HSG326
WIRELESS HOTSPOT GATEWAY

INTRODUCTION

The 4ipnet HSG326 is an all-in-one wireless hotspot gateway solution that caters primarily to SMBs such as coffee shops or restaurants. As an access point with built-in gateway functionality, the HSG326 is ideal for businesses that wish to have an enterprise-grade Wi-Fi network for their customers, without the associated deployment costs and complexities. Featuring concurrent dual-band connectivity, 2x2 MIMO with a total data rate of 1.2 Gbps, and many wireless optimization features, the HSG326 is able to provide a wire-like performance. Additionally, the HSG326 offers a comprehensive set of user authentication, policy enforcement, and network traffic monitoring functionality, allowing businesses to gain complete visibility and control over their Wi-Fi.

The integrated guest Wi-Fi and billing platform in the HSG326 supports a wide-array of methods for guests to authenticate and obtain Wi-Fi access. Guests can register by e-mail, SMS, or popular social media platforms such as Facebook, and also have the option to pay for premium access with increased bandwidth directly via their own PayPal accounts. Alternatively, businesses can choose to deploy 4ipnet's WTG ticket printer to easily create user accounts on-demand at the front desk.

With the HSG326, small business owners can move beyond just providing free Wi-Fi to their customers. Customizable captive portals and social media login are now valuable sources for obtaining direct customer information, which in turn allows for better understanding of customers and more effective marketing campaigns. Manageable Wi-Fi is increasingly becoming a necessity for SMBs that wish to offer a secure and reliable Wi-Fi environment, and the HSG326 is the ideal product to meet these needs.

HIGHLIGHTS

- All-in-one: built-in Wi-Fi and user access control
- Integrated guest Wi-Fi platform supporting Facebook, Google+, Line and OpenID
- Tiered Wi-Fi service with usage quotas by bandwidth, volume, and duration
- Quick integration with 4ipnet WTG ticket printer for guest on-demand account generation
- Detailed user browsing histories and network statistics
- 802.11ac 2x2 MIMO supporting a total data rate of 1.2 Gbps across both radios
- Up to 4 Service Zones, each with completely customizable captive portals and network configurations
- Built-in gateway functionality including DHCP, NAT, and routing profiles
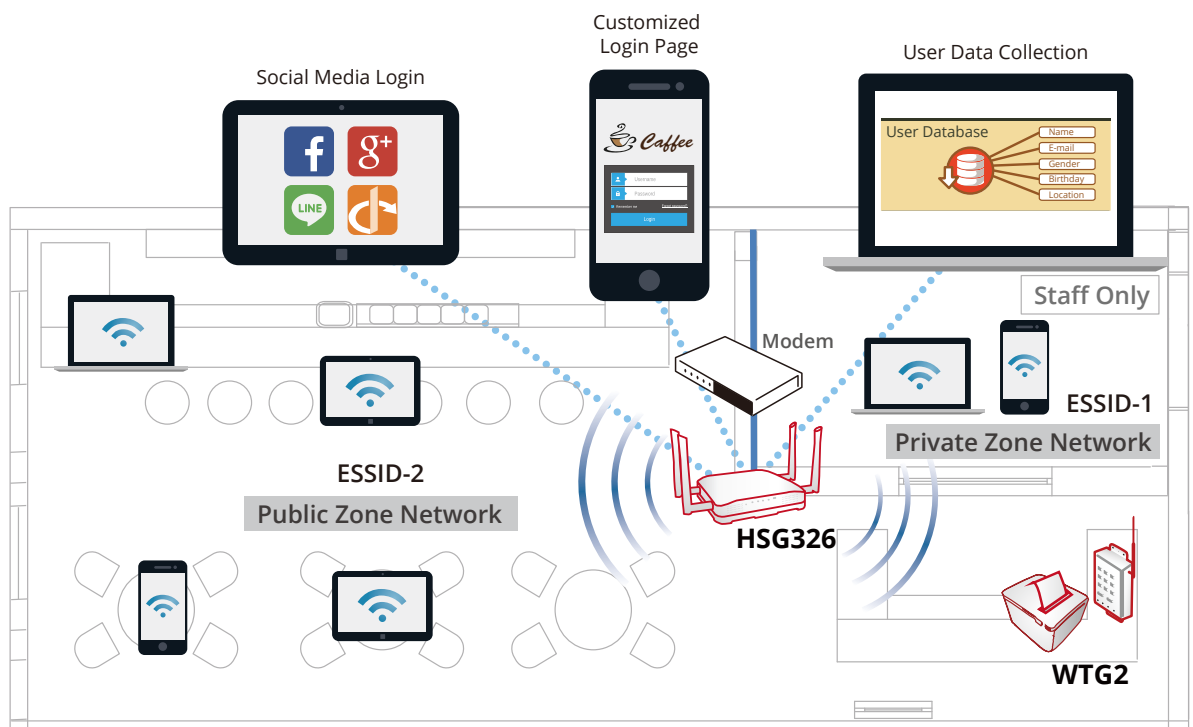
Complete User Management

