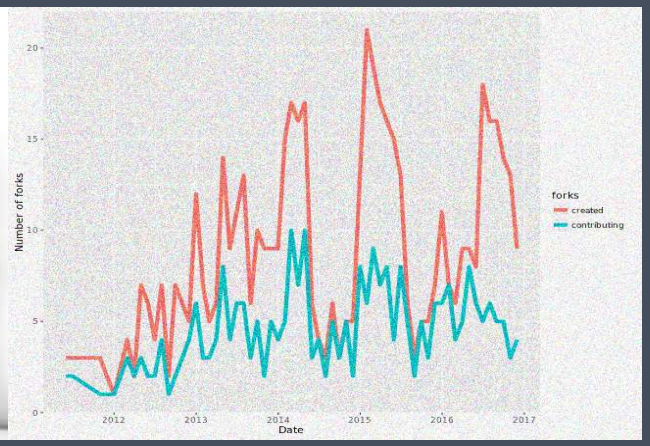
Wireless Solution
For Communication & Information Technology

مؤسسة الحلول اللاسلكية
للإتصالات وتقنية المعلومات

FIREWALL

Firewall System, Captive Portal/ Reporting/ Monitoring DATA



THE AGENDA FOR TODAY

1. INTRODUCTION
2. OUR SERVICES
3. OUR PORTFOLIO
4. FIREWALL SYSTEM
5. PROJECT MANAGEMENT
6. STATS & REPORTS
7. CONTACT US

INTRODUCTION

About Our Company

Who We Are?

Wireless Solutions Trading Co. is a Riyadh Based IT Solutions & Services provider, established in year 2008. We have an excellent team of knowledgeable and well trained executives and servicemen, who will be able to assist you in your requirements.

We deal with Installation & configuration, Sales & Services which includes Hardware and Software, CCTV Systems, Complete Network, Server-side implementations, Fire Alarm Systems.

We specialize in the field of CCTV Systems and have a competitive client base in the Kingdom providing our solutions to Businesses, Hotels, & Restaurants and whatever you can think of.

Also we have streamlined into VPN Solutions, Web-Hosting and Email solutions, Providing Consultations for ERP & CRM solutions to Small and Mid size companies in collaboration with Gourbane.com.

The common question that gets asked in business is, 'why?' That's a good question, but an equally valid question is, 'why not?'. – Jeff Bezos.

OUR TEAM

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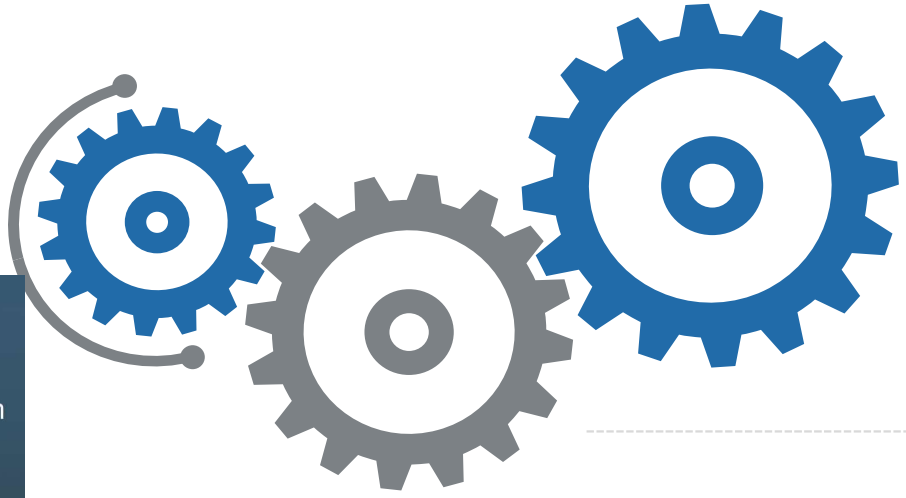


Manpower & Labor.

