) of WMM-EDCA.	
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192 ACM: ON/OFF	
Default Value	ECWmin: 4 ECWmax: 10 AIFSN: 3 TxOPLimit: 0 ACM: OFF	
Note	TxOPLimit must be a hexadecimal value.	

Wireless LAN - QoS(WMM) Configuration (for Station)

BK	General Configuration	-
	Detail Configuration	*
Details	Change the QoS setting for (BK: Back Ground) of WMM-EDCA.	
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192 ACM: ON/OFF	
Default Value	ECWmin: 4 ECWmax: 10 AIFSN: 7 TxOPLimit: 0 ACM: OFF	
Note	TxOPLimit must be a hexadecimal value.	

VI	General Configuration	-
	Detail Configuration	*
Details	Change the QoS setting for (VI: Video) of WMM-EDCA.	
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192 ACM: ON/OFF	
Default Value	ECWmin: 3 ECWmax: 4 AIFSN: 2 TxOPLimit: 3008 ACM: OFF	
Note	TxOPLimit must be a hexadecimal value.	

VO	General Configuration	-
	Detail Configuration	*
Details	Change the QoS setting for (VO: Voice) of WMM-EDCA.	
Range	ECWmin: 1 - 15 ECWmax: 1 - 15 AIFSN: 1 - 15 TxOPLimit: 0 - 8192 ACM: ON/OFF	
Default Value	ECWmin: 2 ECWmax: 3 AIFSN: 2 TxOPLimit: 1504 ACM: OFF	
Note	TxOPLimit must be a hexadecimal value.	

Wireless LAN - 802.11n Transmit Rate Configuration

20MHz	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11n HT20.
Range	Auto/Default/6500(MCS0)/13000(MCS1)/19500(MCS2)/26000(MCS3)/39000(MCS4)/52000(MCS5)/ 58500(MCS6)/65000(MCS7)/13000(MCS8)/26000(MCS9)/39000(MCS10)/52000(MCS11)/78000(MCS12)/ 104000(MCS13)/117000(MCS14)/130000(MCS15)
Default Value	Auto/Default
Note	This can be set only when all of the following conditions are met: - Wireless Mode is set to 802.11n/b/g or 802.11n/a - Channel bandwidth is set to 20MHz. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

40MHz(SGI OFF)	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11n HT40.
Range	Auto/Default/13500(MCS0)/27000(MCS1)/40500(MCS2)/54000(MCS3)/81000(MCS4)/108000(MCS5)/ 121500(MCS6)/135000(MCS7)/27000(MCS8)/54000(MCS9)/81000(MCS10)/108000(MCS11)/ 162000(MCS12)/216000(MCS13)/243000(MCS14)/270000(MCS15)
Default Value	Auto/Default
Note	This setting can be set only when all of the following conditions are met: - Wireless Mode is set to 802.11n/b/g or 802.11n/a - Channel bandwidth is set to 40MHz - Short Guard Interval is OFF. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

40MHz(SGI ON)	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11n HT40.
Range	Auto/Default/15000(MCS0)/30000(MCS1)/45000(MCS2)/60000(MCS3)/90000(MCS4)/120000(MCS5)/ 135000(MCS6)/150000(MCS7)/30000(MCS8)/60000(MCS9)/90000(MCS10)/120000(MCS11)/ 180000(MCS12)/240000(MCS13)/270000(MCS14)/300000(MCS15)
Default Value	Auto/Default
Note	This setting can be set only when all of the following conditions are met: - Wireless Mode is set to 802.11n/b/g or 802.11n/a - Channel bandwidth is set to 40MHz - Short Guard Interval is ON. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

Wireless LAN - 802.11a/b/g Transmit Rate Configuration

802.11b	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11b.
Range	Auto/Default /1000/2000/5500/11000
Default Value	Auto/Default
Note	This can be set only when the wireless Mode is set to 802.11b. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

802.11b/g	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11b/g.
Range	Auto/Default /1000/2000/5500/6000/9000/11000/12000/18000/24000/36000/48000/54000
Default Value	Auto/Default
Note	This can be set only when the wireless Mode is set to 802.11b/g. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

802.11a	General Configuration	-
	Detail Configuration	*

Details	Select the transmission rate for IEEE 802.11a.
Range	Auto/Default/6000/9000/12000/18000/24000/36000/48000/54000
Default Value	Auto/Default
Note	This can be set only when the wireless Mode is set to 802.11a. **Auto** can be selected at **Unicast** only. **Default** can be selected at **Multicast** only.

