

Advanced Hotspot Gateway Products

*WiFi Hotspots made easy
so you can provide a
better Internet service for
your guests and visitors*



A Guide to the Operation of Guest Internet Hotspot Gateway Products

Revision 2.3 Software



Manual Revision 2.3.7



FCC STATEMENT

Class A Digital Device

This equipment complies with Part 15 of the FCC rules. Operation is subject to the following conditions.

1. *The device may not cause harmful interference.*
2. *This device must accept any interference received, including interference that may cause undesired operation.*

Federal Communications Commission Notice

This equipment complies with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference.

The equipment can radiate radio frequency energy. If not installed and used in accordance with the instructions in this manual, it may cause harmful interference to radio, television or telecommunications reception, which can be determined by turning the equipment off and on. The user is encouraged to try and correct the interference by one or more of the following measures.

- *Reorient or relocate the receiving antenna*
- *Increase the distance between the equipment and the receiver*
- *Power the equipment via a different electrical circuit from that which the receiver is connected*
- *Consult the dealer who installed the equipment, or an experienced radio frequency technician*

Modifications

The FCC requires that no changes or modifications may be made to this device that are not expressly approved by FIRE4 Systems Inc, and Guest Internet Solutions. Any unauthorized changes may void the users authority to operate the equipment.



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Introduction

You are planning to use a Guest Internet gateway to provide a WiFi hotspot Internet service for people that frequent your business. First be aware of an issue with wireless routers that will prevent your WiFi hotspot working if the wireless router is not configured correctly. Please avoid using wireless routers unless you are familiar with configuring them as bridge mode access points. Note also that wireless routers intended for residential use have limited range and you will have much better wireless coverage by installing a commercial grade high power access point.

Our customers requested the new features included with this firmware release (listed below). We work very hard to ensure that our customers get the product features that they need. We always value feedback from our customers regarding new features that they would like to have in future versions. If you have a request for a new feature then please contact us at: info@guest-internet.com with your suggestions.

AVOID USING WIRELESS ROUTERS WITH GUEST INTERNET GATEWAYS

All GIS gateway products authenticate users by issuing an IP address to each user, and recording the MAC address of each users computer. The GIS gateway requires a wireless access point to be connected for WiFi access. If a wireless router is used to connect users then the login and authentication process will become intermittent. DO NOT use a wireless router such as the Linksys WRT-54G unless you are familiar with NAT'ing devices and how to disable the NAT'ing service. A wireless router, such as the Linksys WRT-54G, can be used if (a) the WAN port of the router is left disconnected, and (b) the router DHCP service is disabled.

Always install the GIS gateway together with a wireless access point configured in bridge mode (default mode) to the GIS gateway LAN port. We recommend that you use high power, long range commercial grade access points with GIS gateway products, such as those manufactured by Engenius and Ubiquiti.

Wireless routers intended for residential use have a limited range and area of coverage due to low RF power output. Wireless routers are generally not suitable for a hotel or restaurant wireless Hotspot installation.

UPGRADING EARLIER FIRMWARE

Upgrades are always free:

Guest Internet products can be upgraded to the latest firmware specification free of charge. Please see our website support page to request a firmware update. Install the upgrade file using the firmware upgrade feature in the menu. When the upgrade has been initiated leave the unit powered up for 10 minutes before using it or powering it down. This time is required to store the new firmware in the processor memory.

NEW GATEWAY FEATURES

Data collection on login

The user login process will have user response fields that can optionally be included in the login process. On completion of the login process the user responses are sent via email to the hotspot operator.

GIS-R10/R20 monitoring

The device table has been increased to 100 entries

GIS-R10 / R20 port forwarding

The forwarding rules table has been increased to 100 entries

Ticket printer

All GIS gateway products can be used with the Guest Internet ticket printer (GIS-TP1) that will print access codes on demand using any tablet computer.

FUTURE GATEWAY FEATURES

Global Management:

The gateway firmware can be upgraded to become a managed node in the Guest Internet 2-tier server based management and accounting system. Guest Internet will offer a server that includes: central management of devices and groups of devices, central failure monitoring of devices, comprehensive reporting that includes usage and billing for both devices and groups, global access codes, and credit card reporting. The management system is suitable for a multi-device, multi-site network and there are no restrictions on the number of managed devices.



1: Provide a Public Internet Hotspot Service for your Guests and Visitors

Many restaurants, bars, hotels and motels offer free wireless Internet for guests, or charge guests for the Internet service. Guests and travelers make reservations based on Internet availability because they have gadgets that use wireless Internet: iPhones®, iPod Touch®, laptop computers, and Blackberries®

Our products provide an easy and economical solution for any restaurant or lodging business that wants to begin offering Internet for guests, or wants to upgrade an existing system.

Restaurant and lodging businesses that already provide Internet for guests can install our products to improve their Internet service quality and increase returns.

- Our low cost products are tough, reliable and very simple to install and can be used in many different applications
- You can brand your Internet service with our easy to use wizard
- Use your guest Internet service to advertise your special offers and promote your website
- You can control Internet access to prevent guests abusing the service
- Choose to provide free Internet or charge guests for your Internet service

Many locations can benefit by providing Internet services to the public. Business benefits include improved sales, more returns, and more walk-in customers.

- | | |
|-------------------|----------------------|
| • Restaurant | • Train station |
| • Coffee bar | • Music concert |
| • Public library | • Theater |
| • Truck stop | • Golf club |
| • Motel | • Casino |
| • RV park | • Sports club |
| • Visitor center | • Gymnasium |
| • Public park | • Bookstore |
| • University | • Beach kiosk |
| • Student dorms | • Hospital |
| • Marina | • Airport |
| • Fashion show | • Shopping mall |
| • Bus station | • Hotel |
| • Trade show | • Resort |
| • Event reception | • Multi-tenant condo |
| • Fashion show | • Church |

Internet access can be offered for free or can be charged for by selling access codes. Advertising can also generate revenue for both free and charged Internet access. Free controlled access can be provided where authorized customers are provided with access codes. The duration of access codes is selected when they are generated.



Guest Internet gateway products are very robust and reliable as they are manufactured to commercial grade standards. Wireless access points can be connected to the gateway to provide WiFi wireless Internet. Any type of WiFi enabled device can receive the signal: including PC laptops, MAC computers, netbook computers, iPhones™, and Blackberries™.

Guest Internet products have a 'login page' that requires the user to agree to the terms and conditions, and possibly pay a fee for an access code. The business owner decides if Internet will be free or if guests will pay for the service.



Login Display



The login page is very important for the business providing the Internet service as it has several essential features:

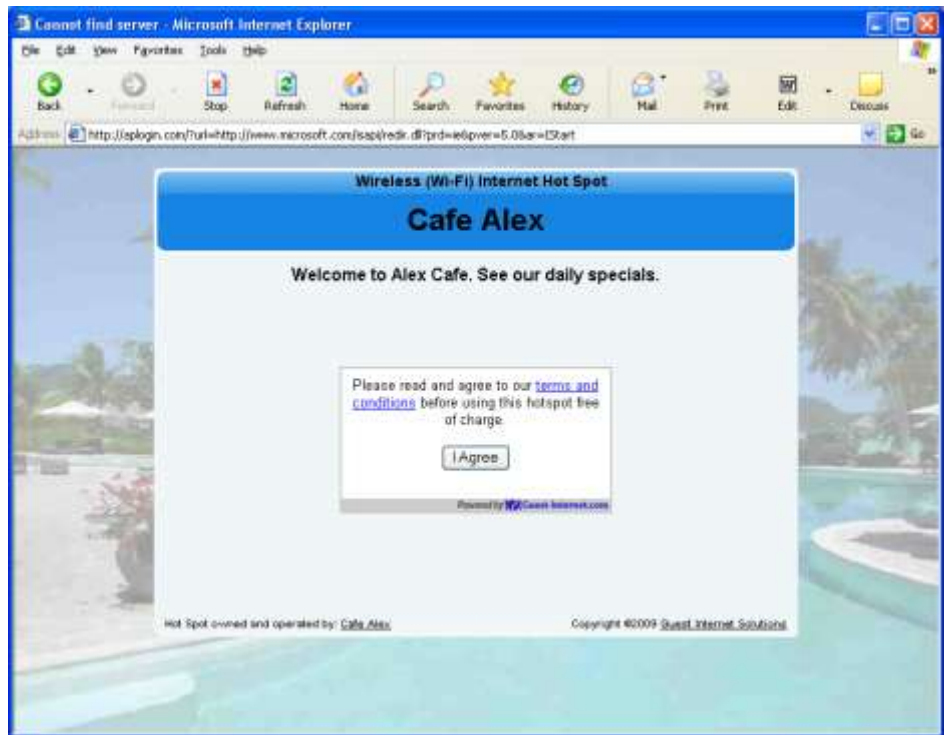
- Brand the Internet service
- Provide the business contact information for guests
- Encourage the guest to go to the business Web site
- Guests must agree to a disclaimer, so the business avoids liability
- Advertise products or services provided by the business
- Control who uses the Internet with access codes
- Charge for Internet access by selling access codes

This manual explains how to install a Guest Internet gateway product and create a custom login page ready for guests to access the Internet. The only decision you have to make is if you will provide free Internet or charge for the service.

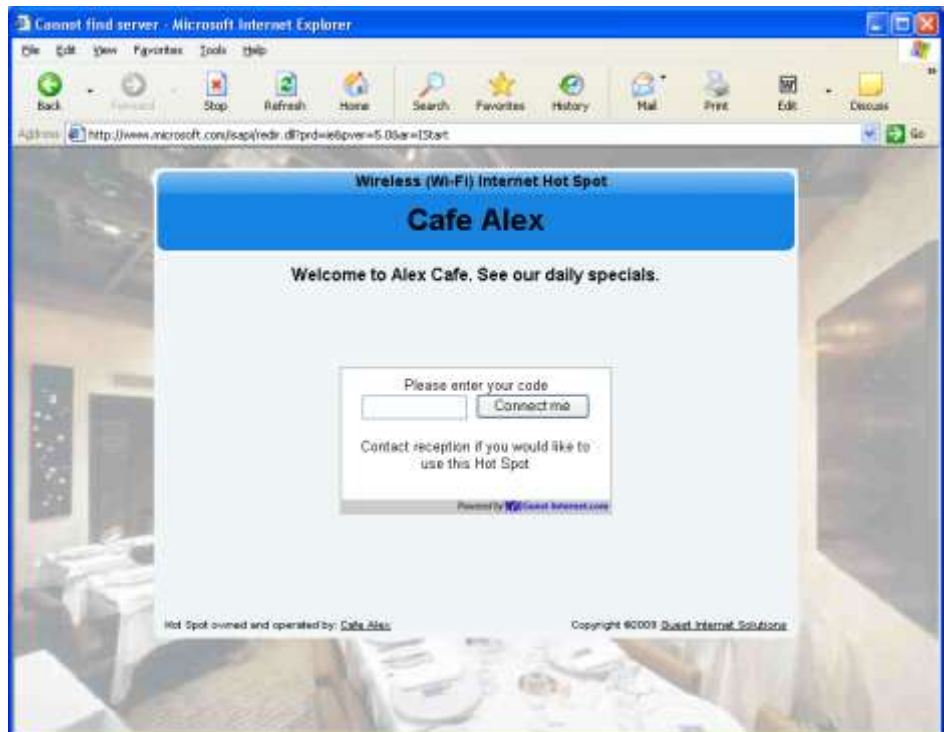
Two login page examples are shown below. The first is an example of unlimited access where the user has to click on a button agreeing to the terms and conditions. The second example shows controlled access: the user has to enter an access code that has been generated using the code management admin page



Login Page Example: the user has to accept the terms and conditions



Login Page Example: in addition to accepting the terms and conditions, the user has to enter an access code provided by the business owner



2: Principal features of Guest Internet Gateway Products

When any business provides an Internet service for guests, visitors and customers, it is very important to prevent abuse of the services, otherwise bad things can happen;

People are using your Internet service without your consent.

A free service can become a headache if users start complaining about the poor performance of the Internet service.

Users start surfing inappropriate website in public areas.

The DSL or Cable service provider can threaten to disconnect the service because users are sharing illegal files.

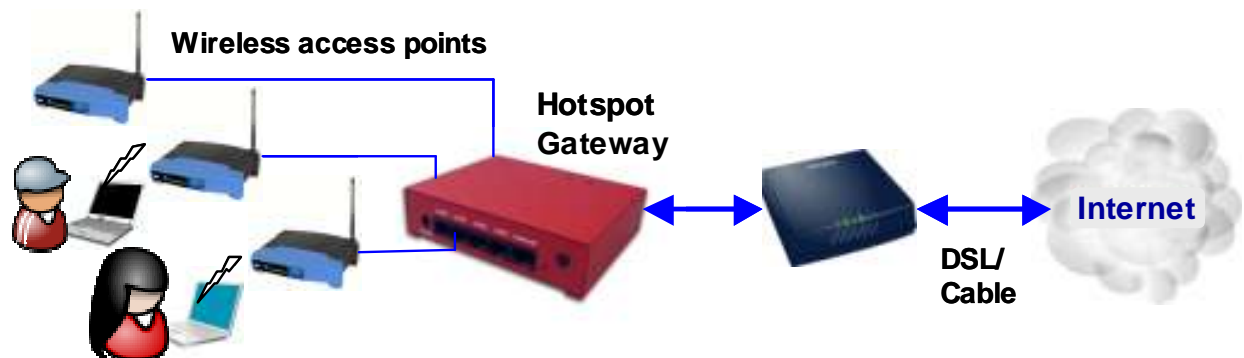
A free service starts costing the business a significant amount of money as use is far greater than expected

The Hotspot gateway give you control of the Internet service that you provide for your guests, visitors and customers. You can prevent unauthorized use, and prevent any authorized user abusing the service.

The Hotspot gateway is installed in your network between the wireless access point, and the DSL or Cable router. See the diagram below. All communications between your users and the Internet flows through the Hotspot Gateway. The gateway allows Internet access for authorized users, and blocks people not authorized. The gateway also controls how users access the Internet. You choose how your users will access the internet by choosing to set the features described in this manual.

The gateway is very easy to setup and use. A setup Wizard will be displayed on your computer the first time that you connect your computer to the gateway. Simply follow the steps described in the Quick Start Guide that is shipped with the product.

Connecting the Hotspot Gateway



Choosing the Right Hotspot Gateway

Guest Internet manufactures a range of Hotspot gateways that provide different levels of performance and features. The gateway performance is specified as the number of users that can use the Hotspot simultaneously. This is called the maximum number of concurrent users. The maximum number of concurrent users can only be reached when the Internet connection has a minimum speed. The maximum number of concurrent users is also reduced when several users are downloading large files such as video or music files. The following summary (next page) lists the Guest Internet products, and the parameters for each product.



Login Page

The login page is the most important feature of the Hotspot gateway. All Guest Internet gateways provide three levels of login page customization;

Twelve pre-prepared login pages are contained in the gateway, choose one of the twelve login pages when answering the setup Wizard questions.

Any photo or design background can be uploaded in a JPG format and displayed as part of your login page. Combine a photo of your business and include your logo using Photoshop® to create a custom login page.

Design and program your login page using HTML. This procedure takes longer but gives the best results. Create a login page that looks like your website and then create a 'Walled Garden' to make sure that your users are familiar with your website.

Disclaimer Text and Editor

When any user connects to the Internet they have to click a button and agree to the terms and conditions of use. This is very important and protects the service provider from possible legal action at a later date.

A standard disclaimer text is installed that is appropriate for US laws. A disclaimer editor permits the text to be modified so that additional requirements can be added, or the text can be translated to a different language.

Access Codes

The login page can be setup so that the user only has to click on a button to agree with the terms and conditions, however there is no control over who can access the Internet.

Alternatively the gateway can be setup in the controlled access mode. Users can be authorized to access the Internet by generating access codes and giving one to each user. Access codes can have a time duration from 30 minutes to 180 days and can also be unlimited. An access code can also be terminated at any time.

Access codes ensure that only authorized users get access to the Internet.

Reports of Usage

The Hotspot use can be monitored at all times by checking the usage report. This report shows the number of users connected (obtained IP addresses) and authenticated (entered a valid access code). The MAC address of each user is shown and the bytes each user has transferred has shown. Any users abusing the Hotspot service can be easily seen. A check box is provided to include the users MAC address in the blocked MAC list, thereby preventing the user accessing the Internet.

Timer/Calendar for Availability

Many Hotspots are available 24x7 in businesses such as hotels. However the Hotspot in a dental office should only be available during business hours e.g. 9AM to 5PM). A 7-day timer /calendar is provided to set availability of the Hotspot in 1 hour increments. Outside the time that the Hotspot is activated the user will get a login screen with the message 'Hotspot not available'.

Content Filter

The content filter blocks access to websites that are not suitable for a public environment. Content filtering services are provided by **OpenDNS** who have a basic free service and a range of paid services when advanced content filtering rules are required.

Bandwidth Control

All gateway products provide an overall bandwidth control where download and upload speeds are set independently. In addition each access code can have a download and upload speed associated that will override the overall bandwidth setting.

This feature enables tiered use of the Hotspot. A basic free low speed service can be provided, and augmented with a paid service where the bandwidth is much higher. Typical applications for such a service are student accommodation and motels.

Firewall

GIS gateway products include a firewall that stops users on the public network (DMZ) accessing computers in the business network behind the gateway. This feature permits the public network and business network to share one DSL or Cable circuit.

The GIS-K2 also includes a second firewall that protects business computers (such as PoS terminals) from access via the Internet.

Remote Management

All gateway products can be managed from a remote location, provided that the network DSL or Cable service has a fixed IP, and that the DSL/Cable router has a port forwarding



feature to provide access to the Hotspot gateway.

In the case where the DSL or Cable service has a dynamic IP allocation the Hotspot gateway can be accessed remotely using the **DynDNS** service. The Hotspot gateway has a DynDNS agent installed to permit the network IP address to be located via the DynDNS server. A free test account is provided by DynDNS, and the monthly account fee is very low.

Remote access to Wireless Devices via Port Forwarding

The Hotspot gateway port-forwarding feature allows access to devices from outside the network (wireless access points) that are connected in the public network (gateway LAN ports). This feature can be used in conjunction with the monitoring and alerting feature to provide complete remote management and support for the Hotspot network.

Monitoring and Alerting

It is very important that a Hotspot operator find out that a wireless network has problems before the users do to avoid stressful calls and complaints. All our Hotspot gateways can monitor LAN attached devices, such as wireless access points, for failure. The failure warning is sent out via email to the owner or operator of the network. The installer can use an existing email SMTP service to send the message. In many cases however the network provider who offers the email service is not the one that the gateway is connected to.

All our gateway products have an agent for the **SMTP2go** service that permits an email to be sent out from any network. The SMTP2go service has a very low monthly charge and the benefits of this service far outweigh the small cost.

Allowed and Blocked IP and MAC Addresses

When any computer connected to the public network must access the Internet without requiring the login page then the device MAC address is included in the MAC bypass table.

Web sites that must be seen by users without login can have their IP addresses or URL's included in the IP bypass table. This feature permits a walled garden login when implemented in conjunction with the custom login page feature.

When users abuse the Hotspot service then their computer MAC addresses can be blocked. Look in the usage report table and identify users who are causing a lot of traffic. Then click on the block MAC address to block that user from the Internet.

Network Port Configurations

The LAN port configuration is set permanently as a DHCP server. The reason for this is that IP addresses must be allocated to users as the IP's are used to authenticate each user. Other LAN port parameters can all be modified. The DHCP start and end addresses are used to set the limit for the maximum number of users.

The WAN port can be either a DHCP client or can have a fixed IP. When the content filter is activated the WAN DNS settings are replaced with those of OpenDNS.

Backup and Restore the Configuration

The product configuration can be saved in a backup file. If the product is replaced or configuration changes are made but previous settings are required then the configuration file can be restored.

The configuration file of any gateway model can be restored on any other gateway model. All gateway models use an identical file structure.

Upgrade Firmware







Firmware upgrades are released periodically for all gateway products. The upgrades include new features that have been requested by customers. We also work on product performance improvements. Firmware upgrades are free for our customers. There will never be a charge for the latest firmware.

Summary







The tables below summarize the features provided with each product model



Performance







Performance	GIS-K2	GIS-R2+	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 Recommended maximum number of concurrent users (no limit is imposed)	50	50	100	100	150	200	250	250	500
 Maximum throughput (bits/second between the LAN and WAN ports)	20 Mb/s	10 Mb/s	20 Mb/s	20 Mb/s	30 Mb/s	40 Mb/s	45 Mb/s	2x45 Mb/s	2x100 Mb/s
 Access code database size, maximum number of entries, recycled when codes expire	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
 Robust commercial grade equipment suitable for any business environment	✓	✓	✓	✓	✓	✓	✓	✓	✓
 LCD status display showing time, users, and system error messages					✓	✓	✓	✓	✓
 Built-in WiFi Wireless providing an area of coverage of 2000 sq ft	✓								

Access Control







Access Control	GIS-K2	GIS-R2+	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 Login page: library or custom login page with disclaimer editor	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Access control: generate pass codes with many duration and control options	✓	✓	✓	✓	✓	✓	✓	✓	✓
 7-day timer-calendar which limits Internet access to business opening hours	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Connected, authenticated and blocked user status information	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Content filter: adult website blocking for a family friendly service	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Speed control: prevent data hogs consuming your bandwidth	✓	✓	✓	✓	✓	✓	✓	✓	✓






Management

Management	GIS-K2	GIS-R2+	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 Remote access allows management of the gateway from anywhere in the world	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Data logging permits tracking of Internet use with report downloads	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Log hotspot user information, archive via email to comply with laws and regulations	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Management of network devices remotely via port forwarding (# of devices)	25	25	25	25	25	25	25	100	100
 Failure monitoring: receive an email alert if a wireless AP fails (# of devices)	25	25	25	25	25	25	25	100	100
 Backup and restore: save the configuration data for configuration recovery	✓	✓	✓	✓	✓	✓	✓	✓	✓







Security

Security	GIS-K2	GIS-R2+	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 PCI compliant firewall protects your business computers from data theft	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Virus and Trojan blocking which eliminates network performance problems	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Block illegal P2P downloads to avoid Internet service disconnection lawsuits	✓		✓	✓	✓	✓	✓	✓	✓
 Block websites so hotels can prevent loss of income such as pay-per-view	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Track individual network usage and ban / restore abusive users	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Increase reliability with multi-WAN load balance and fail-over								✓	✓

Billing

Billing	GIS-K2	GIS-R2+	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 Hotspot credit card billing via PayPal with no Guest Internet commission to pay	✓		✓	✓	✓	✓	✓	✓	✓
 Credit card charge reporting via spreadsheet download and email announcement	✓		✓	✓	✓	✓	✓	✓	✓
 Subscription service via a custom website that interfaces with the API	✓	✓	✓	✓	✓	✓	✓	✓	✓

Benefits

Benefits	GIS-K2	GIS-R2	GIS-R3	GIS-R4	GIS-R5+	GIS-R6+	GIS-R8	GIS-R10	GIS-R20
 Setup wizard: plug and play, very easy to install and operate	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Free lifetime firmware upgrades for all models	✓	✓	✓	✓	✓	✓	✓	✓	✓
 3-year gateway product warranty	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Free technical support with a knowledgeable engineer	✓	✓	✓	✓	✓	✓	✓	✓	✓
 Integration with property management systems and point of sale terminals	✓	✓	✓	✓	✓	✓	✓	✓	✓
 System expansion peripherals available: <u>Ticket printer</u> 13/Q2: <u>Central server</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓

Integrated Solution

Guest Internet is committed to providing customers with an integrated product solution and we work with partners to achieve this goal.

Partners provide us with value-added channels and with additional functionality that we don't provide. Currently we have four functionality partners.

SMTP2go: Additional SMTP services for the gateway mail server

OpenDNS: Content filtering using their DNS service

DynDNS: Remote access service when the gateway network has a dynamic IP

PayPal: Payment services for the credit card billing feature



3: Choose to Provide Unlimited Internet Access or Controlled Internet Access

Before installing the Guest Internet router product you must decide if you want to provide unlimited Internet for your guests or if you want to control the access your guests have to Internet services.

Both unlimited access and controlled access show the guests your login page when their computer browser opens. Both options also require guests to click on a disclaimer button accepting the terms and conditions of use. You can edit and change our standard disclaimer document. The disclaimer is important to protect you if your guests download copyrighted files or illegal content.

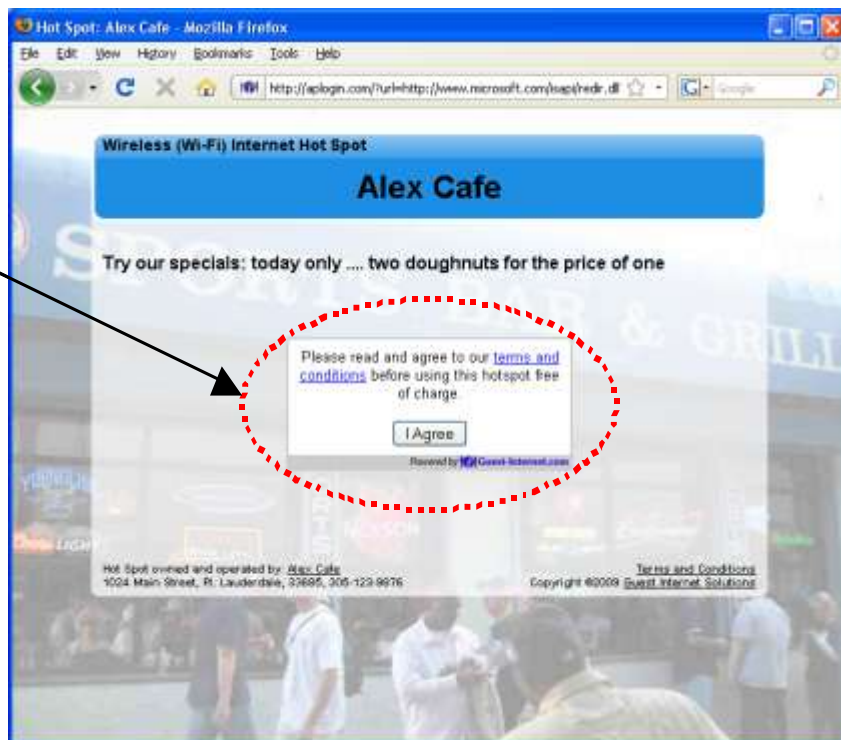
Controlled access also adds the requirement that the guest must enter an access code. You generate the access codes using the Guest Internet gateway product and you determine who gets access codes and who does not. If you wish you can charge your guests for access codes. Please read later sections describing access code generation.

Unlimited Internet Access

When unlimited Internet access has been selected during the configuration wizard setup process the guest tries to access the Internet but sees the custom login page in the browser. The custom login page provides business contact information that may be useful for the guest. A box is shown on the page that requires the guest to click on a button that says "I agree to the terms and conditions of use". The guest can read the terms and conditions of use document. The terms and conditions of use document can be modified to include local laws (see the later section).

Login Box

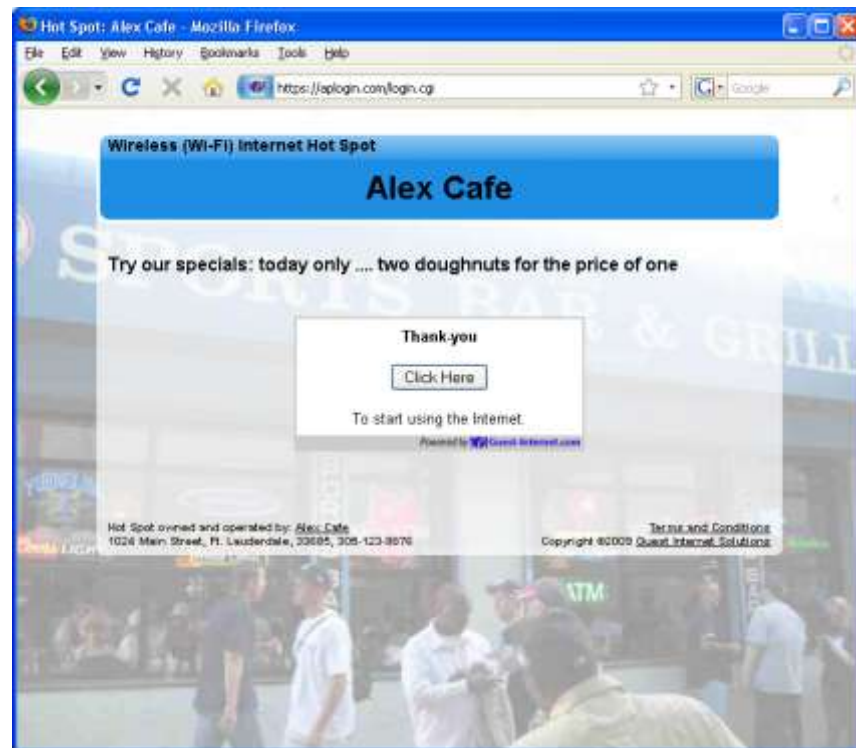
Click on 'I agree' to disclaimer



When the guest has clicked on the button then a second page is shown with a button that says click to access the Internet. When this button is clicked the guest has access to the Internet. The web page that the guest initially requested (the guests home page) is also shown.

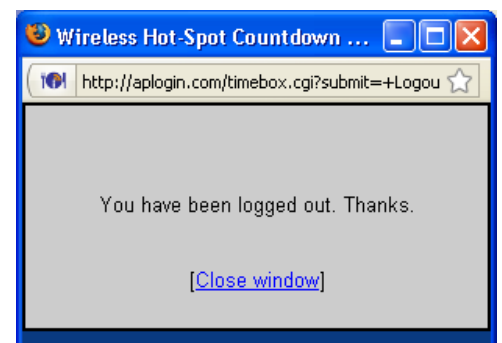
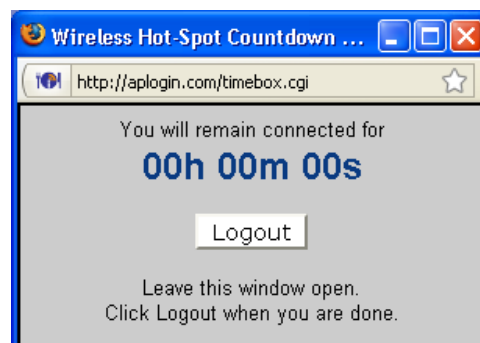


The figure below shows the screen that the guest sees when the 'I agree..' button is clicked



In addition to the browser showing the Web page that was originally requested, a small window will open that provides a button for the guest to log out of the Internet service.

The figure below on the left shows the window that the guest sees when the 'Click here' button is clicked. When the guest has finished using the Internet and clicks on the 'Logout' button then the window changes to that shown on the right.



If the guest closes the window showing the remaining time then this information can be accessed once more by opening a new browser window and typing the URL:

http://aplogin.com

The time that remains for the guest's access code is shown on the screen.



There is also an alternative to uncontrolled access called open access. In this mode the login page is not displayed, however all controls are applied to the user, including content filtering, speed control, P2P blocking and other firewall rules. Open mode is ideal for a condominium or rental community where a login page is not required, however access controls are necessary.

There is an option of uncontrolled access where information can be requested from the user before the user is permitted to access the Internet. Three data fields can be specified, where the fields might be name, phone number and email address. The email option is configured to send the information that is collected to the hotspot owner. Note that there is no verification of the information provided by the user.

Controlled Internet Access

When controlled Internet access has been selected during the configuration wizard setup then the login process requires the guest to enter an access code.

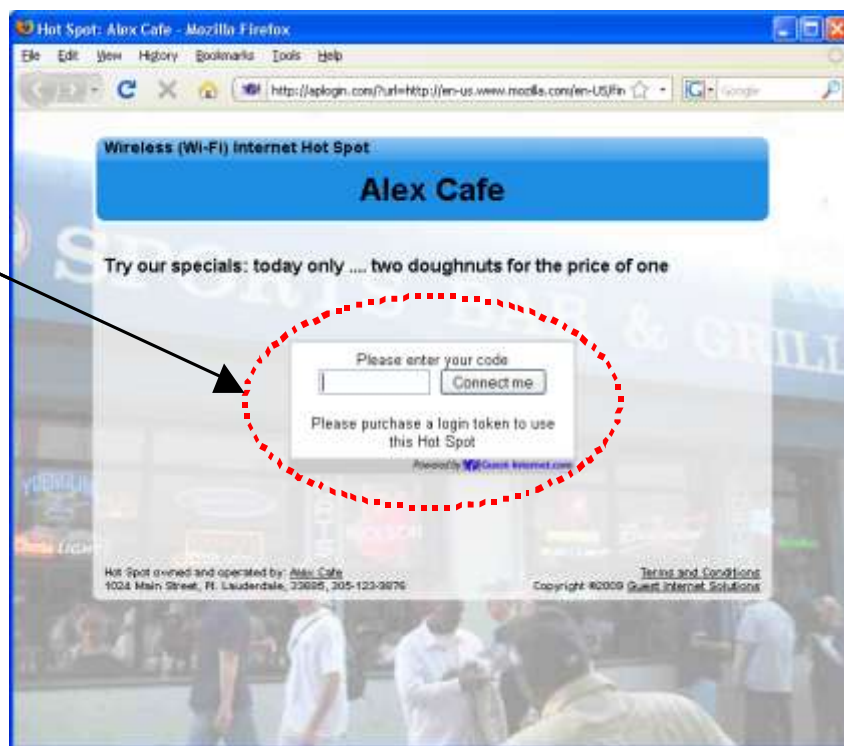
When the guest opens a computer browser to access the Internet the custom login page will be shown in the browser window. The box shown on the page requires the guest to enter an access code and then click on a button that says, "I agree to the terms and conditions of use".

Access codes are generated within the Guest Internet gateway unit for use with only that unit: see later sections describing how this is done. Each access code has a fixed duration, determined when the code is generated. When the time expires the code cannot be reused.

The login screen that the guest will see is shown below.

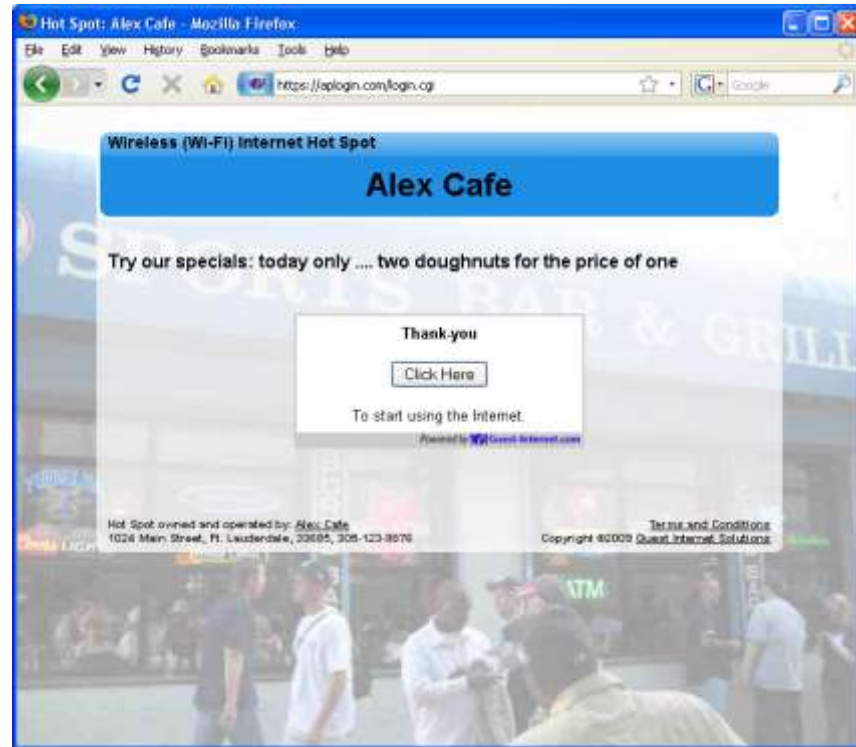
Login Box

Enter access code
then click on
'I agree' to
disclaimer



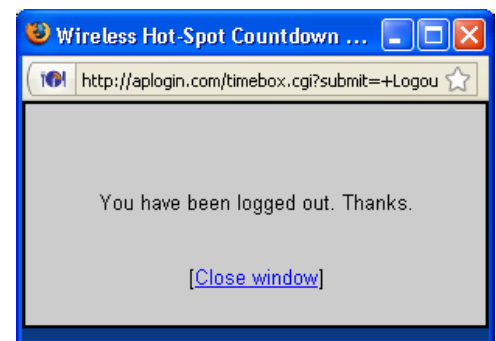
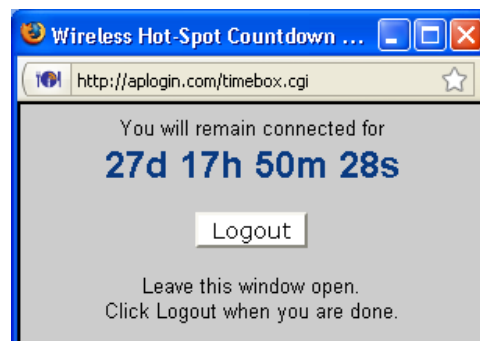
When the guest has typed in the access code and clicked on the button then a second page is shown with a button that says click to access the Internet. When this button is clicked the guest has access to the Internet. The web page that the guest initially requested (the guests home page) is also shown.

The figure below shows the screen that the guest sees when the 'Connect me' button is clicked.



In addition to the browser showing the Web page that was originally requested, a small window will open that provides a button for the guest to log out of the Internet service.

The figure below on the left shows the window that the guest sees when the 'Click here' button is clicked. When the guest has finished using the Internet and clicks on the 'Logout' button then the window changes to that shown on the right.



If the guest closes the window showing the remaining time then this information can be accessed once more by opening a new browser window and typing the URL:

http://aplogin.com

The time that remains for the guest's access code is shown on the screen.



4: Features of Controlled Guest Internet Access

Controlled Internet access requires the guest to type an access code into the login page box. You will generate the access codes using the managed code feature. You can access the managed code feature by logging in to the gateway product as the administrator;

<http://aplogin.com/admin>

The screen will request you type in a username (**admin**) and the password that you will enter during the wizard setup process.

When you are logged in the select 'manage codes' shown in the menu on the left side of the screen.

You can generate codes that are valid from 30 minutes to 180 days and also unlimited time codes. You can generate single user or multi-user codes. Only one guest can use a single user codes and the code cannot be passed from one guest to another. Many guests can use multi-user codes simultaneously.

You decide who can access your Internet service by giving codes only to guests that you authorize. You can also sell codes to guests and provide wireless Internet as a paid service.

Some examples are included here to illustrate how codes can be used

1. Restaurant: Prevent guests at the restaurant next door using your Internet service by creating a one-day multi-user code that you can give to your guests when they ask for Internet access. Create a different multi-user code each day.
2. Hotel: Free Internet for guests; generate a unique code to give to each guest for the length of the stay. However if a visitor using the conference room wants to use the Internet then charge for a code (e.g. \$10/day).
3. Coffee bar: charge guests for Internet, each day download access codes and print onto adhesive labels.

Use your Internet service as a tool to attract customers. For example, if your competitor is charging for Internet then offer free Internet.

Take care how you offer Internet service for guests. For example a coffee bar that offers free unlimited Internet might find that guests are occupying tables to use the Internet and not buying coffee or food. This problem can be easily solved using Guest Internet gateway products. Give 30-minute free codes at the checkout, and state that codes are given only with a purchase. The guest will be blocked from the Internet after the 30-minute code expires and the only way for the guest to continue using the Internet is to make a second purchase.



5: Your Guest Internet Gateway Product Contents:

Your Guest Internet gateway product contains several components that have to be installed and connected to make the system work. Your product package contains the following components.

- Rapid start guide (Please read first)
- Gateway unit
- Ethernet cable
- Power supply

When you receive your Guest Internet product first check that you received all the parts listed above.

If one of these items is missing then please inform our customer support immediately; contact information is provided on our website.

This manual is downloaded from our Web site to ensure that you always get the latest version. See the manual download URL on the rapid start guide card or copy this link:

<http://www.guest-internet.com/manual>

Current Products

The Guest Internet product range extends performance from 50 concurrent users up to 500 concurrent users. The current product list is as follows:

- GIS-K1+ Wireless gateway for up to 25 concurrent users**
Applications include bars, restaurants, dental offices
- GIS-K3 Wireless gateway for up to 50 concurrent users**
Applications include bars, restaurants, dental offices
- GIS-R3 Wireless gateway for up to 100 concurrent users**
Applications include medical clinics, caampgrounds, churches
- GIS-R5+ Wireless gateway for up to 150 concurrent users**
Applications include visitor centers, marinas, theaters
- GIS-R6+ Wireless gateway for up to 200 concurrent users**
Applications include hotels/motels, RV parks, large retail stores
- GIS-R8 Wireless gateway for up to 250 concurrent users**
Applications include larger hotels, train stations, small trade shows
- GIS-R10 Wireless gateway for up to 250 concurrent users with dual WAN**
Applications include larger hotels, conference centers, high reliability
- GIS-R20 Wireless gateway for up to 500 concurrent users with dual WAN**
Applications include trade shows, resorts, airports, high reliability
- GIS-TP1 Access code ticket printer**

A summary of the product range is presented on the following pages.

The ticket printer accessory shown here can be connected to any gateway.



GIS-K1+: Wireless Hotspot gateway for 25 concurrent users. For bars, restaurants and any type of public commercial environment.



GIS-K3: Wireless Hotspot gateway for 50 concurrent users. For bars, restaurants and any type of public commercial environment.



GIS-R3: Hotspot gateway for 100 concurrent users. Medium performance for hotels and motels up to 100 rooms.



GIS-R5+: Hotspot gateway for 150 concurrent users. Medium performance for hotels and motels up to 150 rooms.



GIS-R6+: Hotspot gateway for 200 concurrent users. High performance for hotels up to 200 rooms.



GIS-R8: Hotspot gateway for 250 concurrent users. High performance meets the requirements of hotels that require greater throughput for up to 250 rooms.



GIS-R10: Hotspot gateway for 250 concurrent users. High performance meets the requirements of hotels that require greater throughput with high reliability. Includes dual WAN load balance with fail-over.



GIS-R20: Hotspot gateway for 500 concurrent users.

High performance meets the requirements of large resorts that require greater throughput with high reliability. Includes dual WAN load balance with fail-over.



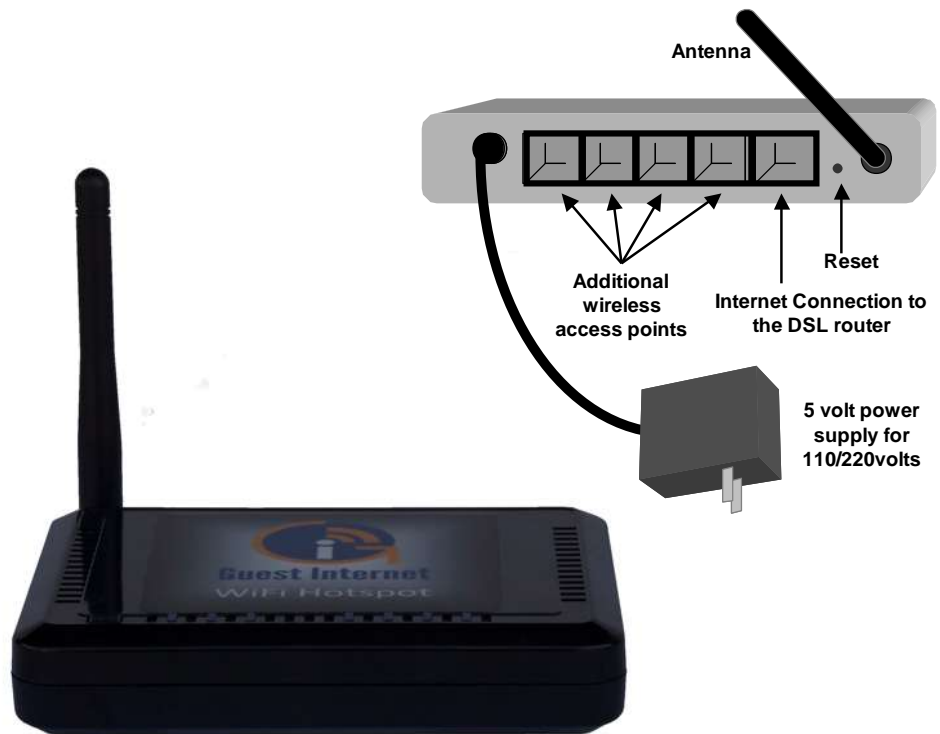
6: Characteristics of the GIS-K1+ Gateway Product

The GIS-K1+ is a wireless hotspot gateway for up to 25 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-K1+ gateway product is shown below.