Due to the nature of our business. we have sufficient labor to suffice our projects, also keeping in mind of peak times, where we might require excess of manpower for which we have tied up with various Manpower providing groups such as INITIAL Saudi Arabia, who on-demand provide us with enough manpower as requested. Therefore stay assured that we meet the deadlines as per the contract.

OUR SERVICES

OUR LIST OF SERVICES

- SECURITY SYSTEMS
  - CCTV SYSTEM
  - BIOMETRIC ACCESS
  - RFID & BARCODE SYSTEMS
- I.T SERVICES
  - NETWORK IMPLEMENTATION
  - FIREWALL SETUP (CAPTIVE PORTAL, VPN NETWORK).
- BUSINESS SOFTWARES (ERP)
- E-PABX INTERCOM & IP TELEPHONE
- WEB HOSTING SOLUTIONS
- FIRE ALARM SYSTEM
- VISUAL & SOUND SYSTEM
- PRINTER & OFFICE MACHINES
- VIDEO CONFERENCING SOLUTION

- الأنظمة الأمنية
- أنظمة كاميرات المراقبة
- أنظمة الحضور والانصراف
- نظام الباركود والجرد الإلكتروني
- جميع خدمات تكنولوجيا المعلومات
- تنفيذ وتركيب الشبكات السلكية واللاسلكية والسيرفرات
- إعداد جدار الحماية
- شبكة VPN
- حلول استضافة الويب
- أنظمة السنترالات والانتركوم
- الأنظمة الصوتية والبصرية
- الطابعات والاجهزة المكتبية
- برامج الأعمال التجارية والمحاسبية

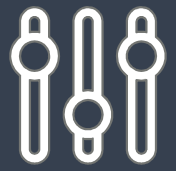
OUR PORTFOLIO

OUR KEY PROJECTS

We not only have provided services to reputed companies in the Kingdom, but also have been partner in implementation services to various companies in the GCC and some of our renowned clients include :

