

# WiBORNE, INC.

## 802.11 b/g/n 300Mbps 2T2R Wireless PoE Hotspot Controller



**HSG-100**

The HSG-100 access control has built-in 802.11 b/g/n with data rate up to 300 Mbps, Multi-WAN/QoS with optional 3G connect public access network such as Wi-Fi hotspots, network management, guest access, global roaming, and hospitality deployments - with reliability, capacity, efficiency, and ultra security.

The HSG-100 is targeting mini-size stores that want to provide small, single-point wireless Internet access service. Feature-packed for hotspot operation, HSG-100 comes web server and web portal pages for clients to login, easy logo-loading for branding a hotspot store, simple user/visitor account management tool, payment plans, multiple credit card gateways, traffic logs, IP sharing and etc. HSG-100 is perfect single solution for the hotspot application. Optional USB slot allow you to add 3G wireless modem(s) for backup, mobile installation, or multi-WAN load-balancing connectivity.

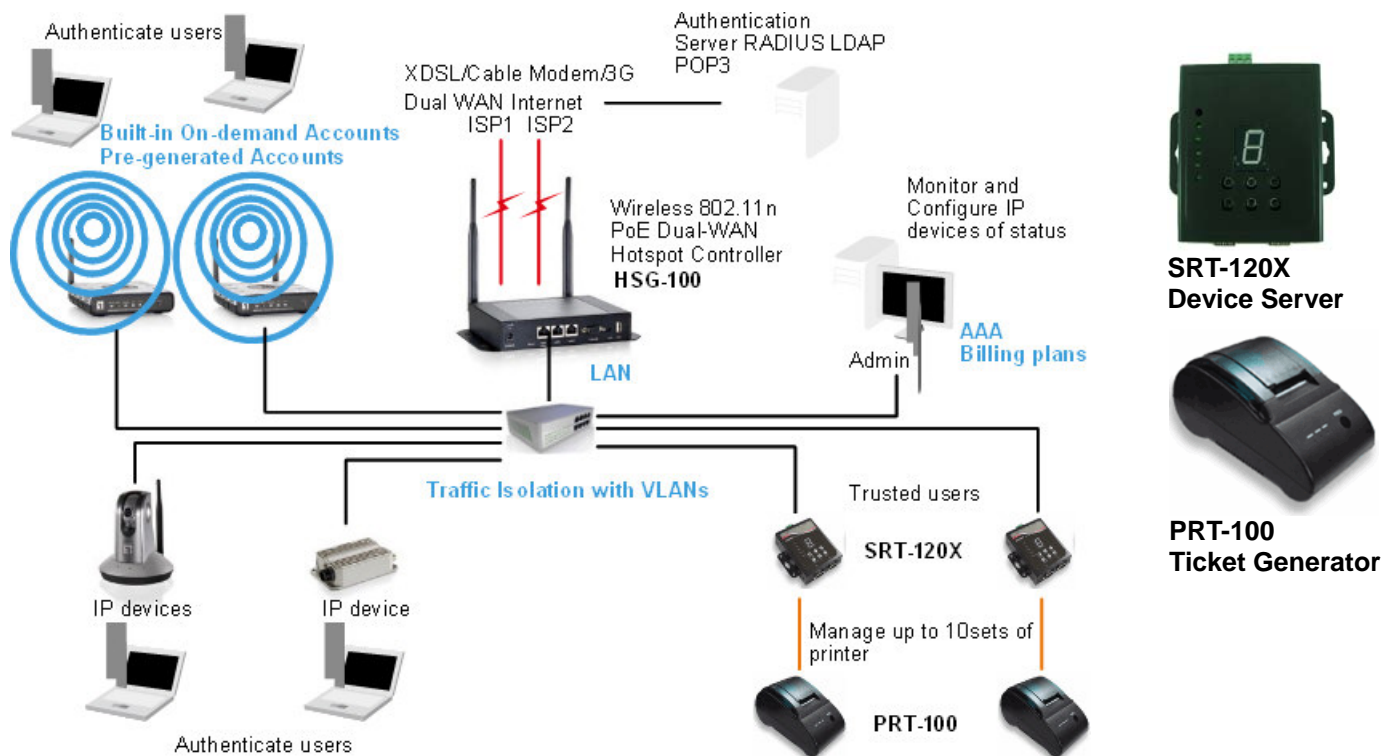
The HSG-100 supports a billing print out function, with the optional Device server SRT-120X and Ticket Printer PRT-100. The front desk can simply push the button on the Device Server which generates on-demand accounts by triggering pre-edited billing plans in the HSG-100.