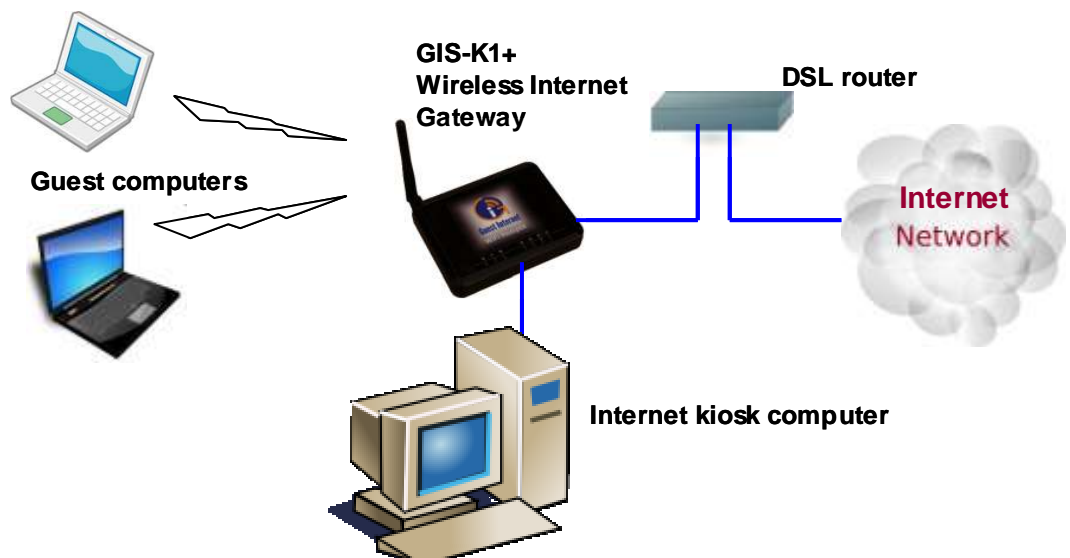
GIS-K1+: The wireless gateway has five Ethernet connectors. One is for the Internet or WAN, and is connected to the DSL router. The other connectors are the LAN ports. These ports can have any network device or computer connected.

The LAN ports can also be optionally configured to extend the hotspot network by adding wireless access points.

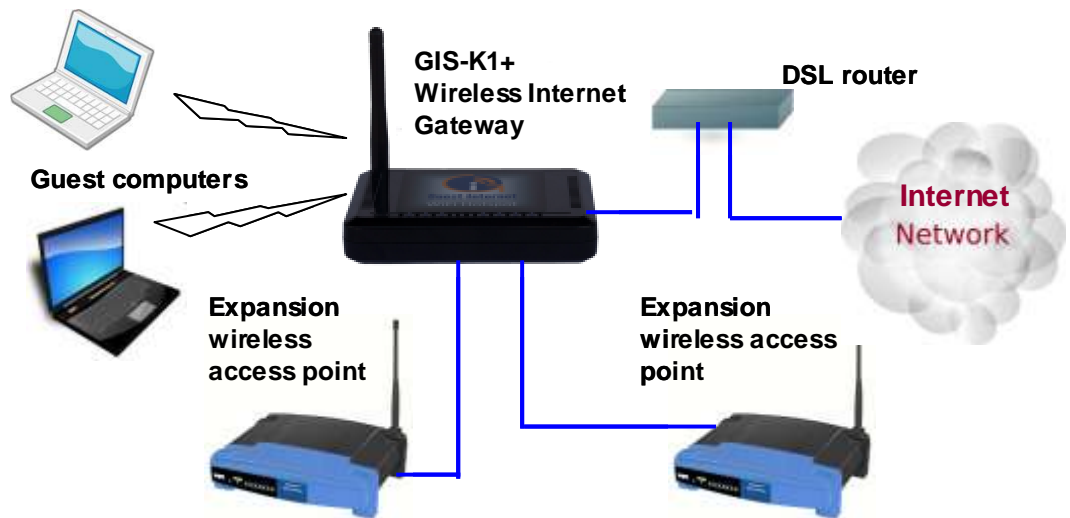
If more LAN ports are required then a switch can be connected to one of the LAN ports.



The GIS-K1+ is shown with guest laptop computers connecting wirelessly and a wired Internet Kiosk



The GIS-K1+ is shown with the LAN port configured to extend the wireless hot spot network. The LAN port is firewalled to prevent public hotspot users hacking into business computers that are connected to the same DSL/cable circuit



The GIS-K1+ has many of the features of other GIS gateway products, including peer to peer (Torrent) blocking, however credit card billing is not included. The internal wireless access point can be expanded by connecting additional wireless access points to the LAN port via a switch.

The GIS-K1+ applications

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Student dorms
Marina*

*Fashion show
Bus station
Event reception
Music concert
Theater
Golf club
Casino
Sports club*

*Gymnasium
Bookstore
Beach kiosk
Shopping mall
Hotel
Resort
Multi-tenant condo
Church*

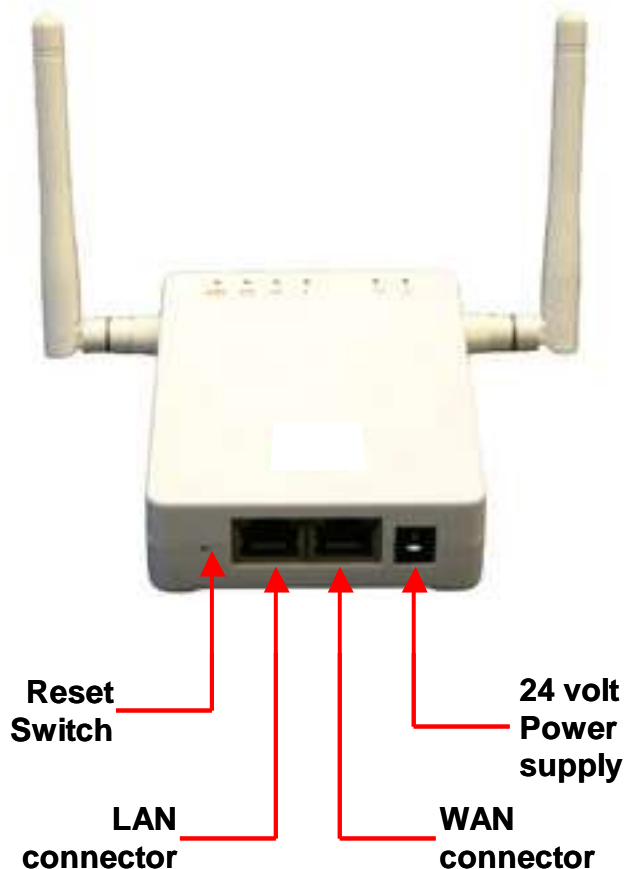
7: Characteristics of the GIS-K3 Gateway Product

The GIS-K3 is a wireless hotspot gateway for up to 50 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-K3 gateway product is shown below.

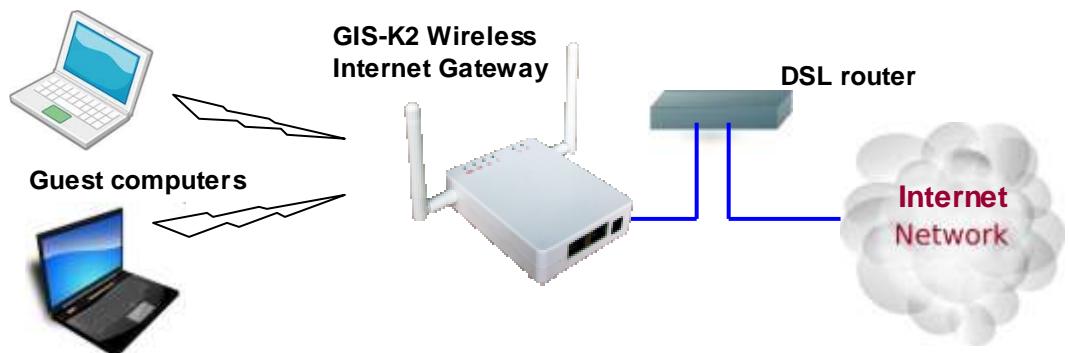
GIS-K3: The wireless gateway has two Ethernet connectors. One is for the Internet or WAN, and is connected to the DSL router. The other connector, called the LAN, can have any network device or computer connected via a switch.

If more LAN ports are required then a switch can be connected to the LAN port.

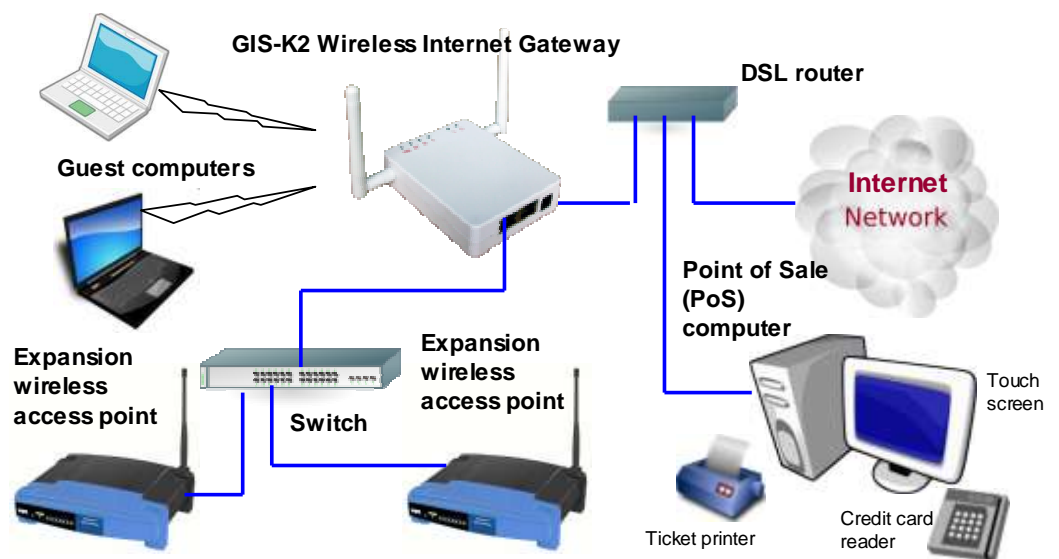
The LAN port can also be optionally configured to extend the hotspot network by adding wireless access points.



The GIS-K3 is shown with guest laptop computers connecting wirelessly



The GIS-K3 is shown with the LAN port configured to extend the wireless hot spot network. The LAN port is firewalled to prevent public hotspot users hacking into business computers that are connected to the same DSL/cable circuit



The GIS-K3 has all the features of other GIS gateway products, including peer to peer (Torrent) blocking and credit card billing. The internal wireless access point can be expanded by connecting additional wireless access points to the LAN port via a switch.

The GIS-K3 applications

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Student dorms
Marina*

*Fashion show
Bus station
Event reception
Music concert
Theater
Golf club
Casino
Sports club*

*Gymnasium
Bookstore
Beach kiosk
Shopping mall
Hotel
Resort
Multi-tenant condo
Church*

8: Characteristics of the GIS-R3 Gateway Product

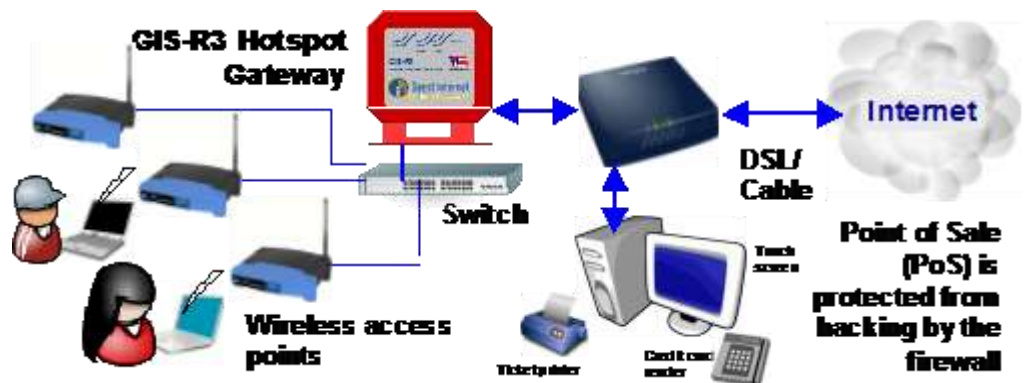
The GIS-R3 is a hotspot gateway for up to 100 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-R4 gateway product is shown below.

The GIS-R3 gateway has two Ethernet connectors. One is labeled Internet and is connected to the DSL/cable/T1 router. The second connector is labeled LAN. A computer can be connected to the LAN ports directly or via a wireless access point. If more LAN ports are required then a switch can be connected. There is also a power plug for the 12 volt connector, and a reset button to reset the unit to factory defaults.



The application using the GIS-R3 gateway is shown below.

The GIS-R3 is shown with wireless access points connected via a switch to the LAN port. Business computers connected to the same DSL circuit as the WAN port are protected from hacking by the PCI DSS compliant firewall.



The GIS-R3 applications.

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Public park*

*Bus station
Trade show
Event reception
Train station
Music concert
Theater
Golf club*

*Gymnasium
Bookstore
Beach kiosk
Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Marina
Sports club
Multi-tenant condo
Church
University
Resort*

9: Characteristics of the GIS-R5+ Gateway Product

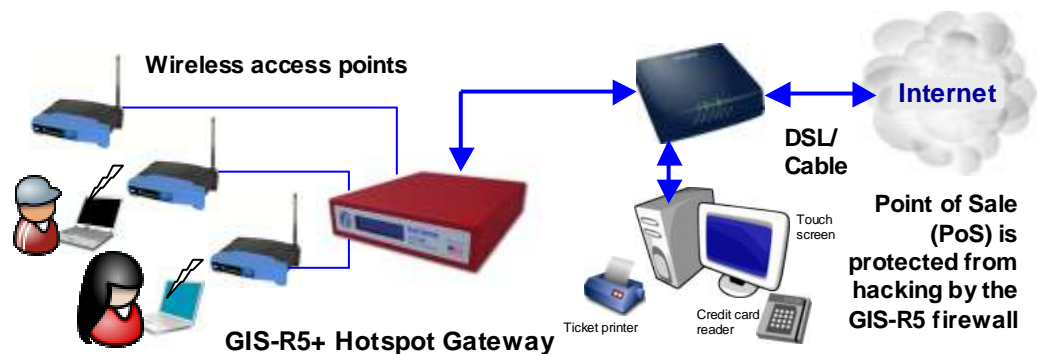
The GIS-R5+ is a hotspot gateway for up to 150 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-R5+ gateway product is shown below.

The GIS-R5+ gateway has five Ethernet connectors. One is labeled Internet and WAN and is connected to the DSL/cable/T1 router. Four connectors are labeled LAN1 to LAN4. Any network device or computer can be connected to these ports. If more LAN ports are required then a switch can be connected.



An application using the GIS-R5+ gateway is shown below.

The GIS-R5+ is shown with wireless access points connected the LAN ports. Business computers connected to the same DSL circuit as the WAN port are protected from hacking by the PCI DSS compliant firewall.



The GIS-R5+ applications.

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Public park*

*Bus station
Trade show
Event reception
Train station
Music concert
Theater
Golf club*

*Gymnasium
Bookstore
Beach kiosk
Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Marina
Sports club
Multi-tenant condo
Church
University
Resort*

10: Characteristics of the GIS-R6+ Gateway Product

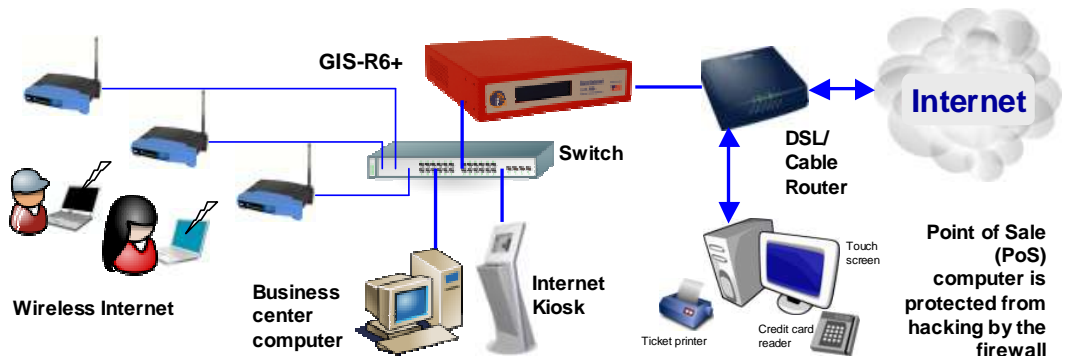
The GIS-R6+ is a hotspot gateway for up to 200 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-R6+ gateway product is shown below.

The GIS-R6+ gateway has two Ethernet connectors. One is labeled Internet and WAN, and is connected to the DSL/cable/T1 router. The connector labeled LAN is connected to a computer via a wired network or wireless access point. If more LAN ports are required then the switch can be expanded.



An application using the GIS-R6 gateway is shown below.

The GIS-R6+ is shown with three wireless access points connected via a switch to the LAN ports. Business computers connected to the same DSL circuit as the WAN port are protected from hacking by the PCI DSS compliant firewall.



The GIS-R6+ applications.

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Public park*

*Bus station
Trade show
Event reception
Train station
Music concert
Theater
Golf club*

*Gymnasium
Bookstore
Beach kiosk
Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Marina
Sports club
Multi-tenant condo
Church
University
Resort*

11: Characteristics of the GIS-R8 Gateway Product

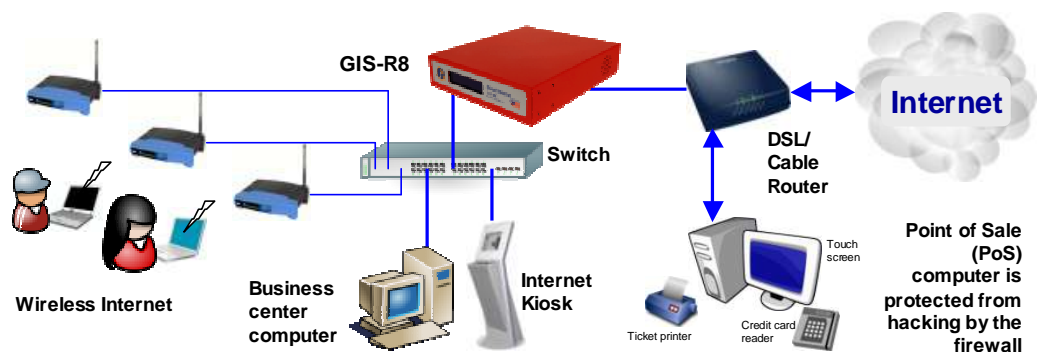
The GIS-R8 is a hotspot gateway for up to 250 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberrys™. The GIS-R10 gateway product is shown below.



The GIS-R8 gateway has four Ethernet connectors. Two are labeled WAN1 and WAN 2 for connection to two DSL/cable/T1 routers. Two connectors are labeled LAN1 and LAN2. Any network device or computer can be connected to these ports. If more LAN ports are required then a switch can be connected for a maximum of 250 ports.

An application using the GIS-R8 gateway is shown below.

The GIS-R8 is shown with wireless access points, a business center computer and a kiosk are connected to the LAN port via a switch. Business computers connected to the same DSL circuit as the WAN port are protected from hacking by the PCI DSS compliant firewall.



GIS-R8 applications.

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Public park*

*Bus station
Trade show
Event reception
Train station
Music concert
Theater
Golf club*

*Gymnasium
Bookstore
Beach kiosk
Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Marina
Sports club
Multi-tenant condo
Church
University
Resort*

12: Characteristics of the GIS-R10 Gateway Product

The GIS-R10 is a hotspot gateway for up to 250 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-R10 gateway product is shown below.

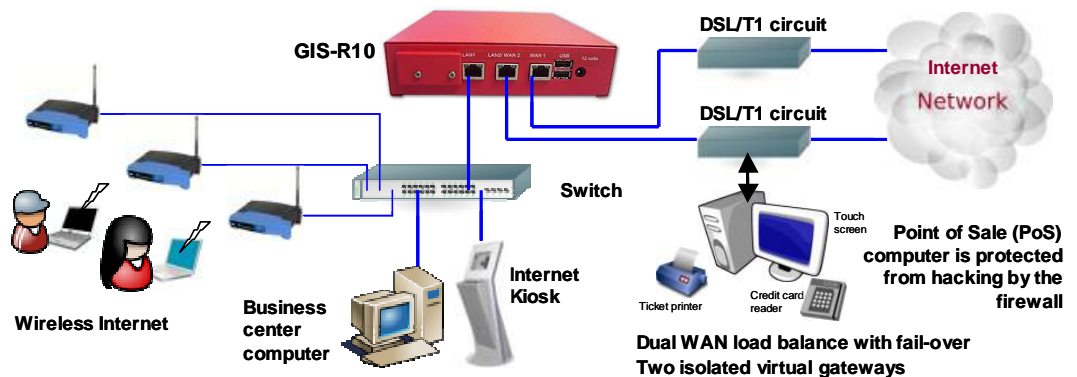


The GIS-R10 gateway has three Ethernet connectors. Two are labeled WAN1 and WAN 2 for connection to two DSL/cable/T1 routers. The connector labeled LAN1 can have computer can be connected directly or via a wireless access point. If more LAN ports are required then a switch can be connected for a maximum of 250 ports.



An application using the GIS-R10 gateway is shown below.

The GIS-R10 is shown with two wireless access points connected to the LAN port via a switch. The two WAN ports are DSL and Cable circuits. Business computers connected to the same DSL circuit as the WAN ports are protected from hacking by the PCI DSS compliant firewall.



GIS-R10 applications.

*Restaurant
Coffee bar
Public library
Truck stop
Motel
RV park
Public park*

*Bus station
Trade show
Event reception
Train station
Music concert
Theater
Golf club*

*Gymnasium
Bookstore
Beach kiosk
Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Marina
Sports club
Multi-tenant condo
Church
University
Resort*



13: Characteristics of the GIS-R20 Gateway Product

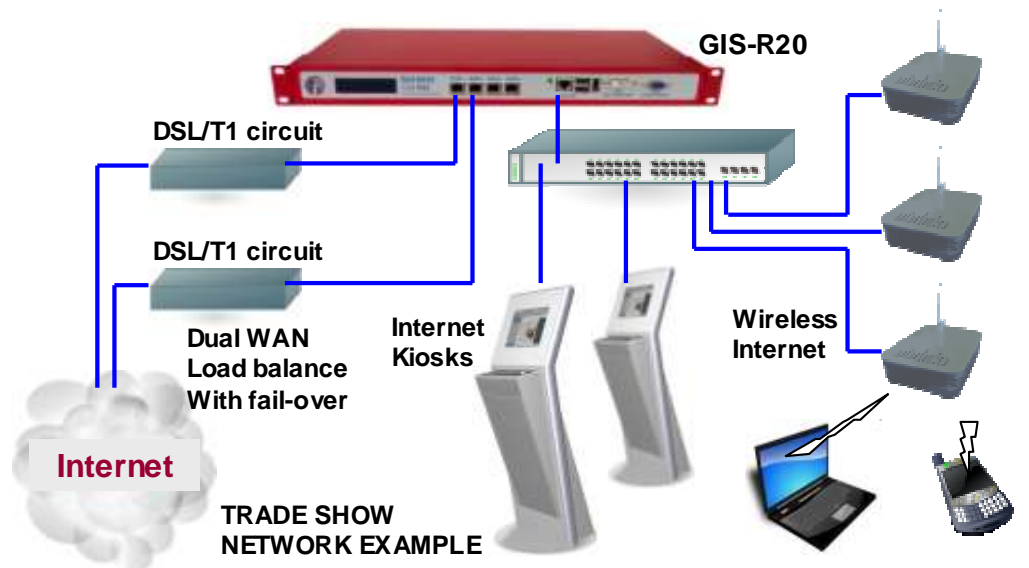
The GIS-R20 gateway has five Ethernet connectors. Two ports are configured for WAN connections. Three ports are configured for LAN connections. Any network device or computer can be connected to the LAN ports. If more LAN ports are required then a switch can be connected.

The GIS-R20 is a hotspot gateway for up to 500 concurrent users; this means that the unit can have wired computers connected directly to it (Internet kiosks, business center computers, etc), and can have wireless access points connected to it. Each wireless access point can provide a wireless, or WiFi connection for laptop computer users who are within range of the wireless transmission. WiFi enabled devices include notebook computers, MAC™ computers, iPhones™, iPods™, and Blackberries™. The GIS-R16 gateway product is shown below.



An application using the GIS-R20 gateway is shown below.

The GIS-R20 is shown with wireless access points and Internet kiosks connected via a switch to one of the LAN ports. The two WAN ports provide load balancing and fail-over for redundant operation. Business computers connected to the same DSL circuit as the WAN ports are protected from hacking by the PCI DSS compliant firewall.



The GIS-R20 applications.

*Public library
Motel
RV park
Public park*

*Trade show
Music concert
Theater
Golf club*

*Hospital
Airport
Shopping mall
Hotel*

*Student dorms
Multi-tenant condo
University
Resort*

14: Characteristics of the GIS-TP1 ticket printer Product

Many Internet WiFi Hotspots are configured so that the user has to type an access code to be connected to the Internet. This procedure prevents unauthorized users from getting Internet access. Guest Internet gateways have a page to generate access codes which can be downloaded to a spreadsheet and printed on labels. GIS gateways also have an application program interface (API) that allows point of sale (PoS) systems to request an access code and print the code on the PoS ticket printer. The GIS-TP1 provides an alternative to print access codes on demand when the user requests a code. This greatly simplifies the management of access codes as it is no longer necessary to generate a large number of codes and then print codes using a computer. A hotel reception desk or concierge can now print access codes for guests. A coffee bar can print access codes for guests when purchases are made. Codes are printed using the touch screen of a tablet computer. This can be a low cost Android tablet with a 7inch display screen, or an Apple iPad tablet. Ten access codes can be pre-configured and appear as buttons on the screen of the tablet computer.

Like all Guest Internet gateway products, the ticket printer is very easy to install and operate. The ticket printer should be connected to a LAN port of the GIS gateway using a switch. Wireless access points will also be connected to the GIS gateway using the same switch. Next, the ticket printer is configured using the GIS administrator page to select up to ten access code durations as ticket options. A new login password is also created for the tablet computer login. Finally, the tablet computer wireless should be connected to the GIS gateway via the wireless access point. Open the browser and use the ticket printer login. The ticket select buttons are then displayed on the screen.

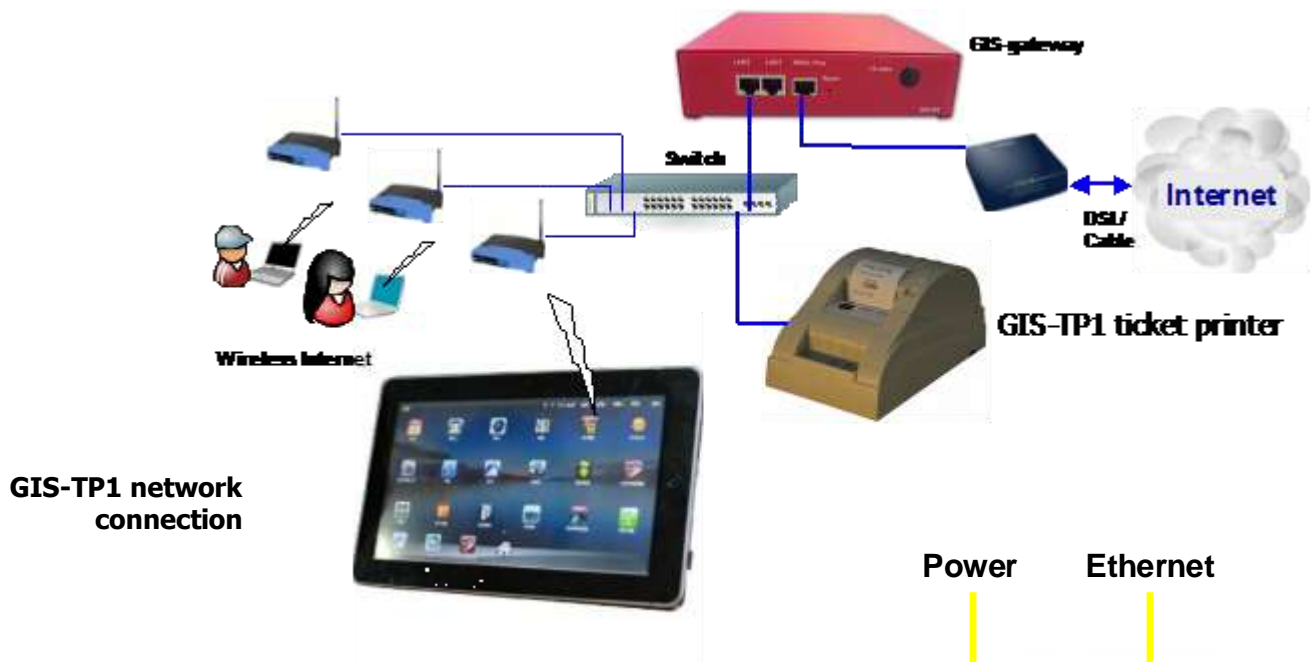
GIS-TP1 access code ticket printer



The GIS-TP1 ticket printer uses 58mm thermal paper that can be obtained from any office supplies store. 58mm thermal paper is used by point of sale thermal printers.

The GIS-TP1 ticket printer has an Ethernet connection that must be connected to a LAN port of the gateway, either directly or via a switch. The GIS-TP1 cannot be connected to the WAN port of the gateway.

The GIS-TP1 is connected to the gateway as shown in the figure below. A separate tablet computer is required to control ticket printing.



The power and data connections of the GIS-TP1 are underneath the unit to the rear.

Use only the 12 volt, 3 amp power supply provided with the unit.

A power on/off switch is located at the rear of the printer.



The GIS-TP1 is shipped with the following accessories

- Power supply, 12 volts
- Ethernet cable
- Quick start guide





15: Installation of Guest Internet Gateway Products

Guest Internet gateway products can be used to manage public Internet for many different applications.

The following table shows how GIS gateway products are used for different applications.

Product	Application	Type of access	Additional Equipment
GIS-K3	Restaurant Internet access for up to 50 concurrent users	Wireless Hotspot	DSL or cable Internet service
GIS-R10	Hotel rooms with a wired Internet connection for up to 250 concurrent users	Wired cat-5 connection	Multi-port switch, DSL or cable Internet service with dual backhaul for load balance and redundancy
GIS-R3	Hotel lobby wireless Internet for up to 100 concurrent users	Wireless Hotspot	One or two wireless access points, DSL or cable Internet service
GIS-R3	Golf course wireless Internet for up to 100 concurrent users. One central antenna can provide service for receivers (e.g. WiFi Boost) on golf carts.	Wireless Hotspot	High power outdoor access point (Ubiquity Bullet 2HP or Rocket), DSL or cable Internet service
GIS-R5+	Conference hall for up to 150 concurrent users	Wireless Hotspot	Two wireless access points, DSL or cable Internet service
GIS-R3	Hotel business center with four computers	Kiosk service	DSL or cable Internet service
GIS-R20	Provide wireless Internet for an outdoor concert using several high power wireless access points for 500 users	Wireless Hotspot	T3 or fiber Internet service
GIS-K1+	Provide wireless Internet for a coffee bar with a single wireless hotspot	Wireless Hotspot	DSL or cable Internet service
GIS-R20	Provide wireless Internet for a trade show with many wireless access points	Wireless Hotspot	T3 or fiber Internet service
GIS-R6+	Provide wireless Internet for airports and train stations using a large number of wireless access points	Wireless Hotspot	T3 or fiber Internet service
GIS-R3	Provide wireless Internet for an RV park using several outdoor long range wireless access points	Wireless Hotspot	DSL or cable Internet service
GIS-R8	Provide wireless Internet for a 300 berth marina by connecting several outdoor long range wireless access points	Wireless Hotspot	DSL or cable Internet service
GIS-R3	Provide wireless Internet for a resort using several indoor and outdoor wireless access points	Wireless Hotspot	DSL or cable Internet service
GIS-R5+	Provide Internet for a flea market	Wireless Hotspot	DSL or cable Internet service
GIS-K1+	Provide wireless Internet for a gas station	Wireless Hotspot	DSL or cable Internet service

16: Powering the Gateway Products

This section describes the power supply units that Guest Internet gateway products are shipped with.

Each product requires a specific power supply voltage as shown in the figures below. Each power supply plugs into the power connector shown on the product photos below. The power supply can be used with either 110 volts or 220 volts. Connecting a power supply with the wrong voltage will damage the gateway.

GIS-K1+ power supply and power connector

5 volt power supply

Use only the power supply provided to avoid damage



GIS-K3 power supply and power connector

24 volt power supply

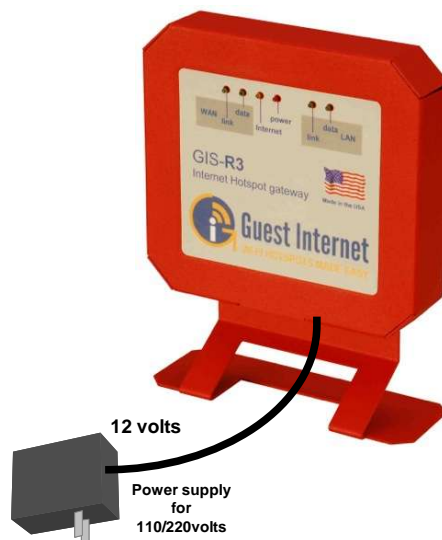
Use only the power supply provided to avoid damage



GIS-R3 power supply and connections

12 volt power supply

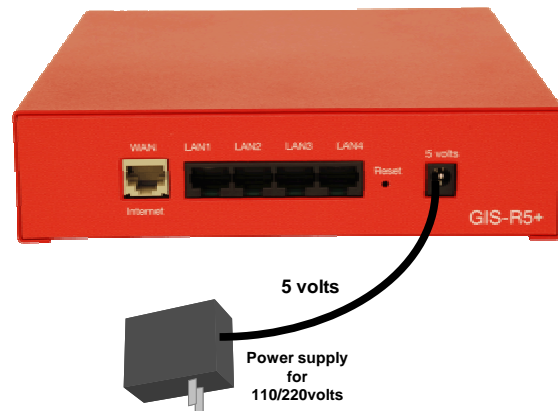
Use only the power supply provided to avoid damage



GIS-R5+ power supply and connections

5 volt power supply

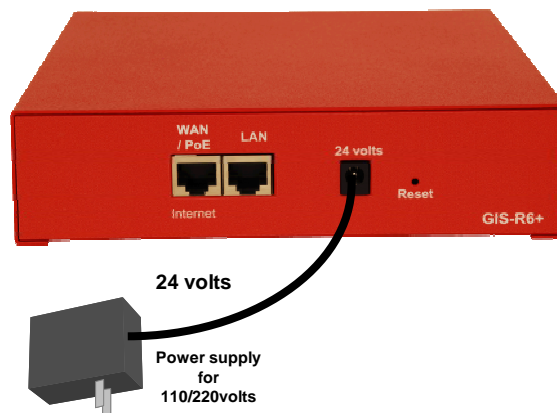
Use only the power supply provided to avoid damage



GIS-R6+ power supply and connections

24 volt power supply

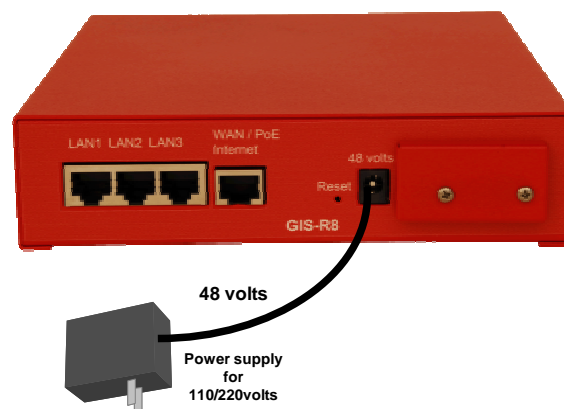
Use only the power supply provided to avoid damage



GIS-R8 power supply and connections

48 volt power supply

Use only the power supply provided to avoid damage



GIS-R10 power supply and connections

12 volt power supply

Use only the power supply provided to avoid damage



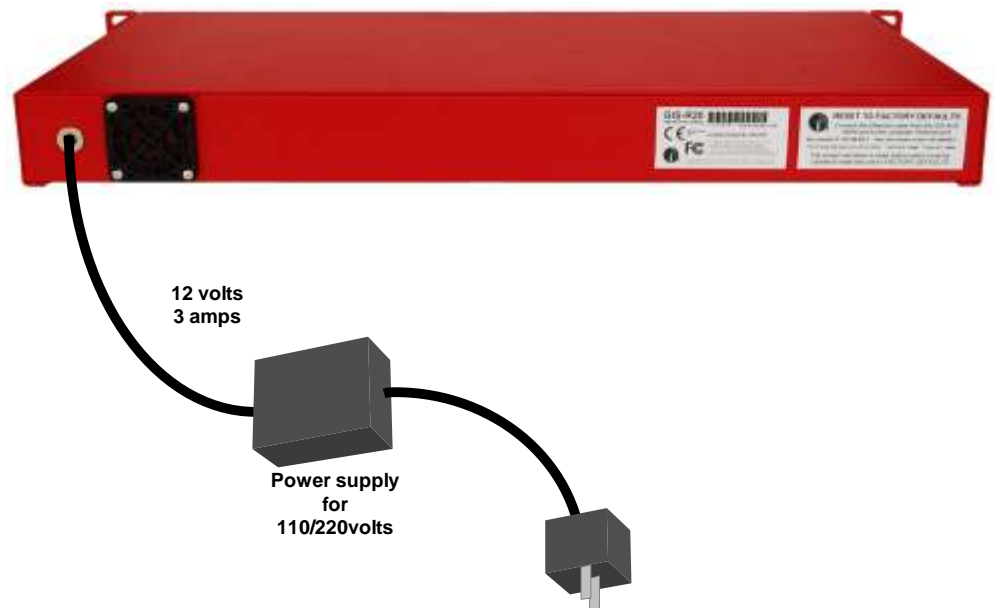
GIS-R20 power connector

12 volt supply

4-pin power connector

12 volts, 3amps

Use only the power supply provided to avoid damage



GIS-TP1 power connector

12 volt supply

12 volts, 3amps

Use only the power supply provided to avoid damage

Connect the Ethernet data cable as shown



17: Switching the Gateway Product on for the First Time

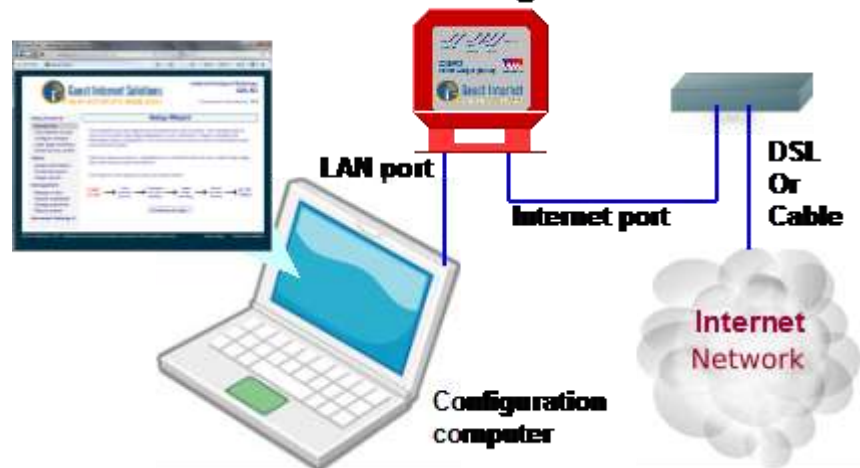
The GIS-gateway must be configured before it can be used. The product has a very easy to use Wizard which speeds through the configuration process. Configuration takes around five minutes.

The GIS-gateway must be connected as shown in the diagram at the bottom of this page. The INTERNET port must be connected to the Internet via the DSL router. The GIS-gateway cannot be configured without Internet access. The computer Ethernet cable is connected to any LAN port

When the GIS-gateway is connected as shown in the diagram the power supply should be connected. Check the power on LED is lit on the front of the enclosure, or the LCD display is lit on some models. The WAN link LED indicates that the Internet port is connected to the DSL router, on models with the LCD display a message indicated this connection.

Next switch on the computer. When the computer has booted up then open the browser. If the browser gives a message that the Internet is not available then check the Ethernet cable and connectors between the GIS-gateway LAN port and the computers Ethernet connector.

Product Configuration



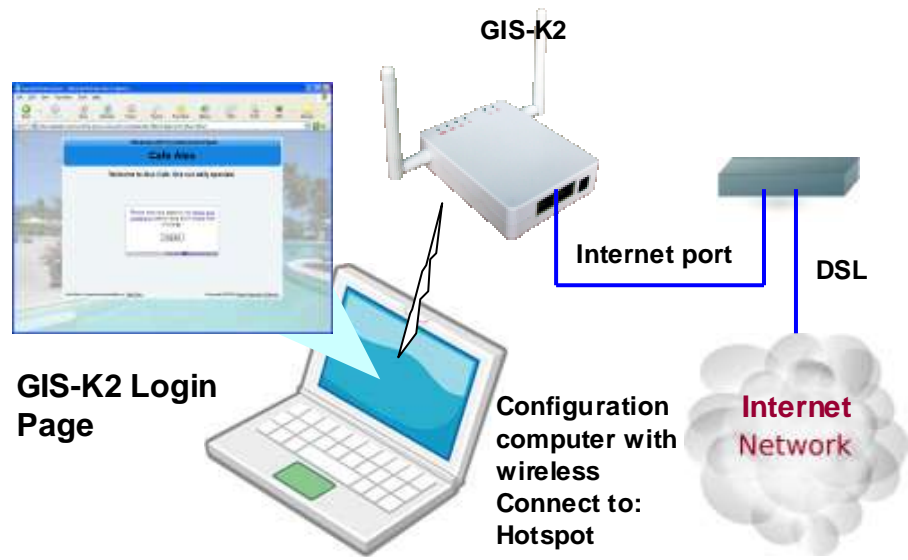
Connect your computer to the gateway product LAN port

The GIS-K2 must be connected as shown in the diagram on the following page. The GIS-K2 INTERNET port must be connected to the Internet via the DSL/Cable/T1 router. The GIS-K2 cannot be configured without Internet access. The computer wireless network interface is connected to network name: **Hotspot**

When the GIS-K2 is connected as shown in the diagram the power supply should be connected. Check power on LED is lit above the enclosure. A LED indicates power is connected and a LED indicates that the Internet port is connected to the DSL router.

Next open the computer browser. If the browser gives a message that the Internet is not available then check the wireless connection between the GIS-K2 and the computer.

Connect your computer using the wireless interface. Look for the network name (SSID): Hotspot and connect



With the Guest Internet gateway connected as shown, proceed to the Wizard configuration process.

18: Installing the Gateway Product in a Computer Network

When the GIS-gateway has been configured it can be installed in the business network. Configuration changes may be necessary for the GIS-gateway to provide all the desired features required for the business network.

Several different network configurations are possible when installing the GIS-gateway. It is important to recognize that restrictions are placed on the network design if the network has any computer point-of-sale terminal that is used to process credit card information.

The **Payment Card Industry Data Security Standard (PCI DSS)** requires all businesses to ensure that credit card information is protected, by preventing unauthorized access via the network, using one or more firewall products.

Network designs have two points of entry for hackers who try to steal credit card information from point of sale computers. The first point of entry is through the Internet connection. The outbound Internet connection is required to process credit card information. However the inbound direction has to be blocked to prevent hackers using the internet to access the point of sale computers.

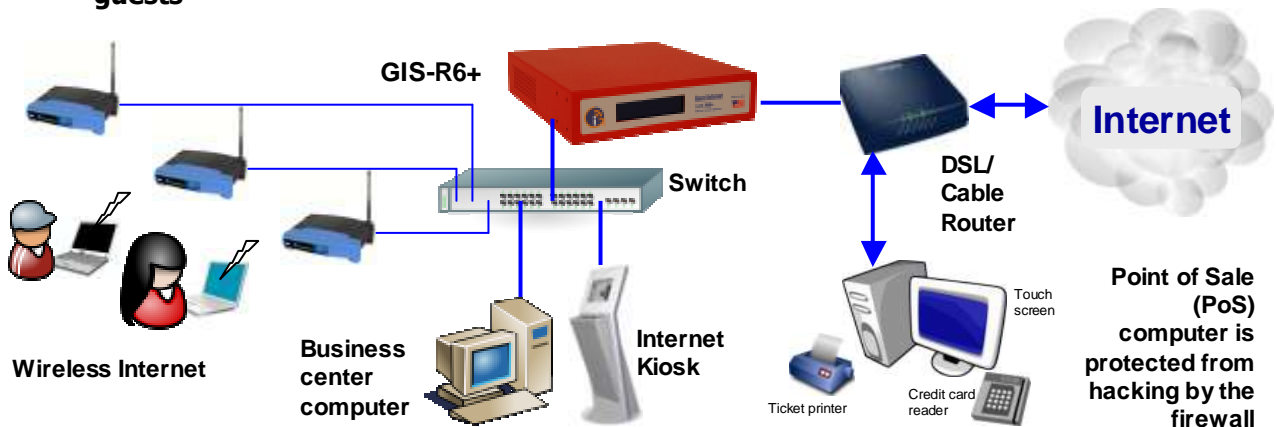
The second point of entry is through any wireless access point that is provided for guests and visitors to get Internet access. The PCI DSS standards recommend that two separate Internet circuits should be used: one for the point of sale system, and one for the public guest Internet network.

One Internet circuit can be used when firewall devices are installed to protect the point of sale system from attack. A firewall however is only as good as the person who configures the firewall. It is necessary to take great care when writing the firewall rules to ensure that no path exists for a possible attacker.