Wireless LAN - Smart Wireless Setup

Smart Wireless Setup	General Configuration	-
	Detail Configuration	*

Details	Enable/Disable the Smart Wireless Setup.
Range	ENABLE/DISABLE
Default Value	ENABLE

Interface	General Configuration	-
	Detail Configuration	*

Details	Select the wireless interface that you wish to perform Smart Wireless Setup.
Range	1/2/3/4
Default Value	1

External Registrar	General Configuration	-
	Detail Configuration	*

Details	Enable/Disable the external registrar.
Range	ENABLE/DISABLE
Default Value	DISABLE

PIN Code	General Configuration	-
	Detail Configuration	*

Details	Set the PIN code for SX-AP-4800AN2.
Range	8 digit number (decimal)
Default Value	The default value can be found on the product label (see the bottom of the unit).

VLAN Configuration - IEEE 802.1Q VLAN Configuration

VLAN	General Configuration	-
	Detail Configuration	*
Details	Enable/Disable the VLAN feature. When set to **ENABLE**, connect a wired LAN port of SX-AP-4800AN2 and trunk port of the VLAN HUB via a network cable.	
Range	ENABLE/DISABLE	
Default Value	DISABLE	
Note	When this setting is enabled, packets of tagged frames are sent to a wired LAN using the wired LAN port as a trunk port.	

Native VLAN ID	General Configuration	-
	Detail Configuration	*
Details	Set the VLAN ID for native VLAN. Set the same VLAN ID as a trunk port of the VLAN HUB that will be connected to a wired LAN port of SX-AP-4800AN2.	
Range	1-4094	
Default Value	1	
Note	This setting becomes active only when VLAN is set to **ENABLE**. The received packets of untagged frames will be processed as native VLAN. For packets with the same VLAN ID as the native VLAN, tags will not be added.	

Wireless LAN 1-4 VLAN ID	General Configuration	-
	Detail Configuration	*
Details	Set the VLAN ID for each Multi SSID of SX-AP-4800AN2.	
Range	1-4094	
Default Value	1	
Note	This setting becomes active only when VLAN is set to **ENABLE**. The SSID corresponding to each VLAN ID will be displayed on the right.	

Management VLAN ID	General Configuration	-
	Detail Configuration	*
Details	Set the VLAN ID for management VLAN. When the VLAN is enabled, this will be a VLAN ID to access SX-AP-4800AN2. To access SX-AP-4800AN2 via wireless LAN, set the same VLAN ID as that of the wireless LAN. When VLAN feature is enabled and one of following authentication modes is set for **Network Authentication**, please enter the same VLAN ID as that of network group where the RADIUS server is installed. - **802.1X** - **WPA-Enterprise** - **WPA2-Enterprise** - **WPA/WPA2-Enterprise**	
Range	1-4094	
Default Value	1	
Note	This setting becomes active only when VLAN is set to **ENABLE**. Access to SX-AP-4800AN2 using IP protocol or FLDP protocol (e.g. Web page, Device Server feature) will be limited to the network groups with the same VLAN ID as the management VLAN ID. Access from wireless LAN will also be restricted by **Access Control** feature of SX-AP-4800AN2. In order to access from wireless LAN, set the wireless LAN of the corresponding protocol to **ENABLE**.	

DHCP Server Configuration

DHCP Server Function

General Configuration	-
Detail Configuration	*

Details	Enable/Disable the DHCP server function. Select **ENABLE** to run SX-AP-4800AN2 as a DHCP server to automatically assign an IP address to the PC. Select **DISABLE** if you already have a DHCP server on the network.
Range	ENABLE/DISABLE
Default Value	DISABLE

Start IP Address

General Configuration	-
Detail Configuration	*

Details	Set the start IP address used for DHCP server function to assign the address. The value must be 4 numbers separated by dots and expressed in the format [xxx.xxx.xxx.xxx].
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

End IP Address

General Configuration	-
Detail Configuration	*

Details	Set the end IP address used for DHCP server function to assign the address. The value must be 4 numbers separated by dots and expressed in the format [xxx.xxx.xxx.xxx].
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

Subnet Mask

General Configuration	-
Detail Configuration	*

Details	Set the subnet mask for IP addresses to be assigned. The value must be 4 numbers separated by dots and expressed in the format [xxx.xxx.xxx.xxx].
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0
Note	When set to "0.0.0.0", this setting is disabled and a subnet mask appropriate for the start IP address is automatically used.

Default Gateway

General Configuration	-
Detail Configuration	*

Details	Set the gateway address. The value must be 4 numbers separated by dots and expressed in the format [xxx.xxx.xxx.xxx].
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0
Note	When set to "0.0.0.0", this setting is disabled and default gateway address is not assigned by DHCP.

