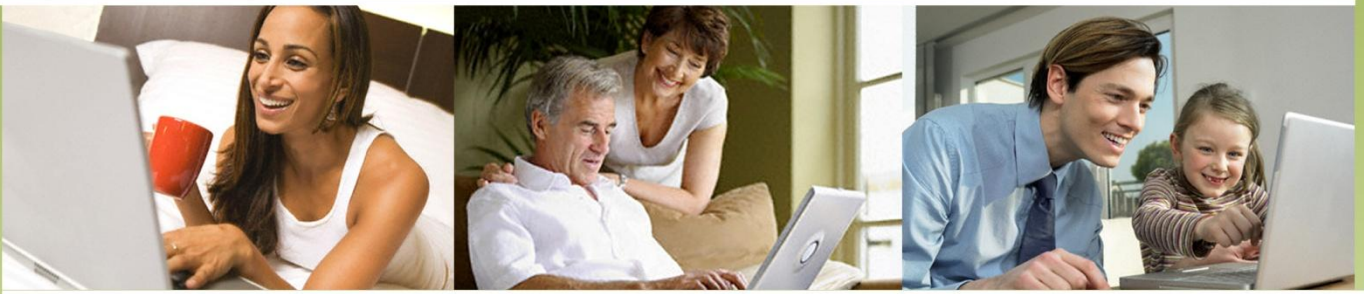




NONIUS

COMMUNICATION SYSTEMS MATCHING YOUR NEEDS

INTERNET ACCESS APPLIANCE



www.noniussoftware.com

Key Features

Internet Access Management & Billing

Integrated Billing Front Office Software

Hotspot Gateway (Captive Portal, Zero Configuration)

3rd Party Integration (Hotel PMS Systems, Switching, Hotspot Gateways)

High Availability (Failover, Load Balancing, QoS, Caching)

Comprehensive Management Interface



WGSERVER

Internet Access Appliance



WGServer

The WGServer is a High Availability and Reliability Appliance with all necessary Gateway and Server functions to manage Internet Access. Its main application is the management and control of Hotspots. It combines the functionalities of a Hotspot Gateway, the network services of a Network Server, and the Integrated Internet Access Management and Billing Software, needed for small scale ISP deployment.

Applications

The WGServer can operate in different and distinct modes, according to the targeted customer type and application. WGHOTEL for Wi-Fi Hotspots in Hotels, WGBIZPARK for Control and Distribution of Internet system in Enterprise Parks, WGPUBLIC for Centralized Public Hotspots and WGHOTSPOTCLUSTERMANAGER for distributed Hotspots.

Management Interfaces

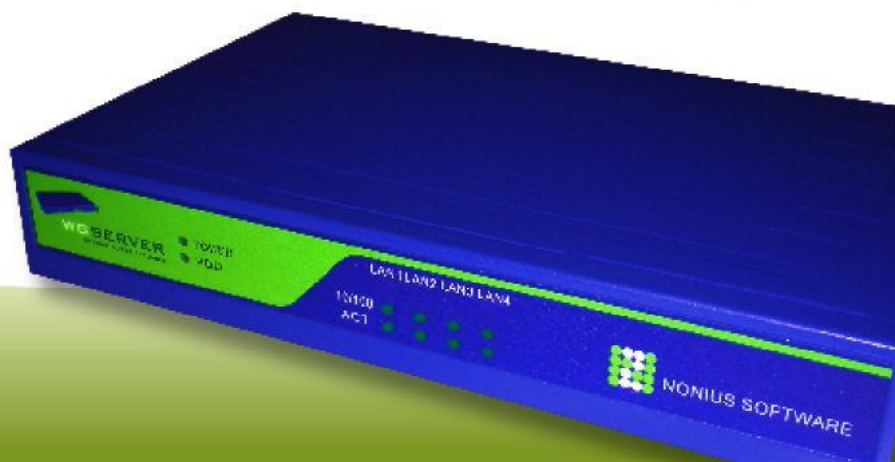
The WGServer configuration and Internet Access service management is made through Web Interfaces. The WGServer has two distinct interfaces. One interface to install and configure and to manage the internet service.

WGManager

The WGManager is the Internet Service Management Interface.

WGConfig

The WGConfig is the configuration Interface that allows to the Systems Integrators and certified Installers to deploy and install the WGServer.