PCI DSS compliant network configurations are shown in the following figures. Additional information about PCI DSS recommendations can be found at this URL.

https://www.pcisecuritystandards.org/security_standards/pci_dss_download_agreement.html

The gateway connected to a DSL router to provide Internet access for guests



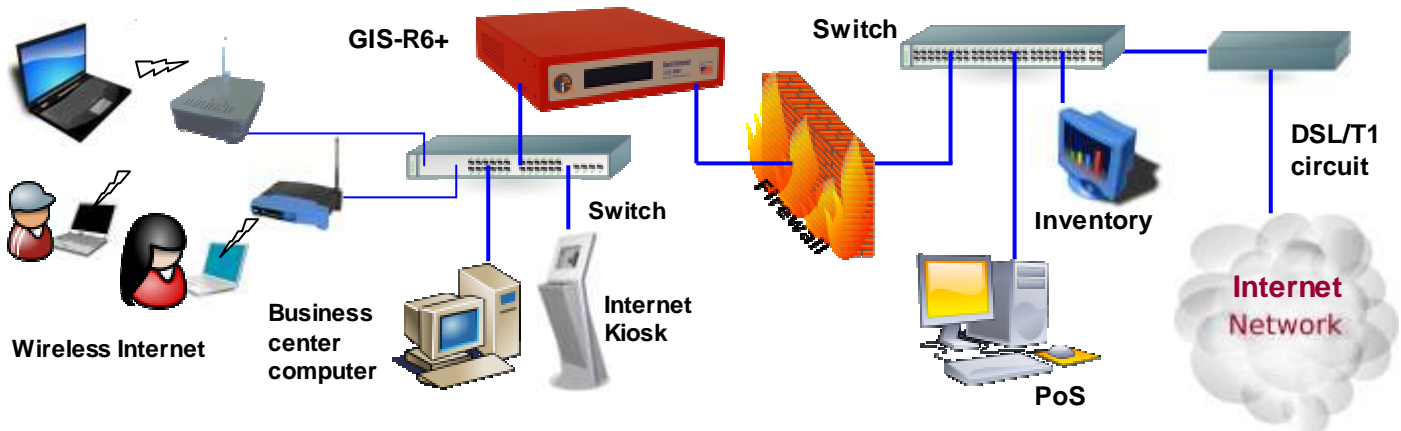
The next figure shows the GIS-gateway connected to a business network that has an Internet connection via DSL or T1. The GIS-gateway firewall blocks access of public network DMZ (de-militarized zone) users to the business network computers for PCI DSS compliance.

Gateway Firewall

Public network (DMZ): wireless hotspot, kiosks, business center

Public user access is blocked to the business network that includes a point of sale terminal

Set private IP range 192.168.xx.xx or 10.xx.xx.xx to prevent access from the public network

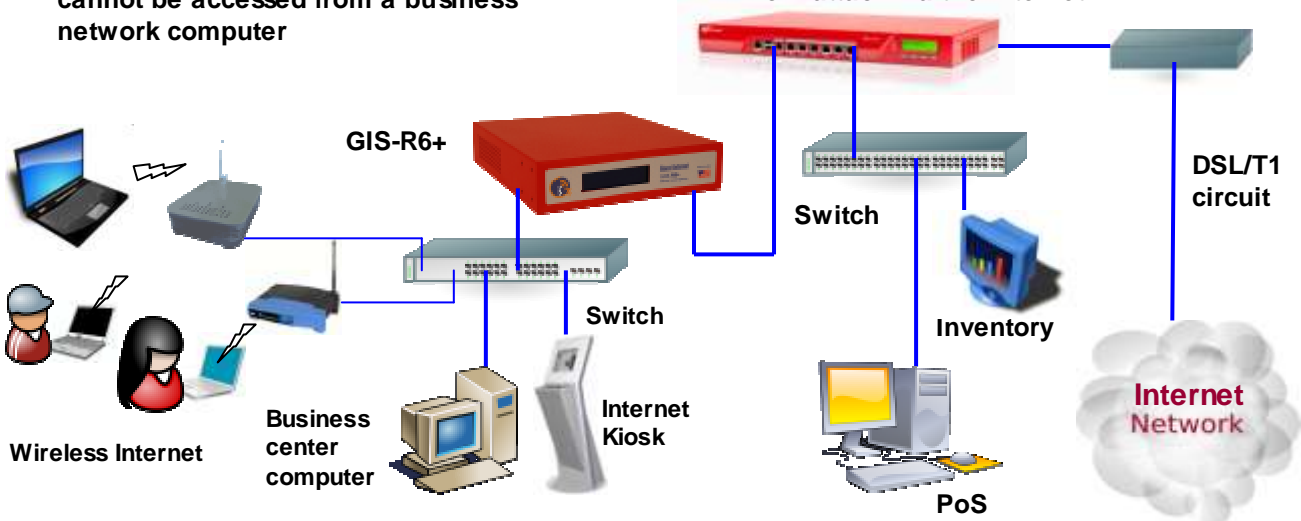


The next figure shows a business network with full PCI-DSS compliance: a single firewall isolates the business network and public network (DMZ). With this configuration it is possible for one of the business computers to generate and manage access codes using the GIS-gateway providing that the computer has been authorized to do so within the firewall.

Gateway Connected via a Firewall

Public network (DMZ): The gateway cannot be accessed from a business network computer

Firewall: isolates the public and private networks. Protects the private network from attack via the Internet



The GIS K1+/K3 wireless gateway devices are configured differently to the GIS-R-series gateway devices. Configuration changes may be necessary for the GIS-K1+/K3 to provide all the desired features required for the business network.

Several different network configurations are possible when installing the GIS-K1+/K3. It is important to recognize that restrictions are placed on the network design if the network has any computer point-of-sale terminal that is used to process credit card information.

The **Payment Card Industry Data Security Standard (PCI DSS)** requires all businesses to ensure that credit card information is protected, by preventing unauthorized access via the network, using one or more firewall products.

Network designs have two points of entry for hackers who try to steal credit card information from point of sale computers. The first point of entry is through the Internet connection. The outbound Internet connection is required to process credit card information. However the inbound direction has to be blocked to prevent hackers using the internet to access the point of sale computers.

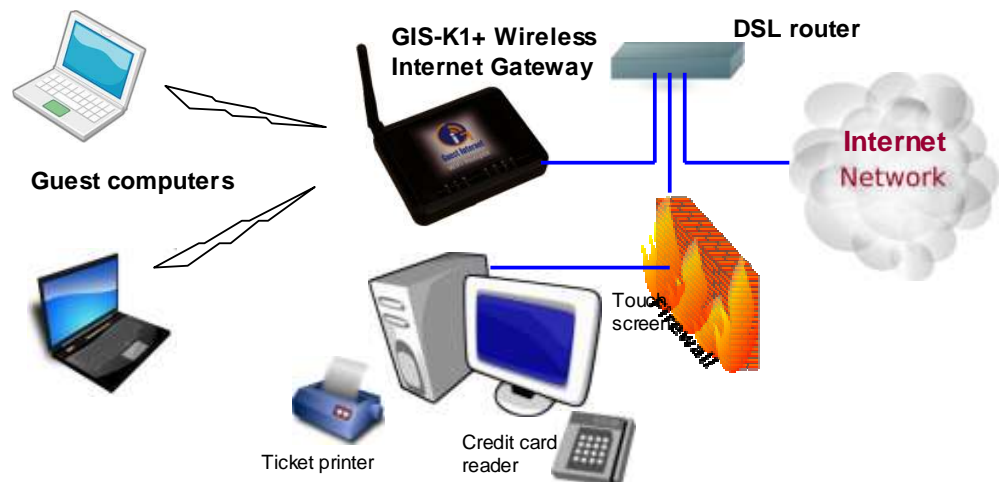
The second point of entry is through any wireless access point that is provided for guests and visitors to get Internet access. The PCI DSS standards recommend that two separate Internet circuits should be used: one for the point of sale system, and one for the public guest Internet network.

One Internet circuit can be used when firewall devices are installed to protect the point of sale system from attack. A firewall however is only as good as the person who configures the firewall. It is necessary to take great care when writing the firewall rules to ensure that no path exists for a possible attacker.

PCI DSS compliant network configurations are shown in the following figures. Additional information about PCI DSS recommendations can be found at this URL.

https://www.pcisecuritystandards.org/security_standards/pci_dss_download_agreement.html

The GIS-K1+ connected to a DSL router to provide Internet access for guests. The business computer (PoS) is protected from the public Internet users by a firewall in the GIS-K1+



The Point of Sale (PoS) computer is protected from public access by a firewall in the GIS-K1

All GIS hotspot gateway products have identical PCI DSS compliant firewalls.



19: Connecting Your Computer Browser to the Guest Internet Product

When your computer is connected to the GIS-gateway (previous section) then you can start the configuration and set up process using your computer browser. The set up process can be done with any type of browser.

When a browser opens it is usually directed to go to the home page. This is the page you always see when the browser opens.

When you open your browser your home page will change, instead of your usual home page you will see the Guest Internet setup wizard.

If you did not have a home page set in your browser you should type the following into the URL address line.

http://aplogin.com

The setup wizard will appear only the first time you power up the device. When the Guest Internet product has been configured then the configuration wizard is no longer shown. It is replaced by a login page, which was generated by the setup wizard.

Type in the URL
http://aplogin.com



When the browser window opens it will go to the home page URL

If the Setup Wizard is not displayed then type in the URL shown above.



20: The Quick Start Wizard: Get Your Gateway Working Quickly

The first time that you connect to your Guest Internet gateway product you should see the page shown below displayed in your Internet browser window.

The screen shows that there are five steps to complete the setup process. Each step is a page that requires some information to be typed in or an option selected.

Please read through this manual first before setting up your Guest Internet product.



The purpose of the setup wizard is twofold

- (a) Verify that the gateway is connecting to the Internet
- (b) Configure the login page that your guests will see when they try to connect to the Internet

During the wizard set up process you will be requested to enter information about your business that will be shown to guests on the login page. It is always good to present your website address, email address and telephone number for guests to note or save on their computers. All information is optional: if you don't type it in it will not be shown on the login screen.

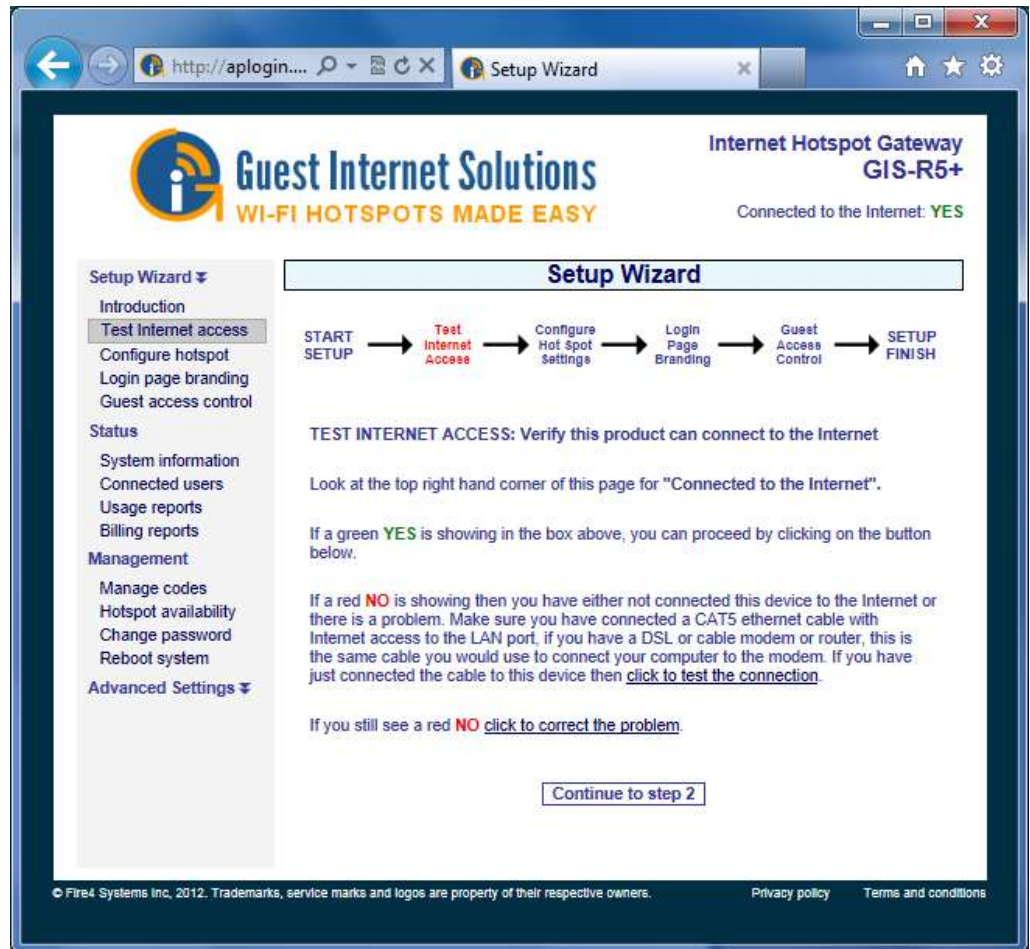
In addition to your business information you can also type in an advertising message. The message could tell guests about a special offer, or provide information essential for guests. You can also log in at any time to change the advertising message.



21: The Quick Start Wizard: Check the Internet Connection

The TEST INTERNET ACCESS setup page verifies that your Guest Internet gateway product is connected to the Internet. The setup process cannot be completed unless the product is connected to the Internet.

Look on the top right hand corner of the browser window. You will see a green YES or a red NO. If you have a green YES then your product is connected to the Internet and you can proceed to the next page by clicking on the button 'Continue to Step 2'.



If you see a red NO then you have a connection problem.

First verify that your DSL modem provides a good Internet connection by connecting a computer to the DSL modem using an Ethernet cable.

Verify that the Guest Internet product is connected to the DSL router (check that the blue LED is lit) and then click on 'click to test the internet connection'.

If the Internet status still shows a red NO then click on 'click to correct this problem'.

Verify that your DSL modem is a 'DHCP server'. You may need help from an IT or network person to answer this question. Click on the link 'click to attempt an IP address' shown on the following page.

You may have a shared T1 service in which case you will have to configure your Guest Internet product with a 'fixed IP address'. You can click on **Advanced Settings** and then click on **Network Interfaces** to set a fixed IP address. This procedure is explained later in this manual. Your T1 service provider will tell you what IP address should be configured.



Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R5+

Connected to the Internet: YES

Setup Wizard

START SETUP → **Test Internet Access** → Configure Hot Spot Settings → Login Page Branding → Guest Access Control → SETUP FINISH

TEST INTERNET ACCESS: Verify this product can connect to the Internet

Look at the top right hand corner of this page for "Connected to the Internet".

If a green **YES** is showing in the box above, you can proceed by clicking on the button below.

If a red **NO** is showing then you have either not connected this device to the Internet or there is a problem. Make sure you have connected a CAT5 ethernet cable with Internet access to the LAN port, if you have a DSL or cable modem or router, this is the same cable you would use to connect your computer to the modem. If you have just connected the cable to this device then [click to test the connection](#).

If you still see a red **NO** [click to correct the problem](#).

You may need technical help for this step from your network or DSL provider.

This product is set as a "DHCP client". Check with your DSL or network provider to confirm that the router you have is a "DHCP server".

If your provider tells you that devices have to be configured with a "fixed IP address" then you will need to ask what IP address you should use. The IP address is four groups of three digits and will look like this example 192.168.90.3. Use the button on the right to set the IP address you were given by your DSL or network provider.

[Set fixed IP](#)

If you are sure that you are using DHCP then [click to attempt to get an IP address](#).

[Continue to step 2](#)

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If you still have a red NO after trying the steps described above then you will have to call a network specialist to help you. You can contact a network specialist by calling local IT companies. You may also find a network specialist by calling your high speed Internet service provider.

It is likely that your DSL router or cable modem has a firewall that is preventing the GIS-gateway connecting to the Internet. You should look at your DSL router configuration to 'enable NAT'ing devices'.

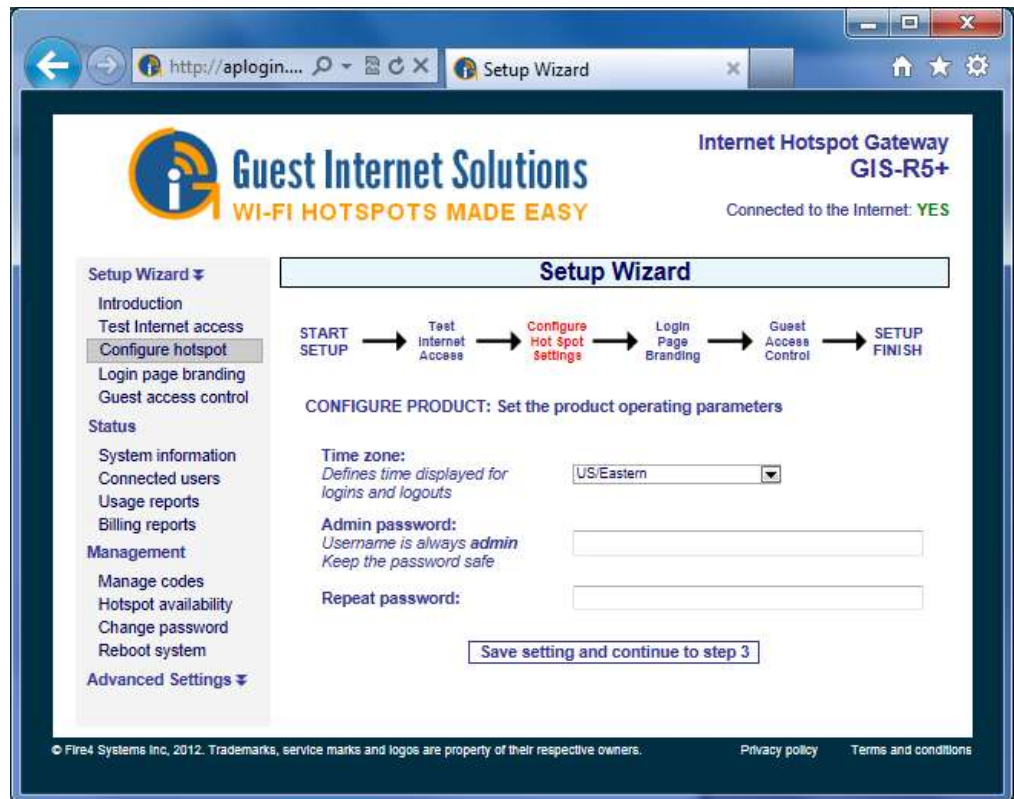
Unfortunately our support line cannot help you with this problem because an on-site inspection is required. The network specialist will visit your premises to diagnose and correct the problem.

Configuration of the Hotspot gateway cannot be completed until a connection to the Internet is obtained. Connect the gateway to an alternative DSL or cable service to complete the configuration process.



22: The Quick Start Wizard: Set the Time Zone and Password

When your Guest Internet product has a good connection to the Internet and you have clicked on the link to proceed to page 2, then you will see the page shown below.



The GIS-gateway synchronizes with Internet time and date to time access codes and provide the data and time for the usage log. It is necessary to first select the time zone for the gateway. Click on the arrow at the right of the box to see the drop down menu. Select your time zone from this list. The default time zone is US eastern time.

The GIS-gateway has no default administrator password. The administrator access password must be entered in the box. Guest Internet products can only be operated when a unique password has been entered, following the recommendations of the Payment Card Industry Data Security Standard (PCI - DSS). Create a 'strong' password using the following rules:

- The password should be at least 8 characters

- Don't use words that are in the dictionary

- Include capital letters, numbers and punctuation marks in the password

The GIS-K2 wireless gateway has an additional box to set the hotspot name (SSID) that is broadcast wirelessly. The default name is HOT SPOT. A name should be selected that can be recognized by users (e.g. Coffee Bar Hotspot).

See the screen on the following page.



Setup Wizard - Windows Internet Explorer

http://aplogin.com/admin/wizard_conf.cgi

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-K1

Connected to the Internet: **YES**

Setup Wizard

START SETUP → Test Internet Access → **Configure Hot Spot Settings** → Login Page Branding → Guest Access Control → SETUP FINISH

CONFIGURE PRODUCT: Set the product operating parameters

Name of Hot Spot:
This is the name customers will see on their computer

Time zone:
Defines time displayed for logins and logouts

Admin password:
Username is always **admin**
Keep the password safe

Repeat password:

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When you have completed this screen click on the button to proceed to step 3.



23: The Quick Start Wizard: Enter Your Business Information for the Login Page

The first option you select is the category that describes your venue. This selection determines the login page background image. The information you type into the boxes will be displayed on your login page. It is important that you provide guests with the information they need to email to friends or make a return reservation. In addition to your business information you can also type in an advertising message so that you can promote a product or service. You may not want your guests to see all the information listed on this page. Type in only the business information that you want your guests to see on your custom login page. Ignore the boxes where you do not wish to provide the information. When you have completed this screen click on the button to proceed to step 4.

The next step in the setup process is the creation of the login page. Your guests will see this page when they connect to your Internet service. Your guests have to click on the disclaimer or enter a code to access the Internet.



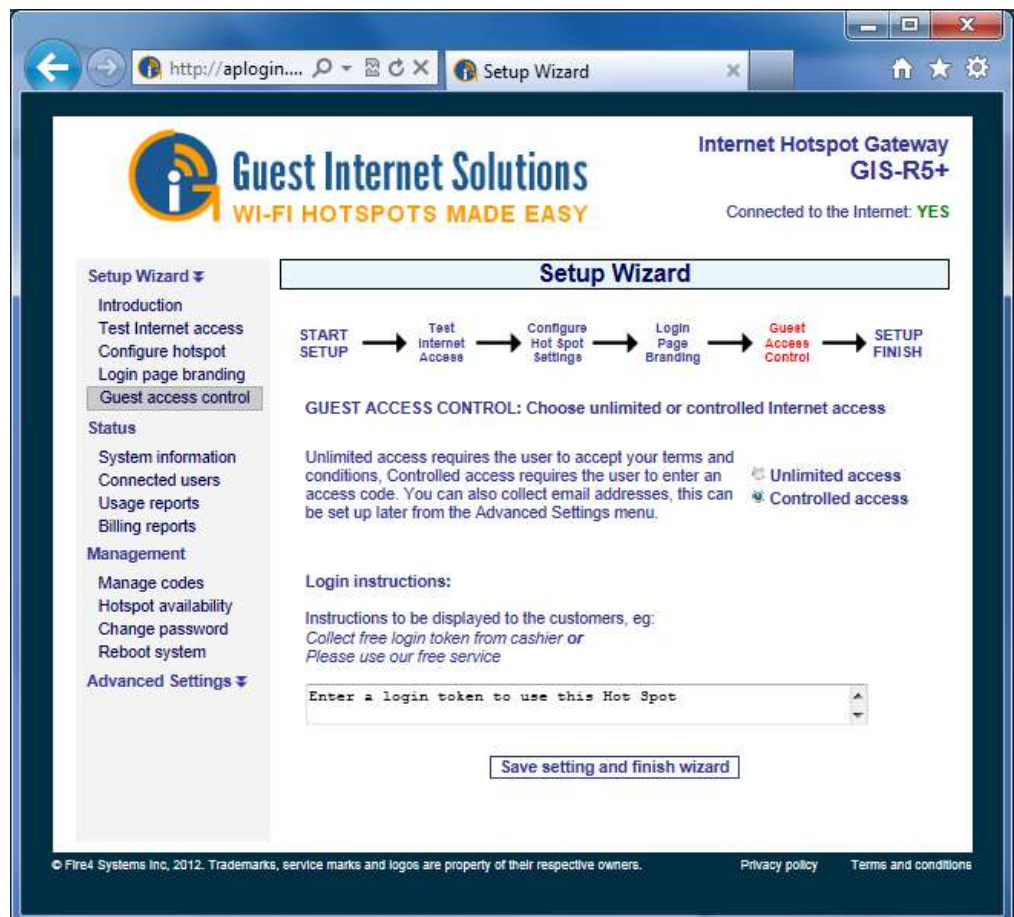
24: The Quick Start Wizard: Select Disclaimer or Code Access

The next step is to select the type of access control you require. You have two options.

1. Unlimited access: The guest sees the login page and has to click on the disclaimer button to get Internet access.
2. Controlled Access: The guest has to type in an access code. The code is generated using the MANAGE CODES menu option and can be given or sold to the guest.

The choice you make here is determined by the way that you want to offer your Internet service for your guests. See the earlier section that explains this choice.

It is also necessary to type a message that tells your customer how to proceed to get Internet access. For example, you may wish to give access codes at the point of sale. In this case the message should read; "Speak to the cashier to get your access code".



When completed click on the save settings and finish button

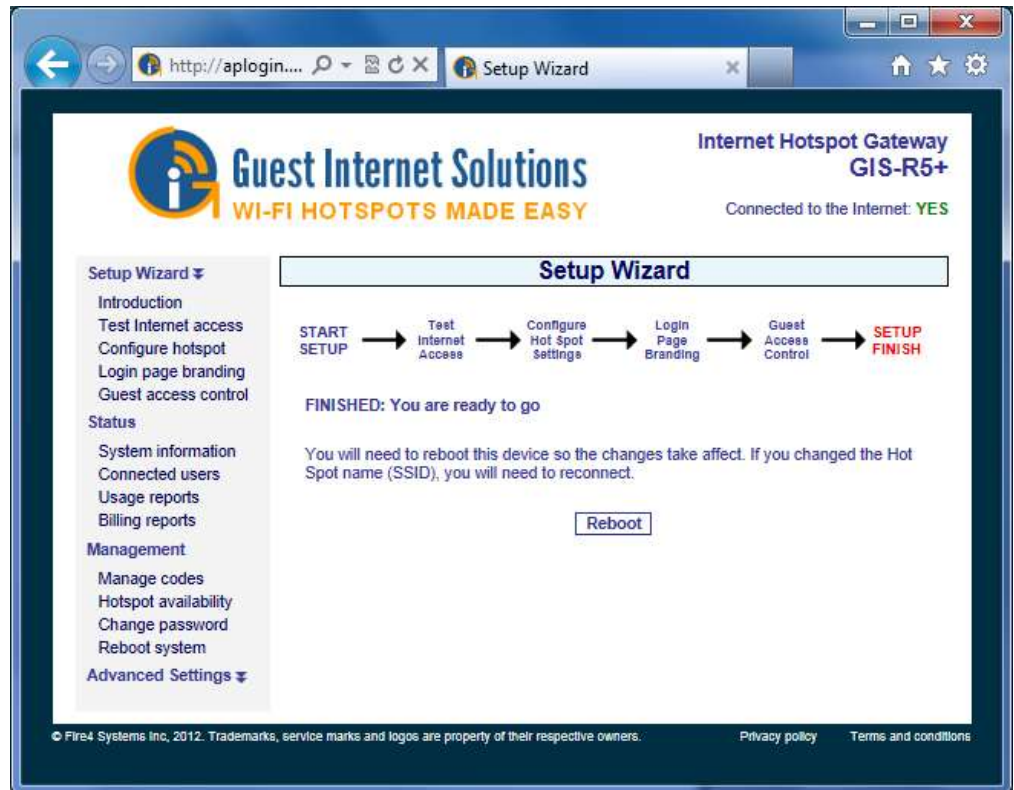


25: The Quick Start Wizard: Completing the process

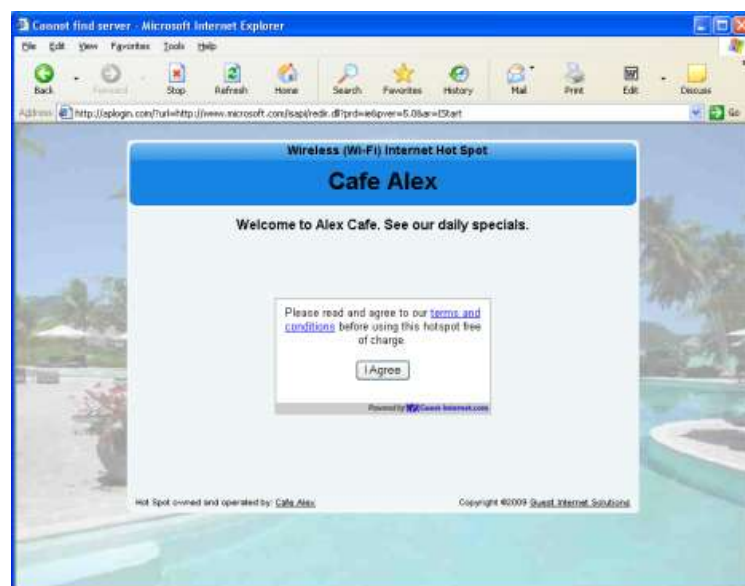
The final step in the setup process is to restart or reboot the Guest Internet gateway unit.

This step will restart the gateway unit with all the parameters that were entered during the setup process.

Click on the Reboot button shown on the screen below.



The Guest Internet gateway unit will take approximately three minutes before it begins functioning again. Now open your browser and you will see the login page that you created. Your login page will be similar to the display shown here.





26: Operating the Guest Internet Gateway Unit

When the setup wizard procedure has been completed it should not be necessary to make any configuration changes. If the access mode was set to CONTROLLED ACCESS then it will be necessary to log in to the device periodically to generate and download access codes.

The Guest Internet gateway unit has many features that you may wish to take advantage of by accessing the unit as the administrator. The password that you entered during the wizard setup process will be required to login as the administrator so keep a note of that password in a safe place, and don't share it with others, unless you are authorizing someone to administrate the product. You can also set a different password for a dedicated page that is used to generate and administrate access codes.

When you log in as administrator you will see a menu on the left side of the page. The menu is divided into four sections for convenience.

- **SETUP WIZARD:** by clicking on this menu option any information provided during the setup process can be changed.
- **STATUS:** this page shows the status of the product. This information will be useful for an IT technician.
- **MANAGEMENT:** These functions are used to administer your Internet service, you may use the **manage codes** page frequently if you are providing guests with codes.
- **ADVANCED SETTINGS:** These settings permit you to change technical parameters of your product. Changes in these parameters should not be required unless you have specific network requirements. For example your IT technician may have to set a fixed IP address.

This manual has a description of each page and how it can be configured.

Important Note

Some of the advanced settings can disrupt normal operation of the Guest Internet gateway if changed without care. In extreme cases you may get 'locked out' of the device due to changes that you made. You can also get 'locked out' if you forget your password.

If you are 'locked out' then there is a procedure to reset the unit to factory defaults. This procedure is described later in this manual. All Guest Internet products have a label on the product that explains how to reset the unit to factory defaults.

Once set to factory defaults you will have to follow the setup procedure once more to configure the product for your requirements.

27: Using Advanced Functions to Access Additional Features

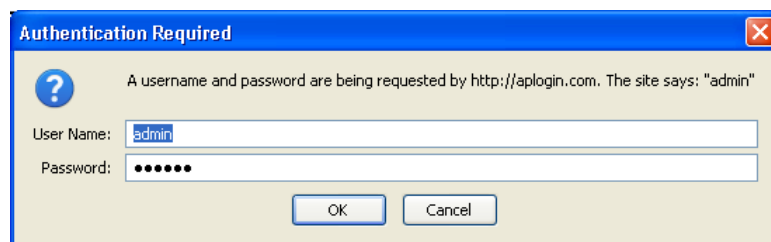
The Guest Internet gateway is configured using any type of computer. The notebook computer can be connected directly to the GIS-gateway unit using an Ethernet cable, or connected wirelessly through an access point connected to one of the LAN ports.

After powering the Guest Internet product allow 2 minutes for the unit to perform internal test routines before beginning the configuration process.

The computer's browser is used to configure the Guest Internet product. Open the browser and type the URL:

`http://aplogin.com/admin`

A box will open requesting the user name and password.



The username and password are:

Username = **admin**

Password = **(password set during the Wizard setup process)**

When the password has been accepted then the **Status: System Information** page will open (following section). The computer is now logged in as the administrator of the Guest Internet GIS-gateway.

Remember the password as it is required each time you wish to login as administrator. If you forget your password then you will have to reset the GIS-gateway to factory defaults and start the configuration process anew.

28: Login for Access Code Generation and Management

All GIS gateway products have a special graphic user interface specifically to generate access codes that are given to guests for Internet access. The user interface has been optimized for display on a 7inch tablet permitting the tablet to be located at the point of sale, and be operated like a PoS screen. The user interface can also be displayed on larger and small tablets, and with both desktop and laptop computers. The access code generation display is also excellent for use with smart-phones. When the ticket printer is activated the display is used to print access codes onto tickets, as a self-contained PoS. Access codes can be generated and managed using the administrator login:

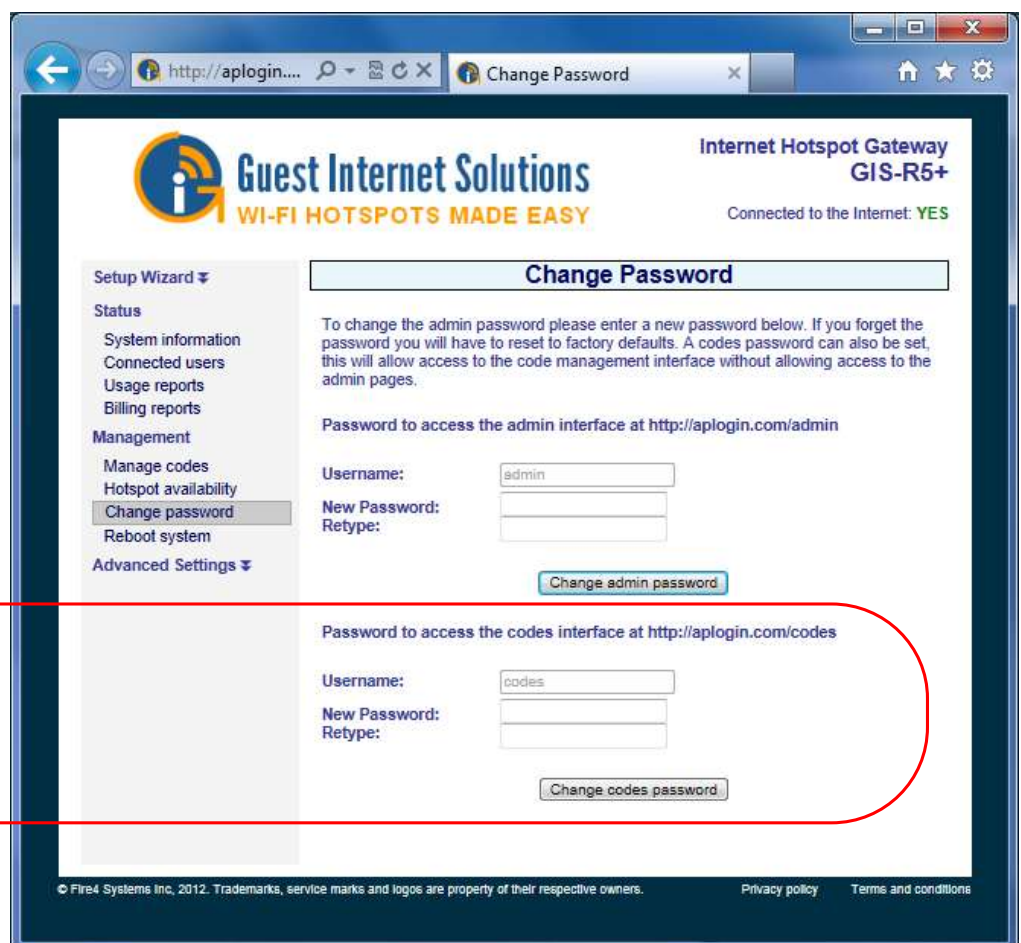
<http://aplogin.com/admin>

The administrator login gives access to all the features of the GIS- gateway. In many cases it is desirable to give someone the permission to generate and manage access codes, but not permit that person to have access to all the configuration parameters. A page that permits only the generation and management of codes can be accessed using the URL:

<http://aplogin.com/codes>

A username and password is requested when this URL is typed in and so the code administration page password must be created before this feature can be used. First login as administrator and click on the *change password* menu entry to create the password for the access code management page. See the screen below.

**Change password screen:
a second password is
required for the access
code generation and
management page**



The screenshot shows a web browser window with the address bar displaying <http://aplogin.com/codes>. The page title is "Change Password". The main content area has a header for "Guest Internet Solutions" with the tagline "WI-FI HOTSPOTS MADE EASY" and "Internet Hotspot Gateway GIS-R5+". It also indicates "Connected to the Internet: YES".

On the left, there is a sidebar menu with the following items:

- Setup Wizard
- Status
 - System information
 - Connected users
 - Usage reports
 - Billing reports
- Management
 - Manage codes
 - Hotspot availability
 - Change password**
 - Reboot system
- Advanced Settings

The main content area is titled "Change Password" and contains the following text:

To change the admin password please enter a new password below. If you forget the password you will have to reset to factory defaults. A codes password can also be set, this will allow access to the code management interface without allowing access to the admin pages.

Below this text, there are two sections for password changes:

Admin Interface: Password to access the admin interface at <http://aplogin.com/admin>. It includes fields for Username (pre-filled with "admin"), New Password, and Retype, followed by a "Change admin password" button.

Codes Interface: Password to access the codes interface at <http://aplogin.com/codes>. It includes fields for Username (pre-filled with "codes"), New Password, and Retype, followed by a "Change codes password" button.

A red oval highlights the "Change codes password" section.

At the bottom, there is a footer with copyright information: "© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners." and links for "Privacy policy" and "Terms and conditions".



If your Guest Internet gateway has been configured for the controlled access mode then you will use the **Manage Codes** feature frequently. This page is used to generate codes in several different formats and to cancel codes. It is also used to list outstanding codes. Codes can also be printed using the optional ticket printer GIS-TP1.

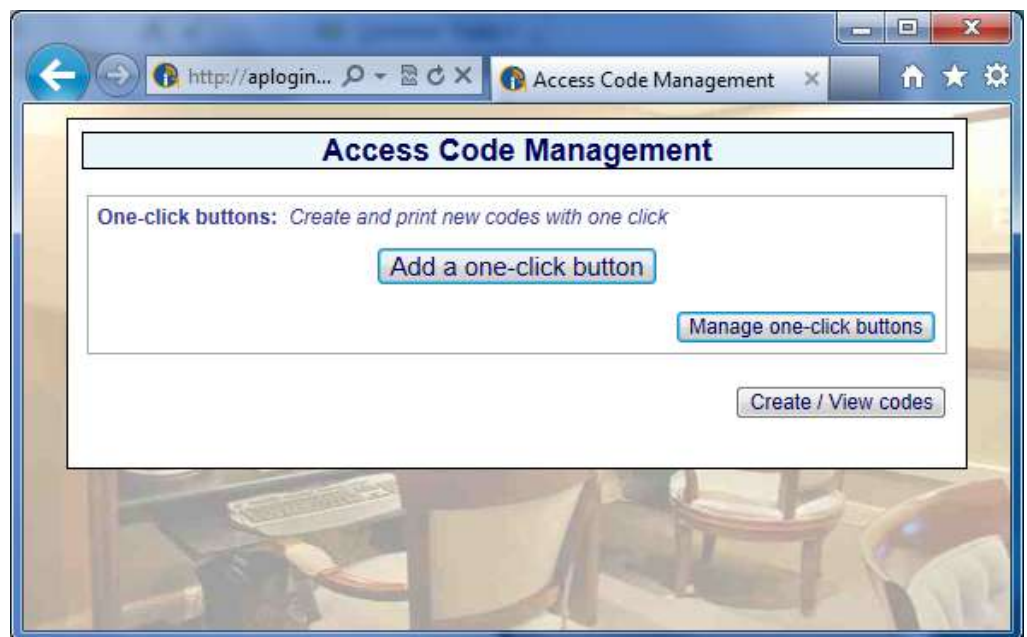
Now login to open the access code generation and management page typing in the URL:

<http://aplogin.com/codes>

The username for the code generation and management page is always **codes**. The password that was configured for the code generation and management page should be typed into the box shown below. Click on the button OK to see the access code management page as shown in the figure below.



**Access code management
page**



The ticket printer screen is designed to be easy to use, similar in operation to a point of sale (PoS) display. It is necessary to first create buttons that are used to generate access codes. Up to ten buttons can be added to the display. The button can be touched on a tablet display, or clicked with a mouse on a desktop or laptop computer, to generate the access code. The buttons also work with a smart phone touch display.

Click on the 'add a one-click button' to add a button to the display. The screen that is shown on the following page will be displayed.



Add one-click button page

First type the name of the button that will be shown on the display subsequently. This could refer to the access time, e.g. two-hours, or the type of user, e.g. conference-guest. The code duration can be selected from 30 minutes to 180 days using the drop down menu. One of two codes types can be selected

- **Single:** Only one guest can use this code. The code runs to completion after login. The duration of the code is selected by the time option.
- **Multi-User:** Many guests can use this code concurrently for Internet access. The timer starts the first time that the code is used by any user, and the code expires after the duration set for the code. Subsequent users will therefore have less time available for the code.

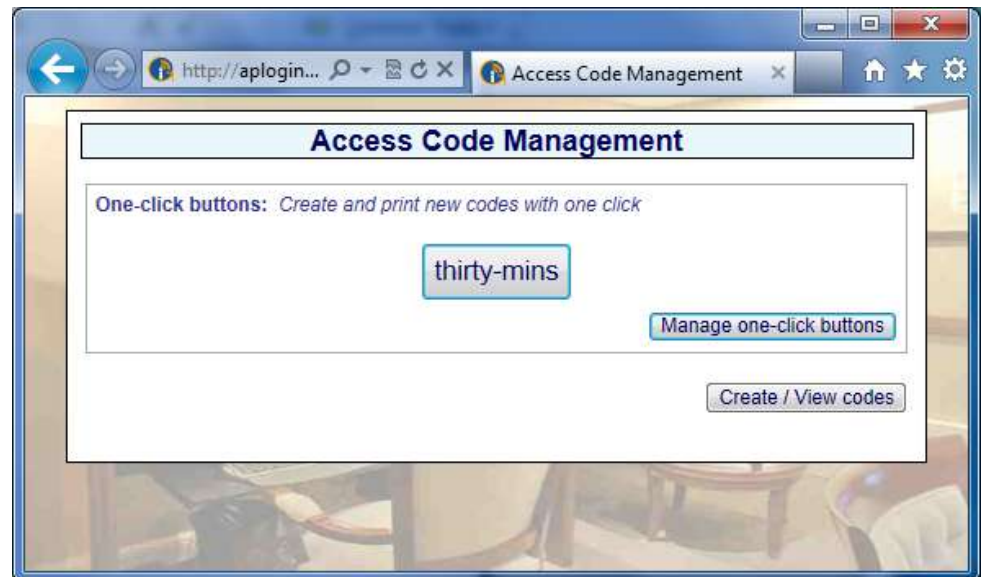
The download and upload speed limits can also be specified for the code using the drop down menu. When the 'create button' is clicked the following screen is displayed.

Button added page



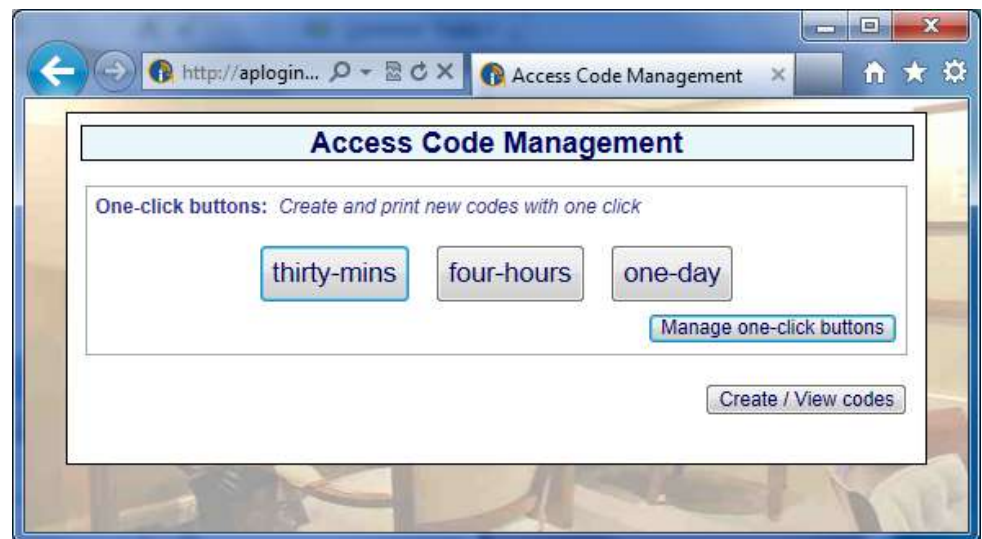
Click the 'exit management' button to see the display with button that is used to generate access codes.

Access code generation page



Two more buttons have been added to the display shown below. A maximum of ten buttons can be added to the display.

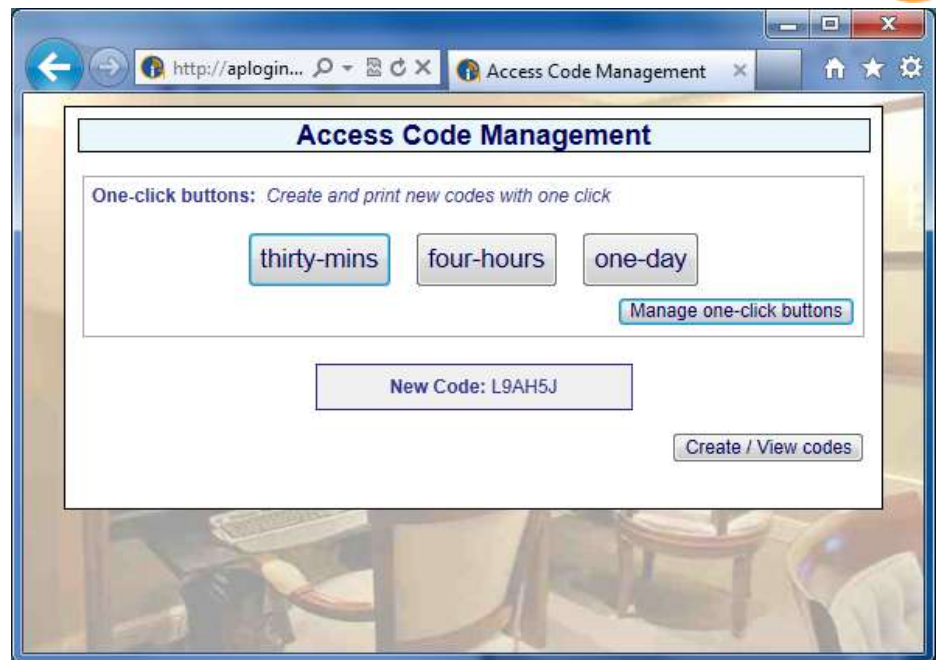
Access code generation page showing three buttons



When any button is clicked the access code that has been generated is shown on the display. See the figure on the following page.