ENOC

RAKCC
Ras Al Khaimah Cement Company

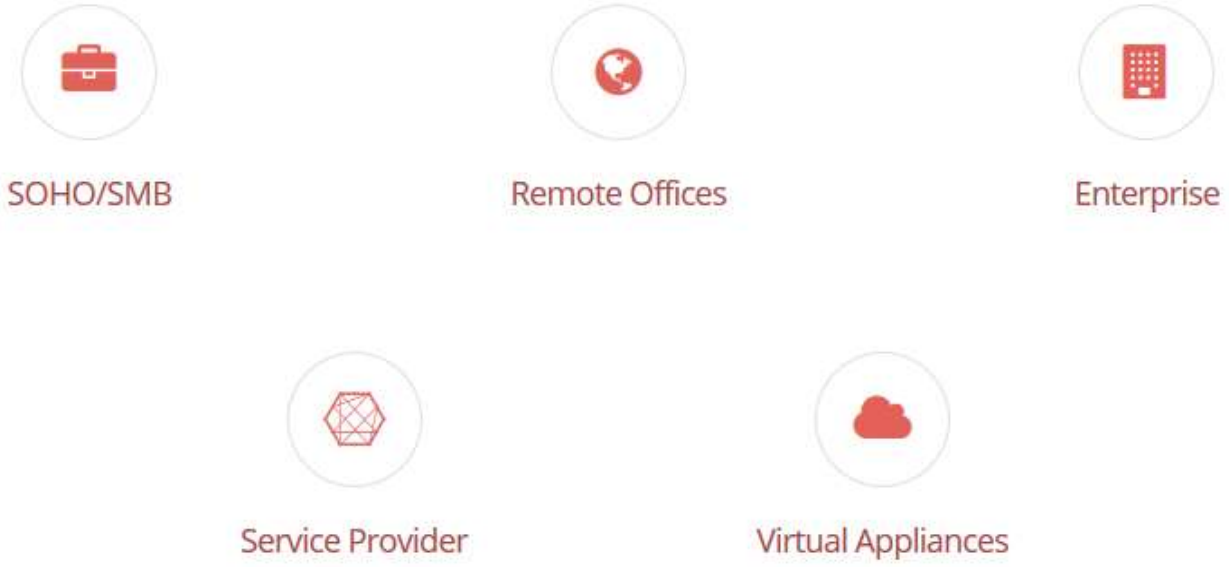


FIREWALL SYSTEM

FIREWALL SYSTEM

Our Firewall system software provides world-class, comprehensive network security, with high-performance Intel® hardware delivering up to 10Gb throughput with VPN/SSL offload and advanced firewall features.

Our Firewall System can be deployed in any type of locations.



Features – State Table/ NAT/ High Availability

State Table
The firewall's state table maintains information on your open network connections. The pfSense software is a stateful firewall, by default all rules are stateful.

Network Address Translation (NAT)
•Port forwards including ranges and the use of multiple public IPs
•1:1 NAT for individual IPs or entire subnets.
•Outbound NAT
- Default settings NAT all outbound traffic to the WAN IP. In multiple WAN scenarios, the default settings NAT outbound traffic to the IP of the WAN interface being used.
- Advanced Outbound NAT allows this default behavior to be disabled, and enables the creation of very flexible NAT (or no NAT) rules.

•NAT Reflection - NAT reflection is possible so services can be accessed by public IP from internal networks.

High Availability
The combination of CARP, pfsync, and our configuration synchronization provides high availability functionality. Two or more firewalls can be configured as a failover group. If one interface fails on the primary or the primary goes offline entirely, the secondary becomes active. The pfSense software also includes configuration synchronization capabilities, so you make your configuration changes on the primary and they automatically synchronize to the secondary firewall.
The firewall's state table is replicated to all failover configured firewalls. This means your existing connections will be maintained in the case of failure, which is important to prevent network disruptions.
Limitations: Only works with static public IPs, does not work with stateful failover using DHCP, PPPoE, or PPTP type WANs.

Features – WAN/ Load Balancing/ VPN

Multi-WAN

Multi-WAN functionality enables the use of multiple Internet connections, with load balancing and/or failover, for improved Internet availability and bandwidth usage distribution.

Server Load Balancing

Server load balancing is used to distribute load between multiple servers. This is commonly used with web servers, mail servers, and others. Servers that fail to respond to ping requests or TCP port connections are removed from the pool.

Virtual Private Network (VPN)

The pfSense software offers three options for VPN connectivity, IPsec and OpenVPN.

IPsec

IPsec allows connectivity with any device supporting standard IPsec. This is most commonly used for site to site connectivity to other pfSense installations and most all other firewall solutions (Cisco, Juniper, etc.). It can also be used for mobile client connectivity.

OpenVPN

OpenVPN is a flexible, powerful SSL VPN solution supporting a wide range of client operating systems.

Features – Captive Portal

Captive Portal

Captive portal allows you to force authentication, or redirection to a click through page for network access. This is commonly used on hot spot networks, but is also widely used in corporate networks for an additional layer of security on wireless or Internet access. The following is a list of features in the pfSense Captive Portal:

•Maximum concurrent connections - Limit the number of connections to the portal itself per client IP. This feature prevents a denial of service from client PCs sending network traffic repeatedly without authenticating or clicking through the splash page.

•Idle timeout - Disconnect clients who are idle for more than the defined number of minutes.

•Hard timeout - Force a disconnect of all clients after the defined number of minutes.

•Logon pop up window - Option to pop up a window with a log off button.

•URL Redirection - after authenticating or clicking through the captive portal, users can be forcefully redirected to the defined URL.

•MAC filtering - by default, pfSense filters using MAC addresses. If you have a subnet behind a router on a captive portal enabled interface, every machine behind the router will be authorized after one user is authorized. MAC filtering can be disabled for these scenarios.

•Authentication options - There are three authentication options available.