The HSG326 provides organizations with the same level of security as large enterprises, such as 802.1X user authentication with detailed role-based policy enforcement. Through the combination of roles, scheduling, and profiles, network administrators can control each user's bandwidth, traffic priorities, routing, and much more. Furthermore, HSG326 support numerous network logs and reporting mechanisms, such as the HTTP Web Log that records visited website histories of all users. The business owners can easily trace internal to external network addresses when illegal or suspicious activities are performed. Managing user access and user logs and reports are more important than ever for organizations needing to ensure reliable and secure Wi-Fi performance.

Easy Guest Login with Customer Insights

The HSG326 provides multiple guest self-registration methods, guests can easily login via their e-mail, SMS, or using their Facebook, Google+, Line, or OpenID accounts, while business owners can collect and use user information such as name, e-mail, gender, birthday, and location to implement more effective marketing and advertising campaigns. With these information, business owners can better understand their target audience and optimized product offerings and promotional programs, resulting in more effective campaigns and increased revenue.

Integration with Wireless Ticket Generator

When the HSG326 is connected to a 4ipnet WTG-series Wireless Ticket Generator, a Wi-Fi network with an advanced ticketing system is established. The WTG-series can create an on-demand account and print out the login credentials with matching QR codes in just a couple of seconds. Hotspot providers can easily enhance wireless security by giving different passwords to each guest, and with the credentials printed on tickets, guests no longer need to remember any complicated passwords. Finally, users with mobile devices can simply scan the QR code, enjoying Wi-Fi connectivity without all the troublesome login procedures.

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SPECIFICATIONS

PHYSICAL	
Power	◆ DC Input: 12V / 2.5A ◆ PoE: 802.3af compliant (PoE injector optional)
Dimensions	◆ 10.7 cm (L) x 12.1 cm (W) x 2.1 cm (H)
Weight	◆ 120 g (0.26 lbs)
Interfaces	◆ Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3af PoE ◆ Alternate Uplink*1: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, 110 Punch-down block with 802.3af PoE ◆ LAN*2: 2 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 ◆ Bypass: 1 x 110 Punch-down block (back) with 1x RJ-45 (side) ◆ USB: 1 x USB 2.0 Charging Port
LED Indicators	◆ Power ◆ 1 x Wireless Status ◆ 1 x Uplink ◆ 1 x WES*3
Buttons	◆ Reset / Restart ◆ 1 x WES*3
Environmental Conditions	◆ Operating Temperature: 0°C (32°F) to 45°C (113°F) ◆ Operating Humidity: 0% to 80% non-condensing
Power Consumption	◆ 12W max.
Antenna	◆ Type: 4 x SMA (2 x 2.4 GHz, 2 x 5 GHz) ◆ Gain: 2 dBi (2.4 GHz), 2.5 dBi (5 GHz)
Mounting	◆ Wall mount (Mounting bracket included) ◆ Desktop
Tamperproof Mounting Kit Lock	

WIRELESS PERFORMANCE	
Physical Data Rate	◆ Up to 300 Mbps (2.4 GHz) ◆ Up to 867 Mbps (5 GHz)

WIRELESS SECURITY	
Wireless Security	◆ WEP ◆ WPA/WPA2 Mixed ◆ WPA2-Personal ◆ WPA2-Enterprise (802.1X) ◆ TKIP and AES Encryption
VLAN Tagging(802.1Q)	
Station Isolation	
Layer 2 Firewall	
DHCP Snooping	