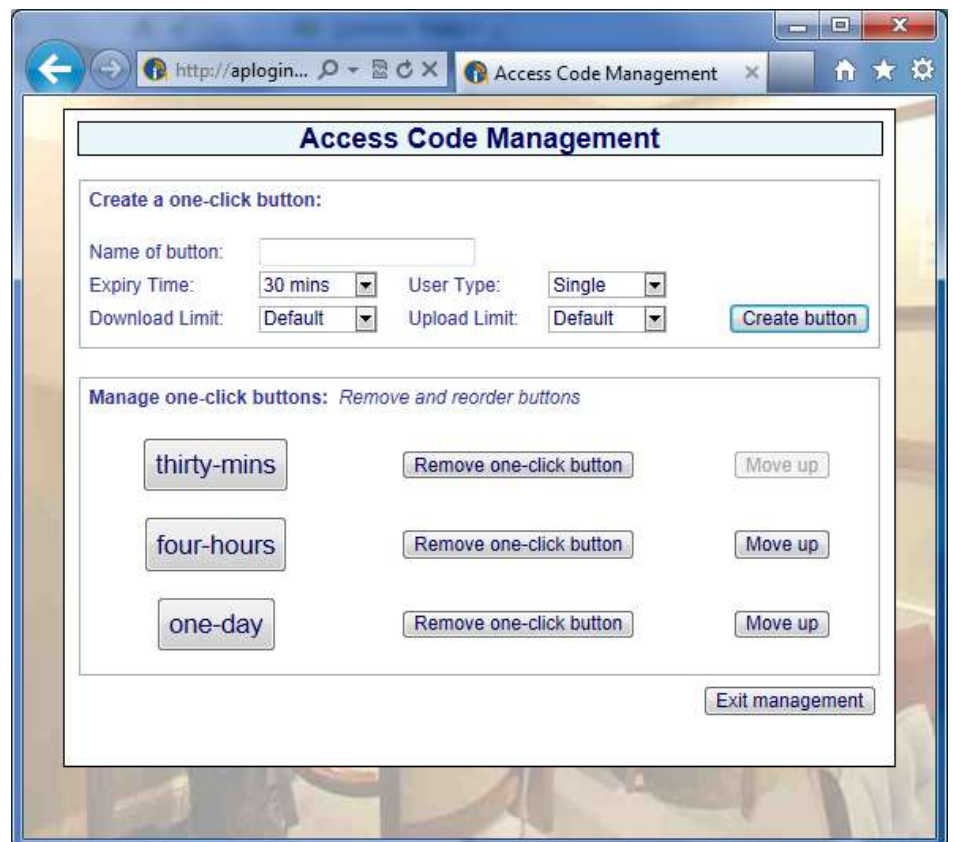


Access code generated



Buttons can be removed, and new buttons created at any time by clicking on 'manage one-click buttons'. When clicked the screen shown on the following page is displayed. Any button can be removed by clicking on 'remove one-click button'. New buttons can be added by following the procedure describer above. Click on 'exit management' when finished.

Manage buttons page



The access code management page also has a 'create/view codes' option. See the figure above. The create/view codes display is shown on the following page.



Create/view codes page

Access Code Management

One-click buttons: *Create and print new codes with one click*

[thirty-mins](#) [four-hours](#) [one-day](#) [Manage one-click buttons](#)

Create custom codes: *You have you used 18 of 10000 codes*

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit: [Create Codes](#)

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check: [Check Code](#) [View All Codes](#) [Hide code view](#)

The create/view codes page provides two features. The first is the option to create custom codes. The screen below shows a custom code that has been generated.

Create new custom code

Access Code Management

One-click buttons: *Create and print new codes with one click*

[thirty-mins](#) [four-hours](#) [one-day](#) [Manage one-click buttons](#)

Create custom codes: *You have you used 10 of 10000 codes*

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit: [Create Codes](#)

New Codes:

#	Code	Time	Type	Down	Up
1	W284GW	30 mins	single user	default	default

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check: [Check Code](#) [View All Codes](#) [Hide code view](#)



This option is used when several of codes are required as the number of codes can be specified. As an alternative, one code can be generated with a name that can be specified in the code text box, rather than use the random codes generated by the buttons. As with the button, the code duration, user type, and download /upload limits are specified. Click the 'create codes' button to generate the access codes.

Access codes can also be verified by typing the code into the 'code to check' box. Click the 'check code' button to see the access code characteristics.

Click the 'view all codes' button to display a list of all access that have been generated, and have not expired. This display is shown in the figure below. This display can be used to delete any code or codes by checking the boxes and clicking the 'delete checked codes' button.

View all codes page

Access Code Management

One-click buttons: *Create and print new codes with one click*

Create custom codes: *You have you used 9 of 10000 codes*

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit:

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check:

<input type="checkbox"/>	Code	Time	Type	Used	Time Left	Down kbit/s	Up kbit/s	Download Used	Upload Used
<input type="checkbox"/>	0BXH45	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	0T0W1F	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	20EY1E	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	4LL5DH	2 hours	single	NO	2 hours	*	*	0	0
<input type="checkbox"/>	7158TB	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	9F6KRE	2 hours	single	NO	2 hours	*	*	0	0
<input type="checkbox"/>	C6KQYQ	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	D57XCC	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	W2W31K	30 mins	single	NO	30 mins	*	*	0	0

* Default bandwidth limit (kbit/s)



Available access codes are shown in the list of generated codes. When the time of a code has expired it remains in the list for seven days before automatic deletion. An expired code can be removed from the list by clicking in the box to the left of the code then clicking the 'Delete checked codes' button and multiple codes can also be deleted. When codes are removed from the list new codes can be generated. The list of codes can be downloaded in a CSV format and copied into a spreadsheet for analysis.

The type of code that is generated will depend on your business and the type of Internet service that you want to offer your guests.

For example, if you own a coffee bar and want to provide free Internet then give your guests a 30-minute access code but only with a purchase. This will avoid Internet users filling your tables and not buying your products. If the guest wants to continue to access the Internet after 30 minutes then he or she has to make a second purchase to get a new code.

In summary, you have to select the parameters for each code or block of codes according to the needs of your business.

The access code parameters that can be configured are:

- Number of codes
- Duration of each code (30 minutes to 180 days)
- Type of code (single user or multi-user)
- Download speed limit (in Kbytes/second)
- Upload speed limit (in Kbytes/second)

The screens on the previous pages showed the generation of the access code where the name was composed of random numbers and letters. An easily remembered name can also be typed in to use as the access code. Note that if the code is easy to recognize then unauthorized users will also discover the code and get access to the Internet. The custom access code name must not include spaces. If it desired to separate two words then the underscore character can be used. The code name is limited to nine characters maximum.

Guests and visitors who have been given codes for Internet access may complain that the code cannot be used or the time was too short. Any access code can be verified. First type the code into the 'Enter codes to check box', and then click on the **Check code** button. The current status of the code will be shown. This feature is especially important if you are selling codes and have to address customer complaints regarding the Internet service.



29: Status Functions: System Information

On completion of the administrators login process the system information screen is displayed (shown below). The information displayed shows;

- **Product model** (required for firmware upgrades)
- **Firmware version** (required for firmware upgrades)
- **Serial number** (required for firmware upgrades)
- Verification that the device is connected to the Internet
- Current date and time and timezone
- Authenticated users and codes used
- WAN and LAN port network configurations
- Status of firewall, content filter, remote access and Dynamic DNS
- Information text box for configuration notes

System Information
Display

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R5+

Connected to the Internet: **YES**

System Information

Uptime: 03h 03m 17s
Hostname: aplogin.com
Date / time: 03/11/13 03:38:42 PM [Reset](#)
Timezone: US/Eastern
Firmware version: 2.3.0a
Serial Number: 392f750f

NEW login code ticket printer available
Print login codes for hotspot users with the click of a button.
Ask your reseller about the new Point-of-Sale style ticket printer.

Hotspot enabled: **YES** [View Schedule](#)
Authenticated users: 0
Codes used: 1

WAN IP address: 10.1.10.57 (dhcp)
WAN MAC address: 00:27:22:ED:DA:BC
LAN IP address: 192.168.96.1
LAN DHCP range: 192.168.96.10 - 192.168.111.254

Firewall: Enabled
Content filter: Disabled
Remote access: Disabled
Dynamic DNS: Disabled

Notes: (Private information about this device)

[Save](#)

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Four main menu topics are shown, and each main menu has several configuration pages:

- Setup Wizard
- Status (includes this system information page)
- Management
- Advanced settings

The management menu is used to manage the product for day-to-day use. Click on the down arrow to expand the Setup Wizard and the Advanced settings.



30: Status Functions: Connected Users

Clicking on the **Connected Users** menu will show the page seen in the figure below.

There are two boxes, Authenticated users and Connected users.

Connected users lists all the computers that are connected to the gateway unit: they have requested and obtained an IP address.

The authenticated users box shows all the guests that have provided a valid access code (controlled access mode) or clicked on the disclaimer agreement button (unlimited access mode).

Information about connected clients is shown: MAC address, IP address allocated by the gateway unit, time that remains on the code, bytes out (use of the network) and the access code used.

Connected Clients Menu Page

Internet Hotspot Gateway
GIS-R5+

Connected to the Internet: YES

Connected Users

The list below contains details of users connected to this device.

Authenticated users (logged in):

	Mac address	IP address	Time left	Bytes In / Out	Code
1	80:C1:8E:45:07:B7	192.168.96.10	0d 23h 59m	305K / 105K	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

☒ Logout user ☒ Logout and block user from this hotspot, Blocked MAC addresses can be released [here](#)

Connected users:

	Mac Address	IP Address	Blocked IP	Blocked MAC	Allowed MAC
1	80:C1:8E:45:07:B7	192.168.96.10	No	No	No

MAC addresses are blocked manually (above) and by the firewall, they can be released [here](#)
IP addresses are blocked automatically for abusive use of the service.
Abuse can be caused by viruses, trojans or a malicious user
IP blocks are automatically removed after the abuse stops

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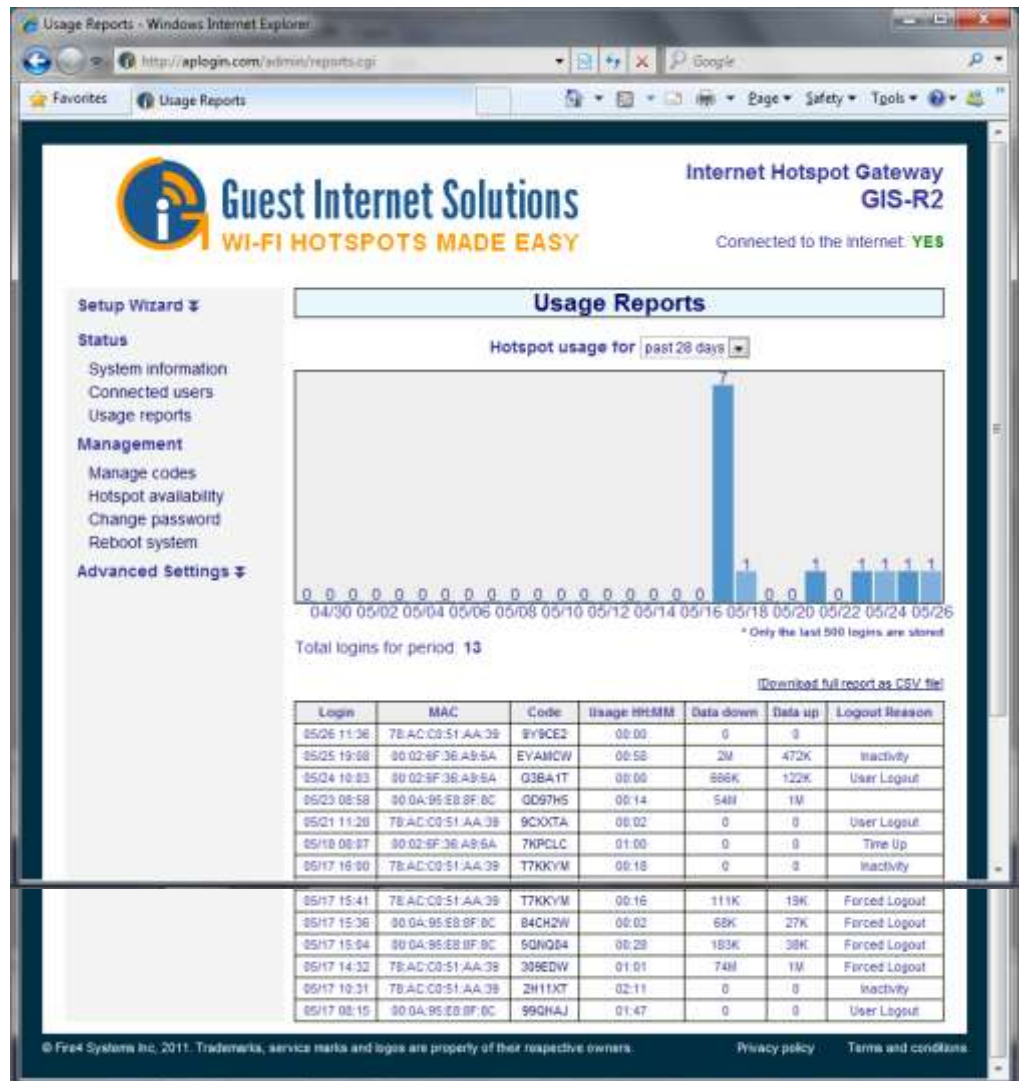
Clicking on the blue 'X' in the right hand column will disconnect that authenticated user.

Clicking on the red 'X' in the right hand column will disconnect that user, and include the users computer MAC address in the blocked MAC list, preventing the user accessing the Internet.

31: Status Functions: Usage Report

Clicking on **Usage reports** will display the page shown below. The last 1000 entries are stored and displayed on this page. The number of users per day is shown on a time-varying graph that can extend up to 28 days.

The usage data can be downloaded in a CSV format and loaded into a spreadsheet program such as Excel for further analysis. The data table had seven parameters for each entry: Login time, MAC address, Access code used, Time connected, Downloaded data volume, Uploaded data volume, Logout reason.



Logout reasons:

- "None / Error",
- "User Logout",
- "Time Up",
- "Inactivity",
- "Forced Logout",
- "User Banned",
- "Hotspot Disabled",
- "User Blocked (P2P)",
- "Duplicate",
- "No Logout"



32: Status Functions: Billing Report (GIS-K3, GIS-R3 to GIS-R20 only).

The GIS-R3 to R20 products include PayPal™ credit card billing functionality for public hotspots and Internet cafes. Please see the later section: Advanced Settings: Credit Cards / PayPal™, for additional information about credit card billing.

The status functions section includes a billing report that summarizes the transactions process.

All GIS products comply with the Payment Card Industry Data Security Standards (PCI DSS) recommendations for computer systems that process credit card transactions. This includes Point of Sales Systems (PoS) and Internet Kiosks. GIS systems do not store credit card information. Each transaction record is identified by a transaction ID. The merchant can login to the PayPal™ business account and locate the transaction details using the Transaction ID. GIS units also send transaction emails to both the merchant and purchaser with a notification of the transaction.

The billing report display shows four account parameters:

- Total sales during the current day
- Total sales during the previous day
- Total sales during the current month
- Total sales during the previous month.

The table displays information about each transaction. The table contents can be downloaded as a CSV file and imported into accounting software such as Quickbooks™.

**Internet Hotspot Gateway
GIS-R6**
 Connected to the Internet: YES

Setup Wizard ▾

Status

- System information
- Connected users
- Usage reports
- Billing reports**

Management

- Manage codes
- Hotspot availability
- Change password
- Reboot system

Advanced Settings ▾

PayPal™ Billing Reports

\$2.00
Today (so far)

\$1.99
Yesterday

\$18.89
This month (so far)

\$0.00
Last month

[\[Download report as CSV file\]](#)

Date / Time	Value	Code	Transaction ID	First Login
09/28/2011 07:21	0.99	9TKYM4	5PT030061K558545J	Not Used
09/28/2011 07:26	0.99	JW7YBD	2P024384JJ6510313	Not Used
09/28/2011 07:37	1.99	B8FLLW	13B46000CX8538405	Not Used
09/28/2011 08:15	1.00	BGLR7R	0VY37962EE940893E	Not Used
09/28/2011 08:20	0.99	WA1E59	15101002URM63935R	30/09/2011 10:56
09/28/2011 08:27	1.99	7FQMLD	5MC62265VG7740606	Not Used
09/28/2011 08:29	0.99	MXCGWC	4BP07117P9049842Y	Not Used
09/28/2011 08:31	1.00	WCJM66	08D61955UP898452K	Not Used
09/28/2011 08:35	0.99	AJRJTC	8X8980615E359700L	Not Used
09/28/2011 08:37	1.99	QN241N	12B9637857904713J	28/09/2011 11:11
09/28/2011 08:38	0.99	3BGMQN	79D528835C537620U	28/09/2011 09:33
09/28/2011 12:05	0.99	LH3ZHC	5BR76244A1469304I	28/09/2011 12:24
09/29/2011 05:15			Error 81115: Missing Parameter PaymentAction: Required parameter missing	
09/29/2011 05:15			Error 81115: Missing Parameter PaymentAction: Required parameter missing	
09/29/2011 05:15			Error 81115: Missing Parameter PaymentAction: Required parameter missing	
09/29/2011 05:15			Error 81115: Missing Parameter PaymentAction: Required parameter missing	
09/29/2011 05:15			Error 81115: Missing Parameter PaymentAction: Required parameter missing	
09/29/2011 05:15			Error 0: couldn't connect to host	
09/29/2011 05:15			Error 0: couldn't connect to host	
09/29/2011 05:15			Error 10410: Invalid token Invalid token	
09/29/2011 05:15	0.99	AADAPL	9LU65692CV63143X	29/09/2011 05:15
09/29/2011 05:15			Error 10000: Security error Security header is not valid	
09/29/2011 05:15	1.00	DN85VC	45L88964G841542X	30/09/2011 05:57
09/30/2011 06:03	1.00	33373Q	8PC534711K746114E	30/09/2011 06:03
09/30/2011 06:06	1.00	C8G3PD	4H497268K4412332	Not Used
09/29/2011 05:15			Error 10404: Transaction refused because of an invalid argument. See additional	

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33: Management Functions: Manage Codes

If your Guest Internet gateway has been configured for the controlled access mode then you can login as **admin** to use the **Manage Codes** menu page or login as **codes** to use the Manage Codes page (previous section). This page is used to generate codes in several different formats and to cancel codes. It is also used to list outstanding codes. Codes can be downloaded in a CSV format (comma separated value) and then used by popular word processors such as MS WORD™ to print the codes onto Avery peel-off labels. When the Manage Codes menu option is selected the page shown below appears. The upper part of the box is used to generate codes; the lower part of the box is used to manage codes. Up to 1000 access codes for the GIS-K2/R2 and 10,000 access codes for other products can be generated. The code duration can be selected from 30 minutes to 180 days. One of two codes types can be selected

- **Normal:** Only one guest can use this code. The code runs to completion after login. The duration of the code is selected by the length option.
- **Multi-User:** Many guests can use this code concurrently for the duration set for the code. Note that the counter starts the first time that the code is used by any user, and the code expires after the duration set for the code. Subsequent users will therefore have less time available than the time set for the code.

Two other buttons are available, **Check Code** and **View all Codes**. A code that has been given to a guest can be checked for validity. This is important if you are selling codes to guests. Type the code into the box then click on the Check Code button. A report will be shown of the remaining time for that code.

Clicking the View all Codes button will display all codes that have been generated and show the status of each. You can see this in the display below.

Access code generation and management page, the access code type is random: a random name will be generated

The screenshot displays the 'Access Code Management' interface of the Guest Internet Solutions gateway. The page is divided into a left sidebar and a main content area. The sidebar contains a 'Setup Wizard' dropdown and a 'Status' section with links to 'System information', 'Connected users', 'Usage reports', and 'Billing reports'. Below this is a 'Management' section with links to 'Manage codes', 'Hotspot availability', 'Change password', and 'Reboot system'. The 'Manage codes' link is highlighted. The main content area has a title 'Access Code Management' and a subtitle 'Create codes: You have you used 1 of 10000 codes'. It features several dropdown menus for 'Code Text' (set to 'Random'), 'Expiry Time' (set to '30 mins'), 'Download Limit' (set to 'Default'), and 'Upload Limit' (set to 'Default'). There are also input fields for 'Number of codes to create' (set to '1') and 'User Type' (set to 'Single'). A 'Create Codes' button is present. Below this, there are sections for 'Single User' and 'Multi User' with descriptive text. A note mentions that codes can be managed via a password or a CSV file. At the bottom, there is a 'Check / Delete Codes' section with a text input for 'Enter code to check' and buttons for 'Check Code' and 'View All Codes'. The footer includes copyright information for Fire4 Systems Inc. and links to 'Privacy policy' and 'Terms and conditions'.



Access code generation and management page, the access code type is custom: a name up to 9 digits can be entered – spaces are not allowed. An example for an access code is 'cityhotel'. Only one code can be generated with this name.

Internet Hotspot Gateway GIS-R5+
Connected to the Internet: YES

Access Code Management

Create codes: You have used 1 of 10000 codes

Code Text: Code (No spaces):

Expiry Time: User Type:

Download Limit: Upload Limit:

Single User: Code can only be used by one user at a time. Code expires at pre-set time after first login.

Multi User: Code can be used by many users at the same time. Code expires at pre-set time after the code was first used.

You can also use <http://aplogin.com/codes/> to manage codes, set a password. Import codes from a CSV file, all existing codes will be replaced.

Check / Delete Codes: Codes are automatically deleted 7 days after they expire

Enter code to check:

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For random code type, select the number of codes to create

Internet Hotspot Gateway GIS-R5+
Connected to the Internet: YES

Access Code Management

Create codes: You have used 1 of 10000 codes

Code Text: Number of codes to create:

Expiry Time: User Type:

Download Limit: Upload Limit:

Single User: Code can only be used by one user at a time. Code expires at pre-set time after first login.

Multi User: Code can be used by many users at the same time. Code expires at pre-set time after the code was first used.

You can also use <http://aplogin.com/codes/> to manage codes, set a password. Import codes from a CSV file, all existing codes will be replaced.

Check / Delete Codes: Codes are automatically deleted 7 days after they expire

Enter code to check:

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Select the duration of the code(s) from 30 minutes to 180 days, or unlimited

The screenshot shows the 'Access Code Management' page of the 'Guest Internet Solutions' web interface. The 'Expiry Time' dropdown menu is open, displaying a list of options: 30 mins, 1 hour, 2 hours, 3 hours, 4 hours, 12 hours, 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 7 days, 15 days, 30 days, 60 days, 90 days, 180 days, and unlimited. The '30 mins' option is currently selected. The interface includes a sidebar with navigation links like 'Setup Wizard', 'Status', 'System information', 'Connected users', 'Usage reports', 'Billing reports', 'Management', and 'Advanced Settings'. The main content area shows fields for 'Code Text', 'Number of codes to create', 'User Type', and 'Upload Limit', along with a 'Create Codes' button. A footer at the bottom contains copyright information for Fire4 Systems Inc. 2012.

Select the type of code(s): single user or multi-user

This screenshot shows the same 'Access Code Management' page, but with the 'User Type' dropdown menu open. The menu shows two options: 'Single' and 'Multi'. The 'Single' option is selected. The interface layout is identical to the previous screenshot, with the same sidebar and main content area. The footer also remains the same, indicating it is the same web application.



Select download speed limit for the code(s) (in Kbytes/second). If the speed you want is not in the drop-down menu then select custom and type in the speed in Kbits/sec.

The screenshot shows the 'Access Code Management' page of the Guest Internet Solutions Internet Hotspot Gateway (GIS-R5+). The page is connected to the Internet (YES). The left sidebar contains a 'Setup Wizard' menu with options: Status, System information, Connected users, Usage reports, Billing reports, Management, and Advanced Settings. The 'Management' section is expanded, showing 'Manage codes' as the selected option. The main content area is titled 'Access Code Management' and includes a 'Create codes' section. The 'Download Limit' dropdown menu is open, showing options: Default, 32 kbit/s, 64 kbit/s, 128 kbit/s, 256 kbit/s, 512 kbit/s, 768 kbit/s, 1024 kbit/s, 2048 kbit/s, Custom, and Unlimited. The 'Create Codes' button is visible. Below the 'Create codes' section, there is a 'Check / Delete Codes' section with a text input field for 'Enter code to check:' and buttons for 'Check Code' and 'View All Codes'.

Select upload speed limit for the code(s) (in Kbytes/second). If the speed you want is not in the drop-down menu then select custom and type in the speed in Kbits/sec.

The screenshot shows the 'Access Code Management' page of the Guest Internet Solutions Internet Hotspot Gateway (GIS-R5+). The page is connected to the Internet (YES). The left sidebar contains a 'Setup Wizard' menu with options: Status, System information, Connected users, Usage reports, Billing reports, Management, and Advanced Settings. The 'Management' section is expanded, showing 'Manage codes' as the selected option. The main content area is titled 'Access Code Management' and includes a 'Create codes' section. The 'Upload Limit' dropdown menu is open, showing options: Default, 32 kbit/s, 64 kbit/s, 128 kbit/s, 256 kbit/s, 512 kbit/s, 768 kbit/s, 1024 kbit/s, 2048 kbit/s, Custom, and Unlimited. The 'Create Codes' button is visible. Below the 'Create codes' section, there is a 'Check / Delete Codes' section with a text input field for 'Enter code to check:' and buttons for 'Check Code' and 'View All Codes'.



The screen shows the generation of an access code with a random name.

The screenshot shows the 'Access Code Management' page of the Guest Internet Solutions web interface. The page title is 'Internet Hotspot Gateway GIS-R5+'. The status bar indicates 'Connected to the Internet: YES'. The left sidebar contains a 'Setup Wizard' menu with options: Status, System information, Connected users, Usage reports, Billing reports, Management, Manage codes, Hotspot availability, Change password, Reboot system, and Advanced Settings. The main content area is titled 'Access Code Management' and includes a 'Create codes' section with the following details: 'You have you used 2 of 10000 codes'. The 'Code Text' is set to 'Random', 'Number of codes to create' is '1', 'Expiry Time' is '30 mins', 'User Type' is 'Single', 'Download Limit' is 'Default', and 'Upload Limit' is 'Default'. A 'Create Codes' button is present. Below this is a 'New Codes' table with one entry: Code '0TDW1F', Time '30 mins', Type 'single user', Down 'default', and Up 'default'. A 'Download CSV file' button is below the table. At the bottom, there is a 'Check / Delete Codes' section with the text 'Codes are automatically deleted 7 days after they expire'. It includes an 'Enter code to check' field with the value '0TDW1F', a 'Check Code' button, and a 'View All Codes' button. The footer contains copyright information for Fire4 Systems Inc. 2012, a privacy policy link, and terms and conditions link.

#	Code	Time	Type	Down	Up
1	0TDW1F	30 mins	single user	default	default

Access code verification.
Type in the access code
to display all information
about that code

The screenshot shows the 'Access Code Management' page after verifying the code '0TDW1F'. The 'Create codes' section remains the same. The 'Check / Delete Codes' section now shows the 'Enter code to check' field with the value '0TDW1F' and a 'Check Code' button. Below this is a table with the following columns: Code, Time, Type, Used, Time Left, Down kbit/s, Up kbit/s, Download Used, and Upload Used. The table contains one entry for the code '0TDW1F' with the following values: Time '30 mins', Type 'single', Used 'NO', Time Left '30 mins', Down kbit/s '-', Up kbit/s '-', Download Used '0', and Upload Used '0'. A 'Delete checked codes' button is below the table. A 'Download CSV file' button is also present. The footer contains copyright information for Fire4 Systems Inc. 2012, a privacy policy link, and terms and conditions link.

Code	Time	Type	Used	Time Left	Down kbit/s	Up kbit/s	Download Used	Upload Used
0TDW1F	30 mins	single	NO	30 mins	-	-	0	0



List all access codes generated. The access code list shows the code, the duration of the code, the code type, if used, the time remaining, and the download/upload maximum speeds set for the code. Check the box then click on 'delete checked codes' to delete the codes and increase the number of codes that can be generated.

Internet Hotspot Gateway
GIS-R5+
Connected to the Internet: YES

Access Code Management

Create codes: You have used 2 of 10000 codes

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit: [Create Codes](#)

Check / Delete Codes: Codes are automatically deleted 7 days after they expire

Enter code to check: [Check Code](#) [View All Codes](#)

<input type="checkbox"/>	Code	Time	Type	Used	Time Left	Down kbit/s	Up kbit/s	Download Used	Upload Used
<input type="checkbox"/>	0T0W1F	30 mins	single	NO	30 mins	-	-	0	0
<input type="checkbox"/>	T	1 day	multi	NO	1 day	-	-	9M	839K

[Delete checked codes](#) [Download CSV file](#) * Default bandwidth limit (kbit/s)

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Up to a maximum of 10,000 codes can be shown in the list of generated codes. When the time of a code has expired it remains in the list for seven days before automatic deletion. An expired code can be removed from the list by checking the box to the left of the code and clicking on the 'Delete checked codes' button. When codes are removed from the list new codes can be generated. The list of codes can be downloaded in a CSV format and copied into a spreadsheet for analysis.

The type of code that is generated will depend on your business and the type of Internet service that you want to offer your guests.



34: Management Functions: Hotspot Availability

Default Hotspot availability screen, always enabled

Hotspot availability permits the gateway to be enabled or disabled during a weekly cycle. Clicking on the **Hotspot availability** menu opens the default page, which shows always enabled.

Click on the right hand arrow to see the drop down menu.



If 'schedule access' is selected from the drop-down menu then the selection table is displayed (shown on the following page).

The Hotspot can be enabled or disabled in increments of 1-hour, during a 7-day period.


Each hourly selection box is checked for enabled when the table is first opened. Uncheck the boxes when the Hotspot service should not be provided.

For example, to configure availability for a dental office where the hours of operation are 9AM to 5PM, Monday to Friday, uncheck the boxes as follows. First uncheck all boxes 12AM to 8AM, Monday to Friday. Next uncheck all boxes 5PM to 11PM Monday to Friday. Finally uncheck all boxes for Saturday and Sunday.

At the times when the Hotspot has been disabled, the login screen will display the message "this hotspot is not available". The message that is displayed can be changed, see the Login messages menu page.



Hotspot availability selection table

**Guest Internet Solutions**
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R5+
Connected to the Internet: YES

Setup Wizard ▾
Status
System information
Connected users
Usage reports
Billing reports
Management
Manage codes
Hotspot availability
Change password
Reboot system
Advanced Settings ▾

Hotspot Availability Schedule

The hotspot schedule allows times to be set for Internet access. The message displayed to customers when access is blocked can be changed [here](#). MAC addresses in the allowed list can always use the Internet.

Hotspot availability: Schedule access (using table below) ▾

ALL / NONE	Sun	Mon	Tue	Wed	Thu	Fri	Sat
12 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
01 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
02 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
03 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
04 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
05 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
06 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
07 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
08 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
09 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 am	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
01 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
02 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
03 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
04 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
05 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
06 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
07 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
08 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
09 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 pm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Ticked boxes indicated the hotspot is enabled

Update schedule

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35: Management Functions: Change Password

During the wizard setup procedure a password must be typed in for the administrator login. The **Change Password** menu option is used to change the password at any time after the initial setup procedure.

The change password menu page is shown in the figure below.

Change Password Menu Page

The screenshot shows a web browser window with the address bar displaying 'http://aplogin....' and a tab titled 'Change Password'. The page header includes the 'Guest Internet Solutions' logo with the tagline 'WI-FI HOTSPOTS MADE EASY', the text 'Internet Hotspot Gateway GIS-R5+', and a status indicator 'Connected to the Internet: YES'. On the left, a 'Setup Wizard' sidebar lists options: Status (System information, Connected users, Usage reports, Billing reports), Management (Manage codes, Hotspot availability, Change password, Reboot system), and Advanced Settings. The 'Change Password' option is highlighted. The main content area is titled 'Change Password' and contains instructions: 'To change the admin password please enter a new password below. If you forget the password you will have to reset to factory defaults. A codes password can also be set, this will allow access to the code management interface without allowing access to the admin pages.' It then provides the URL 'http://aplogin.com/admin' for the admin interface. Below this are input fields for 'Username:' (pre-filled with 'admin'), 'New Password:', and 'Retype:', followed by a 'Change admin password' button. A second section provides the URL 'http://aplogin.com/codes' for the codes interface, with input fields for 'Username:' (pre-filled with 'codes'), 'New Password:', and 'Retype:', followed by a 'Change codes password' button. The footer contains copyright information for Fire4 Systems Inc. (2012), links to 'Privacy policy' and 'Terms and conditions', and a small Guest Internet logo.

Two passwords are required. The first is the **admin** password that is used to access the Admin pages: this password was entered during the Wizard setup process.

The second is the **codes** password is required for login to the Codes page (see previous sections). The codes page is used to create and administer access codes, however there is no access to other administration pages. The codes page is also used when the ticket printer GIS-TP1 is used with the gateway.

Always make a note of your passwords and keep in a safe place: if the admin password is lost then the Guest Internet gateway will have to be reset to factory defaults and you will have to configure the device again.



36: Management Functions: Reboot System

The reboot system function restarts the device. Some functions may require the device to be rebooted before the changes take effect.

To reboot the device select **Reboot System** from the menu. The screen will show the page in the figure below.

Reboot Menu Page



Click on the **Reboot** button to restart the device.

The firmware is reloaded and all interface ports are initialized using the data stored in the configuration file. The reboot procedure will be required after uploading a login page, for example. Each command will indicate if the unit should be rebooted on completion of the command so that the command takes effect.

When the device has been rebooted there will be a pause of approximately three minutes before it becomes functional again. This process is the same as cycling the power to the device.

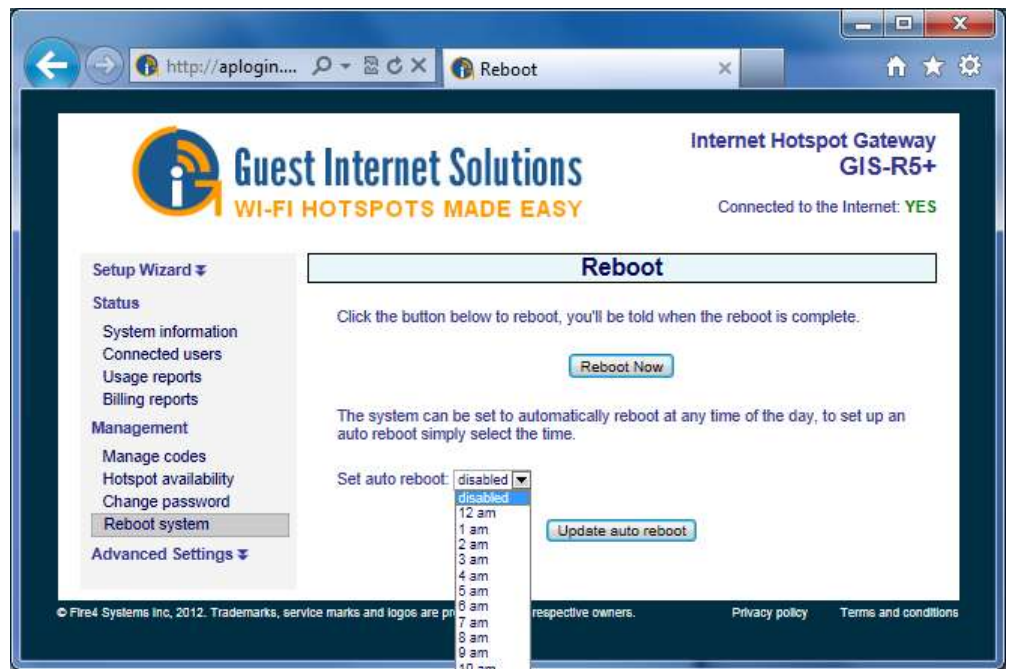
The reboot page also has a drop down menu for 'set auto reboot'. The drop down menu permits a time to be selected to reboot the device each day (see the next page).

The auto-reboot should be selected for a time of day when no one will be using the hotspot, for example 3AM.

The auto reboot is very useful to release resources allocated by users. For example, IP's will be allocated and will only expire after the termination of the IP lease time. The auto reboot forces the release of IP leases to free up resources for new users. This feature is very useful for a hotel environment.



Auto Reboot time selection



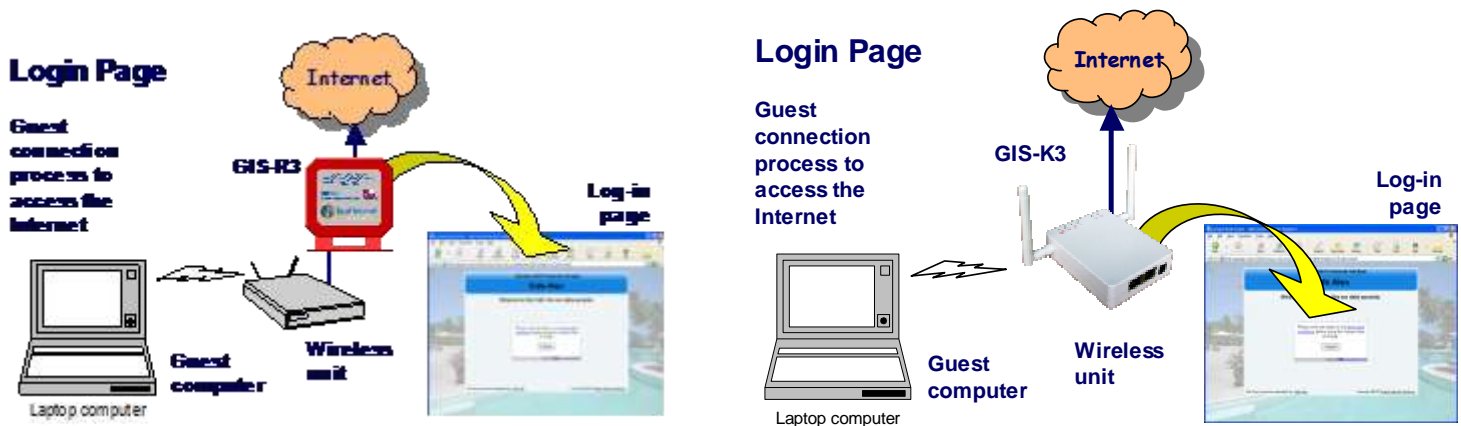
37: Advanced Settings: Login Settings

The login page is a mechanism to present the Internet user with a browser page with authorization request box (sometimes called the splash page) when the user attempts to access a Web site.

When with login page is displayed on the users computer an access code can be entered if the unit is configured for controlled access. The login page also has an unlimited access mode where no access code is required to connect to the Internet, however the user has to agree to the terms and conditions of use. The user can click on a link to read the terms and conditions. This procedure offers legal protection to business owners who offer Internet hotspot access for their customers.

The unlimited access mode also has a timer that determines how long users are permitted access to the Internet: this is a feature for coffee bars that want to avoid becoming free office space.

When the user opens a browser it will attempt to access the home page URL before showing the login page. When the user has completed the login process then the browser window shows the users home page. The login page is customized during the wizard setup process. The login page process is illustrated in the diagram below.



The login page design is selected during the wizard setup process. A custom login page can also be created and uploaded to the gateway. If you require help to prepare a custom login page then please email for additional information at: info@guest-internet.com as we have partners who can prepare custom login pages.

The login box displays the business owner's information that was entered during the wizard setup process. This information includes the business name, the business address, telephone number, email and website. The business website address is displayed as a link that the user can click on to see the business web page. The user can see the business web page without logging in. However the user cannot navigate away from the business web site until the login process is completed. When the login page menu entry is clicked then the page shown below will be seen in the browser window.



Login page Menu Page Display

The screenshot shows the 'Login Page Settings' interface for the Guest Internet Solutions GIS-R5+ gateway. The interface is divided into a sidebar menu and a main configuration area.

Sidebar Menu:

- Setup Wizard
- Status
 - System information
 - Connected users
 - Usage reports
 - Billing reports
- Management
 - Manage codes
 - Hotspot availability
 - Change password
 - Reboot system
- Advanced Settings
 - Login settings** (selected)
 - Login messages
 - Credit Card / PayPal
 - Disclaimer text
 - Time zone
 - Email setup
 - Content filter
 - Dynamic DNS
 - Bandwidth control
 - Network interfaces
 - Firewall
 - Port forwarding
 - Monitoring / alerting
 - Hostname
 - Allowed IP list
 - Allowed MAC list
 - Blocked MAC list
 - Printer Setup
 - Upgrade firmware
 - Backup & restore

Main Configuration Area: Login Page Settings

The login page is used to display a login box to customers before they are allowed to use the Internet.

Login page type: Unlimited access (Agree to disclaimer) [v]

URL of site: http:// [text box]
Your web site

☐ Force user to visit this web site after login

Enable timer window: ☐ Display pop-up with countdown after login

Inactivity logout time: 60 [text box] Time in minutes, set to 0 to disable
Log off inactive users

Default logout time: 0 [text box] Time in minutes, set to 0 to disable
Unless set by code

Authentication type: MAC and IP address (default) [v]

Custom login page settings:

- ☒ Use wizard: Use the **wizard** to set up the login page
- ☐ Custom background: [text box] [Browse...] Background image must be a JPEG, max size is 100kb
- ☐ Custom login page: [text box] [Browse...] ZIP archive, see manual for details, max size is 100kb

WARNING: All hotspot users will be logged out when settings are changed

[Change settings](#)

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Several configuration parameters can be modified: the function of each is explained below.

- **Login page type:** The drop down menu has four options, two of which were available for selection during the wizard setup process.
 - Open access: permits all users to connect directly to the Internet without the login page. All firewall restrictions apply (e.g. download speed control)
 - Unlimited access: shows the login page, the user has to click on the disclaimer button accepting the terms and conditions.
 - Registered access: an additional page before the unlimited access page where up to 3 data fields can be defined. The user has to provide the data requested before proceeding to the login page. The data collected (not validated) is sent via email to the hotspot owner.
 - Controlled access: shows the login page, the user has to type an access code to connect to the Internet. If credit card billing is configured then controlled access must always be selected to display the payment button.



- **URL of site:** This is the Web site of the business providing Internet service. This website URL can become the **landing page** (substituting the users home page) by checking the box below to force visit to this website.
- **Enable Timer window:** checking this box will enable the pop-up timer window that the user sees after completion of the login process.
- **Inactivity logout time:** This is a timer (shown in minutes, the default is 5 minutes) after which a user will be logged out when the user has stopped using the Internet. This feature releases resources so that more people can use the Internet service. Note that most computers have tasks that constantly connect to the Internet even when the computer is not being used. The inactivity logout time will therefore be effective when the computer is put into sleep mode (laptop screen closed) or switched off.
- **Disclaimer logout time:** This timer is normally set to zero: zero means it is inactive. The timer is in minutes. This timer is used with the unlimited access and registered access modes, and will disconnect the user after the time specified. This feature is useful for a restaurant or coffee bar that prefers not to give codes for Internet access, but wants to limit the time that each user has access to the Internet, before having to login again.
- **Authentication type:** When computers are authenticated then the default is to associate both the IP address and the MAC address of the computer with the access code. In some cases it is desired to authenticate the user by IP address only (a) when it is desired to permit the user to use one access code with several devices (not simultaneously), and (b) when a wireless distribution network has been configured for guest access, however WDS is not activated for point to point links for whatever reason in this case the MAC address is the wireless access point, not the users computer).
- **Custom login page settings:** there are three custom login page options available: the wizard selects 1 of 10 backgrounds, a custom background can be uploaded, and a custom login page can be programmed using HTML. Additional details are provided in the following sections.

When the registered access login page is selected then more settings are displayed in a red box. The settings are parameters that are sent to the hotspot owner contained in an email in order to record information provided by users. Note that the email settings page has to be configured before the registered access login page settings. The registered access login page settings are as follows:

- **Custom data field 1:** A label is given to this field and displayed for the user on the login page, and example for the field is 'name'.
- **Custom data field 2:** A label is given to this field and displayed for the user on the login page, and example for the field is 'email'.
- **Custom data field 3:** A label is given to this field and displayed for the user on the login page, and example for the field is 'telephone'.
- **Collect MAC address:** when the box is checked the MAC address of the users computer is recorded and included with the email containing the user-entered information.
- **Collect browser type:** when the box is checked the browser type of the users computer is recorded and included with the email containing the user-entered information.
- **Send to email:** the email address to which the information is to be sent (the email configuration settings must be completed first to specify how the email will be sent via SMTP).
- **Email subject:** type the subject line of the email that is sent to identify which gateway the message was sent from.
- **HTTP post to URL (PROGRAMMERS ONLY):** The collected information can be sent to a server, however programming skills are required to write software for the server that will receive the message and format the data.

The registered access login page settings are shown in the figure below.



Registered access login page settings

Internet Hotspot Gateway
GIS-R5+
Connected to the Internet: YES

Login Page Settings

The login page is used to display a login box to customers before they are allowed to use the Internet.

Login page type:

URL of site:
Your web site

☐ Force user to visit this web site after login

Enable timer window: ☐ Display pop-up with countdown after login

Inactivity logout time:
Log off inactive users Time in minutes, set to 0 to disable

Default logout time:
Unless set by code Time in minutes, set to 0 to disable

Authentication type:

Registered access data collection:

Up to 3 custom fields of data can be collected from your guest, you could for example ask for their name, email address and age. The data collected will be sent to the designated email address every time a guest logs in. You should publish a privacy policy so guests know how their data will be used.