- No authentication - This means the user just clicks through your portal page without entering credentials.
- Local user manager - A local user database can be configured and used for authentication.
- RADIUS authentication - This is the preferred authentication method for corporate environments and ISPs. It can be used to authenticate from Microsoft Active Directory and numerous other RADIUS servers.

Features – Captive Portal - ii

•RADIUS capabilities
  - Forced re-authentication
  - Able to send Accounting updates
  - RADIUS MAC authentication allows captive portal to authenticate to a RADIUS server using the client's MAC address as the user name and password.
  - Allows configuration of redundant RADIUS servers.

•HTTP or HTTPS - The portal page can be configured to use either HTTP or HTTPS.

•Pass-through MAC and IP addresses - MAC and IP addresses can be white listed to bypass the portal. Any machines with NAT port forwards will need to be bypassed so the reply traffic does not hit the portal. You may wish to exclude some machines for other reasons.

•File Manager - This allows you to upload images for use in your portal pages.

Features – Reports

Reporting and Monitoring

RRD Graphs

The RRD graphs in the pfSense software maintain historical information on the following.

•CPU utilization
•Total throughput
•Firewall states
•Individual throughput for all interfaces
•Packets per second rates for all interfaces
•WAN interface gateway(s) ping response times
•Traffic shaper queues on systems with traffic shaping enabled

Real Time Information

Historical information is important, but sometimes it's more important to see real time information.

•SVG graphs are available that show real time throughput for each interface.
•For traffic shaper users, the Status -> Queues screen provides a real time display of queue usage using AJAX updated gauges.
•The front page includes AJAX gauges for display of real time CPU, memory, swap and disk usage, and state table size.

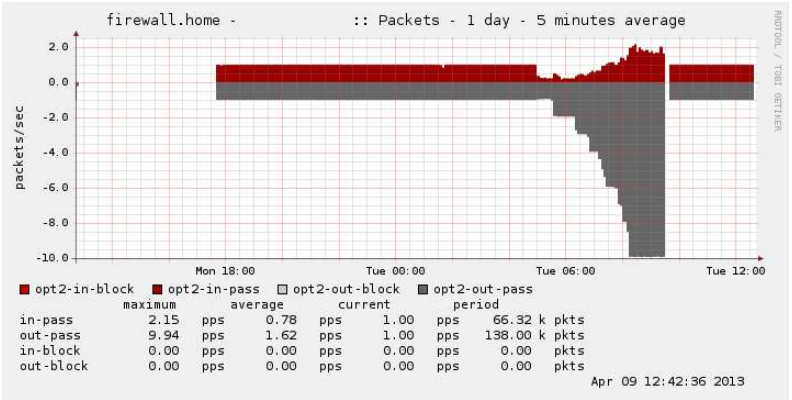
Internet Usage Reports

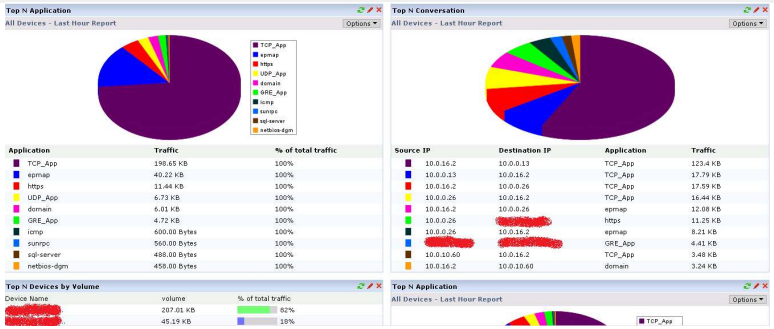
- Daily/ Weekly/ Monthly/ Quarterly/ Yearly Reports for LAN usage, websites visited by IP/ Mac-id/ Client Name, content browsed, data downloaded, all reports can be viewed

Features – Reports

Squid User Access Reports
Period: 2012 Jan 08—2012 Jan 15
User: 192.168.2.128
Sort: bytes, reverse
User report