WI-FI	
Standards	◆ 802.11 a/b/g/n/ac ◆ Concurrent dual-band 2.4 & 5 GHz
Supported Data Rates	◆ 802.11b: 1, 2, 5.5, 11 Mbps ◆ 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps ◆ 802.11n: 6.5 – 144 Mbps (20 MHz) ◆ 802.11n: 13.5 – 300 Mbps (40 MHz) ◆ 802.11ac: 6.5 – 173.4 Mbps (20 MHz) ◆ 802.11ac: 13.5 – 400 Mbps (40 MHz) ◆ 802.11ac: 29.3 – 866.6 Mbps (80 MHz)
Radio Chains	◆ 2 x 2
Spatial Streams	◆ 2
Output Power	◆ 2.4 GHz: Up to 19 dBm*4 ◆ 5 GHz: Up to 21 dBm*4
Channelization	◆ 20 / 40 / 80 MHz
Frequency Band	◆ 2.412 – 2.472 GHz ◆ 5.180 – 5.825 GHz
Operating Channels	◆ 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan) ◆ 5 GHz*5: 36 – 165 (US), 36 – 140 (Europe), 36 – 140 (Japan)
ESSIDs	◆ Up to 4

USER AUTHENTICATION	
Authentication Types	◆ 802.1X ◆ UAM (browser-based) ◆ IP or MAC-based
Authentication Servers	◆ Local ◆ On-Demand ◆ Guest ◆ RADIUS
Social Media Login	◆ Facebook ◆ Google+ ◆ Line ◆ Open ID
Customizable Captive Portal	◆ Yes
Customizable Walled Garden	◆ Yes
Integrated Guest Access	◆ Yes
Local Account Database	◆ Yes
User Blacklisting	◆ Yes
HTTPs Login Redirect	◆ Yes

*1: The uplink and alternate uplink ports can not be used simultaneously
*2: LAN1/Uplink 2: The uplink 2 interface reserved for future use
*3: Reserved for future use
*4: Maximum power is limited by local regulatory requirements
*5: Some channels are restricted by local regulatory requirements

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USER MANAGEMENT

User Policy Assignment	• Role-based • Time & location dependent
Bandwidth Limitations	• Yes
Traffic Classification / Remarking	• Yes; 802.1p / DSCP
Stateful Firewall	• Yes; each role with individual enforcement schedules
Static Route Assignment	• Yes
Concurrent Session Limit	• Yes
Client Change Password Privilege	• Allow authenticated users to modify their own login password

NETWORK SERVICES

Internet Protocols Supported	• IPv4
DHCP Server	• Yes
DHCP Relay	• Yes
Network Address Translation	• Yes
Built-in HTTP Proxy Server	• Yes
Local DNS Records	• Yes
Integrated Billing & Accounting System	• Yes
Billing Quota Types	• Duration • Volume • Time

DEVICE MOBILITY

802.1X Preauthentication	• Yes
Multiple Device Logins per Account	• Yes

SYSTEM CAPACITY

Local Accounts	• Up to 2,000
On-Demand Accounts	• Up to 2,000

SYSTEM MANAGEMENT

Browser-Based Configuration	• Administer the system from any standard web browser
Administrator Accounts	• Multiple tiered access privileges • Monitor each admin's current accessed page
System Time	• Automatic synchronization (NTP)
System Backup & Restore	• Yes
SNMP	• Yes; v1/v2c
Network Utilities	• Yes; built-in packet capture

SYSTEM & NETWORK STATUS

Traffic Volume Reports	• Yes
Online Device Monitoring	• Yes
Active Sessions List	• Yes
SMTP (E-mail) Notifications	• Yes
Multiple Concurrent E-mail Notification Receivers	• Yes

NETWORK ACTIVITY LOGS

System Log (SYSLOG)	• Yes
Configuration Change Log	• Yes
RADIUS Server Log	• Yes
Web-based User Authentication Log	• Yes
User Events Log	• Yes
User Browsing History	• Yes

RECEIVE SENSITIVITY

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-92
	11 Mbps	-87
802.11a	6 Mbps	-89
	54 Mbps	-71
802.11g	6 Mbps	-92
	54 Mbps	-75
802.11n (HT20)	MCS0	-91
	MCS7	-73
	MCS8	-90
	MCS15	-71
802.11n (HT40)	MCS0	-88
	MCS7	-69
	MCS8	-87
	MCS15	-68
802.11ac (VHT20)	MCS0	-88
	MCS8	-64
802.11ac (VHT40)	MCS0	-86
	MCS9	-59
802.11ac (VHT80)	MCS0	-85
	MCS9	-69