Custom data field 1:
Data to collect eg: Name

Custom data field 2:
Data to collect eg: Email

Custom data field 3:
Data to collect eg: Age

Collect MAC address: ☐ Record guest's MAC address

Collect browser type: ☐ Record guest's web browser type

Send data to email:
 Email address to send data to. [Email must be set up.](#)

Email subject:

e.g. Data collected from Joe's Burger Bar Hotspot

HTTP post to URL:
Programmers only

Custom login page settings:

☒ Use wizard: Use the **wizard** to set up the login page

☐ Custom background:
Background image must be a JPEG, max size is 100kb

☐ Custom login page:
ZIP archive, see manual for details, max size is 100kb

WARNING: All hotspot users will be logged out when settings are changed

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Using the wizard login page

The wizard login page setup has 12 background options suitable for different businesses. A thumbnail picture of each login screen was shown during the wizard setup process.

- Restaurant
- Coffee bar
- Sports bar
- Hotel
- Resort lobby area
- Marina
- Motel
- Conference center
- Resort pool area
- Business center
- Church
- Library

The login page background can be changed at any time by logging in to the unit as admin and then clicking on the setup wizard menu option. Select the 'login page branding' option and then select the desired background.

Finally save the selection by clicking on 'save setting and continue to step 4' and then on 'save settings and finish'.

Login page custom background

A login page custom background can be created in JPG format and uploaded using this feature. The image size should not exceed 196KB, however it should be made as small as possible so that the login page loads quickly for the user. The background image will be placed behind the login information box and the image contrast will be reduced to highlight the information box. The image can be a composite photo plus logo prepared using software such as Photoshop.

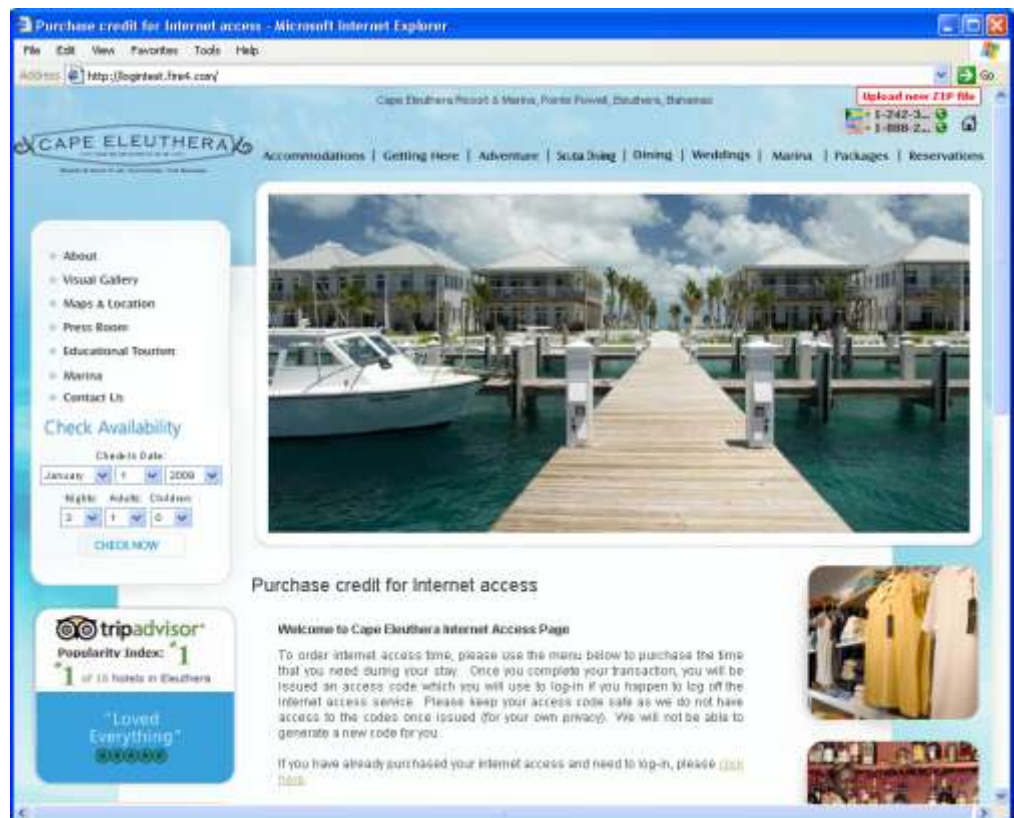
Custom login page

A custom login page can be created using HTML code and uploaded to the Guest Internet gateway. Login page sample designs can be downloaded from the Guest Internet website at:

<http://www.guest-internet.com/loginpages>

A custom design log in page can include advertising banners. When the login page design has been prepared it can be tested using our simulator before installation. An example of a customized login page with banner advertising is shown below.

Custom Login Page Example





The only requirement to create a login page is knowledge of programming using HTML code and Javascript. The completed program is saved as a ZIP archive (e.g. using WinZip, not the MAC zip). The login page can be customized with a logo, a corporate identity, and information about the hotspot or public Internet service.

The login page file size cannot exceed 196KB. However try to keep the file size below 50KB so that it loads quickly for the user. If your product firmware is older than 2.1r_b14 please email technical support (info@guest-internet.com) requesting a new firmware installation. The login page is uploaded to the gateway as a single zip file, this zip file needs to contain a file called '**login.html**' (all lower case, be careful not to call the file Login.html). The login.html file must include the text shown below to locate the login box on the page.

'<!--LOGIN-->'

Login page examples can be seen in the sample login.html file which can be downloaded from

<http://www.guest-internet.com/loginpages>

The zip file can contain images, flash files, HTML files etc. The zip file can contain any number of directories and files; the files will be uncompressed by the gateway during initialization. The directory structure in the zip file will be maintained when the files are unzipped. The file **login.html** works as the index page; any HTML pages linked to, or from, login.html can also be seen when using the gateway.

We provide a login page zip file simulator for testing new login pages. In order to test your **login.zip** file we have a server application that will emulate a gateway. If you upload your **login.zip** to this application first then you'll get feedback about any issues. To access the application go to:

<http://logintest.guest-internet.com/>

User: **test** Pass: **logintest**

When you log in you will see a red box in the top right hand corner, click on this box and you will be able to upload your **login.zip** file for test. If there is a problem with your zip file the simulator will tell you, otherwise it will display the page with the login box.

When your login page has been tested you can login to the gateway admin page, click on ADVANCED SETTINGS and then click on LOGIN SETTINGS. The last option in the list is CUSTOM LOGIN PAGE. Use this option to upload your zip file.

Creating a 'Walled Garden' login page

A custom login page can be part of a business website, with menu tabs that link to the website. All URL's used on the website must be entered into the gateway URL table. The user can navigate between the login page and the business website. However if the user tries to navigate away to another web site then the login box will be shown. This type of login page is called a 'walled garden'

An example of a 'walled garden' login page is included with the zipped file downloaded at

<http://www.guest-internet.com/loginpages>

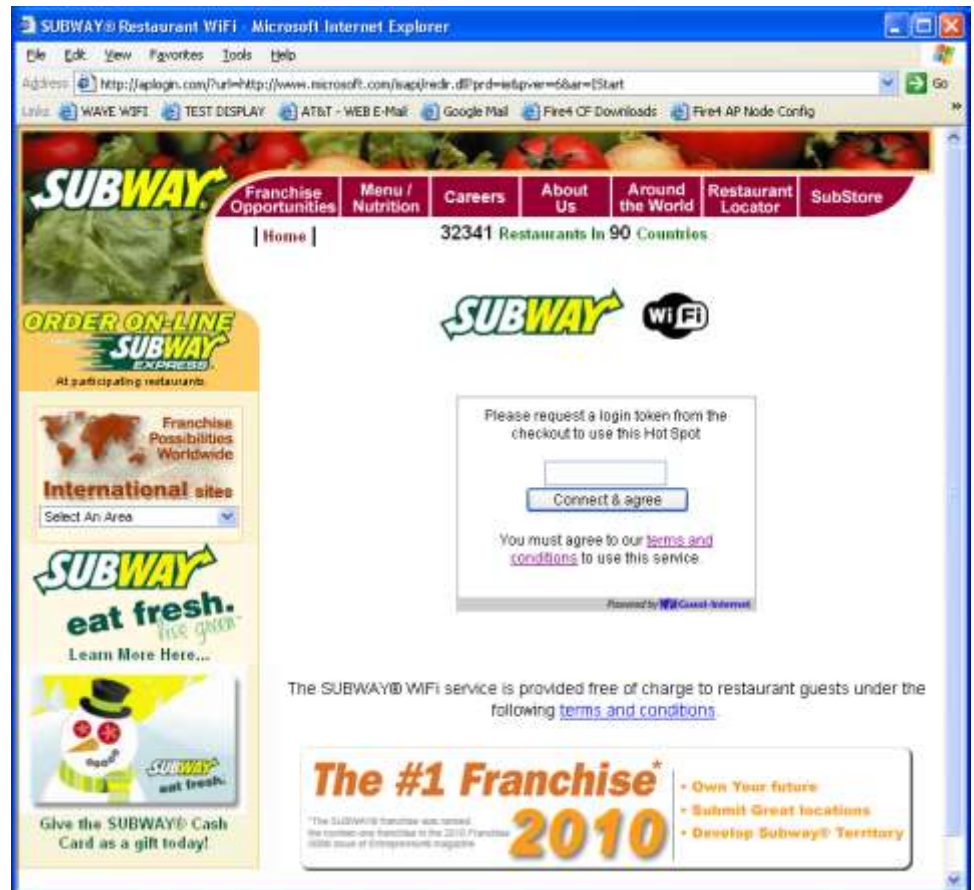
You will see two files, called **subway.zip** and **subway.txt**. Subway.zip is uploaded to the gateway as described above. Subway.txt contains a series of URL's that must be typed into the Allowed IP Address Table (see later section).

The subway.zip file is small as it uses graphic files from the company website. The menu tabs on the login page are linked to the company website. The user can navigate between the login page and the company website without having to login to the Internet: providing an access code or agreeing to the terms and conditions. However when the user tries to access any other website then the login box is presented on the screen.

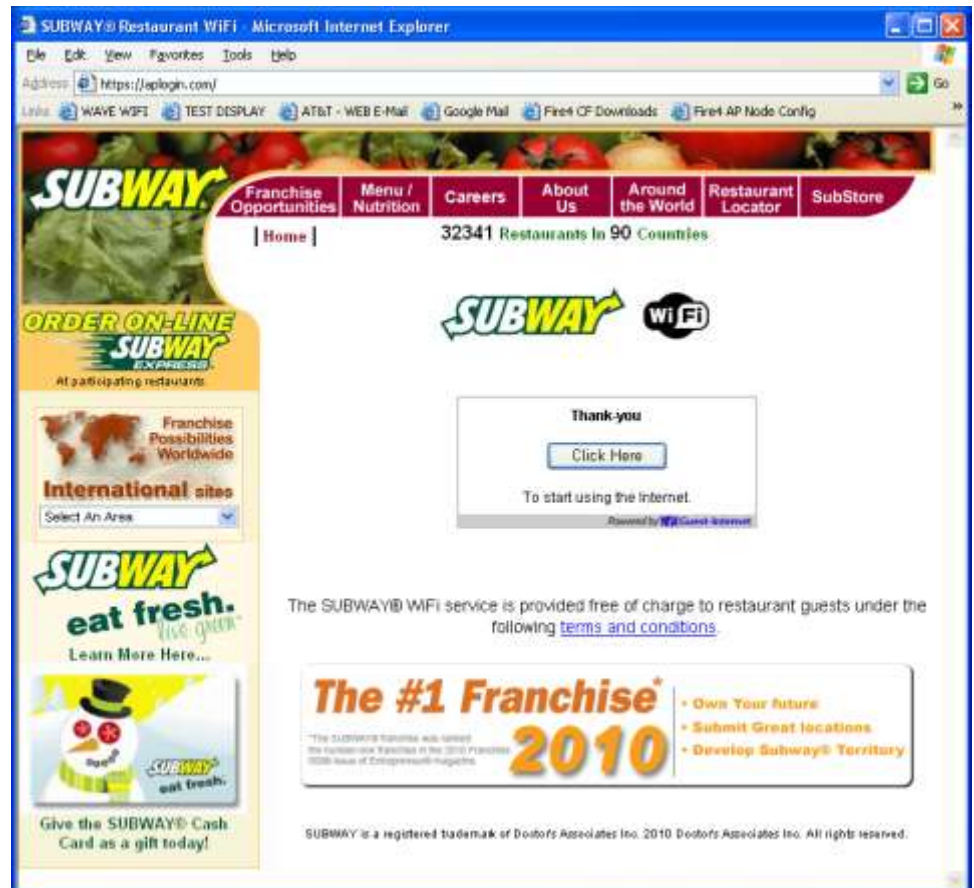
The user is able to navigate all pages in the company website because all the URL's required for this are included in the Allowed IP Address Table. This is called a 'Walled Garden'. The Walled garden login page is shown in the figure on the next page.



'Walled Garden' login page



Internet access granted page

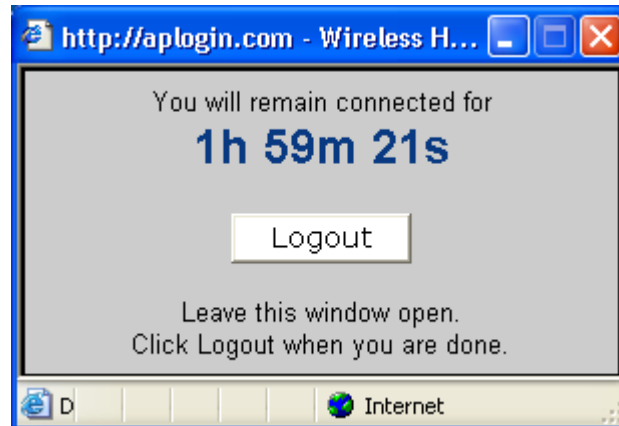




When the user types the access code and clicks on the 'connect and agree' button then the 'thank you' page appears, informing the user that the login was successful, and requesting the user to click a button to connect to the Internet.

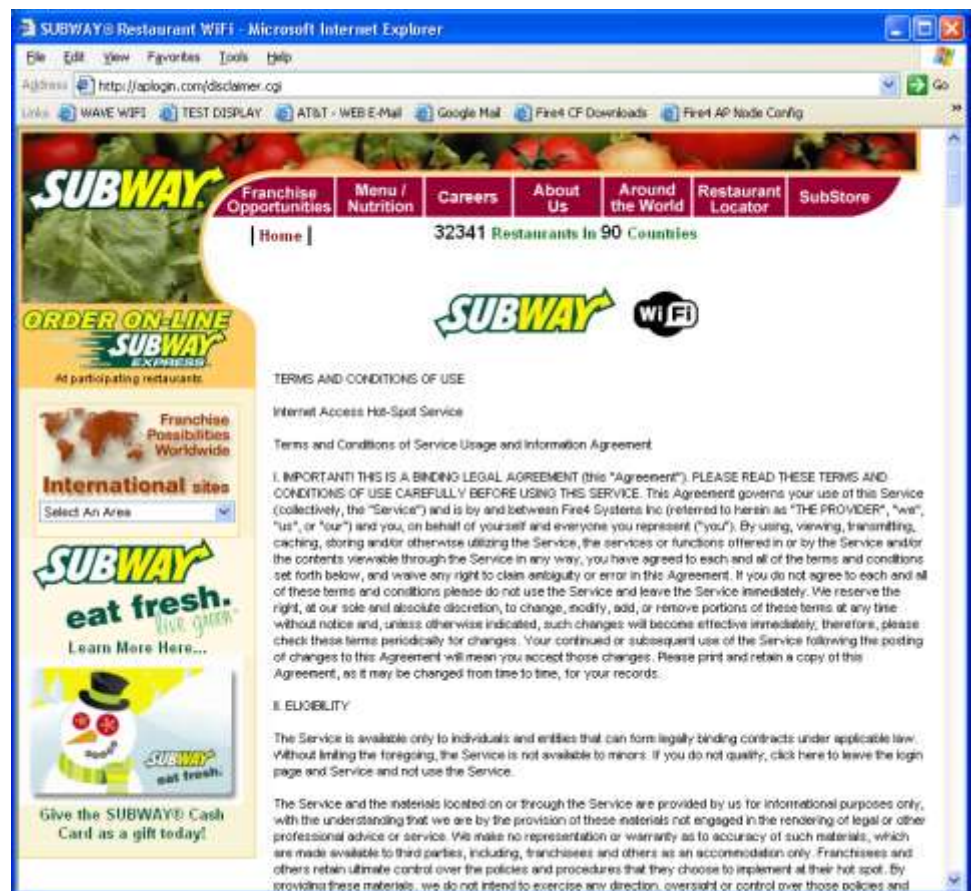
When the button is clicked to access the Internet the users Web page appears (or the landing page if set). In addition a small optional window opens (if the 'enable timer window' box is checked) indicating the time that the user has been given to access the Internet. The window also has a link to permit the user to disconnect from the Internet. This window is disabled by default. This pop-up window may cause problems with portable devices that use the iOS and Android operating systems.

Countdown timer display



Terms and conditions page

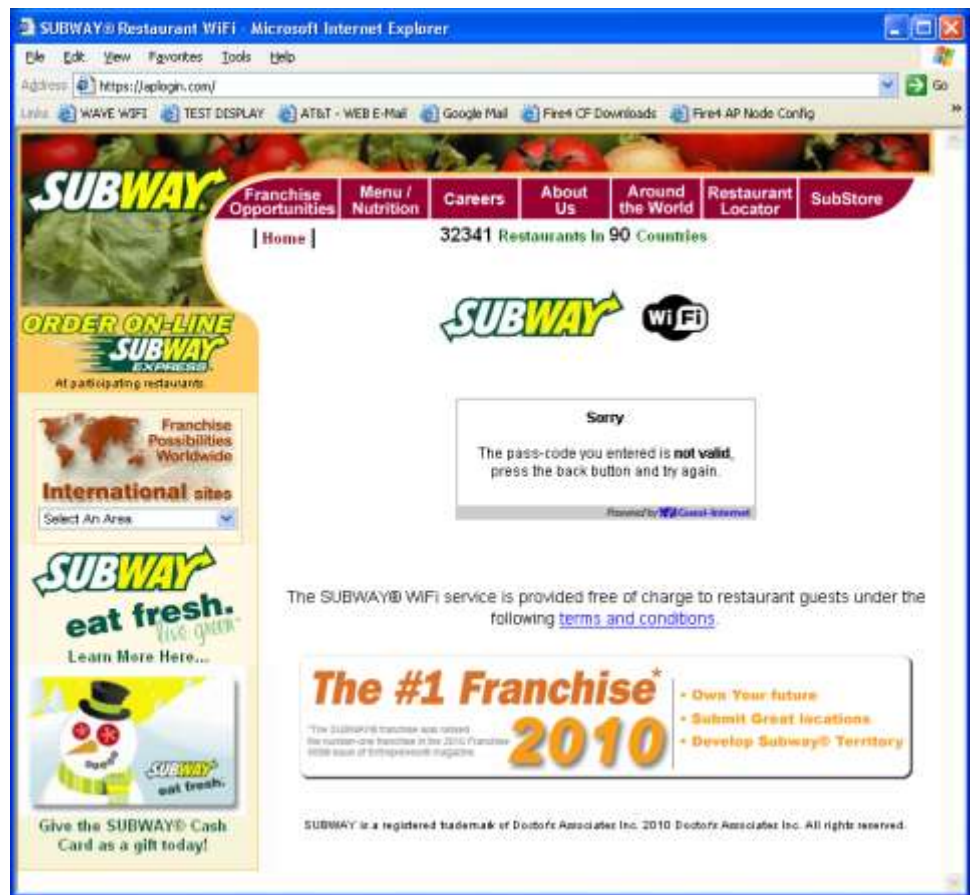
If the user clicks the login page link to the terms and conditions then the information appears as shown on the pages below. This information can be modified using the disclaimer editor (see the menu).





Login code error message

If the user enters the wrong login code then a message is shown in the login box





38: Advanced Settings: Login Messages

All messages displayed on the login pages can be modified. This is very useful if the hotspot is being setup in a non-English speaking country permitting interaction with the users to be in the native language.

Login page message editor

The screenshot shows the 'Login Page Messages' configuration page in the Guest Internet Solutions Web Management Interface. The interface has a sidebar on the left with a 'Setup Wizard' menu and a 'Login messages' section. The main content area is titled 'Login Page Messages' and contains various message fields for the login page. The messages are organized into sections: 'Access Message', 'Login Message', 'Logout Message', 'Timer Message', and 'Error Message'. Each section has a text input field for the message content and a dropdown menu for the message type. The 'Access Message' section includes fields for 'Access Message: Displayed at login (HTML may be used)', 'Access Message: Login button text', 'Access Message: Terms of usage text (HTML may be used)', and 'Access Message: Hotspot disabled (HTML may be used)'. The 'Login Message' section includes fields for 'Login Message: Use Internet button' and 'Login Message: Use Internet text (HTML may be used)'. The 'Logout Message' section includes fields for 'Logout Message: When login expires (HTML may be used)', 'Logout Message: Logout button text', 'Logout Message: Text after logout (HTML may be used)', and 'Logout Message: Close timer window'. The 'Timer Message' section includes fields for 'Timer Message: Timer window text (HTML may be used)' and 'Timer Message: Timer window logout (HTML may be used)'. The 'Error Message' section includes fields for 'Error Message: When no Internet (HTML may be used)', 'Error Message: Login code invalid (HTML may be used)', 'Error Message: Login code in use (HTML may be used)', and 'Error Message: Login code expired (HTML may be used)'. A 'Change settings' button is located at the bottom of the page.

Internet Hotspot Gateway
GIS-R5+
Connected to the Internet: YES

Setup Wizard ▾

Status

- System information
- Connected users
- Usage reports
- Billing reports

Management

- Manage codes
- Hotspot availability
- Change password
- Reboot system

Advanced Settings ▾

Login settings

- Login messages**
- Credit Card / PayPal
- Disclaimer text
- Time zone
- Email setup
- Content filter
- Dynamic DNS
- Bandwidth control
- Network interfaces
- Firewall
- Port forwarding
- Monitoring / alerting
- Hostname
- Allowed IP list
- Allowed MAC list
- Blocked MAC list
- Printer Setup
- Upgrade firmware
- Backup & restore

Login Page Messages

The login page is used to display a login box to customers before they are allowed to use the Internet. The following messages will be displayed to the customer.

Access Message: Displayed at login (HTML may be used) Enter a login token to use this Hot Spot

Access Message: Login button text Connect & agree

Access Message: Terms of usage text (HTML may be used) You must agree to our Terms of Use

Access Message: Hotspot disabled (HTML may be used) Sorry, this hotspot is not enabled.

Please try later.

Login Message: Use Internet button Click Here

Login Message: Use Internet text (HTML may be used) To start using the Internet.

Logout Message: When login expires (HTML may be used) Sorry, the time is up...
Please purchase more

Logout Message: Logout button text Logout

Timer Message: Timer window text (HTML may be used) You will remain connected for

Timer Message: Timer window logout (HTML may be used) Leave this window open.
Click Logout when you are done.

Logout Message: Text after logout (HTML may be used) You have been logged out. Thanks.

Logout Message: Close timer window Close window

Error Message: When no Internet (HTML may be used) Sorry, no Internet access.

Please try later.

Error Message: Login code invalid (HTML may be used) The pass-code you entered is not valid, press the back

Error Message: Login code in use (HTML may be used) The pass-code you entered is in use, please get a new pass-

Error Message: Login code expired (HTML may be used) The pass-code you entered has expired, please get a new

Change settings

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There are a total of 19 messages that can be modified. The messages are as follows:

- **Access message 1:** When the controlled access mode is selected this message is displayed in the login box shown on the login page. The default message reads, "Enter a login token to use this hotspot".
- **Access message 2:** This message appears on the button in the login box. The default message reads, "Connect and agree".
- **Access message 3:** When the unlimited access mode is selected this message is displayed in the login box. The default message reads, "You must agree to our terms and conditions (highlighted) to use this service".
- **Access message 4:** When the hotspot availability mode is enabled this message is displayed in the login box when the hotspot is inactive. The default message reads, "Sorry this hotspot is not enabled. Please try later".
- **Login message 1:** This message is displayed on the button in the box when the access code has been successfully entered. The default message reads, "Click here". The button is used to open the timer box.
- **Login message 2:** This message is displayed in the box below the button when the access code has been successfully entered. The default message reads, "to start using the Internet"
- **Logout message 1:** This message is displayed in the timer box when the access code time has expired. The default message reads, "Sorry, the time is up. Please purchase more time (highlighted) to continue".
- **Logout message 2:** This message is located inside the button of the timer box. The default message reads, "Logout".
- **Timer message 1:** This message is shown at the top of the timer box. The default message reads, "You will remain connected for". The time countdown is shown below.
- **Timer message 2:** This message is shown in the lower part of the timer box. The default message reads, "Leave this window open. (newline) Click logout when you are done".
- **Logout message 3:** This message is shown in the timer box after logout. The default message reads, "You have been logged out. Thanks".
- **Logout message 4:** This message is shown at the bottom of the timer box after logout. The default message reads, "Close window (highlighted)".
- **Error message 1:** The message "Sorry no Internet access, (newline) Please try later" is displayed in the login box when the Internet connector does not have a connection to the Internet.
- **Error message 2:** The message "Sorry you have been blocked, (newline) Please speak to a member of staff" is displayed in the login box when the user has been blocked due to a violation.
- **Error message 3:** The message "Sorry you have been blocked for using file sharing software, (newline) Please speak to a member of staff" is displayed in the login box when the user has been blocked due to the use of file sharing software.
- **Error message 4:** The message "There is a problem with this hotspot" is displayed in the login box when an operational error has been detected.
- **Error message 5:** The message "The passcode you entered is not valid, (newline) press the back button and try again" is displayed in the login box when the access code is not valid.
- **Error message 6:** The message "The passcode you entered is in use, (newline) Please get a new passcode" is displayed in the login box when the access code is used.
- **Error message 7:** The message "The passcode you entered has expired, (newline) Please get a new passcode" is displayed when the access code expired.



39: Advanced Settings: Credit Card /PayPal (Not available with GIS-K1+)

The credit card billing feature allows an Internet hotspot operator to sell Internet access by charging the customers credit card. The feature requires the hotspot operator to have a valid business account with PayPal™ which is used to charge credit cards. A personal PayPal™ account cannot be used to charge credit cards. PayPal™ will require the hotspot operator to provide valid business information, including a business bank account, in order to open a PayPal™ business account.

When PayPal™ is used to charge for Internet access, users can pay with their PayPal account or a credit card. Users do not need a PayPal account to pay with a credit card.

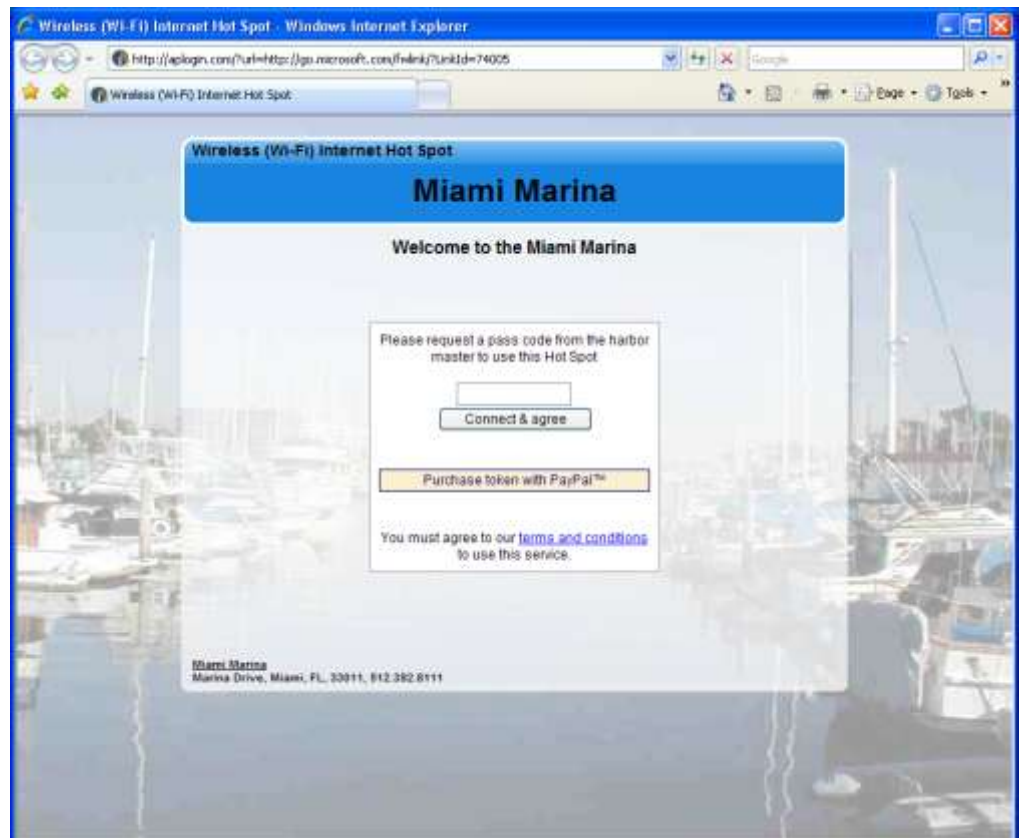
In order to comply with PCI DSS (Payment Card Industry Data Security Standards) directives, GIS products do not store any part of the credit card information provided by the user. A log is maintained that has a transaction ID. When the hotspot operator needs additional information it is necessary to log into the PayPal™ business account and use the transaction ID to obtain additional information about the transaction.

Guest Internet Solutions does not make any additional charge for credit card processing. The GIS gateway functions identically to a Point of Sale (PoS) terminal. Credit card charges are the sole responsibility of the hotspot operator, who is referred to as the 'merchant' in all transactions.

The credit card billing feature is not available on all product models. Currently it is available with the GIS-K3, GIS-R3 to GIS-R20 products.

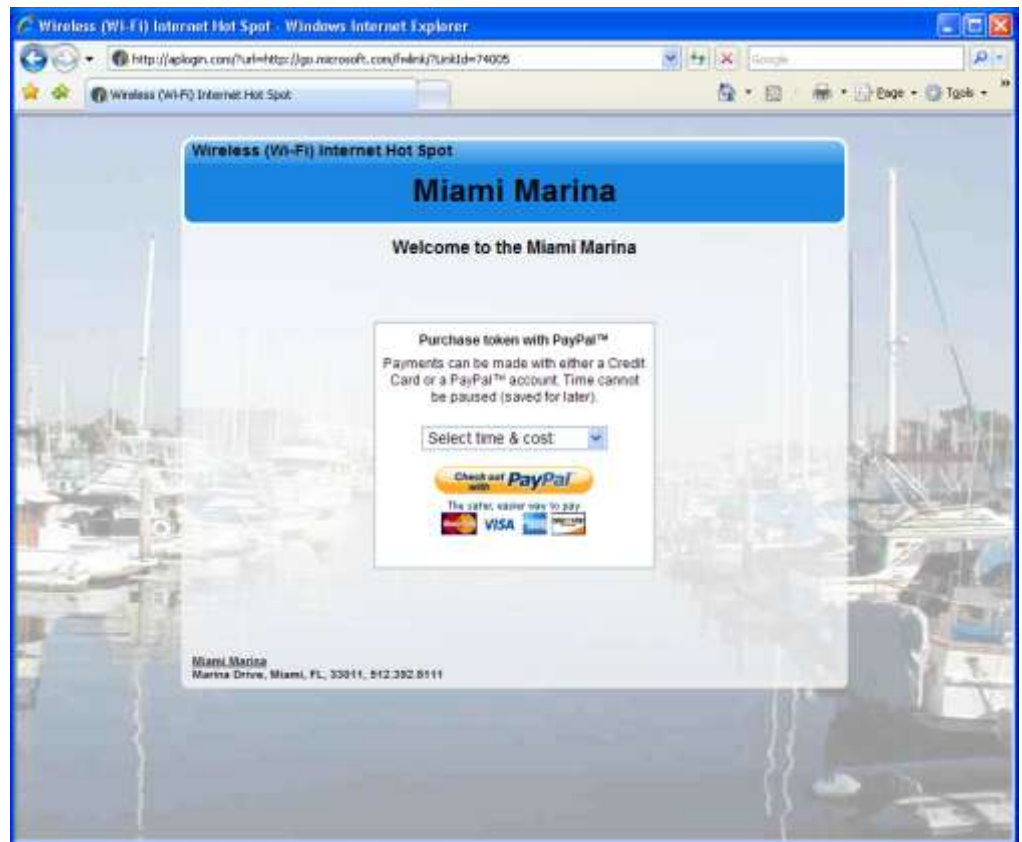
When the credit card billing feature is activated the login page is modified to include an additional button 'purchase token with PayPal™' as shown on the screen below.

The login page has credit card billing activated. The additional button shows 'Purchase token with PayPal™'

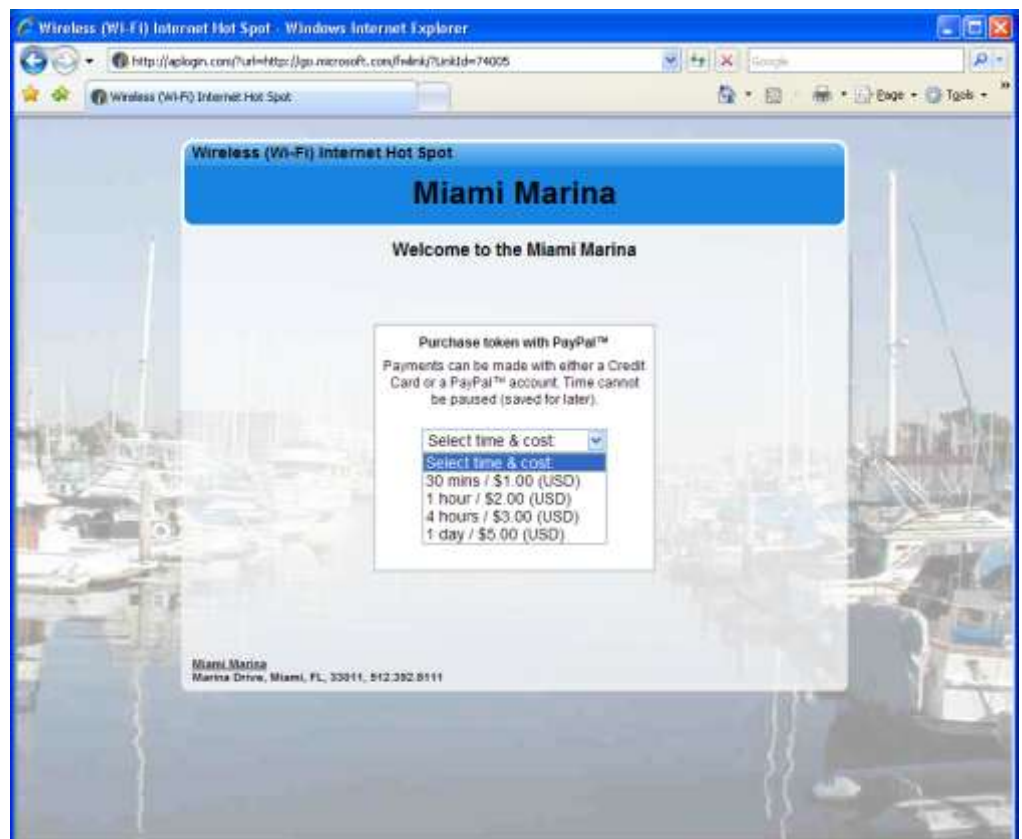




When the PayPal™ button is clicked a drop down menu is shown to select the time and cost of the Internet access. After the selection is made then the PayPal™ button is clicked



The login page drop down menu showing the Internet access options that have been configured





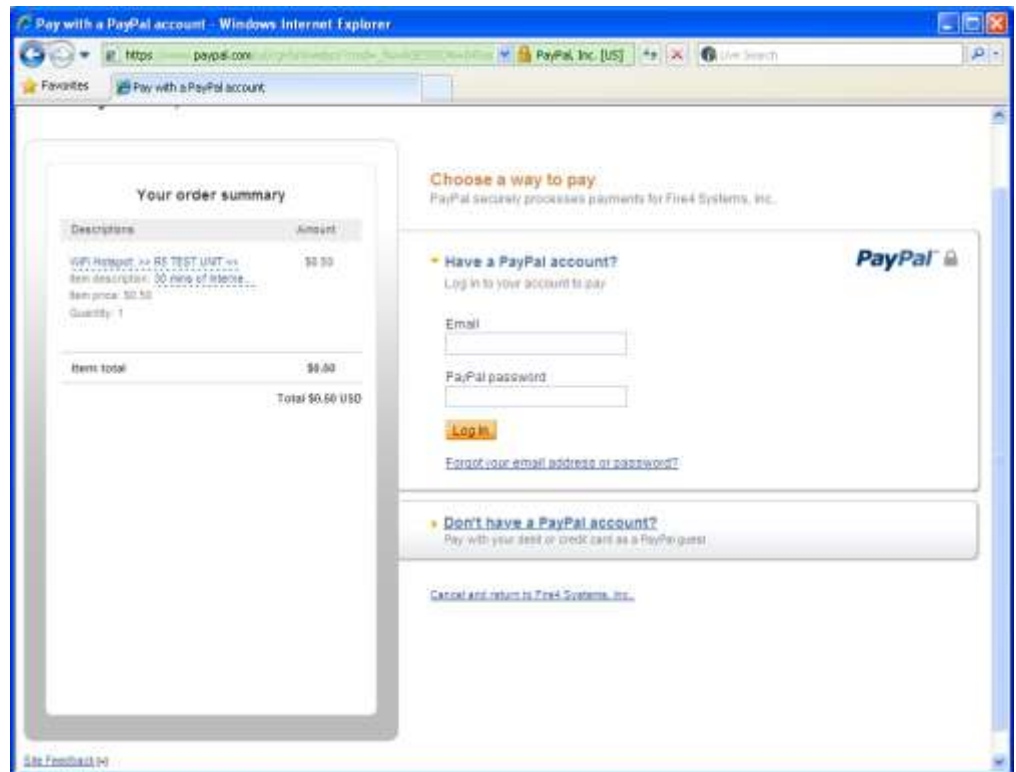
After the selection is made then the 'Check out with PayPal™' button is clicked. The user then sees the merchants payment page on the PayPal™ web site. Payment can be made using a credit card as shown below.

PayPal™ website credit card payment page



Payment can also be made with a PayPal account. See the screen below.

**PayPal™ website
payment using a PayPal™
account**



When the payment is completed then the GIS gateway displays an access code (token) for the user to note. A confirmation email is also sent by the GIS gateway to the users email address. A copy of the transaction information is also sent to the hotspot owners email address.

In the case where PayPal™ declines the transaction then the user is informed of the reason. The hotspot owner can also optionally have a message sent with information about the declined transaction.

In order to set up credit card payments the GIS customer (hotspot owner) must go to the PayPal™ website and open a PayPal™ Business account then obtain the API credentials. There is no cost to open a business account but PayPal will charge a commission on every transaction. The PayPal™ screen that is used to create a PayPal™ business account is shown on the next page.



PayPal™ website introductory page



To create an API signature with your PayPal Business account:

- Log in to PayPal, then click Profile under My Account.
- Click My selling tools.
- Click API Access.
- Click Request API Credentials.
- Check Request API signature and click Agree and Submit.

A hotspot owner name and email address must be configured for PayPal credit card billing to work. The email must be configured and tested via the Email setup page before the PayPal™ credit card processing is configured.

Go to the email setup menu page first before continuing with the billing setup





PayPal™ credit card billing setup page

Check the box shown to enable PayPal™ payments via credit card

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R5+

Connected to the Internet: YES

Credit Card and PayPal Payments

PayPal can be used to charge for Internet access. Users can pay with their PayPal account or a credit card, users do not need a PayPal account to use a credit card.

In order to set up credit card payments you must open a **PayPal Business** account and obtain some API credentials. There is no cost to open a business account but PayPal will charge a commission on every transaction.

Click to open a [PayPal Business](#) account and see transaction charges.

To create an API signature with your PayPal Business account:

1. Log in to PayPal, then click Profile under My Account.
2. Click My selling tools.
3. Click API Access.
4. Click Request API Credentials.
5. Check Request API signature and click Agree and Submit.

A hotspot owner name, email address and SMTP server must be set up if you want to receive customer and payment details, please set this up via the [Email setup](#) page. Customer details are not stored on this device.

Enable PayPal payments: ☐

PayPal Business account and API settings: *Provided by PayPal*

PayPal API Username:

PayPal API Password:

PayPal API Signature:

Payment settings:

Time	Cost
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>
Time: <input type="text"/>	Cost: \$ <input type="text"/>

Select the times and costs to offer to customers

All payments in US Dollars (USD)

A receipt and login code will be emailed to the customer after login

Type of code: Single user Multi user codes can be shared

Purchase Prompt: (HTML may be used)

When the PayPal™ business account has been authorized then it is necessary to obtain three account parameters to copy to the boxes shown previously.

- **PayPal™ API Username**
- **PayPal™ API Password**
- **PayPal™ API Signature**

The next step is to enter up to ten time/cost parameters using the drop down menu. These are the Internet access packages that will be offered to users. The example shown on the previous page has six options that users can select. The boxes below the payment settings are the messages shown on the users computer screen to indicate success or failure of the purchase.



PayPal™ credit card billing setup page (continuation)

be emailed to the customer after login

Time: Cost: \$ 0.00

Time: Cost: \$ 0.00

Type of code: Single user Multi user codes can be shared

Created after payment

Purchase Prompt: (HTML may be used) Purchase token with PayPal™

Purchase Message: (HTML may be used) Payments can be made with either a Credit Card or a PayPal™

Cancel Message: (HTML may be used) The purchase has been cancelled, you have not been billed.

Double Bill Message: (HTML may be used) A login code purchased with your account less than an hour ago has

Success Message: (HTML may be used) Thank you, your account has been billed. A confirmation email has

Login Message: (HTML may be used) Log in using code

Cust Email Subject: Confirmation of Hotspot payment using PayPal

Customer Email: Thank you for using our hotspot. Your login code is: %c
Details of payment: Value: %v
%c = Code
%v = Value
%i = Transaction ID
%d = Date

Owner Email Subject: Confirmation of Hotspot payment using PayPal

Owner Email: A payment has been made using PayPal, the details are as follows:
Hotspot ID: %h
Customer Name: %n
Customer Email: %e
%i = Transaction ID
%h = Customer Name
%e = Customer Email
%d = Date
%h = Hotspot ID

Receive Error Emails: ☐ With details of transaction & payment issues

Email settings must be updated before emails can be delivered

WARNING: All hotspot users will be logged out when settings are changed

[Change settings](#)

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Six boxes shown on the screen above have the messages that are sent to the purchasers email address, and also to the hotspot owners email address. The parameters included in the respective emails are shown.

These messages can be translated to other languages, or elaborated. It would be unwise however to change the meaning of these messages.

Two message boxes at the bottom of the page show the format of the messages sent to the customer (hotspot user) and to the hotspot owner (merchant). Take care if changing these messages.



There is a final check box called 'receive error emails'. When a transaction does not complete then it is not necessary to receive a message about this in most cases. However the hotspot owner might wish to be notified when an error condition occurs, for example if the credit card is declined. The purchaser will also receive an email notification.

Once in operation, the hotspot billing system will be the 'PoS' of a business, such as an Internet café. The hotspot owner will wish to produce accounts of the daily operations. A complete transaction record is provided by the PayPal™ business account, and the information can be downloaded and imported into popular accounting programs such as Quickbooks™.

The GIS gateway also stores a report summary, described earlier in the section: Status Functions: Billing Reports. An example of a billing report is shown on the following page. This report can be downloaded in CSV (comma separated value) format and loaded into a spreadsheet program such as Excel™.

Credit card billing report page

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R6
Connected to the Internet: YES

Setup Wizard ▾
Status
System information
Connected users
Usage reports
Billing reports
Management
Manage codes
Hotspot availability
Change password
Reboot system
Advanced Settings ▾

PayPal™ Billing Reports

	\$2.00 Today (so far)	\$1.99 Yesterday	\$18.89 This month (so far)	\$0.00 Last month
(Download report as CSV file)				
Date / Time	Value	Code	Transaction ID	First Login
09/28/2011 07:21	0.99	9TKYM4	5PT038061K558545J	Not Used
09/28/2011 07:26	0.99	JW7YBD	2PB24394JJ6510313	Not Used
09/28/2011 07:37	1.99	B8FLLW	13646090EX8539405	Not Used
09/28/2011 08:15	1.00	8GLR7R	0VY37982CE940893E	Not Used
09/28/2011 08:20	0.99	WA1E59	15101002UR863935R	30/09/2011 10:56
09/28/2011 08:27	1.99	7FQMLD	5MC62285VG7740606	Not Used
09/28/2011 08:29	0.99	MXCGWC	4BP07117P9049842Y	Not Used
09/28/2011 08:31	1.00	WCJM66	08D61955UP898452K	Not Used
09/28/2011 08:35	0.99	BJRJTC	8X8960615E359700L	Not Used
09/28/2011 08:37	1.99	QN24LN	12B9837857904711J	28/09/2011 11:11
09/28/2011 08:38	0.99	3BGMQN	79D528835C537620U	28/09/2011 09:33
09/28/2011 12:05	0.99	LN32HC	5BR76244A1468304I	28/09/2011 12:24
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 81115: Missing Parameter PaymentAction: Required parameter missing			
09/29/2011 05:15	Error 0: couldn't connect to host			
09/29/2011 05:15	Error 0: couldn't connect to host			
09/29/2011 05:15	Error 10410: Invalid token Invalid token			
09/29/2011 05:15	0.99	AADAPL	9LUG5692CV063143X	29/09/2011 05:15
09/29/2011 05:15	Error 10002: Security error Security header is not valid			
09/29/2011 05:15	1.00	DNBSYC	4SL68964JG841542X	30/09/2011 05:57
09/30/2011 06:03	1.00	33373Q	8PC534711K746114E	30/09/2011 06:03
09/30/2011 06:06	1.00	C9G3PD	444972656K4412332	Not Used
09/29/2011 05:15	Error 10404: Transaction refused because of an invalid argument. See additional			

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A summary of transactions for the current day, previous day, current month and previous month are presented at the top of the page.