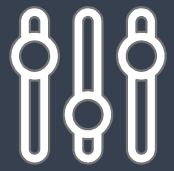
ACCESSED SITE	CONNECT	BYTES	%BYTES	IN-CACHE-OUT		ELAPSED TIME	MILLISEC	%TIME
netflix448.as.nflximg.com.edgesuite.net	322	542.86M	19.44%	0.00%	100.00%	00:11:05	665.043	19.62%
netflix044.as.nflximg.com.edgesuite.net	158	273.32M	9.79%	0.00%	100.00%	00:03:09	189.721	5.60%
netflix483.as.nflximg.com.edgesuite.net	158	266.48M	9.54%	0.00%	100.00%	00:01:54	114.353	3.37%
netflix501.as.nflximg.com.edgesuite.net	161	264.47M	9.47%	0.00%	100.00%	00:06:05	365.671	10.79%
netflix481.as.nflximg.com.edgesuite.net	147	249.43M	8.93%	0.00%	100.00%	00:03:32	212.111	6.26%
netflix498.as.nflximg.com.edgesuite.net	148	247.35M	8.86%	0.00%	100.00%	00:03:23	203.651	6.01%
netflix476.as.nflximg.com.edgesuite.net	147	246.19M	8.81%	0.00%	100.00%	00:02:54	174.068	5.14%
netflix953.as.nflximg.com.edgesuite.net	136	210.41M	7.53%	0.00%	100.00%	00:03:55	235.465	6.95%
netflix573.as.nflximg.com.edgesuite.net	124	189.96M	6.80%	0.00%	100.00%	00:02:11	131.959	3.89%
netflix046.as.nflximg.com.edgesuite.net	102	150.31M	5.38%	0.00%	100.00%	00:01:46	106.687	3.15%
netflix493.as.nflximg.com.edgesuite.net	43	47.21M	1.69%	0.00%	100.00%	00:00:43	43.785	1.29%
netflix562.as.nflximg.com.edgesuite.net	32	38.97M	1.40%	0.00%	100.00%	00:00:22	22.216	0.66%
o-o.preferred.comcast-iad1.v2.lscache7.c.youtube.com	7	13.85M	0.50%	0.00%	100.00%	00:00:12	12.099	0.36%
www.mwburden.com	69	7.67M	0.27%	0.00%	100.00%	00:02:29	149.389	4.41%
cdn.yourzoom.com	273	6.83M	0.24%	0.00%	100.00%	00:00:23	23.010	0.68%
netflix148.as.nflximg.com.edgesuite.net	15	5.85M	0.21%	0.00%	100.00%	00:00:04	4.547	0.13%
v16.nonxt8.c.youtube.com	3	4.35M	0.16%	0.00%	100.00%	00:00:12	12.548	0.37%
netflix474.as.nflximg.com.edgesuite.net	14	2.79M	0.10%	0.00%	100.00%	00:00:02	2.797	0.08%
netflix570.as.nflximg.com.edgesuite.net	13	2.62M	0.09%	0.00%	100.00%	00:00:03	3.106	0.09%
i.ytimg.com	95	1.79M	0.06%	0.00%	100.00%	00:00:06	6.003	0.18%
demandware.edgesuite.net	142	1.70M	0.06%	0.00%	100.00%	00:00:20	20.998	0.62%
i35.tinypic.com	1	1.49M	0.05%	0.00%	100.00%	00:00:04	4.095	0.12%
us.icebreaker.com	177	1.06M	0.04%	0.00%	100.00%	00:00:31	31.375	0.93%
wood.nowcache.com	46	853.24K	0.03%	1.54%	98.46%	00:00:23	23.840	0.70%
1.bp.blogspot.com	19	835.35K	0.03%	0.00%	100.00%	00:00:02	2.132	0.06%
2.bp.blogspot.com	17	765.14K	0.03%	0.00%	100.00%	00:00:02	2.260	0.07%