Technical Specifications

Network Server Services

- RADIUS Server / Roaming
- WEB Server (PHP, PERL, SSL, CGI)
- Email Server (POP3, IMAP, SMTP)
- Mysql Database
- Dynamic DNS
- Network Time Protocol
- Transparent HTTP Proxy
- DNS Server
- Web space Services
- WebMail Services

Multiple Controllers

- WAN Link Failover
- WAN Link / Multiple Gateway Load Balancing
- Hotspot Bandwidth Up/Dn Limitation
- Bandwidth Management per Subscriber Network
- QoS/Traffic Shaping - 6 Service Levels
- Service Availability - "Fake" DNS
- Favourites Preloading and Caching

Security and Firewall

- Statefull Inspection Firewall
- SIP, H.323 ALG
- FTP client passive/active ALG
- PPTP, IPSEC, Cisco VPN, pass-through
- DNAT, SNAT, Traversal NAT
- Port Forwarding per User/MAC Address
- MAC Filter
- HTTP Proxy Redirection
- Web site Access blacklist
- Free/Blocked IP Adress Management
- Implements European directive 2006-24-CE

Integration/Compatibility

- 3rd Party Hotspot Gateway Subscribers (Colubris, Cisco, ...)
- Hotel PMS/If (EasyLinqHotel, NewHotel, Fidelio, HBS, ...)
- Switching (3COM, HP, Cisco, Zyxel, ...)
- Ticket Printers (Brother QL-550, Godex EZPlus)
- 3rd Party WISPr Authentication RADIUS Server
- 3rd Party database connectors for user authentication
- Web services based API for hotspot management

Platform

- Nonius Customized Embedded Linux
- Linux Kernel 2.6
- Java Virtual Machine for applications Integration
- Apache Web Server
- Squid Transparent Proxy

Mechanical/Environmental/Compliance

- 100-240VAC, 60watts, external power supply
- Physical dimensions 240mmx148mmx38mm
- Rack mountable 1U 19" 30mm rack mount (optional)
- Operating Temperature - 0~40°C (32~140°F)
- Humidity 5-90% @ 40°C (non-condensing)
- EMC CE, FCC Class A, RoHS Compliance

Hardware

- Internet Appliance Platform
- Low power consumption platform
- 80Gb Hard Disc (optional)
- 4 x RJ45 Ethernet 10/100BaseT
- 802.11 a/b/g wireless (optional)
- 2 x USB2.0 Interfaces
- Serial Interface for console

Internet Access Billing

- AAA - Authentication, Authorization & Accounting
- Web page login with Secure HTTPS Authentication
- Hotspot with frame pointing to configurable web site
- Connection's time control web page Pop-Up
- Configurable Automatic logoff (inactivity detection)
- Free/Blocked Web Sites Management
- Online User registration system
- SMS User registration system
- PayPal / Credit Card Billing
- Pre-paid cards Management / Generation
- Users Accounts Management
- MAC address authentication
- Username/password authentication
- Flexible Time-based billing (hour, min, ...)
- Flexible Traffic-based billing (Mbyte, Gbyte)
- Flexible Traffic-based / Time usage / Absolute time / Bandwidth Service Limitations
- Usage statistics / Users statistics records
- Users traffic logger
- Pre-paid statistics persistent records
- Sessions Historic Reports / ROI Calculation
- Per VLAN login webpage
- Highly flexible, comprehensive and configurable billing profiles

Hotspot Gateway Services

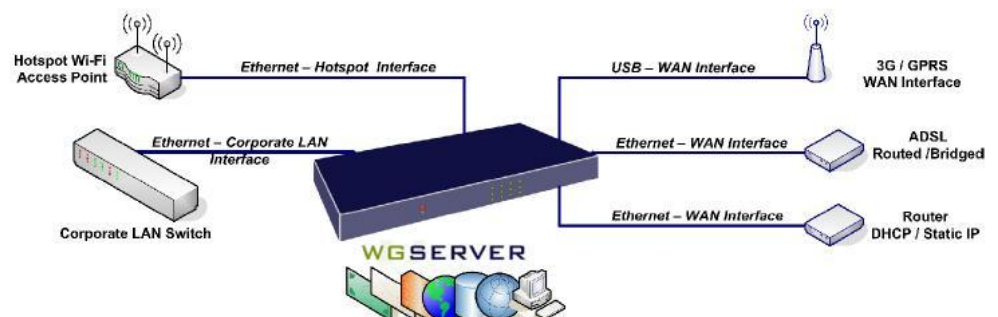
- Captive Portal (HTTP) - Layer2 / Layer3
- Radius WISPr extension compatible
- Zero configuration (any IP, any DNS, any Proxy)
- Universal Access Method (UAM)
- DHCP Server / Client
- DNS Relay / Client
- MAC Filter
- SPI firewall, NAT, DNAT e SNAT

Management

- Intuitive Web Configuration
- No Client Software Required
- Internet Explorer, Firefox compatible
- SSH for recovery
- Serial console for recovery
- Automatic DB Backups
- Events Email notification
- Local Logging
- Hotspot Devices Management
- Maintenance Client VPN (OpenVPN)
- Access control compliant with 2006-24-CE