The table rows itemize each transaction. The transaction ID code refers to the code generated by the PayPal™ business account. The transaction ID permits the PayPal™ record to be located.

No credit card information is stored on the GIS gateway to comply with the Payment Card Industry Data Security Standards (PCI DSS) requirements.



40: Advanced Settings: Edit Disclaimer

When the guest connects to the Internet service he or she has to agree to the terms and conditions of use before being permitted to access the Internet.

The terms and conditions of use is a document contained within the Guest Internet unit that was drafted by a legal team to remove liability from the Internet service provider in the case that the guest is using the network for illegal purposes, such as downloading copyrighted material. The disclaimer is based on Federal laws, however each state, county and municipality can also draft laws regarding the use of the Internet. Customers outside the United States may require a completely different document.

By clicking on the **Disclaimer text** menu option an editing window opens that permits any part of the disclaimer document to be modified. The company name has already been set to the name of your business entered during the wizard setup process. Additional clauses can also be added to the document.

Change Disclaimer menu

The screenshot shows a web browser window with the address bar displaying 'http://aplogin...'. The page title is 'Hotspot Disclaimer'. The main content area features the 'Guest Internet Solutions' logo and the text 'Internet Hotspot Gateway GIS-R5+'. Below the logo, it says 'WI-FI HOTSPOTS MADE EASY' and 'Connected to the Internet: YES'. On the left side, there is a 'Setup Wizard' menu with options like 'Status', 'System information', 'Connected users', 'Usage reports', 'Billing reports', 'Management', 'Manage codes', 'Hotspot availability', 'Change password', 'Reboot system', 'Advanced Settings', 'Login settings', 'Login messages', 'Credit Card / PayPal', 'Disclaimer text' (which is highlighted), 'Time zone', 'Email setup', 'Content filter', 'Dynamic DNS', 'Bandwidth control', 'Network interfaces', 'Firewall', 'Port forwarding', 'Monitoring / alerting', 'Hostname', 'Allowed IP list', 'Allowed MAC list', 'Blocked MAC list', 'Printer Setup', 'Upgrade firmware', and 'Backup & restore'. The main content area is titled 'Hotspot Disclaimer' and contains a text box with the following text: 'The box below contains the disclaimer document that will be presented to hot spot users when they attempt to use the Internet. You can modify the disclaimer to suite the needs of your business.' Below this text box is a scrollable area containing the 'TERMS AND CONDITIONS OF USE' document. The document starts with 'Internet Access Hot-Spot Service' and 'Terms and Conditions of Service Usage and Information Agreement'. It then states: 'I. IMPORTANT! THIS IS A BINDING LEGAL AGREEMENT (this "Agreement"). PLEASE READ THESE TERMS AND CONDITIONS OF USE CAREFULLY BEFORE USING THIS SERVICE. This Agreement governs your use of this Service (collectively, the "Service") and is by and between COMPANY_NAME (referred to herein as "THE PROVIDER", "we", "us", or "our") and you, on behalf of yourself and everyone you represent ("you"). By using, viewing, transmitting, caching, storing and/or otherwise utilizing the Service, the services or functions offered in or by the Service and/or the contents viewable through the Service in any way, you have agreed to each and all of the terms and conditions set forth below, and waive any right to claim'. Below the scrollable area is an 'Update disclaimer' button. At the bottom of the page, there is a copyright notice: '© Fire4 Systems Inc. 2012. Trademarks, service marks and logos are property of their respective owners.' and links for 'Privacy policy' and 'Terms and conditions'.

If you have any concerns about liability issues in your area, then please consult a specialized attorney who will help you to modify the disclaimer document, or draft a new one.

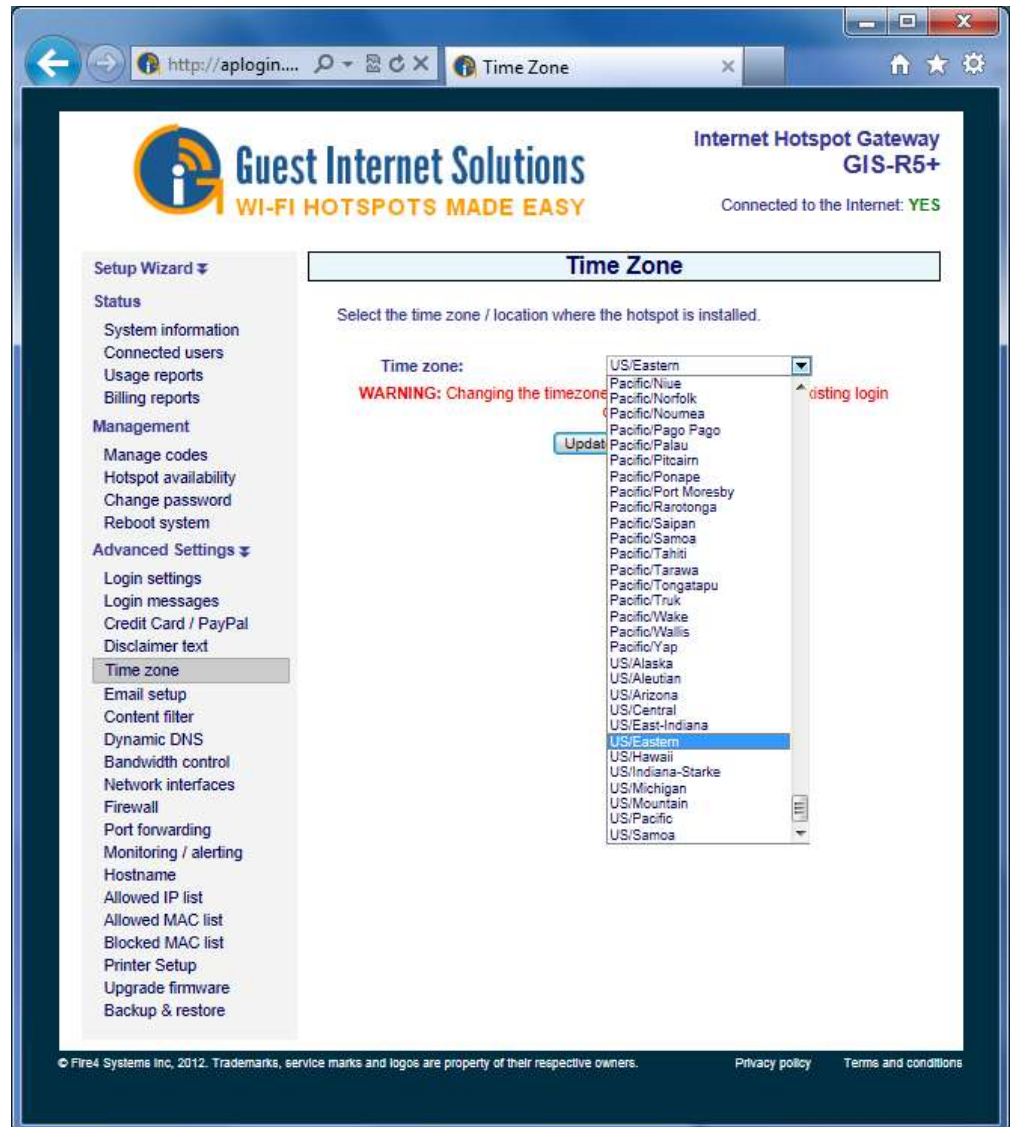


41: Advanced Settings: Time Zone

The correct time zone is selected during the setup wizard. However if the gateway is moved to a different location then the time zone can be changed.

A drop down menu is used to select the correct time zone.

Set time zone menu



Click on the correct time zone in the list to set the gateway time zone.



42: Advanced Settings: Email Settings

Gateway features that require email transmission include device monitoring and credit card billing. The **Email settings** page must be configured before the email features can be used. The settings that are configured are:

SMTP server name
SMTP server port number
SMTP username (usually not required)
SMTP password
Use SSL encryption (yes/no)
Hotspot owner name
Hotspot owner email

Set email menu

Internet Hotspot Gateway
GIS-R5+

Connected to the Internet: YES

Email Setup

Email setup is not necessary for the operation of the hotspot, emails are however sent from the hotspot when payment are made by credit card, when monitoring/alerting is enabled or when login notifications have been requested.

SMTP Server:
Provided by ISP
(eg mail.bellsouth.net)

SMTP Server Port: 25 (Usually 25)

SMTP Username:
(Usually not required)

SMTP Password:
(Usually not required)

Use SSL Encryption: ☐ (Usually not required)

Hotspot owner name:
Will appear in emails

Hotspot owner email:
Valid email address

[Update email settings](#)

Send Test Email: Check SMTP server and connectivity

Send to Email address:

[Update and send test email](#)

smtp2go offer a paid email service that you can use with this hotspot if your ISP does not give you a free SMTP server. Simply open an account with them and then enter [smtp2go.com](#) in the SMTP Server field above. [smtp2go](#) offer a free trial to get you started.

Google's email service (Gmail) can also be used to relay emails from this gateway. To use Gmail you will need a Gmail account. Set the SMTP Server to [smtp.gmail.com](#), the SMTP Server Port to 587, provide your Gmail Username and Password and select Use SSL Encryption.

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The email test feature should be used to verify that the SMTP server will transmit the email. When it is not possible to use the SMTP server of the Hotspot owner's email account, or use a Gmail account then the services of SMTP2go can be used to send them email. SMTP2go is an economical service that permits transmission of email messages from any location.



43: Advanced Settings: Content Filter

Web content filtering is available on GIS gateway and wireless products. Content filtering ensures that Internet surfing is family friendly. Any attempt to access sites that have undesirable content (e.g. adult sites) for viewing in public places such as hotel lobbies, libraries or schools is blocked; providing the web sites are being viewed using domain names rather than IP addresses.

Guest Internet Solutions partners with a 3rd party content filtering service, *OpenDNS*, who maintains a current list of web sites to block. *OpenDNS* has three types of accounts. A summary of the *OpenDNS* features with each type of account is shown on the following page.

- BASIC: free account
- DELUXE: \$9.95/year for households, \$5/user for businesses
- ENTERPRISE: \$2000/year for businesses

The difference between the BASIC and DELUXE/ENTERPRISE accounts is the depth and breadth of the content filtering. The BASIC account provides an excellent service and will ensure that no one is viewing adult content material in a public area. For schools and businesses where it is desirable to have comprehensive filtering then a DELUXE or ENTERPRISE account will provide excellent results and is well worth the small cost of the service. The DELUXE and ENTERPRISE accounts will block staff access to personal email and web sites such as Ebay and Facebook, avoiding loss of productivity.

For more information please go to the OpenDNS Website:

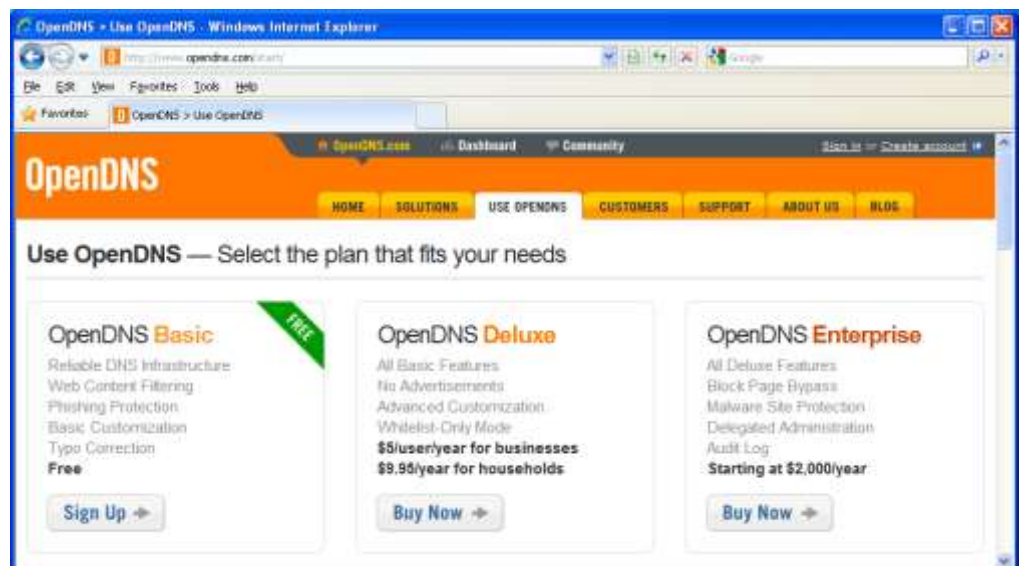
<http://www.opendns.com/>

Before the GIS content filtering service can be used an account must be created with **OpenDNS** at the website:

<http://www.opendns.com/start/>

Select the type of account desired. A free account can be created initially and then upgraded later according to the filtering requirements. Click on 'Sign Up' for a basic account and complete the information requested on the screen;

**The OpenDNS Website:
select the type of account
required and proceed to
registration.**





Provide your email address and password. This email and password will be required by the GIS product to use your content filtering account. Select the options 'where did you hear...' and 'where will you use...' to complete the account registration process. Finally click on CONTINUE.

The OpenDNS account registration. Complete the information requested then click on Continue

The next page requests you to change the DNS address on your computer or router. This step is not necessary with GIS gateway products as the DNS addresses are already installed in the equipment.



You should click on 'sign out' at this point as you need to confirm your account by checking your email and then clicking on the link provided to confirm your **OpenDNS** account.

Account confirmation email sent by OpenDNS

Thanks for registering with OpenDNS!

Click this link to confirm your registration:

<https://www.opendns.com/dashboard/c/xxxxxxxxxxxxxx>

Your OpenDNS email: xxx@yyy.yzz

-- The OpenDNS Team

Go back to the Open DNS home page at:

<http://www.opendns.com/>

Click on **sign in** (top right of screen) to see the screen shown below. Login using your email address and password.

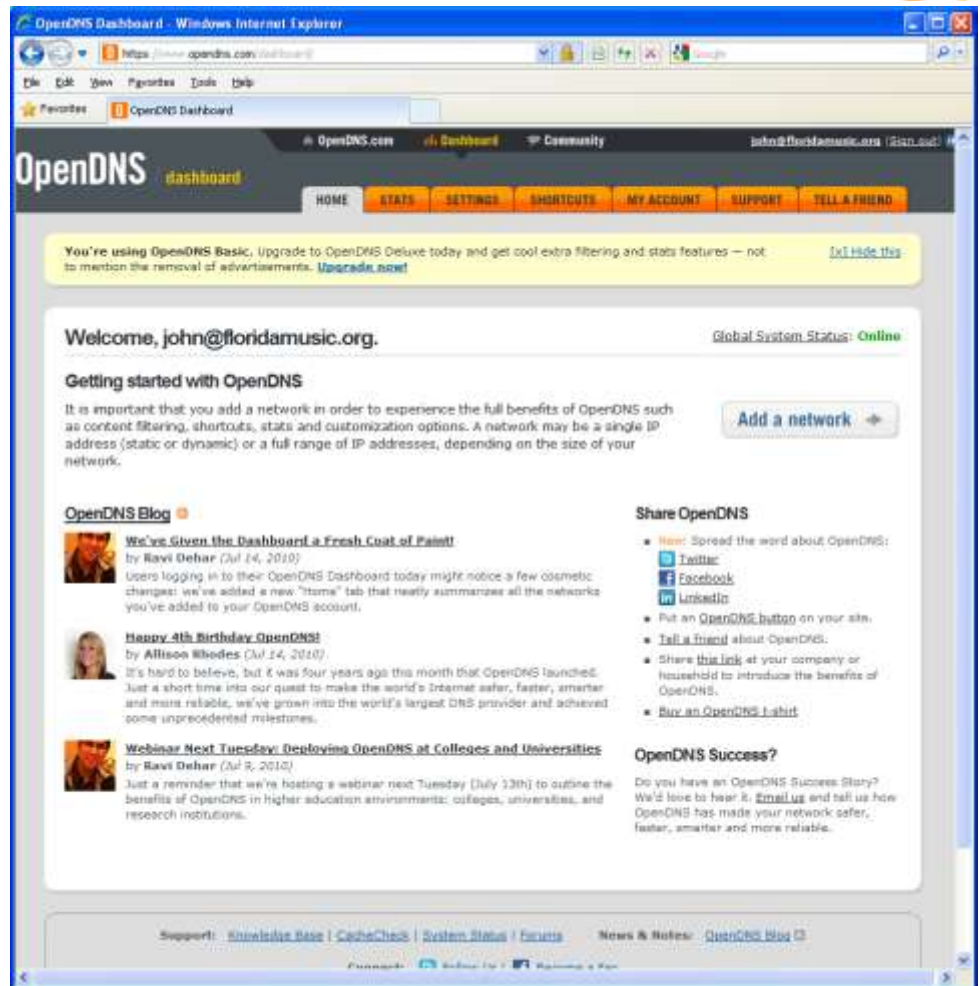
Open DNS account login

The screenshot shows a Windows Internet Explorer browser window with the title "OpenDNS > Sign in to your OpenDNS Dashboard". The address bar shows "https://www.o...". The page content includes a "Sign in to your OpenDNS Dashboard" heading, an "OpenDNS" logo, and a login form with fields for "Email (or username):" and "Password:". Below the password field is a checkbox labeled "Keep me signed in until I sign out" and a "SIGN IN" button. A link "Create a free account." is on the right, and a link "Forgot your password?" is at the bottom left of the form. The footer contains copyright information: "Copyright © 2010 OpenDNS | Terms of Use | Privacy Policy | Support".

After login you will see the OpenDNS **Dashboard** home page (see overleaf). Information must now be provided to begin using the OpenDNS content filtering service.

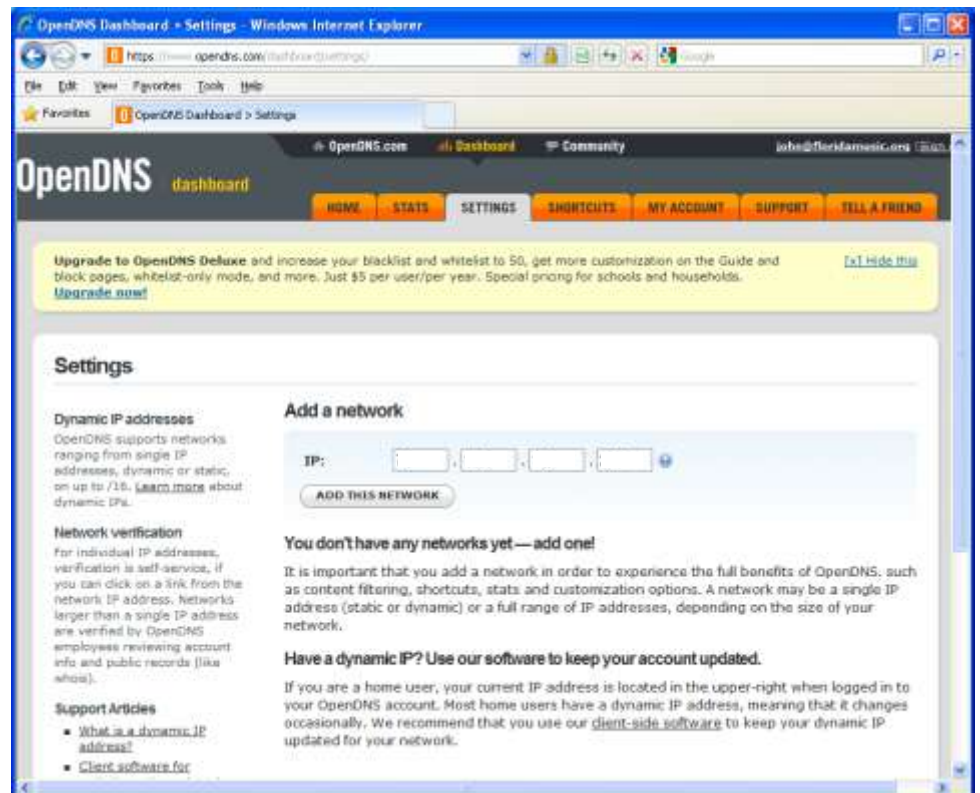


Open DNS *dashboard* home page



Click on the link 'Add a network'; you will see the IP address of your network.

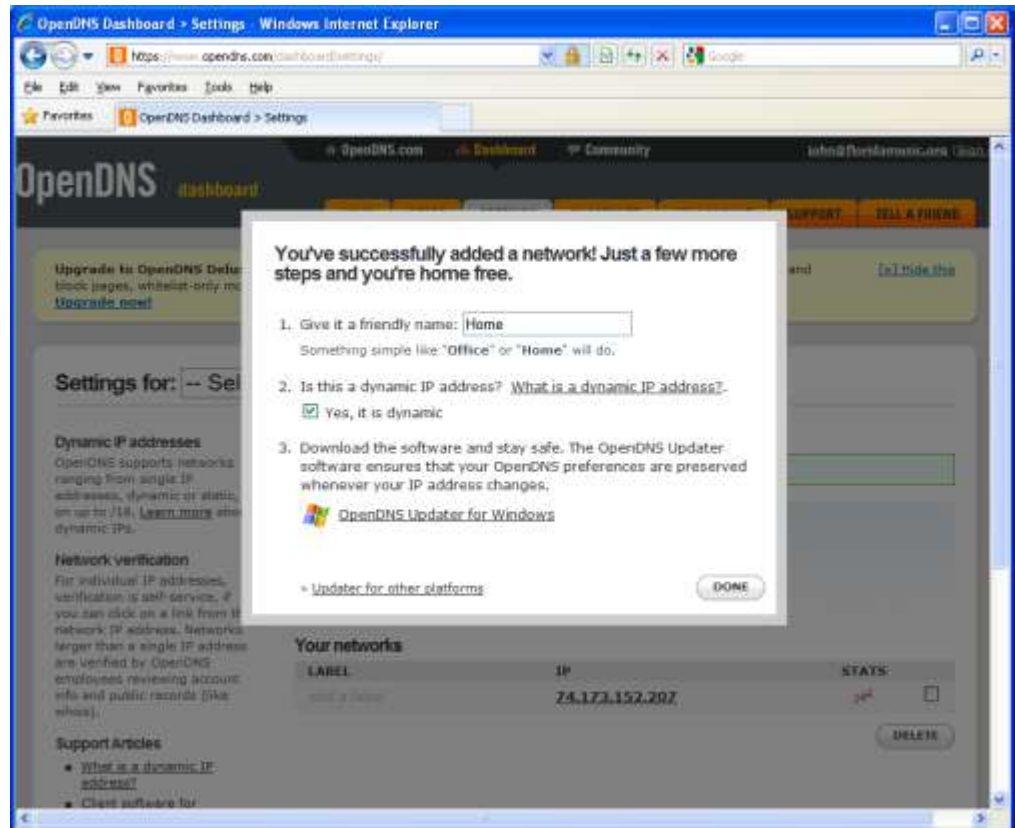
Your network IP address must be added to you're your OpenDNS account as OpenDNS will filter all traffic from this IP address.



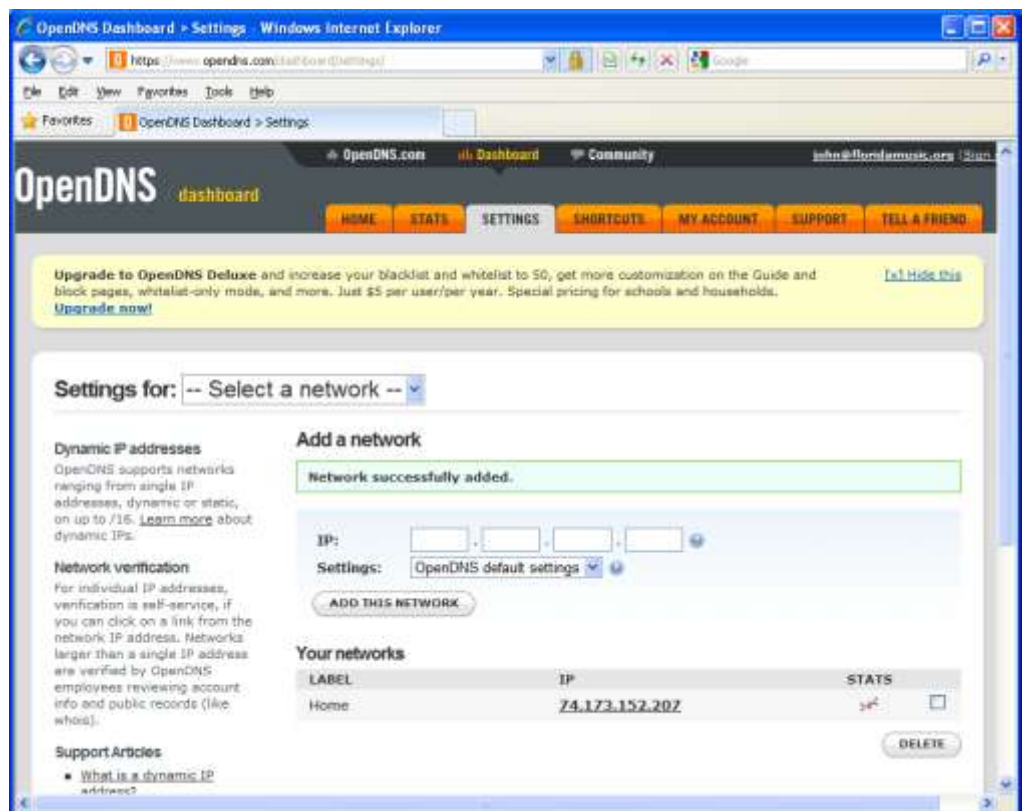


Click on the button 'Add this network', and then provide a name for the network as shown below.

Check the dynamic address box for DSL or cable modem. T1 connections will be static. Finally click on the DONE button.

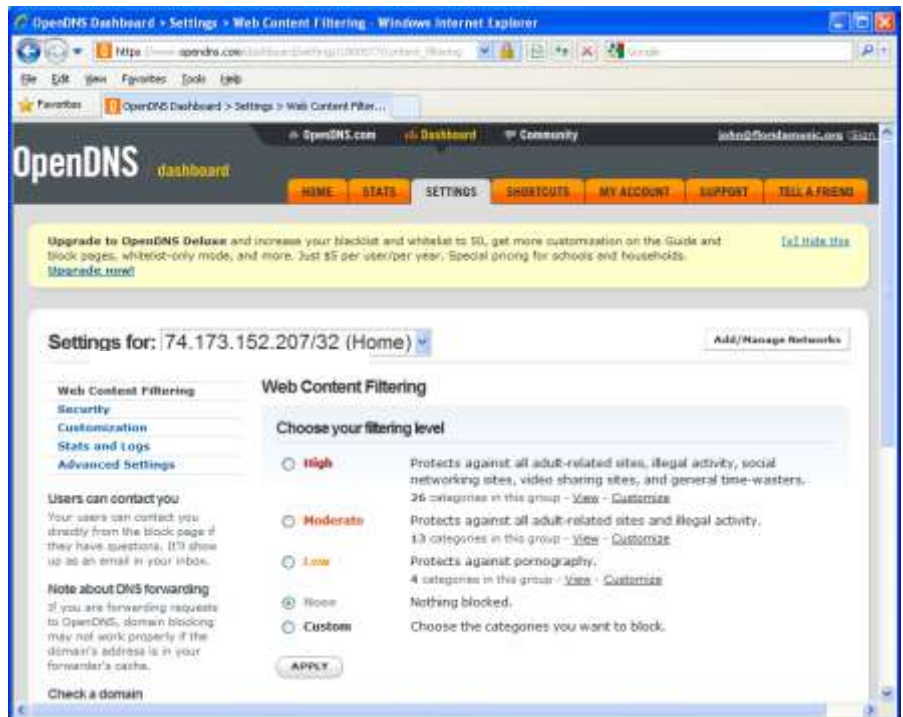


Next you will see a page showing your IP address, click on this as it is a link to the configuration page.

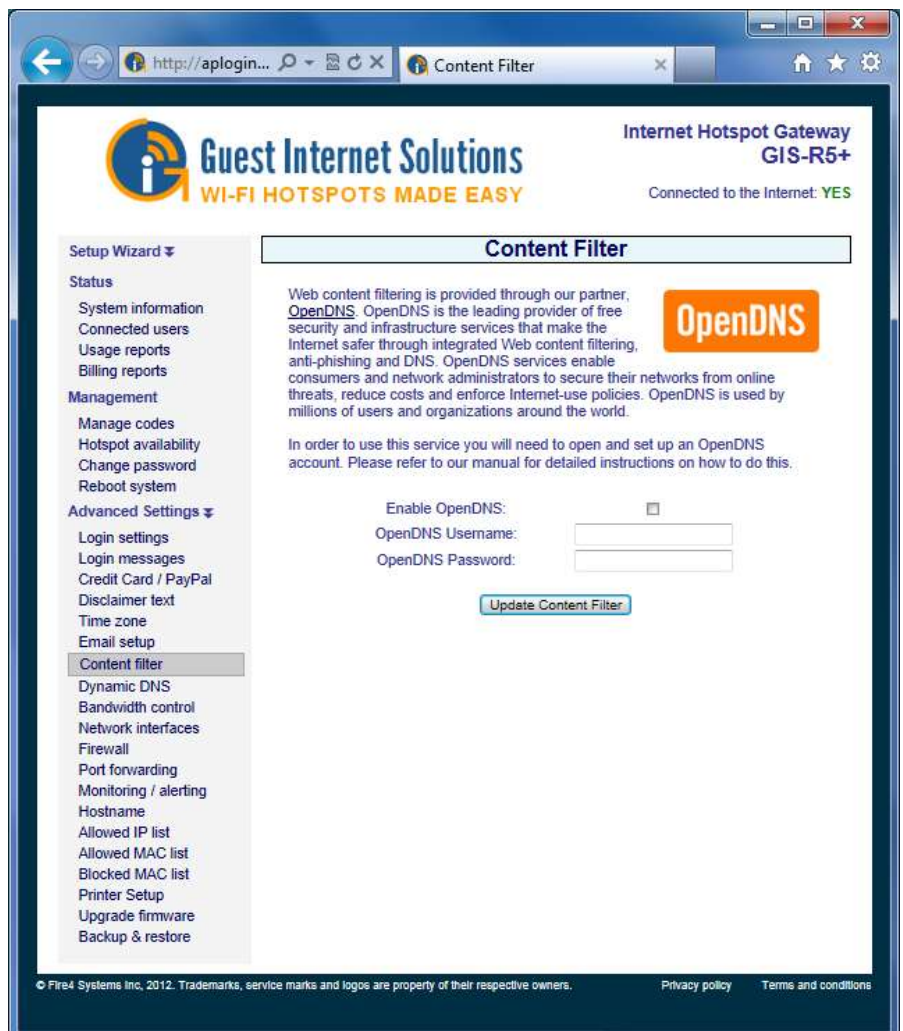




Next you have to select your content filtering level: you will see that content filtering is not active until you make your selection. Make your selection, high, moderate, low, depending on the level of content filtering you require. Finally click on the APPLY button.

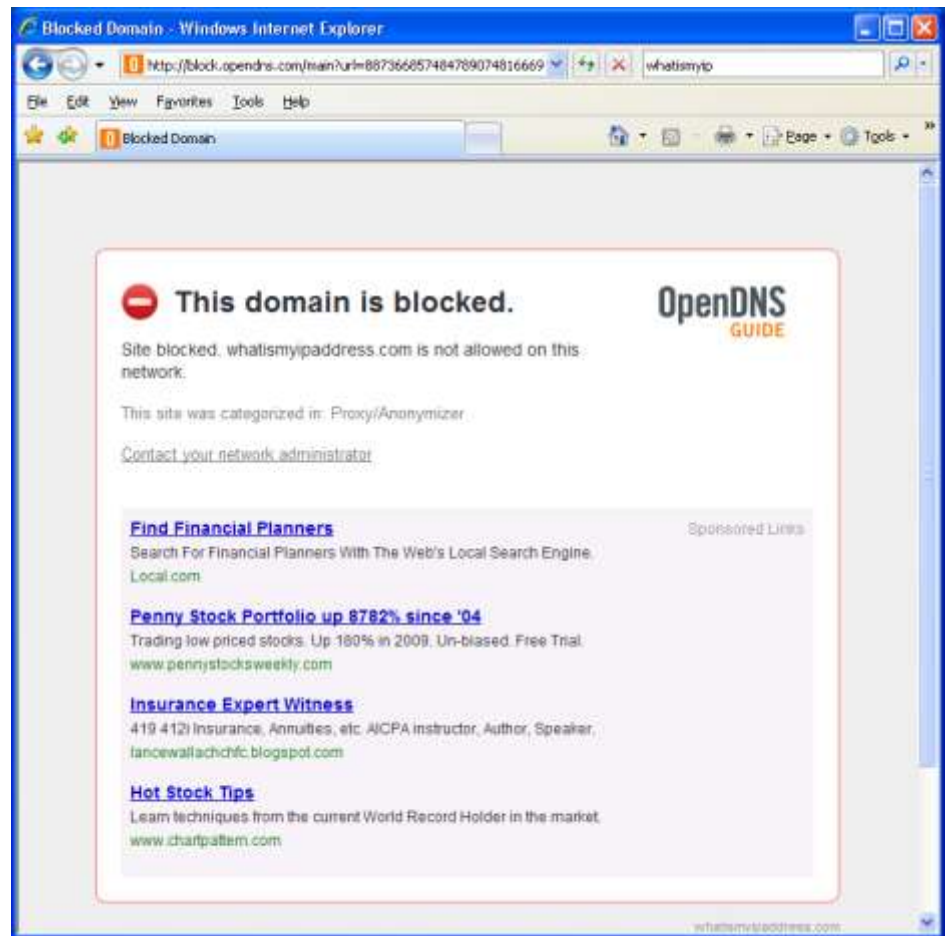


One final step remains. You must now login to the GIS product as ADMIN and select content filtering in the menu. The page you will see is shown here. Check the box to enable OpenDNS then enter your OpenDNS username and password. Finally click the 'Update content filter' button.

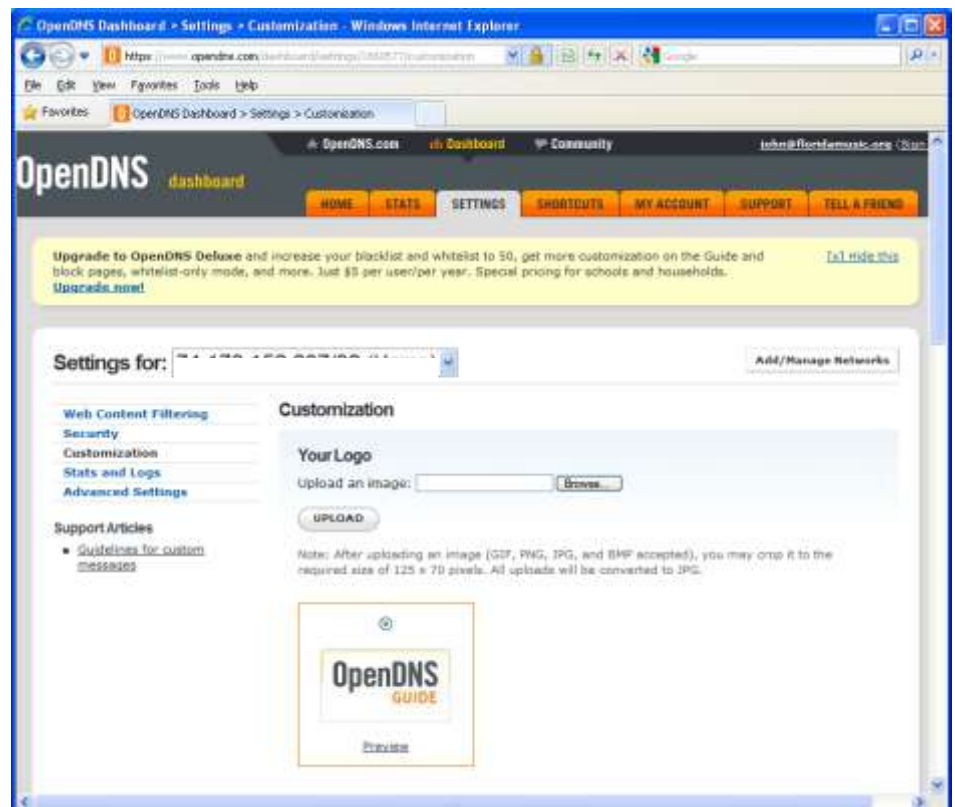




Any attempt to access a blocked site will give the page shown here.

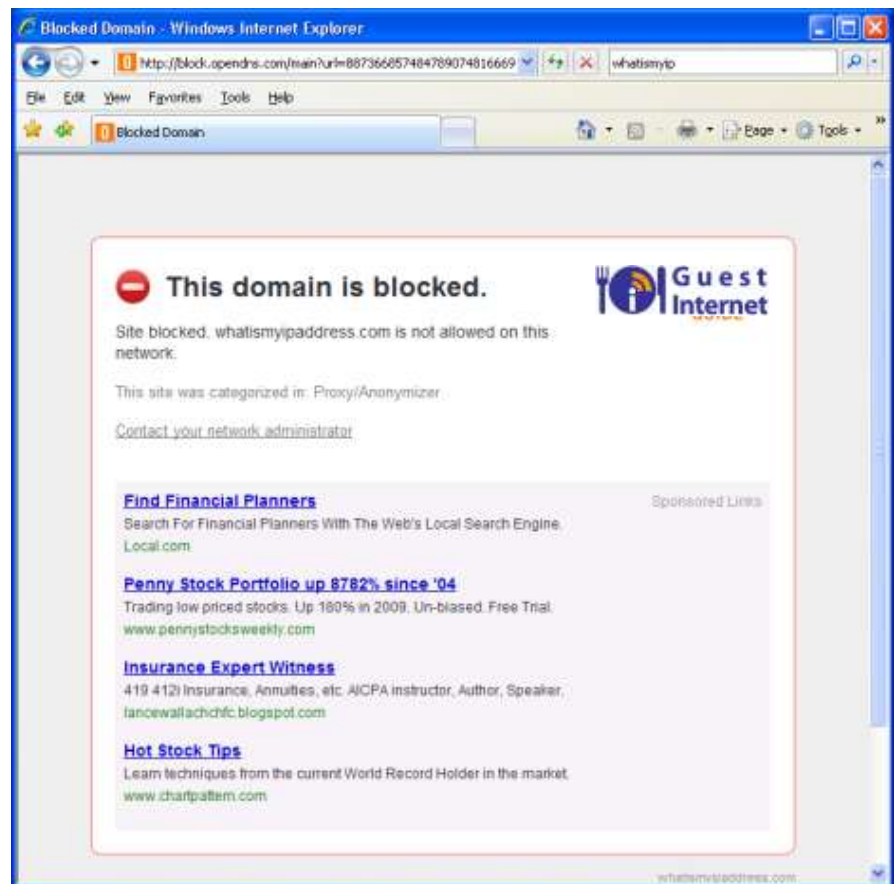


There is a configuration step that makes your content filter look professional. You can upload your business logo to the OpenDNS page shown above to personalize it for your users and guests. Click on the 'customization' message shown and upload your business logo.

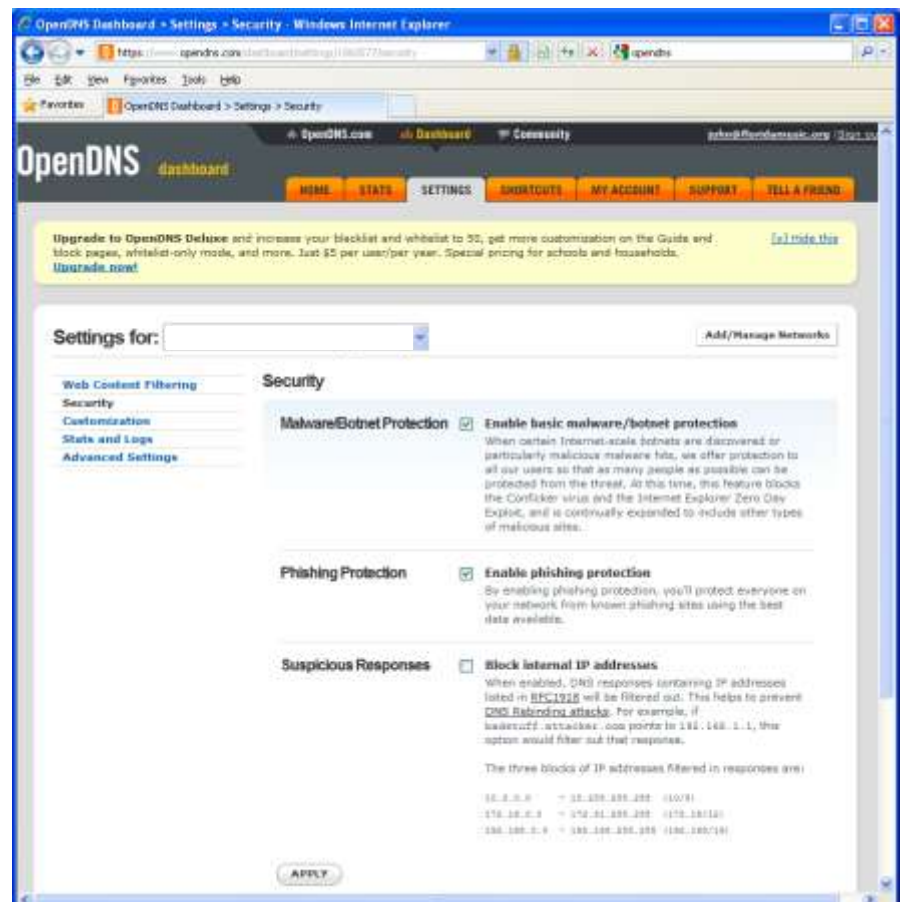




After customization your guests and users will see the page shown when they try to see blocked web sites.



Finally, you can complete your OpenDNS account information. Select the menu options **SETTINGS** as shown. Some settings have already been entered. Select the menu options on the left side of the screen to complete the remaining settings.





Next click on the MY ACCOUNT tab to enter your account information.

You can also click on the TELL A FRIEND tab and let other people know what a great content filtering service OpenDNS provides.



44: Advanced Settings: Dynamic DNS

Dynamic DNS configuration page

The Dynamic DNS is used to access the gateway remotely when the DSL or Cable Internet service has a dynamic IP address setting. The gateway is located using the services of DynDNS (<http://www.dyndns.com/>).

The **Dynamic DNS** setting requires a hostname account with DynDNS. When the box is checked to enable the DynDNS agent the DynDNS hostname, username and password must be entered.

Subsequently, the DSL or cable router can be located using the hostname URL which is resolved to an IP using the DynDNS server.

The screenshot shows a web browser window with the address bar displaying 'http://aplogin...'. The page title is 'Dynamic DNS Update'. The main content area features the 'Guest Internet Solutions' logo and the text 'WI-FI HOTSPOTS MADE EASY'. Below the logo, there is a 'Setup Wizard' menu on the left with options like 'Status', 'Management', 'Advanced Settings', and 'Dynamic DNS'. The 'Dynamic DNS' option is selected. The main content area is titled 'Dynamic DNS Update' and contains the following text: 'Dynamic DNS is provided through our partner, DynDNS.com. DynDNS allows you to set up a hostname like example.dyndns.org which can be used to connect to the GIS device for remote management and monitoring. In order to use this service you will need to open and set up a DynDNS account. Please refer to our manual for instructions on how to do this.' Below this text, there is a checkbox for 'Enable DynDNS:' which is checked. There are three input fields for 'DynDNS Hostname:', 'DynDNS Username:', and 'DynDNS Password:'. A 'Update DynDNS settings' button is located below the input fields. The footer of the page contains copyright information: '© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners.' and links for 'Privacy policy' and 'Terms and conditions'.

To access the gateway remotely, the DSL or Cable router must have port forwarding enabled with a port number allocated to the GIS gateway. The port number allocated may be appended to the hostname URL to access the gateway.