This instructs the Ticket Printer to print out the information on the receipt, such as Login User Name, Password, and SSID for end-users Internet Access.

### Features:

- All-in-One single hotspot solution for beginner
- Billing system for on-demand users, PayPal ready
- Policy and quota bandwidth control without congestion while heavy loaded, QoS Enhancement
- 802.11n wireless 2 antennas with 2T/2R MIMO Technology for data rates of up to 300Mbps
- Robust broadband router functionality and firewall
- Work standalone or integrated existing network
- Supports optional 802.3af PoE for easy installation
- Stateful packet filter for firewall

- Support various broadband deployment options (T1, xDSL, cable) via static IP, HDCP and PPPoE
- WEP (64/128/152 bits), WPA/WPA2-PSK, IEEE 802.1X, and TKIP & AES Cipher auto negotiation,
- Seamless wireless / wired IP roaming
- Dual WAN for load balancing and fault tolerance, with multiple domain support and WAN connection detection
- Optional 3G USB slot for mobile WAN / internet connectivity
- Optional 12V DC input for mobility power
- Optional device server SR-120X for connection of multiple devices
- Optional PRT-100 ticket printer for instant account generator



## Technical Specification

### Model No: HSG-100 - Hotspot Controller

#### Networking

- Static IP, DHCP, PPPoE mode on WAN interfaces
- Support IP Plug and Play (IP PnP). NAT or Router modes
- Built-in with DHCP Server and support DHCP relay
- NAT: DMZ server mapping; Public Access server; IP/Port destination redirection. Configurable static routes
- Support E-mail Service via designated E-mail Server
- Walled Garden, Walled Garden Ad List to post Advertisement website links on user login portal page
- MAC-address Pass-Through
- Ethernet connection to external terminal servers
- Optional 3G USB connectivity for mobile WAN / Internet

#### Wireless Radio Specification

- WiFi standard: IEEE 802.11b/g/n in 2.4GHz with 100mW power
- Modulation: OFDM, DSSS, CCK
- Wireless Interface: 1 x 802.11 b/g/n (11/54/300 Mbps)
- 2 x 5dBi (US) / 2dBi (EU) detachable (SMA Connector) field replaceable Antenna
- 8 SSIDs and 2 WDS links:

#### Security

- WEP (64/128/152 bits), WPA/WPA2-PSK, IEEE 802.1X, and TKIP & AES Cipher auto negotiation
- 8 VLAN tags with over WDS. VPN Pass-Through (PPTP)
- DoS attack protection. Layer 2 user or AP isolation
- MAC Access Control List; Configurable User Black List
- Allows MAC address and user identity binding for local user authentication

#### Accounting and Billing

- Provide billing plans for On-demand accounts
- Various on-demand account types: Usage, Duration and Cutoff
- Session expiration control for On-demand accounts by time
- Detailed per-user usage history based on time for both local and On-demand accounts
- Traffic history report in an automatic E-mail to administrator
- Support credit card payment via external payment gateway (PayPal)
- Support RADIUS accounting, RADIUS VSA for volume-based quota of an external RADIUS server
- On-demand account batch creation
- Send automatic E-mail to report User Log, On-demand User
- Log and Monitor IP status respectively

#### Multi-WAN Support

- Outbound load balancing with policy base routing and traffic scheduling for redundancy.
- Fault tolerance for fail-over and fail-back for always on connectivity