DNS Server Address

General Configuration	-
Detail Configuration	*

Details	Set the DNS server address. The value must be 4 numbers separated by dots and expressed in the format [xxx.xxx.xxx.xxx].
Range	0.0.0.0 - 255.255.255.255
Default Value	0.0.0.0

Lease Time

General Configuration	-
Detail Configuration	*

Details	Set the lease time. If this is set to 0 days + 0 hours + 0 mins, the lease period will be 10 days.
Range	0 days 0 hours 0 mins - 44 days 23 hours 59 mins
Default Value	0 days 0 hours 0 mins

NTP Configuration

NTP			
		General Configuration	-
		Detail Configuration	*
Details	Enable/Disable the NTP protocol.		
Range	ENABLE/DISABLE		
Default Value	DISABLE		

NTP Server			
		General Configuration	-
		Detail Configuration	*
Details	Set the domain name or IP Address for NTP server.		
Range	In case of the domain name; Alphanumeric character string (0-128 characters) In case of the IP Address; 0.0.0.0 - 255.255.255.255		
Default Value	(None)		

Local Time Zone			
		General Configuration	-
		Detail Configuration	*
Details	Set the local time zone.		
Range	-12:00 - +12:00		
Default Value	+9:00		

Password Configuration

New Password			
		General Configuration	-
		Detail Configuration	*
Details	Set the administrator password (up to 8 ASCII characters). This password is used for authentication when changing settings from the Web configuration page.		
Range	Up to 8 characters		
Default Value	(None)		

Access Control

SSH

General Configuration	-
Detail Configuration	*

Details	Allow/Deny access using SSH via a wired/wireless LAN. When set to **ENABLE**, access to SX-AP-4800AN2 is allowed. When set to **DISABLE**, access to SX-AP-4800AN2 is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE / Wireless LAN : DISABLE
Note	This setting is active only when a root password is set on SX-AP-4800AN2.

HTTP

General Configuration	-
Detail Configuration	*

Details	Allow/Deny access using HTTP via a wired/wireless LAN. When set to **ENABLE**, access to SX-AP-4800AN2 is allowed. When set to **DISABLE**, access to SX-AP-4800AN2 is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE / Wireless LAN : DISABLE

FTP

General Configuration	-
Detail Configuration	*

Details	Allow/Deny access using FTP via a wired/wireless LAN. When set to **ENABLE**, access to SX-AP-4800AN2 is allowed. When set to **DISABLE**, access to SX-AP-4800AN2 is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE / Wireless LAN : DISABLE

SNMP

General Configuration	-
Detail Configuration	*

Details	Allow/Deny access using SNMP via a wired/wireless LAN. When set to **ENABLE**, access to SX-AP-4800AN2 is allowed. When set to **DISABLE**, access to SX-AP-4800AN2 is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE / Wireless LAN : DISABLE

Device Server

General Configuration	-
Detail Configuration	*

Details	Allow/Deny access via a wired/wireless LAN when the Device Server feature of SX-AP-4800AN2 is used. When set to **ENABLE**, access to SX-AP-4800AN2 is allowed. When set to **DISABLE**, access to SX-AP-4800AN2 is denied.
Range	ENABLE/DISABLE
Default Value	Wired LAN : ENABLE / Wireless LAN : DISABLE

Log Output - USB

USB Log Output

General Configuration	-
Detail Configuration	*

Details	Enable/Disable the USB log output. When set to **ENABLE**, the USB storage device cannot be used over a network using the Device Server feature of SX-AP-4800AN2.
Range	ENABLE/DISABLE
Default Value	DISABLE

File Size

General Configuration	-
Detail Configuration	*

Details	Specify the log file size (Mbyte).
Range	1-100
Default Value	10

Generation Number

General Configuration	-
Detail Configuration	*

Details	Specify the generation number to save the log.
Range	1-10
Default Value	2

File Name

General Configuration	-
Detail Configuration	*

Details	Specify the log file name.
Range	Alphanumeric character string (1-64 characters)
Default Value	log

TIP

Based on the specified file size and generation number, SX-AP-4800AN2 regularly creates new log files and rotates them by renaming the older version of files.

Example:
File Size: 10MByte
Generation Number: 3
File Name: log

In case of above setting, the log is created up to 3 files ("log.0", "log.1", "log.2") according the rotation procedure below.

(New) log.0 -> log.1 -> log.2 (Old)

1) When the size of log.0 reaches 10MByte, the log.2 is deleted.
2) The log.1 is renamed as log.2.
3) The log.0 is renamed as log.1 and then saved.
4) A new file log.0 is created and then saved.

Log Output - Syslog Server

Syslog Server Log Output

		General Configuration	-
		Detail Configuration	*
Details	Enable/Disable the log output to Syslog server.		
Range	ENABLE/DISABLE		
Default Value	DISABLE		

Syslog Server

		General Configuration	-
		Detail Configuration	*
Details	Set the domain name or IP Address of Syslog server.		
Range	When using domain name: Alphanumeric characters(0-128 characters) When using IP Address: 0.0.0.0 - 255.255.255.255		
Default Value	(None)		

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