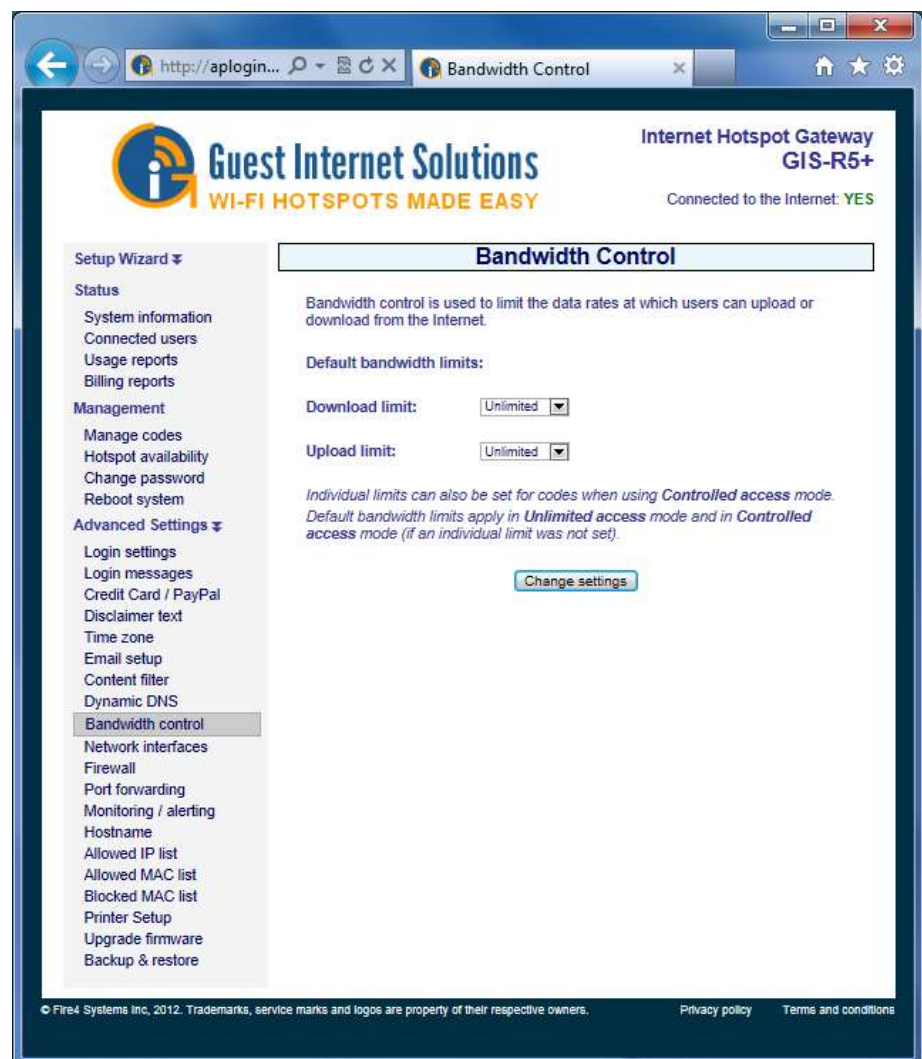
45: Advanced Settings: Bandwidth Control

Bandwidth control is very important for a public Internet hotspot. Many users simply want to check emails, or flight times and such browser-based applications consume little bandwidth.

However some users have applications that require a very large Internet bandwidth: such as peer-to-peer applications, sometimes-called file sharing applications (Bittorrent, Limewire, etc.), or large file downloads (music MP3's, videos). The bandwidth control prevents users with large bandwidth applications from slowing users who have low bandwidth applications by setting a maximum download and upload speed limit. Both upload and download speed limits are required because DSL is asynchronous (ADSL): the download speed available is much faster than the upload speed. Setting a very slow upload speed (32Kb/sec) is hardly noticeable by most users, however this speed slows file-sharing applications, which try to use the maximum upload speed available.

Both download and upload speeds are set by clicking on each dropdown menu and selecting the desired speeds. When the speeds have been selected then click on Change Settings for the new speeds to take effect.

Bandwidth control page



If upload and download speed settings have been selected with the access codes, then those speed settings will override the bandwidth settings on this page. This permits a slow free Internet service to be provided, while a charge can be made for a fast Internet service.



Setting the download speed limit



Setting the upload speed limit





When the settings have been selected click on the update settings button.

Bandwidth usage depends on the type of data traffic that the Hotspot users are sending and receiving over the network. Contact your broadband service provider for additional information about data charges and limits.

AT&T have provided information about typical data consumption of their broadband network for two data plans with monthly limits of 150MB and 250MB.

AT&T Data Services examples of bandwidth use

Here is an example of the traffic volume for the 150GB and 250GB data plans.



Monthly Activity	150 GB	250 GB
Send/receive one page emails	10,000 emails -and-	10,000 emails -and-
Download/upload a medium resolution photo to social media site like Facebook	3,000 photos -and-	4,000 photos -and-
MP3 Songs downloaded	2,000 songs -and-	3,000 songs -and-
Stream a one-minute YouTube video (standard quality)	5,000 views -and-	5,000 views -and-
Watch hour-long TV Shows (high quality)	100 shows -and -	200 shows -and -
Stream full length movies (Standard Definition: SD; High Definition: HD)	20 SD or 10 HD movies	25 SD or 13 HD movies

Usage examples are estimates based on typical file sizes and/or duration of file transfer or streaming event.

Copyright © AT&T, 2011. Read more at:

<http://www.att.com/esupport/article.jsp?sid=KB409045&cv=102#bid=BVv0KUnCEFI>



46: Advanced Settings: Network Interfaces

Most network designs follow simple rules: the Internet router is a 'DHCP server' and all computers are 'DHCP clients'. Some networks however require special configurations. A T1 internet connection may require that all computers and network devices be configured with 'fixed IP addresses'. The **Network Interfaces** menu option is selected to change the device configuration for non-standard networks.

When configuring the Guest Internet product for a non-standard network configuration, the help of a network specialist may be required, as there are many configuration options. One mistake may prevent the Guest Internet product from functioning correctly. In the worst case a configuration mistake might prevent you from communicating with the Guest Internet products and you will be locked out. In this case the only course of action is to reset factory defaults and start again. If you are locked out then go to the later section of this manual.

Open the **network interfaces** page by clicking in the Network Interfaces menu line. The network interfaces page is shown below. This page may have opened during the wizard set up process if the Guest Internet unit had to be configured with a fixed IP address.

Network Interface Menu Page showing the WAN tab.

The screenshot displays the 'Network Interface Setup' page for the 'Internet Hotspot Gateway GIS-R5+'. The page is titled 'Guest Internet Solutions' with the tagline 'WI-FI HOTSPOTS MADE EASY'. The status bar indicates 'Connected to the Internet: YES'. The left sidebar contains a 'Setup Wizard' menu with options like 'System information', 'Connected users', 'Usage reports', 'Billing reports', 'Management', and 'Advanced Settings'. The 'Network interfaces' option is highlighted. The main content area shows the 'WAN' tab selected, with a note: 'Change these settings to alter the network interfaces. Choose the interface to change from the list below. The icons and indicate whether the interface is a wired or wireless interface. A reboot of the device will be required once the changes have been made.' The settings for the WAN interface are as follows:

Field	Value
Use DHCP	<input checked="" type="checkbox"/> Uncheck for static
IP Address	10.1.10.57
Netmask	255.255.255.0
Gateway	10.1.10.1
Hardware	00:27:22:ed:da:bc
DNS 1	10.1.10.1
DNS 2	

Below the settings is a button labeled 'Update Settings'. At the bottom of the page, there is a copyright notice: '© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners.' and links for 'Privacy policy' and 'Terms and conditions'.



The screen view on the previous page shows the WAN tab (Wide Area Network). These settings are for the gateway unit Internet port. The DHCP box checked for default configuration. In this case the DSL router or cable modem provides the IP address for the gateway. When the gateway is used with a T1 circuit it may require setting the unit to a fixed IP. In this case the Use DHCP box is unchecked and the three IP addresses shown must be typed in manually: IP Address, Netmask and Gateway.

Clicking the LAN tab (Local Area Network) shows the settings used for the LAN ports on the gateway. The LAN ports are always a DHCP server and provide IP addresses for devices connected to the LAN ports. Computers connected to wireless access points request an IP address from the gateway LAN ports.

**Network Interface Menu
Page showing the LAN
tab.**

The screenshot shows a web browser window with the address bar displaying 'http://aplogin...'. The page title is 'Network Interface Setup'. The main content area is titled 'Network Interface Setup' and includes a sub-header 'Internet Hotspot Gateway GIS-R5+'. Below this, it says 'Connected to the Internet: YES'. The page is divided into a left sidebar and a main content area. The sidebar contains a 'Setup Wizard' section with links to 'Status', 'Management', 'Advanced Settings', and 'Network interfaces'. The 'Network interfaces' section is currently selected. The main content area shows the 'LAN' tab selected, with a warning message: 'Change these settings to alter the network interfaces. Choose the interface to change from the list below. The icons and indicate whether the interface is a wired or wireless interface. A reboot of the device will be required once the changes have been made.' Below this, there are two sections: 'Interface settings' and 'DHCP server settings'. The 'Interface settings' section includes fields for 'IP Address' (192.168.96.1), 'Netmask' (255.255.240.0), and 'Hardware' (02:27:22:ed:da:bc). The 'DHCP server settings' section includes fields for 'Start IP' (192.168.96.10), 'End IP' (192.168.111.254), and 'Lease time' (86400). An 'Update Settings' button is located at the bottom of the settings area. The footer of the page contains copyright information: '© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners.' and links to 'Privacy policy' and 'Terms and conditions'.

The LAN Network Interfaces configuration permits you to set parameters that will improve the service for your guests. For example you can set a limit on the number of guests that can connect to the gateway unit simultaneously. The procedure is described below.

Click on the LAN tab (network interface). You will see the IP range start and IP range end. The IP range is set for a maximum of 240 users connected (see the last digits of the IP addresses, $250 - 10 = 230$). Obviously this number is higher than a DSL line can support. A good value to limit the number of guests is between 20 for a standard DSL line and 50



for a very fast DSL line. You can set the maximum number of users to 25, for example, by changing the last 3 digits of the IP range end, from 240 to 35. The number of users is determined by subtracting the IP range start from the IP range end (in this case $35 - 10 = 25$ users).

When any change has been made to the network settings then click the update settings button so the changes take effect. Please consult a network specialist if you require any special network information for your gateway installation.

Products with a wireless interface (GIS-K2) have three tabs on the network Interface page:

- WLAN: the wireless interface
- WAN: the Ethernet port that connects to the Internet via the DSL router
- LAN: The Ethernet ports that are fire-walled for PoS computers

Note that the LAN interface shown for the GIS-K2 is a fire-walled switch that can be used to connect back-office and point of sale computers to protect them from hackers.

**Network Interface Menu
Page for the GIS-K2
showing the WLAN
(wireless) tab with
network settings. This
page is not available on
gateway products (GIS-
R2 to GIS-R16)**



The screen above shows the WLAN (Wireless local area network) IP settings. This interface is always a DHCP server.

The WAN (wide area network) configuration is identical to other gateway products. The WAN interface can be configured as a DHCP client, or with a fixed IP address. The LAN (local area network) IP settings are configured as a DHCP server. Care should be taken if the LAN IP address is modified: the isolating firewall is valid only for the private address ranges 192.168.x.x, 172.16.x.x and 10.x.x.x. The firewall will not function for other IP (public) address ranges if selected using this page.



47: Advanced Settings: Wireless Settings (for the GIS-K1+ and K3 products only)

Products that have a wireless interface (GIS-K1+, GIS-K3) also have an additional menu page for wireless settings. There are two configuration options:

- Name (SSID)
- Channel

The menu page is shown below.

Wireless Settings Menu (ONLY for the GIS-K1+ and K3 products).



The Name (SSID) (Service Set Identifier) is the name that is broadcast by the wireless transmission. Any laptop computer within range of the transmission will detect and show the SSID of the K1+ and K3 units.

The channel can be selected to avoid conflict with adjacent transmitters if there is more than one hotspot at a location. It will be necessary to use laptop identification software, such as NETSTUMBLER to identify the channel number of adjacent transmissions.



48: Advanced Settings: WAN Settings (GIS-R10 to GIS-R20 only)

The GIS-R10 and GIS-R20 products have dual port WAN interfaces. Two WAN connections permit these products to balance loads over two Internet backhaul circuits to increase the throughput and permit more users to be connected simultaneously. In addition the dual WAN has a fail-over feature: when one of the WAN backhaul circuits fails then all traffic is routed through the functional circuit.

The WAN settings page shows two WAN circuits. Each circuit can be configured independently as a DHCP client, or with a static IP address.

Note that both WAN circuits are configured by default to have the same DNS address, in this case the Google public DNS servers are installed. It is necessary to have identical DNS server address for both backhaul circuits to avoid DNS problems with client computers.

The respective configuration pages are shown below.

GIS-R10/R20 WAN1 Configuration

WAN Interface Setup - Windows Internet Explorer

http://192.168.1.1:8080/guestinternet/wan1.cgi

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R10

Connected to the internet YES

Setup Wizard

Status

- System information
- Connected users
- Usage reports

Management

- Manage codes
- Hotspot availability
- Change password
- Reboot system

Advanced Settings

- Login settings
- Login messages
- Disclaimer text
- Time zone
- Email setup
- Content filter
- Dynamic DNS
- Bandwidth control
- WAN settings
- LAN settings
- Firewall

WAN Interface Setup

Change these settings to alter the WAN (Wide Area Network) interface settings. The WAN interfaces are used to connect this device to the internet. A reboot of the device will be required once the changes have been made.

wan1 | wan2

Use DHCP ☒ Uncheck for static

IP Address: 192.168.1.102 DNS 1: 8.8.8.8

Netmask: 255.255.255.0 DNS 2: 8.8.4.4

Gateway: Only DNS 1 is necessary

Hardware: 00:04:b5:22:1a:24

DNS servers are fixed to either Google DNS or OpenDNS (if enabled) in this firmware

Update Settings



GIS-R10/20 WAN2 Configuration

WAN Interface Setup - Windows Internet Explorer

http://192.168.1.1:8080/wan.cgi?wan2

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R10

Connected to the Internet: YES

Setup Wizard

Status

- System information
- Connected users
- Usage reports

Management

- Manage codes
- Hotspot availability
- Change password
- Reboot system

Advanced Settings

- Login settings
- Login messages
- Disclaimer text
- Time zone
- Email setup
- Content filter
- Dynamic DNS
- Bandwidth control
- WAN settings**
- LAN settings
- Firewall

WAN Interface Setup

Change these settings to alter the WAN (Wide Area Network) interface settings. The WAN interfaces are used to connect this device to the Internet. A reboot of the device will be required once the changes have been made.

wan1 wan2

Use DHCP ☒ Uncheck for static

IP Address: 10.1.10.160 DNS 1: 8.8.8.8

Netmask: 255.255.255.0 DNS 2: 8.8.4.4

Gateway: Only DNS 1 is necessary

Hardware: 00:0d:b5:22:1a:25

DNS servers are fixed to either Google DNS or OpenDNS (if enabled) in this firmware

Update Settings

The GIS-R10 and R20 can have the WAN ports configured for either dual WAN or single WAN. The default is dual-WAN. When the configuration is changed from dual to single WAN the WAN2 port becomes a LAN port.



49: Advanced Settings: LAN Settings (GIS-R10 to GIS-R20 only)

The GIS-R10 and GIS-R20 products have dual port WAN interfaces. Two WAN connections permit these products to balance loads over two Internet backhaul circuits to increase the throughput and permit more users to be connected simultaneously. In addition the dual WAN has a fail-over feature: when one of the WAN backhaul circuits fails then all traffic is routed through the functional circuit.

The LAN settings differ between the two models. The GIS-R10 has a single Ethernet port that can be configured for any IP address range. The GIS-R20 has three Ethernet ports that can be configured independently for applications where multiple isolated subnets are required.

The respective configuration pages are shown below.

GIS-R10 LAN1 Configuration

When the GIS-R10 WAN configuration is changed from dual to single then the WAN2 port becomes the LAN1 port1, and LAN1 changes to LAN2.



GIS-R20 LAN port Configuration

LAN Interface Setup - Windows Internet Explorer

http://192.168.93.10:8080/lan.cgi

LAN Interface Setup

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R16
Connected to the internet **YES**

Setup Wizard

- Status
 - System information
 - Connected users
 - Usage reports
- Management
 - Manage codes
 - Hotspot availability
 - Change password
 - Reboot system
- Advanced Settings
 - Login settings
 - Login messages
 - Disclaimer text
 - Time zone
 - Email setup
 - Content filter
 - Dynamic DNS
 - Bandwidth control
 - WAN settings
 - LAN settings**
 - Firewall

LAN Interface Setup

Change these settings to alter the LAN (Local Area Network) interface settings. The LAN interfaces are used by customers connecting to the Internet. A reboot of the device will be required once the changes have been made.

lan4 lan3 lan2 lan1

Interface settings:		DHCP server settings:	
IP Address	192.168.93.1	Start IP	192.168.93.10
Netmask	255.255.255.0	End IP	192.168.93.250
Hardware	00:0d:48:7b:0b:8c	Lease time	86400

Update Settings

The GIS-20 has three LAN ports in the default settings. If the WAN ports are reconfigured from dual to single WAN then the GIS-R20 has four WAN ports.



50: Advanced Settings: Firewall

The gateway has a firewall that provides four features: remote management, blocking private IP address ranges, blocking of virus DoS attacks, and blocking of peer-2-peer file sharing.

The first feature permits administrator login access via the Internet port to allow remote management of the gateway by opening the HTTP/HTTPS port. By clicking the box to activate Internet port access the admin login is available on the Internet port by typing a fixed IP address into the browser. The gateway can be administered from anywhere on the Internet providing that the business network has a fixed IP address and the business router has port forwarding. Port forwarding is required from a device that owns the public facing IP address to a device that has a private (NAT) IP address. If the GIS device gets a public IP then no port forwarding is required, if it gets an IP address in the range 192.168.X.X, 172.16.X.X, or 10.X.X.X then packets need to be forwarded for TCP port 80/HTTP (and 443 for HTTPS/SSL) on the public facing device to the GIS unit.

Firewall Menu Page

The screenshot displays the 'Firewall' configuration page of the 'Guest Internet Solutions GIS-R5+' gateway. The page is divided into a left sidebar with navigation links and a main content area for settings. The sidebar includes sections for 'Setup Wizard', 'Status', 'Management', and 'Advanced Settings'. The 'Firewall' option is highlighted under 'Advanced Settings'. The main content area contains the following settings:

- Firewall**: The firewall settings control remote access to this management interface and also block guests from accessing your private network.
- Allow this device to be managed via the Internet**: This setting will allow access to the device via the WAN port. You may still have to forward a port through your router to reach the device.
- Allow remote management**: ☐ (unchecked)
- Select management port**: 80
- Block the guests using this device from accessing private networks**: This device is connected to. This setting will stop guests from accessing your company network or router settings. All packets to private IP ranges 192.168.0.0/16, 172.16.0.0/12 and 10.0.0.0/8 will be dropped.
- Block private IP ranges**: ☒ (checked)
- Block guest computers from slowing this device with DoS (Denial of Service) attacks, Trojans, Worms or Viruses**: If left unprotected a malicious or infected computer could consume all the resources of the gateway. Leave this feature enabled unless you experience issues connecting to this device.
- Block DoS attacks**: ☒ (checked)
- Block guest computers from sharing files using peer-to-peer networks**: like BitTorrent, FastTrack (Kazaa) and Gnutella (LimeWire). Guests sharing files will be blocked for the selected time. Permanent blocks will need to be removed manually by accessing the [Blocked MAC list](#). All timed blocks will be removed if the gateway reboots.
- Block P2P file sharing**: ☐ (unchecked)
- Select block time**: A dropdown menu is open showing options: 5 mins, Permanent (selected), 10 mins, 30 mins, 1 hour, 1 day. A 'Change' button is visible.

A red warning message at the bottom states: 'WARNING: All hotspot users will be logged out when settings are changed'.

At the bottom of the page, there is a copyright notice: '© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners.' and links for 'Privacy policy' and 'Terms and conditions'.



The second feature prevents public Internet users accessing business computers in the network that the Internet (WAN) port is connected to. This option is selected by default to ensure compliance with the recommendations of PCI DSS

https://www.pcisecuritystandards.org/security_standards/pci_dss_download_agreement.html

The third feature blocks any computer infected with has a software virus or Trojan that is sending out a packet stream as part of a DoS (denial of service) attack. If the computer is permitted to connect to the Internet then the service will become very slow for all users. Therefore the default setting is to block infected computers.

The fourth feature when selected blocks any computer that has active torrent file sharing software. Many businesses that offer a public Internet service subsequently receive notifications of illegal sharing of copyrighted material. The business must cease of face penalties. A hotel is vulnerable to legal action because the management cannot know if a guest has file sharing installed on his or her computer. By activating the P2P (peer to peer) blocking service the business can prevent any computer with P2P software from connecting to the Internet. A drop down menu permits the offending computer to be blocked for a period of time, or permanently. We recommend that permanent blocking should be selected as a malicious user who is reconnected can use an encrypted service to share files, and encrypted communications cannot be detected.

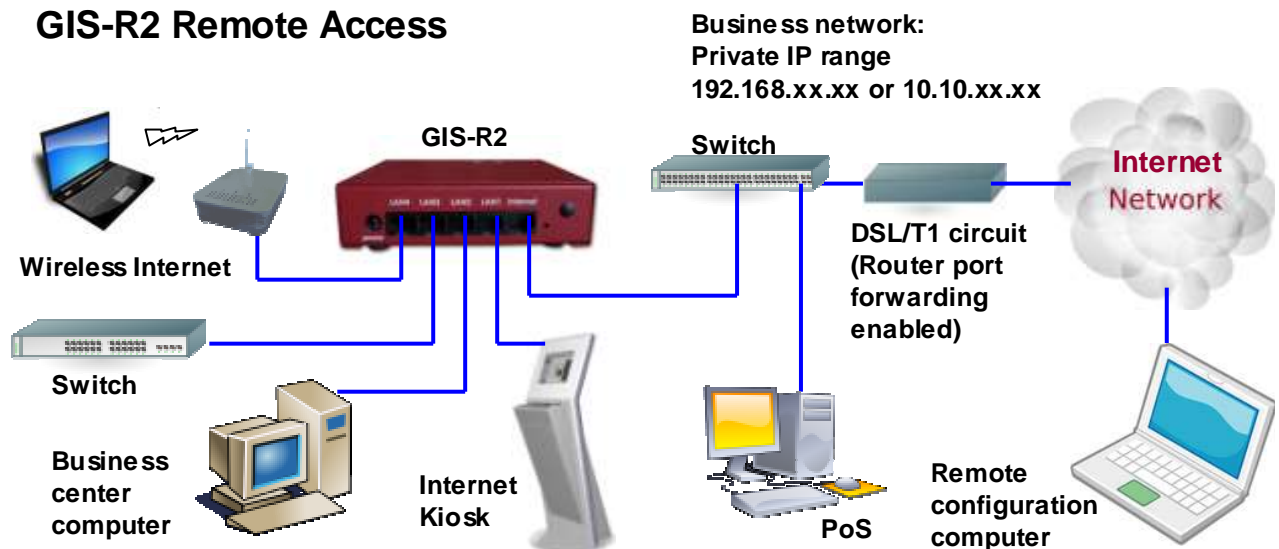
Allow remote management

A computer is connected to one of the LAN ports to configure the Guest Internet gateway. Connecting a computer to the gateway Internet port and checking the Allow Remote Management box can also be used to configure the gateway. When connecting to the Internet port the Hostname URL cannot be used: The IP address of the Internet port has to be used. If remote management is used frequently then it is necessary to set the Internet port to a fixed IP address: the DHCP address configuration may cause the IP address to change when the gateway is rebooted.

The management port number must also be specified. It is usual to use port 80 (HTTP) however any port can be used.

The gateway can also be managed outside the network via the Internet by enabling port forwarding on the DSL or T1 router. It will then be necessary for the telecom provider to give a fixed IP for the network so that it can be accessed remotely, or deploy the dynamic DNS feature.

GIS-R2 Remote Access





Block private IP ranges

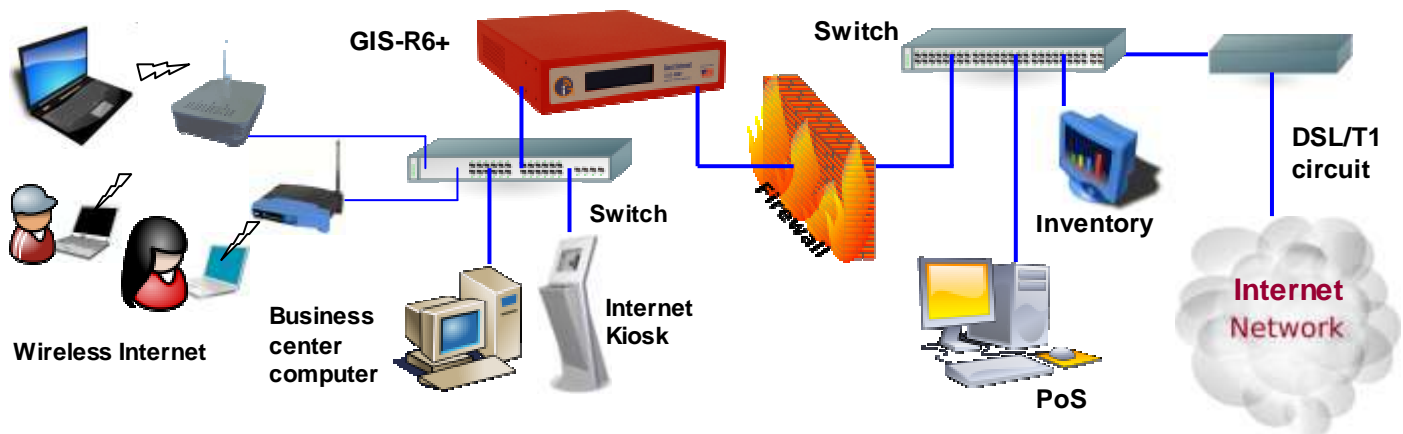
The Guest Internet gateway has a firewall that is designed to protect computers connected to the Internet port network from public users connected to the gateway LAN ports. The firewall provides compliance with the PCI DSS requirements for data security. The business network is connected as shown in the diagram below.

Gateway Firewall Details

Public network (DMZ): wireless hotspot, kiosks, business center

Public user access is blocked to the business network that includes a point of sale terminal

Set private IP range 192.168.xx.xx 172.16.xx.xx or 10.xx.xx.xx to prevent access from the public network



Checking the box to block private IP ranges activates the gateway firewall. When activated the firewall 'drops' or discards all data IP packets that are sent by public users to the three private IP address ranges:

192.168.xx.xx 172.16.xx.xx 10.xx.xx.xx

The firewall is effective when the business network is configured for one of the three private IP ranges listed above.

A hacker can connect to the public network, however any attempt to discover or connect to computers in the business network requires the transmission of IP packets that have the business network IP range as the destination address. Any such IP packets are not forwarded from the LAN port to the Internet WAN port and so do not reach their intended destination.

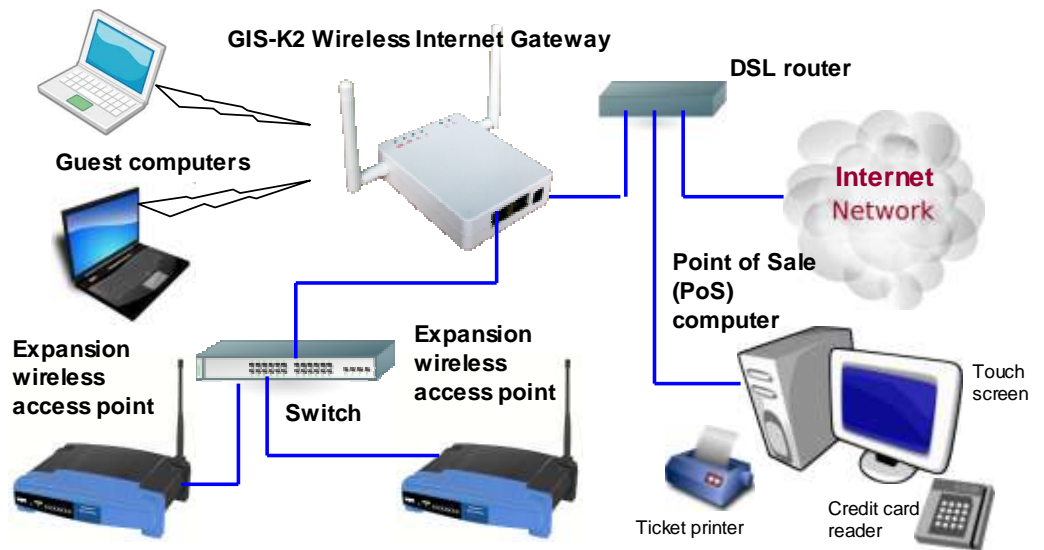
Note that full PCI DSS compliance also requires a second firewall located between the DSL router and the business network to prevent computers being hacked from the Internet.

The configuration of the firewall in the GIS-K2 product is identical to the GIS-R-series gateway products.

The Guest Internet GIS-K2 gateway default setting has a firewall configuration that is designed to protect business computers connected to the same network as the Internet port. Public users connected to the gateway LAN ports cannot access any computer or device on the WAN side of the gateway. The firewall provides compliance with full PCI DSS requirements for data security, blocking attacks from both the public wireless network and from the Internet. The business network is connected as shown in the first diagram on the following page.

The GIS-K2 permits expansion of the wireless network by adding wireless access points. This mode is compatible with non-wireless gateway products. This configuration is shown in the second diagram on the following page.

GIS-K2 LAN port extending the public network by connecting additional wireless access points. Computers connected to the same DSL circuit as the GIS-K2 are protected from hackers by the GIS-K2 firewall.





51: Advanced Settings: Port Forwarding

Port forwarding permits a computer on the WAN side of the gateway to connect to a device on the LAN side of the gateway. Port forwarding is very useful for remote configuration of wireless access points.

Port forwarding can be configured for up to 25 devices (up to 100 on the R10/R20). The port forwarding configuration page requires four parameters for each device.

The first field is the port number assigned for the device.

The second field is the destination IP (fixed) of the LAN side device.

The third field is the port number used to access the device (usually port 80 however most devices permit this to be changed).

The fourth field is for comments used to identify the device.

A static WAN port setting is required to access forwarded devices.

Port Forwarding Menu Page

IMPORTANT NOTE:

The LAN side device fixed IP must be in the same subnet as the LAN DHCP range, however the subnet DHCP range must be modified so that the device fixed IP's are outside the DHCP range.

Each device connected to a LAN port is addressed by:

http:// < IP of WAN port> : < assigned port number>



52: Advanced Settings: Monitoring / Alerting

The purpose of the monitoring and alerting feature is to advise the Hotspot owner that a wireless access point or other device connected to the LAN port has failed. The GIS gateway can be set to periodically 'ping' each device in the device list. If a device does not respond then a second attempt is made to 'ping' the device. If the device does not respond after two attempts then a message is sent out using the previously configured email. The email message has a subject line and content derived from the device name entered when configuring monitoring and alerting as follows:

Subject: Compex WPP54g on the GIS-R2 is DOWN

Device 'Compex WPP54g on the GIS-R2' with MAC address '00-80-48-50-93-3a' attached to Hotspot ID 5f7d7d45 stopped responding at 2011-05-28 16:19:51 EDT

A similar message is also sent out if the device comes back on line.

The **monitoring and alerting** configuration screen is shown below.

Monitoring and Alerting Menu Page

Monitoring and Alerting - Windows Internet Explorer

http://aplogin.com/admins/monitor.cgi

Guest Internet Solutions
WI-FI HOTSPOTS MADE EASY

Internet Hotspot Gateway
GIS-R2

Connected to the internet: YES

Monitoring and Alerting

Monitoring can be set up for Access Points or other devices like switches and CCTV cameras connected to this hotspot. If a device fails or recovers from a failure an alert will be emailed to the address below. Devices being monitored must have fixed IPs. It is not necessary for the device to have an IP address assigned by this hotspot.

Email address to send alert to:

MAC Address	IP Address	Interface	Device Name
00-02-6F-55-06-80	192.168.90.12	lan	Senao 2610 LAN port [X]
00-80-48-50-93-3a	192.168.90.11	lan	Compex WPP54G LA [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]
<input type="text"/>	<input type="text"/>	lan	<input type="text"/> [X]

Change settings

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Information has to be provided for three fields, and there is also a drop down tab to select the port that the device is connected to.

MAC address

The MAC address is provided for the device Ethernet port. Not that wireless access points usually have two MAC addresses, one for the Ethernet port and one for the wireless port.

IP address

The IP address is a static address that is configured in the device for access to the administration pages. This is set to a default by each manufacturer but is programmable.

Note that the IP address must be in the same subnet as the Ethernet port to which it is attached. However if the Ethernet port is a DHCP server then the DHCP range must be modified to ensure that no IP address can be issued which is the same as the device.

Interface selector

Select the Ethernet interface that the device will be connected to, (LAN, WAN, etc).

Device name

Type a text string that describes the device (and the location of the device if necessary). This text string will be sent via email if the device does not respond.



53: Advanced Settings: Hostname

The hostname is a special URL or Web address that is used by Guest Internet products for the login page and to access the configuration pages. The default hostname is:

aplogin.com

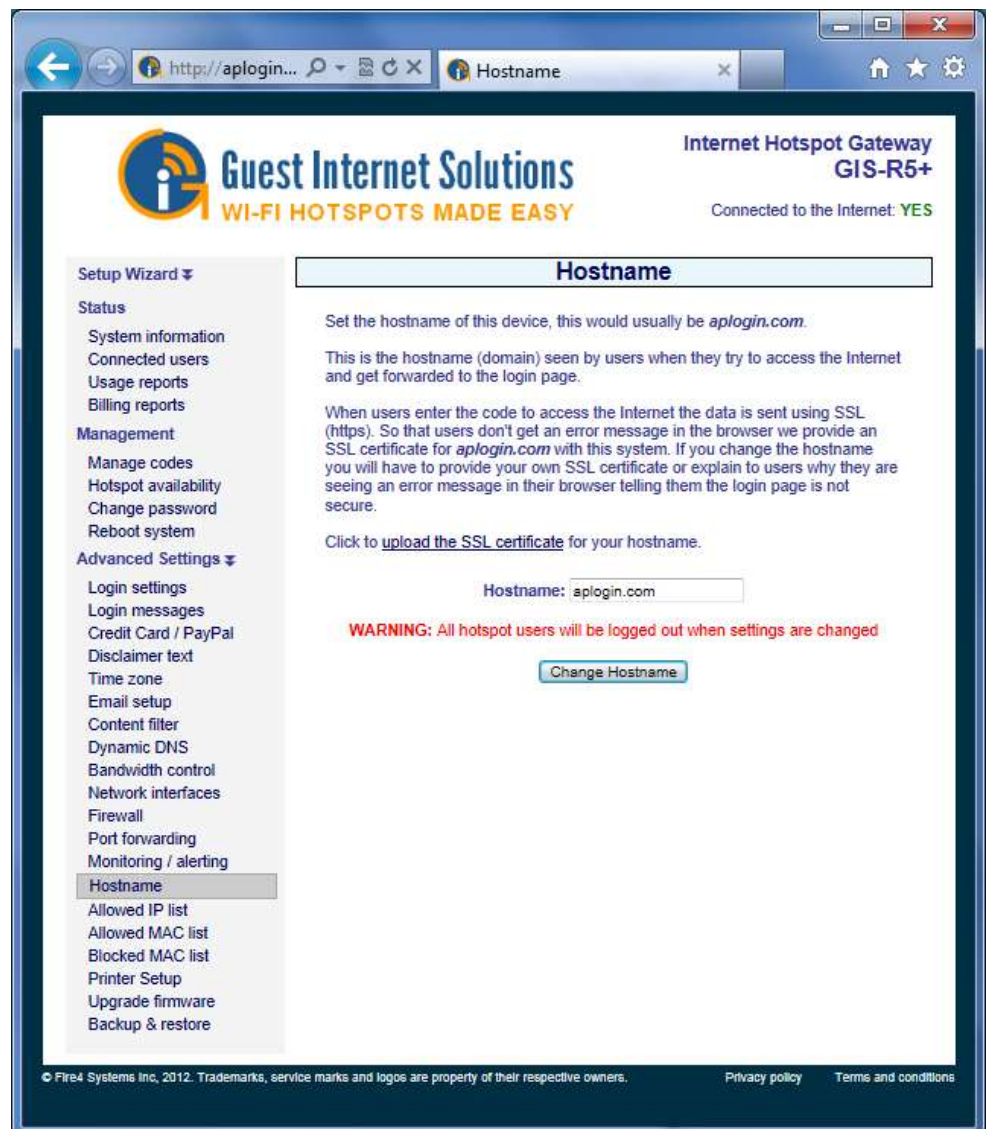
Therefore to access the configuration pages in a browser enter the URL in the address line as:

http://aplogin.com/admin

The username is **admin**; the password was entered during the wizard setup.

When the Hostname menu entry is clicked the page shown below appears in the browser window.

Node Hostname Menu Page



The hostname can be changed, however the URL for the new name must be purchased and be a valid Internet URL. When the hostname has been changed click on the change hostname button. The hostname is changed only for special applications. Changing the hostname is not recommended for normal use. A valid SSL certificate must be purchased for the URL that has been purchased, and uploaded to the SSL certificate menu.

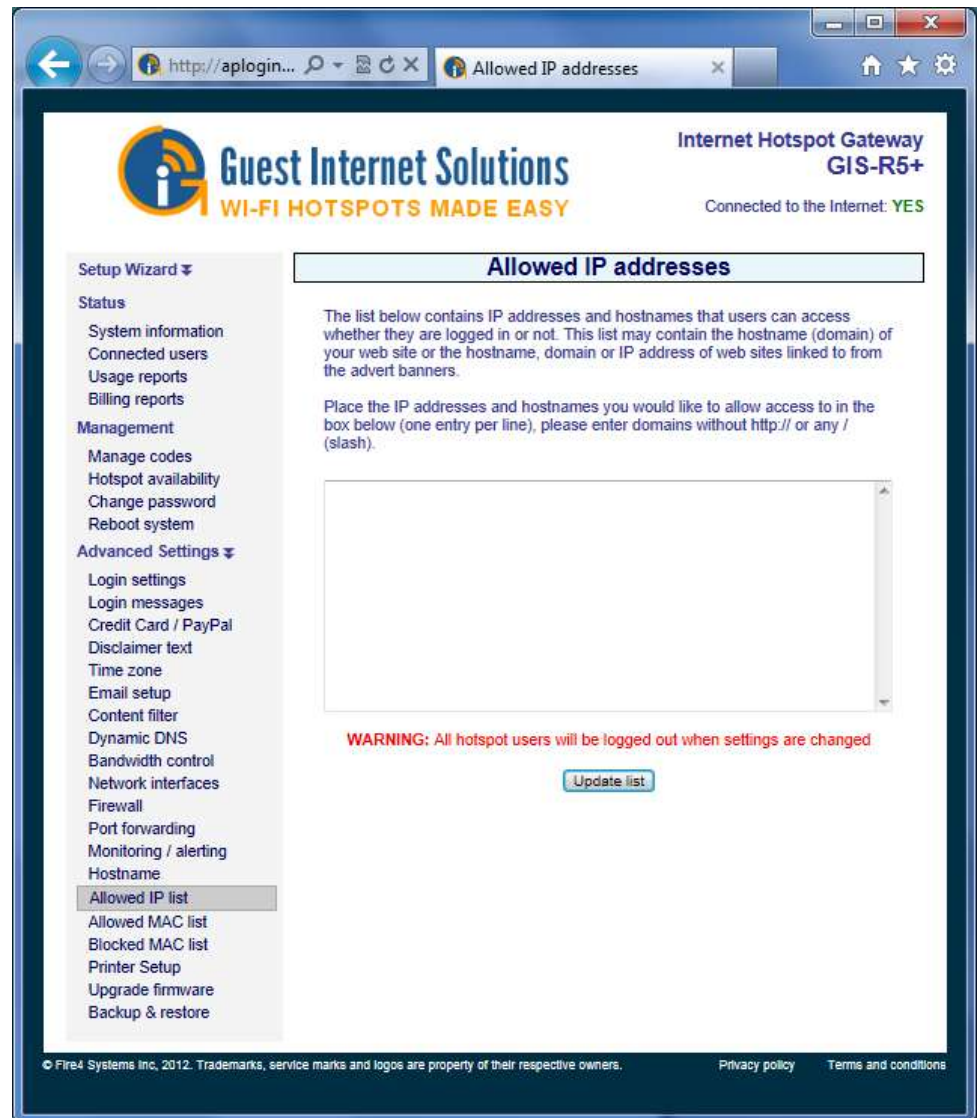


54: Advanced Settings: Allowed IP List

Allowed IP addresses permit your guests to access websites without completing the login page process. If you entered the address of your business Web site during the wizard setup process you will see that your website address is already included in this table. You can add other Web site addresses that you want your guests to access directly without logging in.

For example. The Guest Internet product may be installed in a hotel and the hotel charges for Internet access. If however the hotel wishes to give guests free access to airline websites then the URL's of the airlines are entered in this window. Click on the **Allowed IP addr** menu tab to see the table of allowed IP addresses shown in the figure below.

Allowed IP Addresses page



Type in the URL or IP address that you wish to allow guests to access without logging in. There is no limit to the number of IP addresses /URL's that can be entered. Finally click on update list to make the IP active.

The Allowed IP Addresses table is used to construct a 'walled garden' login page. See the Login page section for more information about creating a Walled Garden login page.



55: Advanced Settings: Allowed MAC List

Allowed MAC addresses permit you to configure the Guest Internet unit so that specific computers can bypass the login process. These computers can be your business computers, or a laptop computer used for network maintenance.

Click on the **Allowed MAC addr** menu line and you will see the screen shown below.

Table of Allowed MAC Addresses Meun Page

The screenshot shows a web browser window with the URL `http://aplogin...` and a tab titled "Allowed MAC addresses". The page header includes the "Guest Internet Solutions" logo and the text "Internet Hotspot Gateway GIS-R5+" and "WI-FI HOTSPOTS MADE EASY". A status bar indicates "Connected to the Internet: YES".

The left sidebar menu is expanded to show "Advanced Settings", with "Allowed MAC list" selected. Other options in the sidebar include Setup Wizard, Status, Management, and various advanced settings like Login settings, Bandwidth control, and Firewall.

The main content area is titled "Allowed MAC addresses". It contains the following text:

The list below contains MAC addresses of wireless cards or laptops that are allowed to freely access the Internet regardless of whether they are logged in or not.

Type the MAC address in the box below (one entry per line) in the form 00:00:00:00:00:00.

☐ Apply bandwidth limits and log access from allowed MACs. MAC addresses will have to use HTTP to gain Internet access.

Below this text is a large empty text area for entering MAC addresses.

A red warning message states: "WARNING: All hotspot users will be logged out when settings are changed".

At the bottom of the main content area is a button labeled "Update list".

The footer of the page contains copyright information: "© Fire4 Systems Inc, 2012. Trademarks, service marks and logos are property of their respective owners." and links to "Privacy policy" and "Terms and conditions".

The MAC address of your computer will be noted on a label with the FCC ID number. The MAC address is a sequence of six 2-digit alphanumeric codes separated by a colon. There is no limit to the number of MAC addresses that can be entered. A typical MAC address might look like this:

00:2C:0D:55:A3:1E

Type the MAC address into the table and click the update list button to permit each computer to access the Internet, bypassing the login screen.



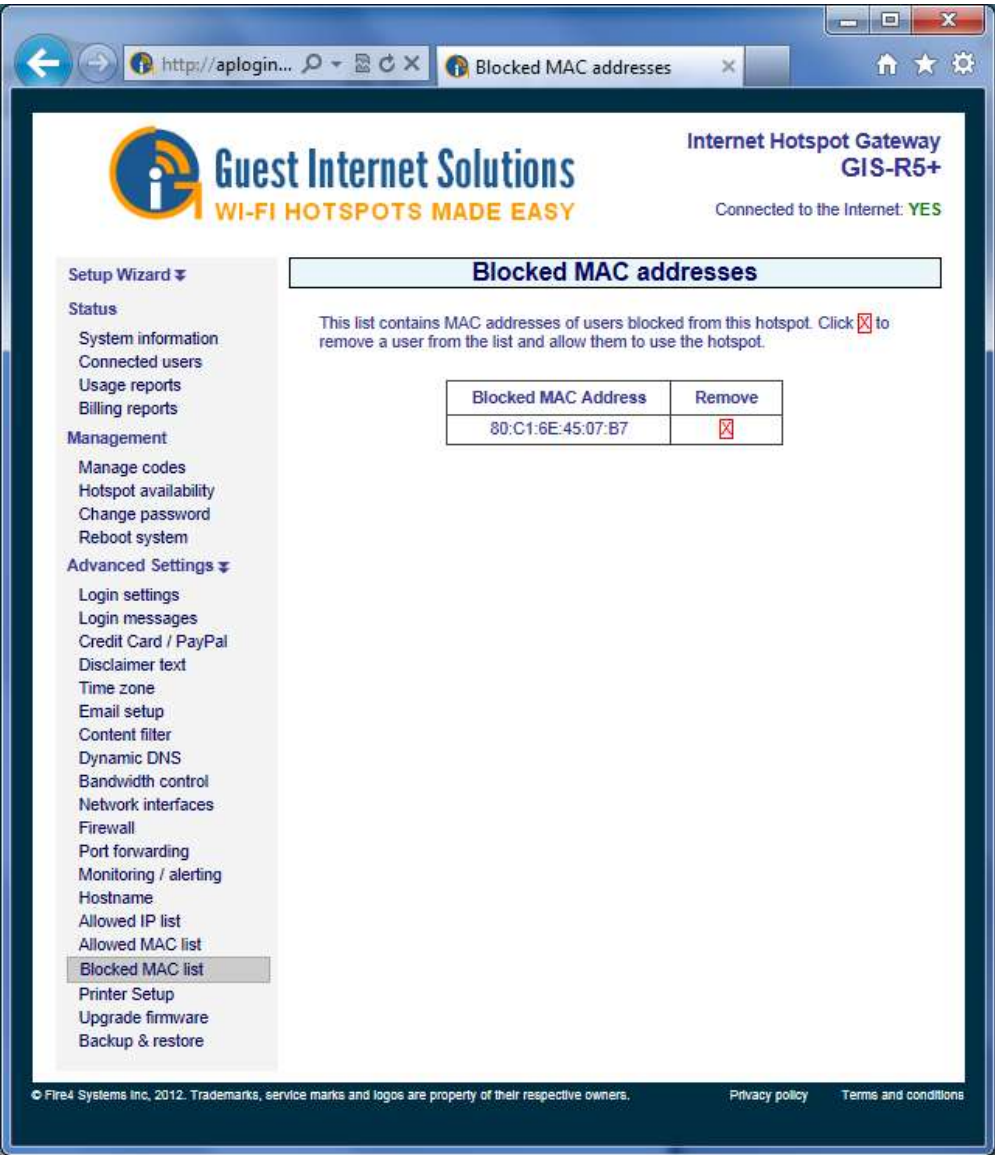
**56: Advanced
Settings: Blocked
MAC List**

Any user can be prevented from using the Internet Hotspot by including the MAC address of that users computer on the blocked MAC address list.