Network Services

- TCP/IP Protocol Stack
- Routing / Forwarding Services
- 802.11q TAG VLANS (max. 1024 vlan)
- Intra VLAN traffic blocking
- Bridge, STP Protocol
- SSH, Ping, Telnet

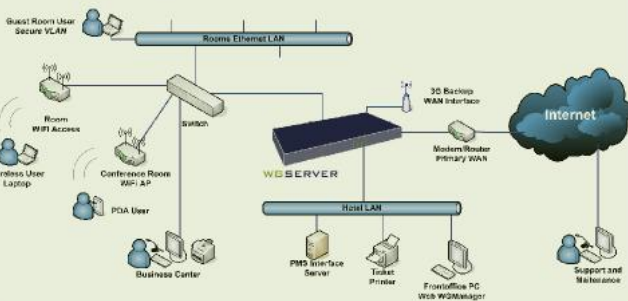


Application Scenarios

Hospitality Internet Access Application

The WGHOTEL operation mode enables the implementation of an integrated, scalable, easy-to-manage and highly accessible Internet Access Solution in Hotels.

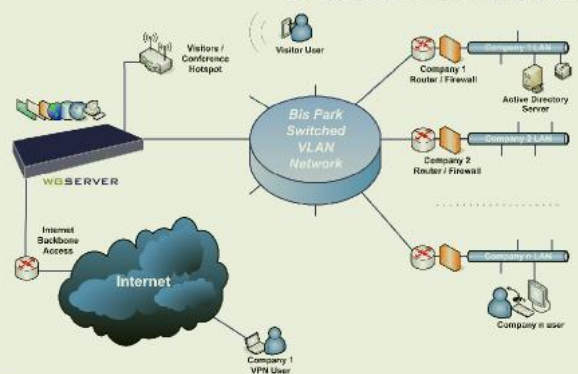
- ▷ Full control of the internet service
- ▷ Guarantee "zero configuration"
- ▷ Integration with major PMS systems
- ▷ Service with hotel's corporate image
- ▷ Management of printing services
- ▷ Business center integration
- ▷ Internet vouchers generation
- ▷ Comprehensive management interface
- ▷ VPN protocols compatible
- ▷ Usage timed vouchers
- ▷ Independent VLAN per room ETH plug
- ▷ Guaranteed secure access



Business Parks Internet Access Management Application

The WGBizPark operation mode provides companies business parks a solution to manage the Internet Access. The business parks can manage the Internet service that is offering to each individual company. Services can be offered with total security. premium services can be configured with individual QoS and billing.

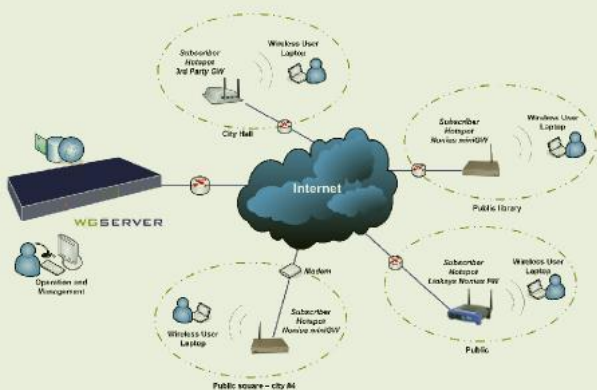
- ▷ Internet access management for reselling service to companies
- ▷ Hotspot for visitors
- ▷ High availability (Failover and QoS)
- ▷ Bandwidth limits and allocation per company
- ▷ PPTP VPN server
- ▷ Comprehensive management interface
- ▷ Independent vlan per company network



Hotspot Cluster Management Server

This operation mode leverages the WGSERVER Embedded Internet Billing/Management Software and Radius Server capabilities. It acts as a central AAA server and it also implements WISPr Radius extension for maximum 3rd Party Subscriber Gateways compatibility.

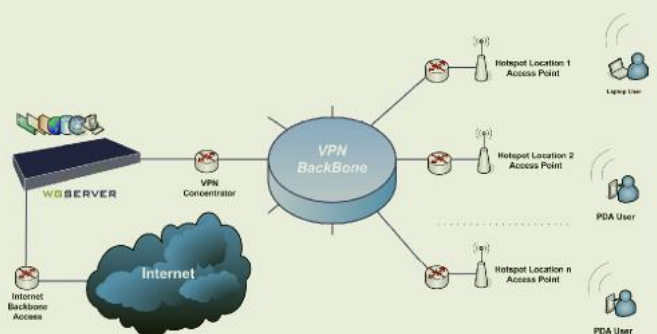
- ▷ On-line users registration
- ▷ Web portal publicity and image
- ▷ 3rd party subscriber hotspot gateway (cisco, colubris, ...)
- ▷ WISPr radius compatible
- ▷ Radius roaming
- ▷ Bandwidth, traffic and time service definition
- ▷ Usage statistics/reports
- ▷ Paypal/credit card integration



Centralized Public Hotspot Application

WGPUBLIC operation mode is dedicated to the implementation of Public Hotspots in Airports, Retail Centers, Exhibition Centers, Municipal Hotspots. The WGSERVER supports the management of the information and advertizing that is shown to the hotspot user.