#### User Management

- 100 Local accounts and 500 On-demand accounts for visitors
- Multiple authentication methods (Local, RADIUS x 2 and On demand). Local user account roaming
- Policy-based access control (per-role assignments based on Firewall Policies, Routing, Login Schedule, Bandwidth and Session)
- User Session Management: SSL protected login portal page. Support multiple logins with one single account. Session idle timer. Session and account expiration control. Login time frame control. Session limit
- Import/Export local and on-demand accounts from /to a CSV file

#### QoS Enforcement

- Packet classification DSCP, Traffic Analysis & Statistics, Diff/TOS,
- IEEE 802.1Q Tag VLAN priority control, IEEE 802.11e WMM with automatic mapping of WMM multiple priorities to 802.1p
- IGMP Snooping for efficient multicast delivery, Upload and Download Traffic Management with Scheduled Policies

#### Monitoring and Reporting

- Online status monitoring of users
- Uplink (WAN) connection failure alert
- SYSLOG for diagnosis and troubleshooting. User Logs for traffic recording. Event Log
- User Traffic session (TCP/UDP) logging

#### System Administration

- Web-based management User Interface
- Provide customizable login and logout portal page
- SSH remote management
- Remote firmware upgrade. Console management
- NTP time synchronization
- Backup and restore the system configuration
- SNMPv1/v2c

#### Hardware Specifications

- Metal case compliant with IP50 Standard
- WAN Port: 2 x 10/100 Base-T PoE compliant with IEEE 802.3af
- LAN Port: 1 x 10/100 Base-T
- Console Port: 1 x D89. USB Port : 1
- LED Indicators: 1 x Power, 1 x WAN, 2 x LAN, 1 x WLAN, 1 x WES (WDS Easy Setup) Button

#### Physical and Power

- AC Input Power: 100~240 VAC, 50~60 Hz. DC Output: 12V, 1A
- Form Factor: Wall Mountable
- Dimensions (W x D x H): 204 mm x 134 mm x35 mm Weight: 0.61 kg

#### Environment

- Temperature: Operating -30 ~ 70 °C; Storage -40~85 °C
- Humidity: Operation 10%~80 Storage: 5%~90 (Non-condensing)

#### Certifications

- CE, FCC, RoHS Compliant

### Model No: SR-120X - Network Device Server

- Number of Ethernet Port: 1 x RJ-45
- Speed: 10/100Mbps
- Number of Serial Ports: 2
- Serial Standards: RS-232 DB-9M
- Baud rate: 9600bps
- Configuration Option: Web Console
- Weight: 300 g
- Dimensions Without Mounting Kit: 90 x 123 x 27 mm
- Dimensions With Mounting Kit: 116 x 123 x 27 mm
- Input Voltage: 12 to 48 V DC
- Power Consumption: 200mA @ 12 V, 106mA @24 V

### Model No: PRT-100 – Ticket Generator

- Print Method: Thermal Line Printing
- Print Speed: 52 mm/sec
- Print Density: 384 dots/line or 8 dots/mm
- Paper Width: 57.5±0.5 mm x 80 (max) mm
- Interface: Serial (RS-232C)
- Character ASCII code: 12\*24 dots, or Graphic font: 24\*24 dots
- Power Supply: +8 VDC / 3.5A
- Operating Temperature: 0°C ~ +50 °C
- Storage Temperature: -20°C ~ +60 °C
- Dimension: 185mm(L) x 114mm(W) x 90mm(H)
- Weight: 900g



WiBorne, Inc. [www.wiborne.com](http://www.wiborne.com)  
[sales@wiborne.com](mailto:sales@wiborne.com)

USA Office:  
4790 Irvine Blvd., Suite 105-458,  
Irvine, CA 92620  
Tel: 1-949-903-8502  
Fax: 1-949-252-0888

Taiwan Office:  
No.5, Qiyan Rd., Beitou District,  
Taipei City 112, Taiwan  
Tel: 886-2-2898-4050  
Fax: 886-2-2896-9157