A computer is blocked using the usage report page (see previous section). Select the user by access code or MAC address and click on the 'block user' button. That users computer MAC address is then included in the list below. A user might be blocked for trying to use P2P software.

The blocked MAC address screen is shown below.

**Table of Blocked MAC
Addresses Menu Page**



The users computer can be removed from the blocked MAC list by clocking on the remove button shown on the screen above.

57: Advanced Settings: Ticket Printer Setup

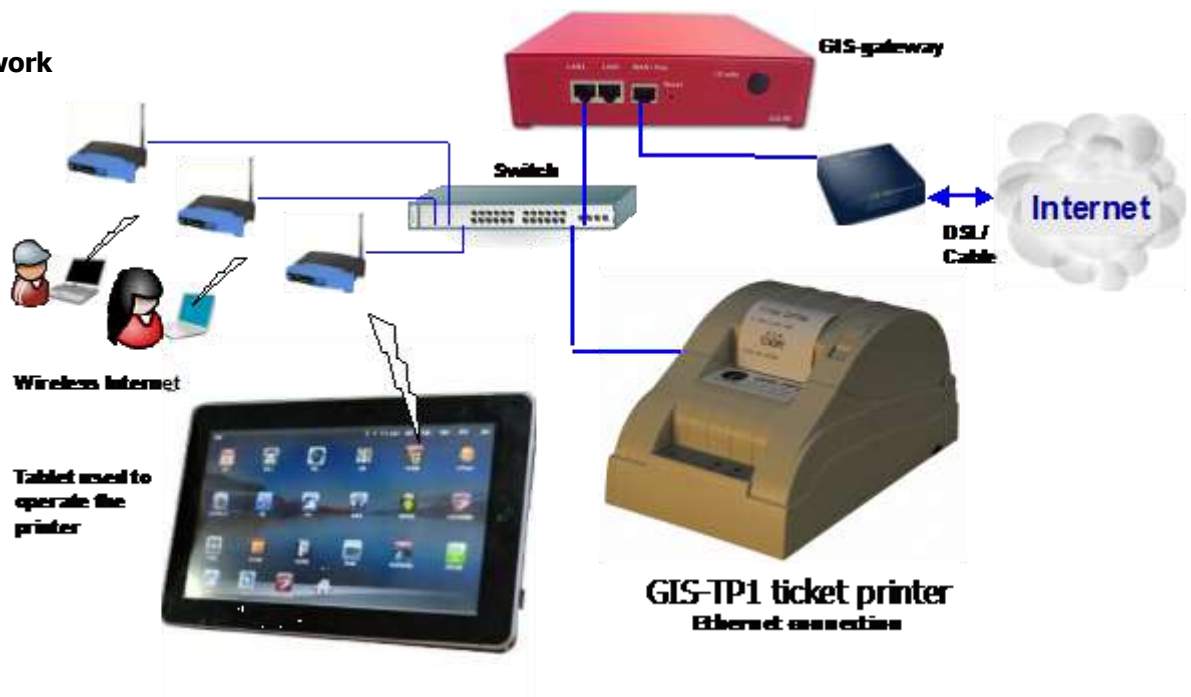
The ticket printer GIS-TP1 is used to print access codes for a point of sale station in Internet Cafes or for user businesses, such as a hotel concierge desk, or a trade show management desk.

The GIS-TP1 connects to the gateway LAN port via an Ethernet cable connected to a switch. The printer uses standard 58mm thermal paper widely available for point of sale terminals.

The GIS-TP1 ticket printer can be operated using a personal computer or laptop. The better solution is to use a tablet computer because the printer operation interface is designed for a touch screen display. Any type of tablet can be used: both iPad's and Android tablets work very well. The setup cost can be minimized by using a sub \$100 Android tablet with a 7inch display.

The connection of the GIS-TP1 ticket printer is shown below.

Ticket Printer Network Configuration



The GIS-TP1 combined with a tablet computer makes a very convenient point of sale register for businesses such as Internet cafes. The ticket printer scripts are configurable and so the printed ticket can also serve as the customers receipt.

Up to ten ticket printer buttons can be configured for the tablet display. Each button represents the duration of an access code, and can also represent the cost of the ticket. The tablet display is operated in an identical manner to any point of sale terminal. The customer requests Internet access for a specific duration, the operator touches the display button that corresponds to the Internet access that was requested. The operator can charge the customer before giving the ticket, or give the ticket without charging when the Internet is offered as a free service.

To use the GIS-TP1 ticket printer, the printer is first connected to the gateway LAN port via a switch and powered up. Next the printer is activated using the printer setup menu display, shown on the following page.



Ticket Printer Setup Page

The screenshot shows a web browser window with the URL <http://aplogin...> and the page title 'Printer Setup'. The page features the Guest Internet Solutions logo and the text 'Internet Hotspot Gateway GIS-R5+' and 'WI-FI HOTSPOTS MADE EASY'. A status indicator shows 'Connected to the Internet: YES'.

Setup Wizard

- Status
 - System information
 - Connected users
 - Usage reports
 - Billing reports
- Management
 - Manage codes
 - Hotspot availability
 - Change password
 - Reboot system
- Advanced Settings
 - Login settings
 - Login messages
 - Credit Card / PayPal
 - Disclaimer text
 - Time zone
 - Email setup
 - Content filter
 - Dynamic DNS
 - Bandwidth control
 - Network interfaces
 - Firewall
 - Port forwarding
 - Monitoring / alerting
 - Hostname
 - Allowed IP list
 - Allowed MAC list
 - Blocked MAC list
 - Printer Setup**
 - Upgrade firmware
 - Backup & restore

Printer Setup

The GIS-TP1 ticket printer can be used to print code tokens for guests. The settings below are used to enable the printer and change the printer settings.

Printer Status:

Test Printer:

Business Name:

Ticket Header:
Text will appear above the code.
Max 100 characters.

Ticket Footer:
Text will appear at the bottom of the ticket.
Max 100 characters.

Show Time on Ticket: ☐ Print time until expiry of code on ticket

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When the configuration page is first opened the printer status will be shown as disabled. First click on the printer status enable button to enable printing via the printer. Next type the messages that will be displayed on the ticket: the business name, the ticket header text that is printed before the access code, and finally the ticket footer text which is printed below the access code. In addition a check box selects the option to print the duration of the access code.

When the printer configuration is complete click the update settings button. Note that only one printer can be connected to each gateway. The gateway is now ready to communicate with the printer, however the **codes** display must be configured to initiate ticket printing.

Ticket printing is controlled using a computer. The ticket printer screens have been designed for use with a tablet computer touch screen. Use an iPad or Android tablet, the display can be small (e.g. 7 inches) or large (e.g. 10 inches). The tablet computer is convenient to install together with a point of sale terminal.

The ticket printer screens can also be operated using a laptop or desktop computer by clicking the buttons with a mouse.

First ensure that a CODES password has been set in the previous section: **Management Functions: Change Password.**

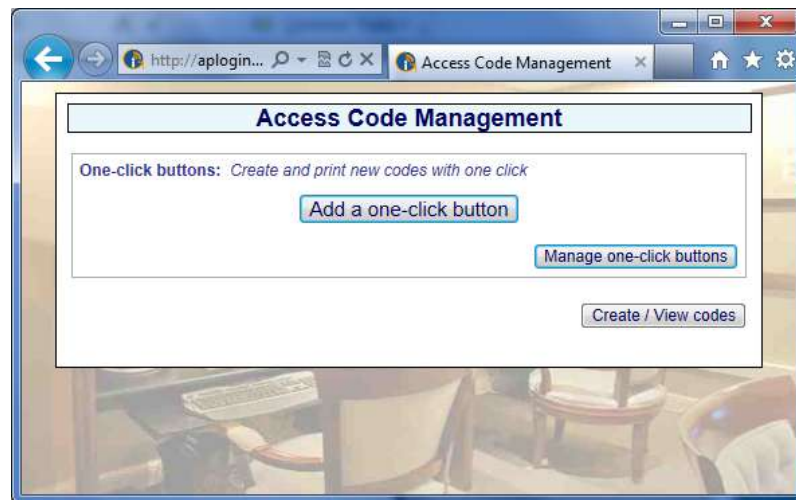
Using the tablet computer, connect to the wireless access point that is connected to the gateway LAN port. When the tablet is connected then open the browser, instead of the home page, the login page will be displayed. Now type the following into the browser URL line.

aplogin.com/codes

A box will open requesting the username and password. The username is **codes**, the password was set previously using the **Management Functions: Change Password.**

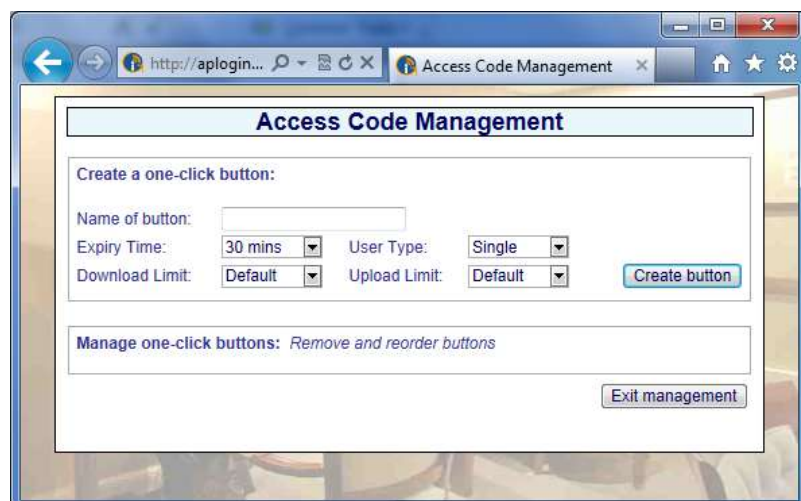
When the login process has been completed the display will show the screen below.

Codes screen setup



Up to ten **One-click** buttons can be added to the display to control the printer. Each one-click button initiates printing of an access code with the specific duration associated with the one-click button. Click the button 'add a one click button'. The screen shown below will be displayed.

One-click button setup





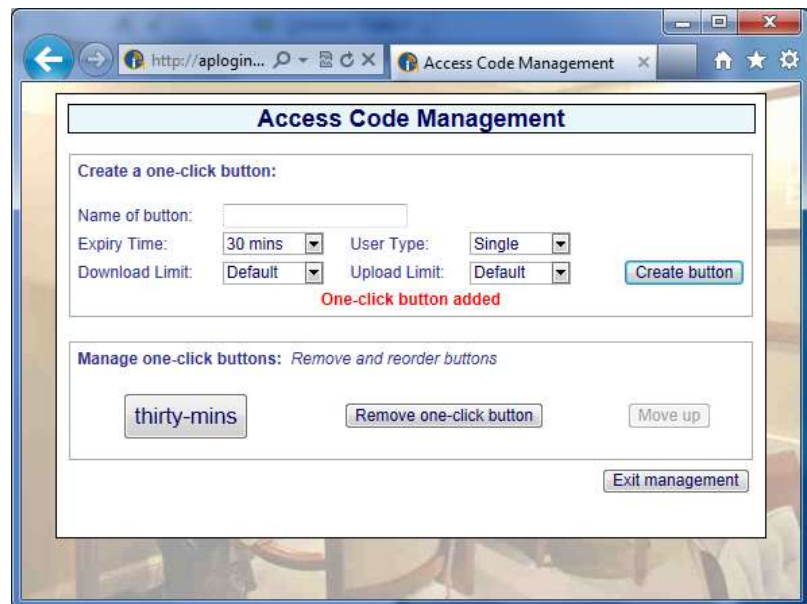
Parameters have to be set to configure the button. The first parameter is very important as this name is what the operator will see on the display. An example is shown.

Name of button: **1 hour for \$5.00**

The text '**1 hour for \$5.00**' will be displayed on the button. This will tell the operator that when a customer requests a 1-hour code this button should be touched, and the customer should be charged \$5.00.

The remaining button parameters can now be selected. Because the message says '1-hour' then click the expiry time drop down menu and select 1 hour. Then select user type as single, and set a download and upload limit if required. Finally click on **create button**. The button that has been created is now shown on the display, and can be seen in the example below.

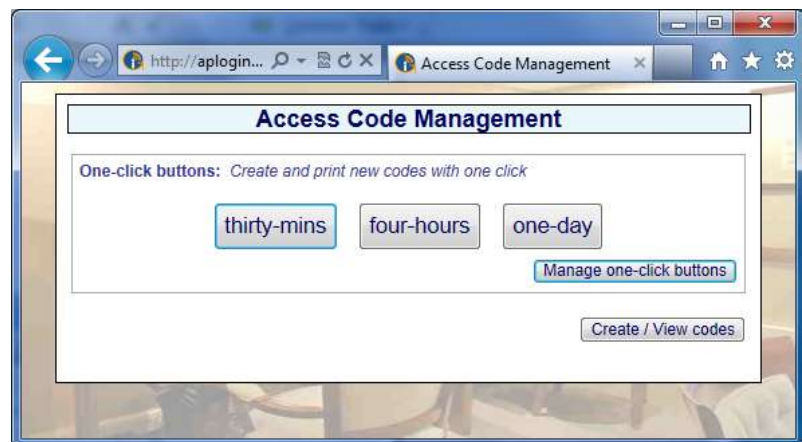
One-click button created



More buttons can be added with up to ten buttons maximum, for example '**1-day for \$10**', and '**1-week for \$25**'.

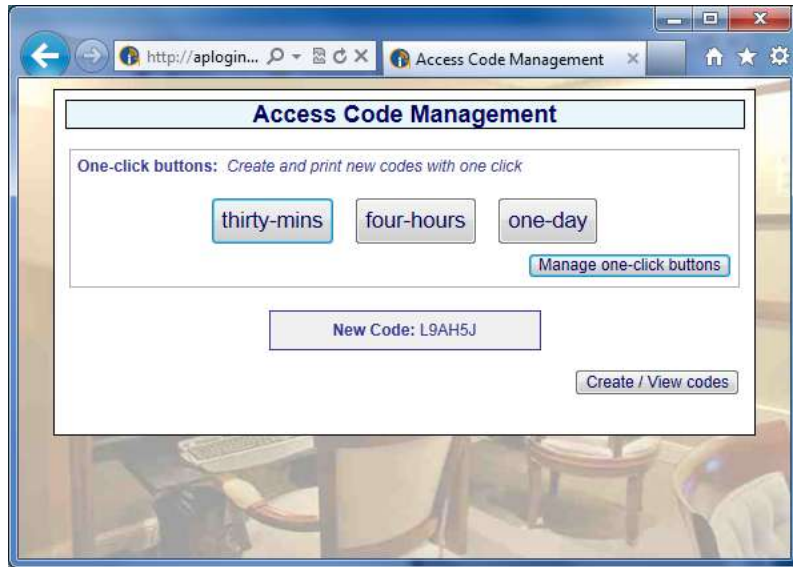
Now exit the management screen to see the operators screen. The screen shown below has had three buttons created.

Operators screen with three buttons created



Click on a button to display the access code and send the code to the printer. The screen shown below will be seen.

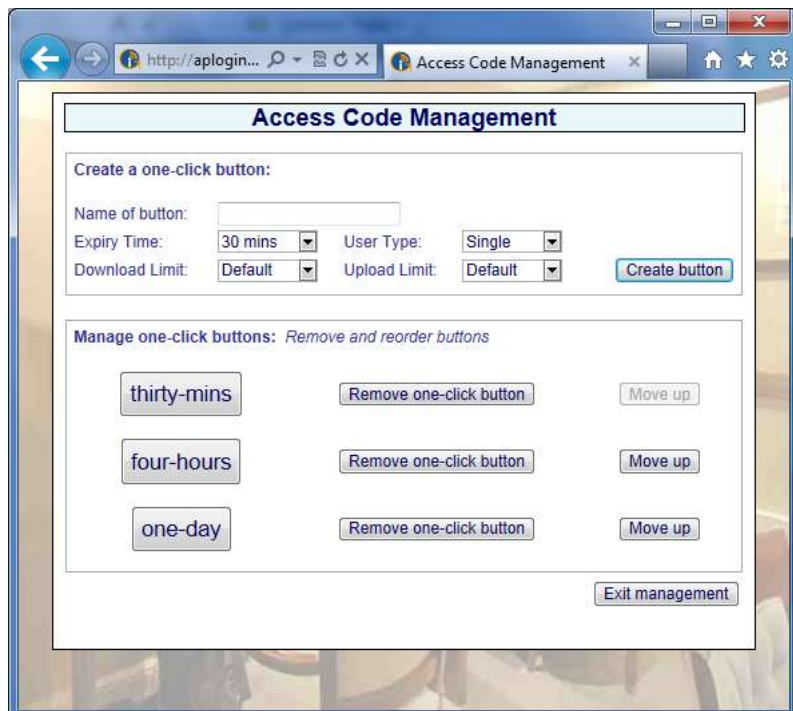
Access code generated by clicking the one-click buttons



Buttons can be modified or deleted at any time by clicking on **manage one-click buttons**.

When this button is clicked the screen shown below is displayed.

Manage one-click buttons, edit or delete



The operator's display also has a button '**create/view codes**'. When this button is clicked the screen shown on the following page is displayed.



Create/view codes display

Access Code Management

One-click buttons: *Create and print new codes with one click*

Create custom codes: *You have you used 18 of 10000 codes*

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit:

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check:

A code that has been generated and given to a user can be checked to verify the time remaining for the code. Type the code in the box 'enter code to check' then click the check code button.

A custom code requires the selection of random text or custom text. If a random code is selected then select the number of codes to be printed. Select the expiry time, user type, and download / upload limits. Click the **create codes** button to generate the custom code as shown in the screen below.

Custom code generation display

Access Code Management

One-click buttons: *Create and print new codes with one click*

Create custom codes: *You have you used 10 of 10000 codes*

Code Text: Number of codes to create:
Expiry Time: User Type:
Download Limit: Upload Limit:

New Codes:

#	Code	Time	Type	Down	Up
1	W284GW	30 mins	single user	default	default

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check:



All access codes can be viewed by clicking the **view all codes** button. When this button is clicked a screen similar to the one shown below will be displayed.

View all codes display

Access Code Management

One-click buttons: *Create and print new codes with one click*

thirty-mins **four-hours** **one-day** [Manage one-click buttons](#)

Create custom codes: *You have you used 9 of 10000 codes*

Code Text: **Random** Number of codes to create: **1**
 Expiry Time: **30 mins** User Type: **Single**
 Download Limit: **Default** Upload Limit: **Default** [Create Codes](#)

Check / Delete Codes: *Codes are automatically deleted 7 days after they expire*

Enter code to check: [Check Code](#) [View All Codes](#)

<input type="checkbox"/>	Code	Time	Type	Used	Time Left	Down kbit/s	Up kbit/s	Download Used	Upload Used
<input type="checkbox"/>	0BXH45	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	0T0W1F	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	20EY1E	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	4LL5DH	2 hours	single	NO	2 hours	*	*	0	0
<input type="checkbox"/>	7158TB	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	9F6KRE	2 hours	single	NO	2 hours	*	*	0	0
<input type="checkbox"/>	C6KQYQ	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	D57XCC	30 mins	single	NO	30 mins	*	*	0	0
<input type="checkbox"/>	W2W31K	30 mins	single	NO	30 mins	*	*	0	0

[Delete checked codes](#)

* Default bandwidth limit (kbit/s) [Hide code view](#)

When the code is sent to the printer the code is printer in receipt format. The figure below shows the ticket that is printed onto the thermal paper.



Rob's Cafe

Thank you for visiting Rob's Café.
Your code for Internet access is:

1D 0H 0M

AGL5TX

Please visit us again soon and try
our delicious home baked pastries



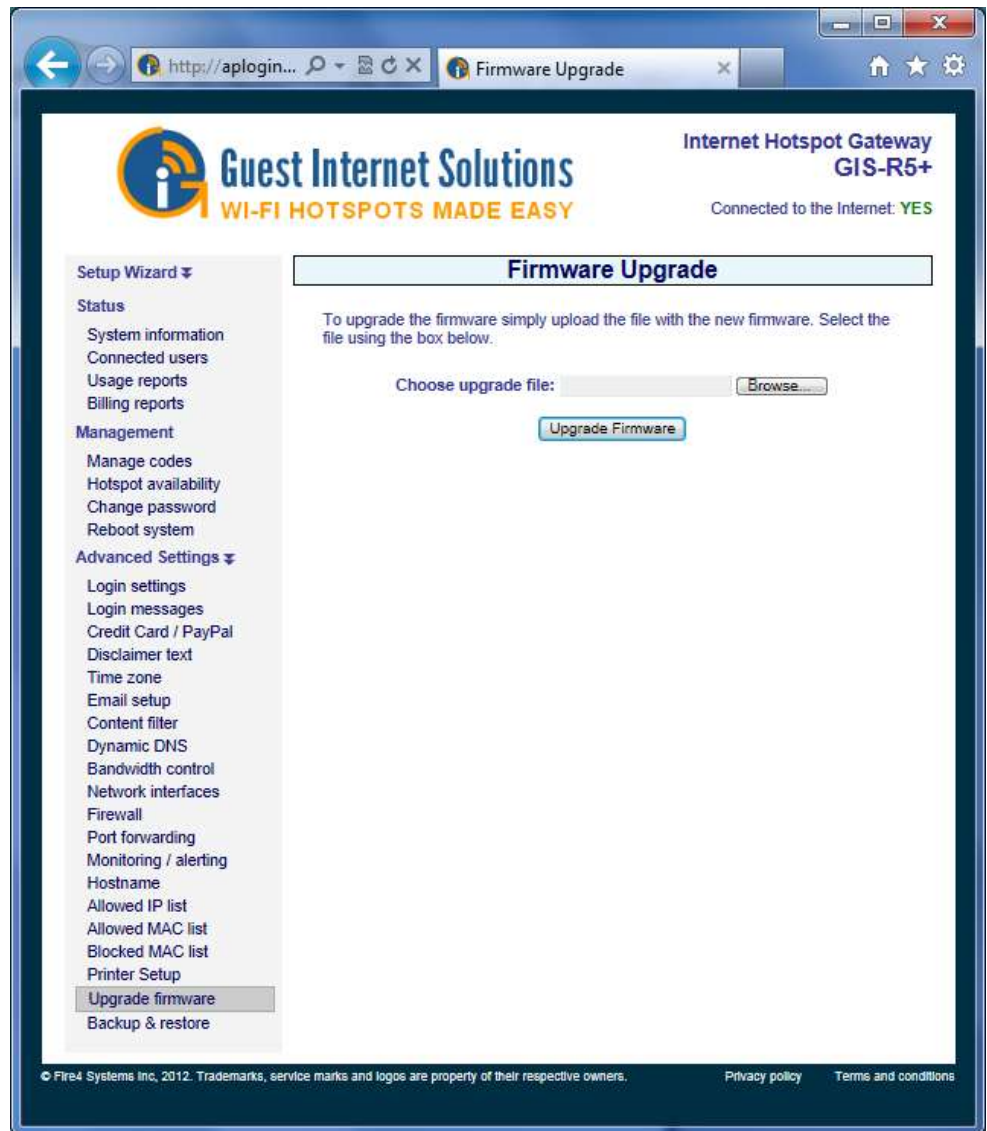
58: Advanced Settings: Upgrade Firmware

The Guest Internet product firmware can be upgraded by loading the firmware file from the computer used for the upgrade process. Firmware upgrades will be announced through the Guest Internet newsletter as they become available.

Remember that each Guest Internet product has a unique firmware file. Ensure that you are downloading the correct firmware file for your product.

When the firmware file has been loaded from the computer then click on the **Upgrade Firmware** menu link. You will see the page shown below.

Upgrade Firmware Menu Page



Click on browse to find the correct upgrade file that you downloaded from the Guest Internet web site onto your computer. When the file is located, click on the file then click on the Upgrade Firmware button.

The upgrade process will take approximately 15 minutes. Do not disconnect power to the gateway during this process or the program storage memory may be corrupted.

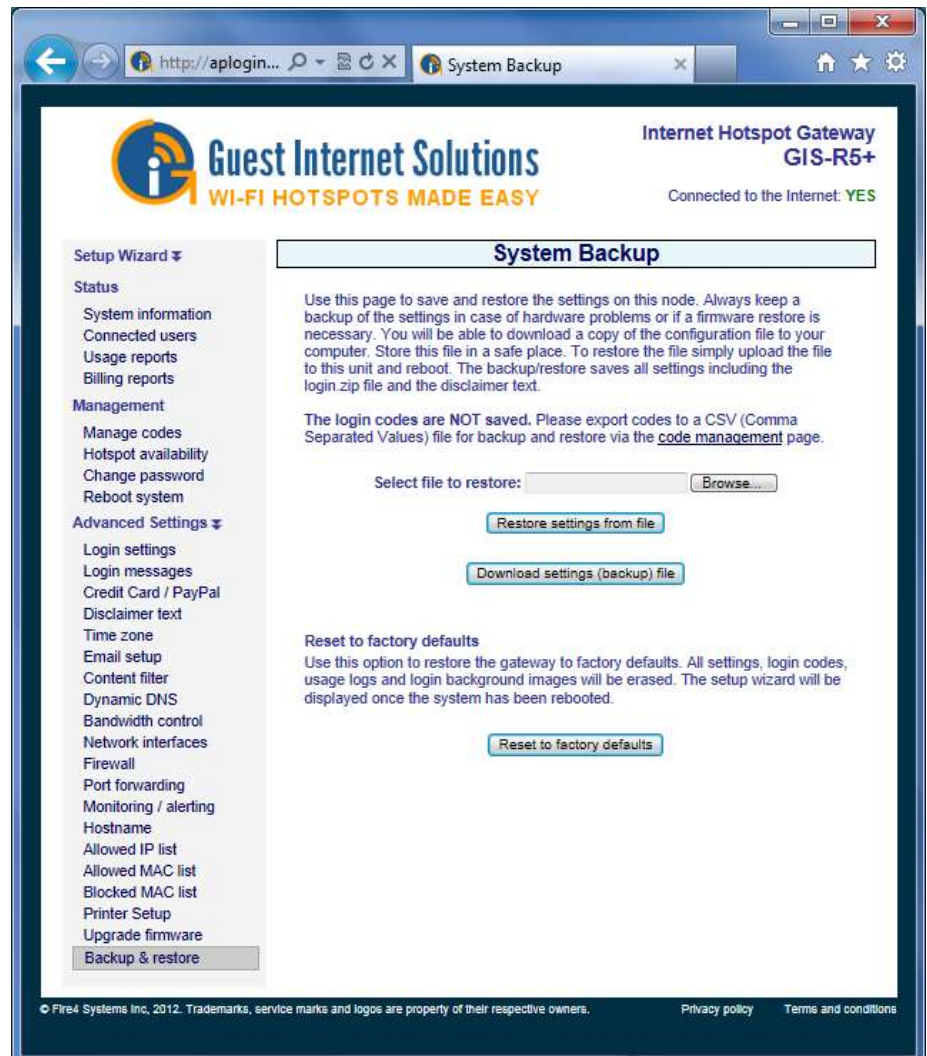
A message will indicate when the upgrade process is complete and then the unit will reboot to work with the new firmware.



59: Advanced Settings: Backup and Restore

All configuration parameters that have been set on a gateway unit are stored in a file in memory. The configuration file can be downloaded to a computer and saved for backup purposes. This page also permits the configuration backup file to be uploaded into the gateway to restore a previous configuration setting.

Configuration backup/restore menu page



The backup file contains the following information

- All configuration settings
- The login page zip file (if uploaded)
- The modified terms and conditions text

Configuration settings backup and restore has two important applications. The first is to save the configuration file each time that the gateway configuration is changed. If some problem occurs with a configuration change then the previous configuration can be restored. The second application is for installers who are putting many similar configured gateways in a restaurant or hotel chain. One gateway is configured for the application and then the configuration file is saved. The configuration file is restored into all other gateways to be installed at different locations, thus speeding the installation process.

This screen also has a button that can be used to reset the unit to factory defaults. The function of this button is identical to the reset button on the rear of the enclosure. After the button is clicked all settings will be erased and the unit will restart with the wizard page.

60: Reset the Product Configuration to Factory Defaults

It is possible to get locked out of the Guest Internet gateway product, by forgetting the password or by incorrectly changing one of the IP addresses shown on the network configuration page.

This section describes procedures to reset all product parameters to factory defaults so that the product can be accessed once more. After this procedure however the product will have to be reconfigured. Upon restart the wizard screen will appear.

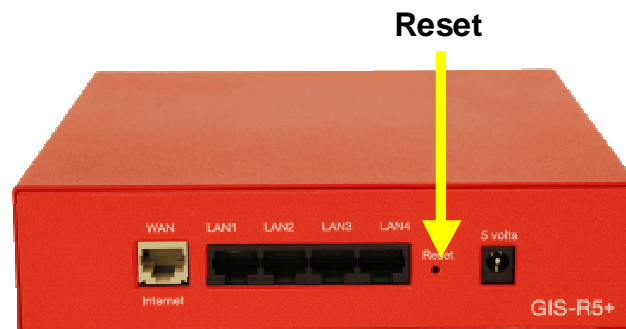
Reset to defaults as follows:

1. Power up the gateway unit and locate the hole in the enclosure for the reset button (shown in the diagram).
2. Using a paper clip, push the reset button (a click will be felt) and hold down for 10 seconds, after which the factory defaults will be restored.

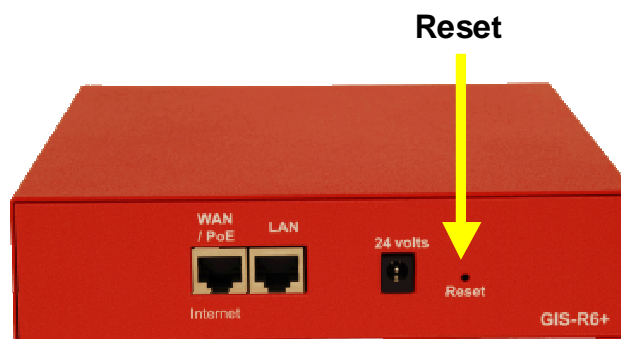
GIS-R3 gateway has a hole in the enclosure with the reset button behind it



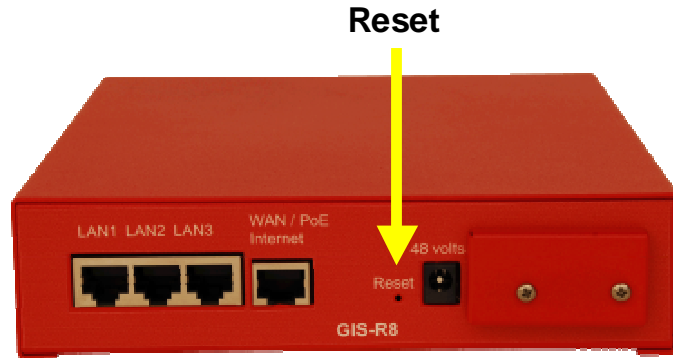
GIS-R5+ gateway has a hole in the enclosure with the reset button behind it



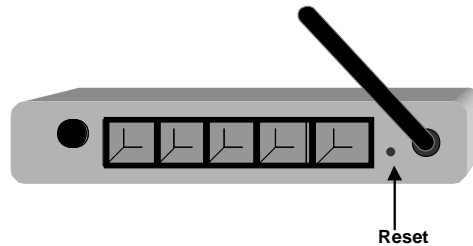
GIS-R6+ gateway has a hole in the enclosure with the reset button behind it



GIS-R8 gateway has a hole in the enclosure with the reset button behind it

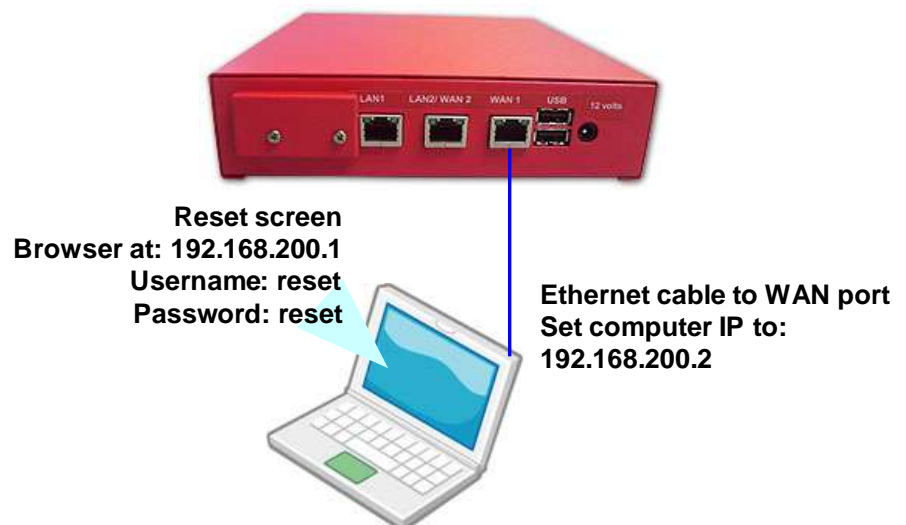


The GIS-K1+ and K3 gateways have a hole in the enclosure as shown with the reset button behind it



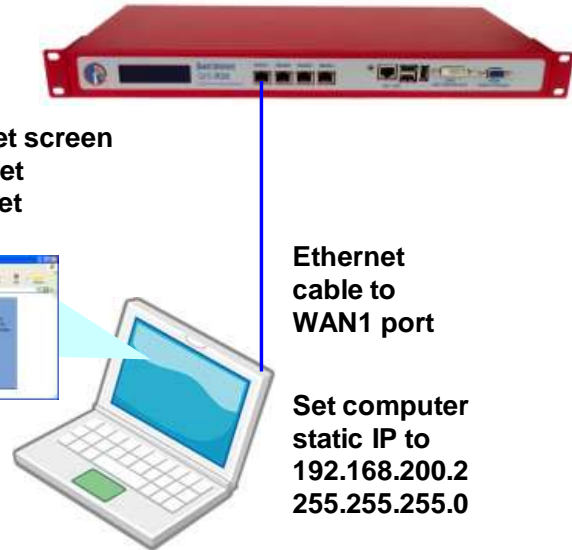
The GIS-R10 and GIS-R20 products do not have a reset button. These products are reset to the factory default configuration using a computer connected to the primary WAN port of the device. The computer Ethernet port is set to an IP of 192.168.200.2. The browser is then opened at an IP address of: 192.168.200.1.

GIS-R10 gateway connection to reset to factory defaults



GIS-R20 gateway connection to reset to factory defaults

Set browser to
192.168.200.1
To see the reset screen
Username: reset
Password: reset

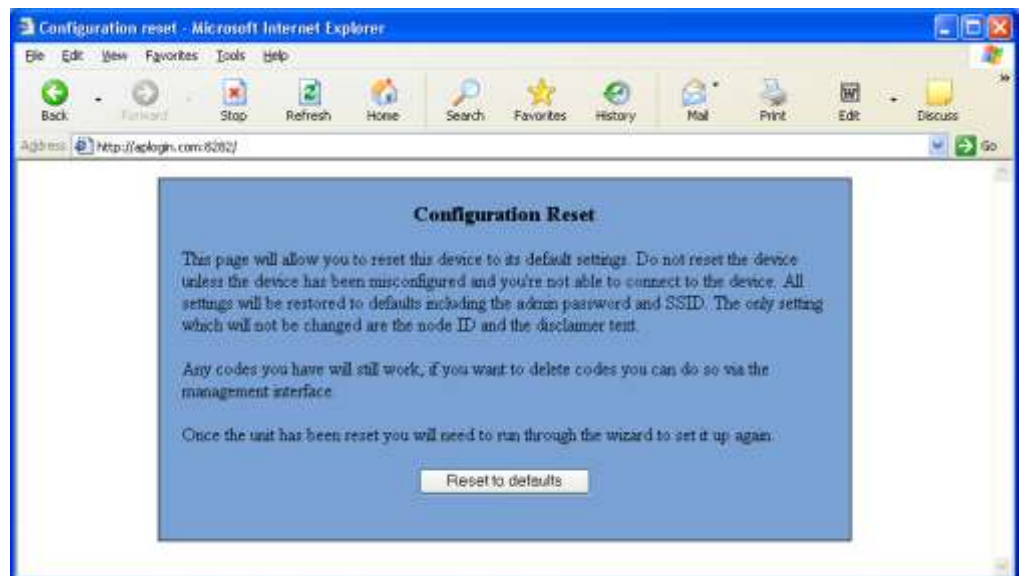


Ethernet
cable to
WAN1 port

Set computer
static IP to
192.168.200.2
255.255.255.0

A box will open requesting a username and password. The username is **reset** and the password is **reset**. Click on enter and the screen shown below will appear.

Reset Factor Defaults Screen



Click on the **Reset to defaults** button and then wait two minutes. Finally, switch the product power off then on and proceed to reconfigure the product using the wizard as described in an earlier section.

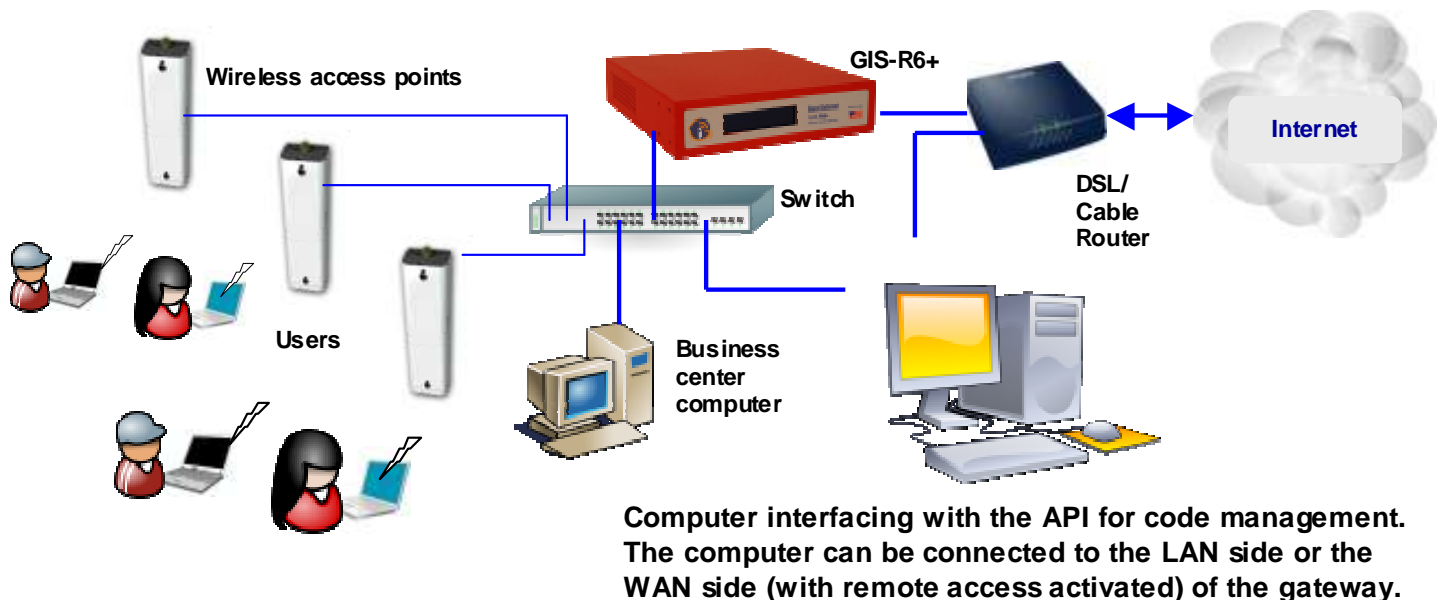
61: Programmers Reference: Access Code Request API for PoS and PMS Systems

This section describes implementation of PoS access code requests using the Guest Internet firmware API

The access code request API is implemented in GIS firmware so that PoS vendors can include a screen button that prints a hotspot access code on the ticket printer for sale to guests. The access code request API is implemented in all GIS firmware versions and is available to PoS vendors and other systems integrators upon request. In order to implement the API the network configuration must be made as shown below.

API Implementation with the GIS-gateway

The GIS firmware includes a firewall from the DMZ to the private network to ensure compliance of the PCI-DSS recommendations. The firewall prevents any DMZ public access to the private subnet, which protects sensitive information stored in PoS computers. The GIS-gateway has four LAN ports to connect DMZ devices.



Access Code Request API Criteria:

Any computer can make an API request, however the API request must include the password for CODES (not the password for ADMIN).

A computer in the DMZ can make a request directly to the gateway. A computer in the private network can make a request only after the remote access box in the firewall menu has been checked.

The API has three separate functions

- Generate one or more codes (up to the limit permitted by the gateway)
- List access codes available on the gateway with status of each
- Delete codes and remove from the database



Guest Internet Login Code API

Any computer or other system capable of performing HTTP communications can control the login codes on the GIS R and K units remotely. The programmer must have the password for the CODES login in order to perform API commands.

The access code API has been designed to allow systems such as POS (Point-of-Sale) to automatically manage code generation, removal and testing. Hotspot administrators wishing to control codes from a web browser should not use the API, instead they should use the web user interface at <http://aplogin.com/codes>.

Access to the API is controlled via a username and password. The username is always set to 'codes'; the password can be changed via the password page in the web management interface. There is no default password.

The API is designed for programmers and systems integrators who understand HTTP communications; how to form queries and how to parse responses from a web server. A hotel or restaurant wishing to implement the GIS API on their PoS system should seek advice from the PoS supplier before deciding to use the feature: there will be some cost associated with implementing the API calls in the PoS software.

Creating codes

Codes can be added to the system via a single HTTP call, the URL to use is:

<http://aplogin.com/codes/makecode.cgi>

The IP of the GIS device can also be used instead of the *hostname*

Parameters to pass include:

Parameter	Values	Optional	Comments
num	Number of codes to create	no	Argument must be included in the call. The maximum number of codes is limited by the codes available on the gateway (see error messages)
time	Time in minutes	no	Argument must be included in the call.
type	Type of code: n = normal / single user m = multi-user	no	Argument must be included in the call.
download	Download limit (kbps)	Yes	Argument is optional and is not necessary for the call
upload	Upload limit (kbps)	Yes	Argument is optional and is not necessary for the call

An example call would be:

<http://aplogin.com/codes/makecode.cgi?num=1&time=30&type=n>

This would create a normal, single user code with a 30 minute duration.

The API call will either return a new code which is ready to use or an error; the possible errors are listed below:

ERROR: Invalid parameters
 ERROR: You can't create more than XX codes
 ERROR: Code type not valid
 ERROR: Code time not valid
 ERROR: Code upload limit not valid
 ERROR: Code download limit not valid

If not logged in to the device, the password should be passed as an argument:

<http://codes:password@aplogin.com/codes/makecode.cgi>



The programmer can provide the password with each call to ensure that the call can be completed in the event that power has been cycled on the GIS device or on the PoS.

Deleting codes

Codes can be deleted from the system via a single HTTP call, the URL to use is:

<http://aplogin.com/codes/deletecode.cgi>

Parameters to pass include:

Parameter	Values	Optional	Comments
code	Code to be deleted	no	Argument must be included in the call.

An example call would be:

<http://aplogin.com/codes/deletecode.cgi?code=876DTW>

This would remove the code 876DTW if it exists on the system.

The API call will either return OK or an error; the possible errors are listed below:

ERROR: Invalid parameters
ERROR: Code does not exist
ERROR: Unable to delete code

Viewing codes

Codes cannot be tested individually but a call can be made to list all of the codes on the system, it is then up to the software making the API call to parse the data returned and present it in the format required for the user or make any search or tests required on a code.

A list of codes can be obtained from the system via a single HTTP call, the URL to use is:

<http://aplogin.com/codes/showcode.cgi>

There are no parameters to pass for this API call.

The API call will either return a list of codes or an error message, the list of codes are presented in a tab (\t) delimited format with a header row. An example output would be:



CODE	TIME	TYPE	USED	LEFT	DOWN	UP
113DRW	2	n	Yes	Expired	*	*
1AT1AQ	30	t	No	30	*	100
3B0AQ0	2	n	Yes	Expired	*	999
61QG8G	30	t	No	30	*	*
8CWJLE	30	n	No	30	*	*
94KH4E	30	n	No	30	*	*
ARLGH0	30	m	No	30	*	*
BJKBH7	2	n	Yes	Expired	*	*
M47TGF	32	t	No	32	*	999
WY7W0R	2	t	No	2	*	999

The * (asterisk) in the UP and DOWN limit columns show that no limit has been set and that system wide limits will be imposed on the user.

The error message below will be returned if the clock is not set on the system, without the clock it is not possible to calculate the time remaining:

ERROR: Clock not set

Program Implementation

The API can be accessed with any programming language or operating system.

Use a web/http client library. Libcurl (<http://curl.haxx.se/libcurl/>) is probably one of the best open source ones. Essentially you just need a web client to make an HTTP request to the web server on the GIS-gateway. The response will come as plain ASCII and can be parsed in any number of ways.

If you want a secure connection then you will need a library capable of HTTPS as well as an SSL library like openssl, otherwise HTTP will work.

Here is a simple example in C using libcurl:

<http://curl.haxx.se/libcurl/c/simple.html>



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