SF-300

IEEE 802.11b Wireless ACCESS Bridge

Product Introduction

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Version 0.23

(The product specification is subject to change without notice.)

1. Introduction

This chapter describes the package contents, system requirements, features and benefits, applications and network configurations of SF-300 Wireless Access Bridge.

1.1 Package Contents

The SF-300 package contains the following item as shown in Figure.

1. One (1) SF-300 Wireless Access Bridge
2. One (1) 5dBi Omni rubber antenna
3. One (1) 1m RJ-45 CAT 5 Ethernet cable
4. One (1) 1m RS-232 Console Port Cable
5. One (1) 24V, 0.83A AC/DC adapter with wall-plug power cord
6. One (1) Inline power (PoE) injector
7. One (1) User manual CD-disc
8. One (1) set of wall mounting screws

1.2 Product Descriptions

The SF-300 Wireless Access Bridge is a fully interoperable with IEEE802.11b compliant product for wireless LAN system requires the use of this Wireless Access Bridge. The Wireless Access Bridge extends wireless networking capability to desktop PC, printer, scanner, medical equipment, manufacturing machinery, bar code data collection and other data collection device. It provides a reliable, cost-effective interface between device utilizing Ethernet ports and wireless LAN Access Point. The Wireless Access Bridge can move freely under the coverage area of the Access Point while remaining connected to the Ethernet network.

1.3 Product Features

- High RF Output Power 19dBm (typical)
- Power-over-Ethernet
- User authentication in Web-based manager
- MAC address based access control
- Wireless 64-/128-bit WEP encryption
- SNMP, SNMP MIB-II and proprietary MIBs (See the definition of the proprietary MIBs in **Appendix A**)

1.4 System Requirements

Installation of the Wireless Access Bridge requires:

1. A Windows-based PC/AT compatible computer or Ethernet data device with an available RJ-45 Ethernet port to run the configuration program or with TCP/IP connection to the Ethernet network.
2. A 10/100Base-T Ethernet RJ-45 Ethernet cable is connected to Ethernet network.
3. A RS-232 Consol Port cable is connected to PC/AT compatible computer.
4. An AC power outlet (100~240V, 50~60Hz) supplies the power.

1.5 Features and Benefits

Features	Benefits
11Mbps data rate	High-speed data transmission

IEEE802.11b compliant	Fully interoperable with IEEE802.11b compliant products
Output up to 100mW	Higher power provides extended range
Automatic data rate scaling at 11,5.5,2 and 1Mbps	Optimized throughput, range and connectivity
64/128bits WEP data encryption/decryption	Powerful data security
Easy configuration	Flexibly meet changing application requirements
Wide temperature range and robust mechanical design	Delivers reliable, top performance in the most demanding environments
Power-over-Ethernet	Easy install and cost-effective
Metal housing	Robust facility for vertical market

1.6 Applications

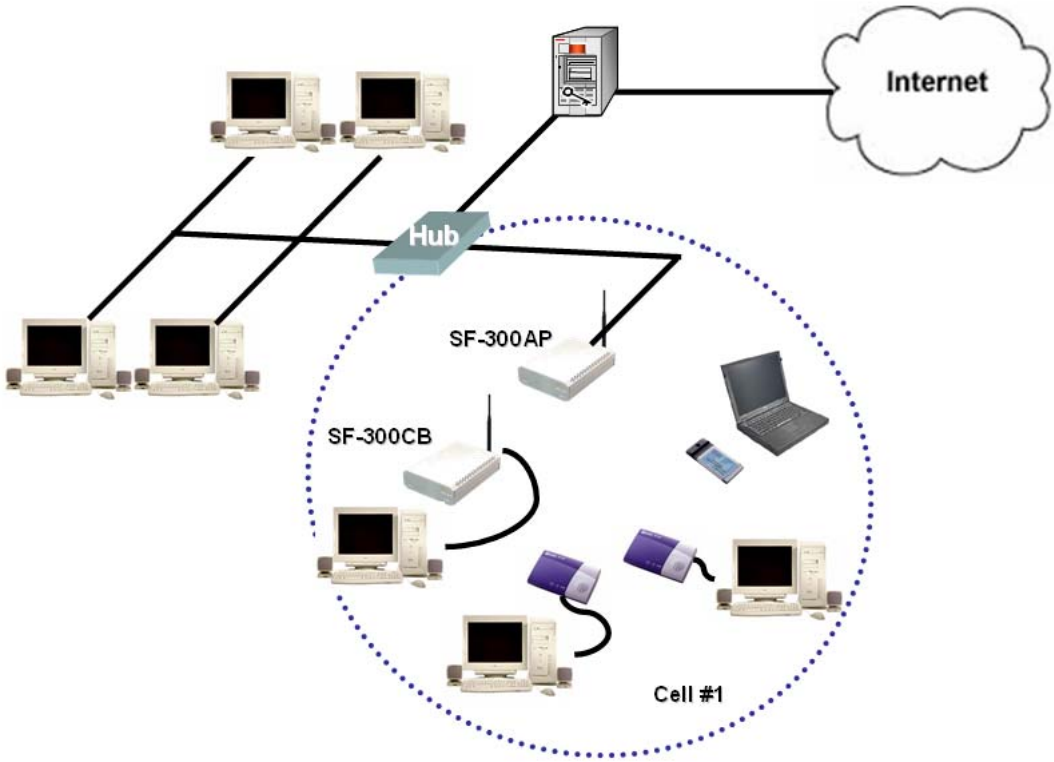
The SF-300 Wireless Access Bridge is easy to install and highly efficient. The following list describes some of the many applications made possible through the power and flexibility of wireless LANs:

1. ***Difficult-to-wire environments***
   There are many situations where wires can not or not easily be laid. Historic buildings, older buildings, open areas and across busy streets make the installation of LANs either impossible or very expensive.
2. ***Temporary workgroups***
   Consider situations in parks, athletic arenas, exhibitions, disaster-recovery, temporary office and construction sites where one wants a temporary WLAN established and removed.
3. ***The ability to access real-time information***
   Doctors/nurses, point-of-sale employees, and warehouse workers can access real-time information while dealing with patients, serving customers and processing information.
4. ***Frequently changed environments***
   Show rooms, meeting rooms, retail stores, and manufacturing sites where frequently rearrange the workplace.
5. ***Small Office and Home Office (SOHO) networks***
   SOHO users need a cost-effective, easy and quick installation of a small network.
6. ***Wireless extensions to Ethernet networks***
   Network managers in dynamic environments can minimize the overhead caused by moves, extensions to networks, and other changes with wireless LANs.
7. ***Wired LAN backup***
   Network managers implement wireless LANs to provide backup for mission-critical applications running on wired networks.
8. ***Training/Educational Facilities***
   Training sites at corporations and students at universities use wireless connectivity to ease access to information, information exchanges, and learning.

1.7 Infrastructure Modes

Infrastructure mode connects the Wireless Access Bridge Ethernet port with PC or data device is which has standard Ethernet capabilities, and requires the use of a wireless Access Point. The Wireless Access Bridge associates with an Access Point

located nearby. The Access Point sees this Wireless Access Bridge network device combination as a standard Mobile Unit (MU). The AP forms a bridge between the wired LAN and the wireless clients. In infrastructure mode, the AP is a dedicated device that is wired into the LAN backbone while the Wireless Access Bridge units can be physically moved throughout the WLAN. The Wireless Access Bridge communicates with any device on the network by routing data through the associated AP. Multiple APs with the same ESSID can be placed within the same area. The 802.11b standard enables the Wireless Access Bridge to roam among the MUs and Access Point. Re-associate occurs as long as the Wireless Access Bridge has the same ESSID as the AP it is trying to associate with.



2. Installing and Utility

This chapter describes how to install the SF-300 Wireless Access Bridge hardware.

2.1 Hardware Description

1. Power LED
   - Solid Red—Power enabled
   - Off—No Power applied
2. Ethernet link/Activity LED
   - Solid Green—Good LAN connection
   - Off—No LAN connection
3. Radio Transmit
   - Solid GREEN—Transmitting wireless data
   - Off—No wireless activity
4. Interfaces of Wireless Access Bridge
   - Antenna connector: Connect to 5dBi rubber antenna
   - RJ-45 Ethernet port: Connect to the 10/100 base-T Ethernet network.
   - RS-232 adapter: Connect to PC to configure
   - DC in connector: Connect to the 24V/0.83A DC power adapter.

Users could acknowledge the device activity status from both the LED indicators on the Ethernet Inline Power Injector and on the front panel of SF-300.

2.2 Installing the Wireless Access Bridge

The Wireless Access Bridge can be mounted in any number of locations. You can place on wall or table. We recommend you perform a sits survey to determine a proper placement for your Access Point.

To ensure the best performance:

- Place the Wireless Access Bridge as high and as middle as possible (relative to the AP in the vicinity).
- Do not conceal the Wireless Access Bridge.
- Only connect the antenna that we provided to you and screw it tightly.

2.3 Mounting the Wireless Access Bridge on a wall

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3. Connecting to network

3.1 Initial setup

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4. Troubleshooting

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