- ▷ On-line users registration system
- ▷ Captive portal publicity and image
- ▷ Usage statistics/reports
- ▷ Paypal integration
- ▷ Hotspot service control schedule
- ▷ Layer3 captive portal
- ▷ High availability with qos and
- ▷ Comprehensive traffic shaping
- ▷ Internet Acceleration(Caching Services)



Functional Modules

WGLicense

The WGServer basic configuration is sold with a 50 simultaneous online user's license. It is possible to license it up to 1000 simultaneous users.

WG3PFO

The WG3PFO module provides a Serial or TCP/IP interface with the major PMS Hospitality Systems, such as, Fidelio, NewHotel, Brilliant, SHIOT and others. It implements automatic user management on guest check-in/check-out and automatic billing to the guest account.

WGHHighAvailability

The High Availability module provides QoS, Traffic Shaping/Prioritization, Bandwidth Control, Caching and Failover, to deliver the best Internet Access User Experience and the most reliable service.

WGRedundancy Module

It allows two WGServer units to work in redundant mode. If the Master fails, then the Backup will take over the Internet Service provisioning, guarantying complete database and configuration synchronization.

WGMulti-ISP Roaming

A client of another public Wi-Fi provider can connect to the Internet in a WGServer served hotspot by selecting his provider on the login page.

WGWebFilter - URL Black List

This module allows the centralized management of a web sites Black List database. The integration is done by calling an external WSDL Web Service on the Central System.

Hotspot Cluster Manager

The Hotspot Cluster Manager implements the concentrator for centralized AAA network architecture. Hotspot Access Points or Hotspot Gateways will delegate the Authorization, Authentication and Accounting to a central AAA server implemented in the WGServer using open standards.

WGServer Hotspot Monitor

The WGServer Hotspot Monitor concentrates Billing and Accounting information from a distributed network composed by WGServers. Ideal for collecting and analyzing data from several hotspots and monitor profitability of the hotspot network.

WG3PSwitch

This module controls the Ethernet Switching infrastructure active equipment using SNMP. Together with the WG3PFO, It allows the WGServer to activate the room Ethernet plug on check-in and deactivate it on check-out. It also allows establishing an independent VLAN to the room, guaranteeing privacy and total security to the guest on the Internet Access.

WGTicket

This module integrates most common ticket printers for ticket printing when there is a user/voucher creation. Please inquire for printer support.

WGPrintServer

This module provides printing services to the Hotspot users. The user is able to upload PDF files to the WGServer, using a web interface, available at the Web Captive Portal. The user will be billed per page, or if using a voucher, time will be subtracted per page. It integrates with the WG3PFO for the WGHHotel operation mode.

WG3G

This module allows the connection of an USB 3G Card to the WGServer. The 3G connection can be used as the main WAN connection or as a secondary connection to handle failover.

WGPayPal

The WGPaypal integrates the PayPal online payment system with the WGServer Web Captive Portal. This module offers, the Hotspot users, a reliable and secure Internet Access online purchase method.

WGSecTrace

This module implements the Directive 2006/24/EC of the European Parliament. The Directive relates to the retention of data generated or processed in connection with the provision of publicly available electronic communications services or of public communications networks.

XML 3rd Party Interface

This module enables the integration with other software platforms. It exposes standard WSDL Web Services for user/vouchers management and statistics.

SMS Gateway Interface

This module enables a hotspot user to request the Internet access account details to be sent to his Cellular telephone. An SMS will be received with username and password.

WGPPTP - VPN PPTP Server Windows Module

This module implements a VPN PPTP server, allowing corporate users on the road to connect to the corporate network using standard Windows PPTP client.

Our vision is to be part of your business success by providing you with state of the art communications systems that facilitate your business growth.

Nonius' Internet Access Management and Billing solutions are designed to match customer's business model and we put special care in constructing solutions that are aimed to increase and maximize the profits of commercial exploration.

We have customized solutions for the management, control, billing, security of Internet Access directed to the Hospitality, Government and Internet Service Providers.

We also develop systems targeting Wireless Location Services, Satellite Communications Management and TEM - Telecom Expense Management, and we have recently introduced an exciting new product in the area of IPTV that leverages in-house technology and the knowledge we have of the industry.



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