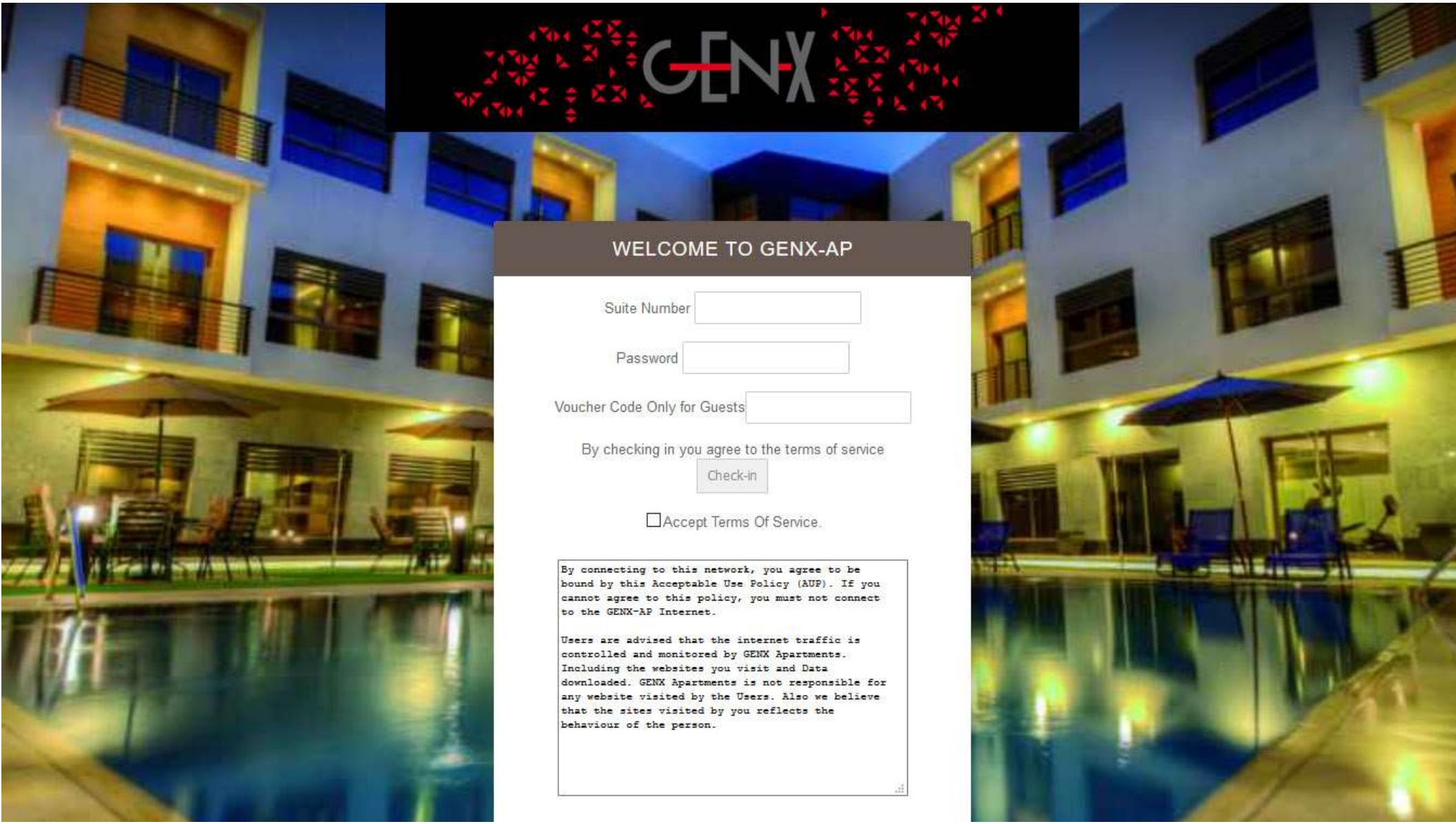


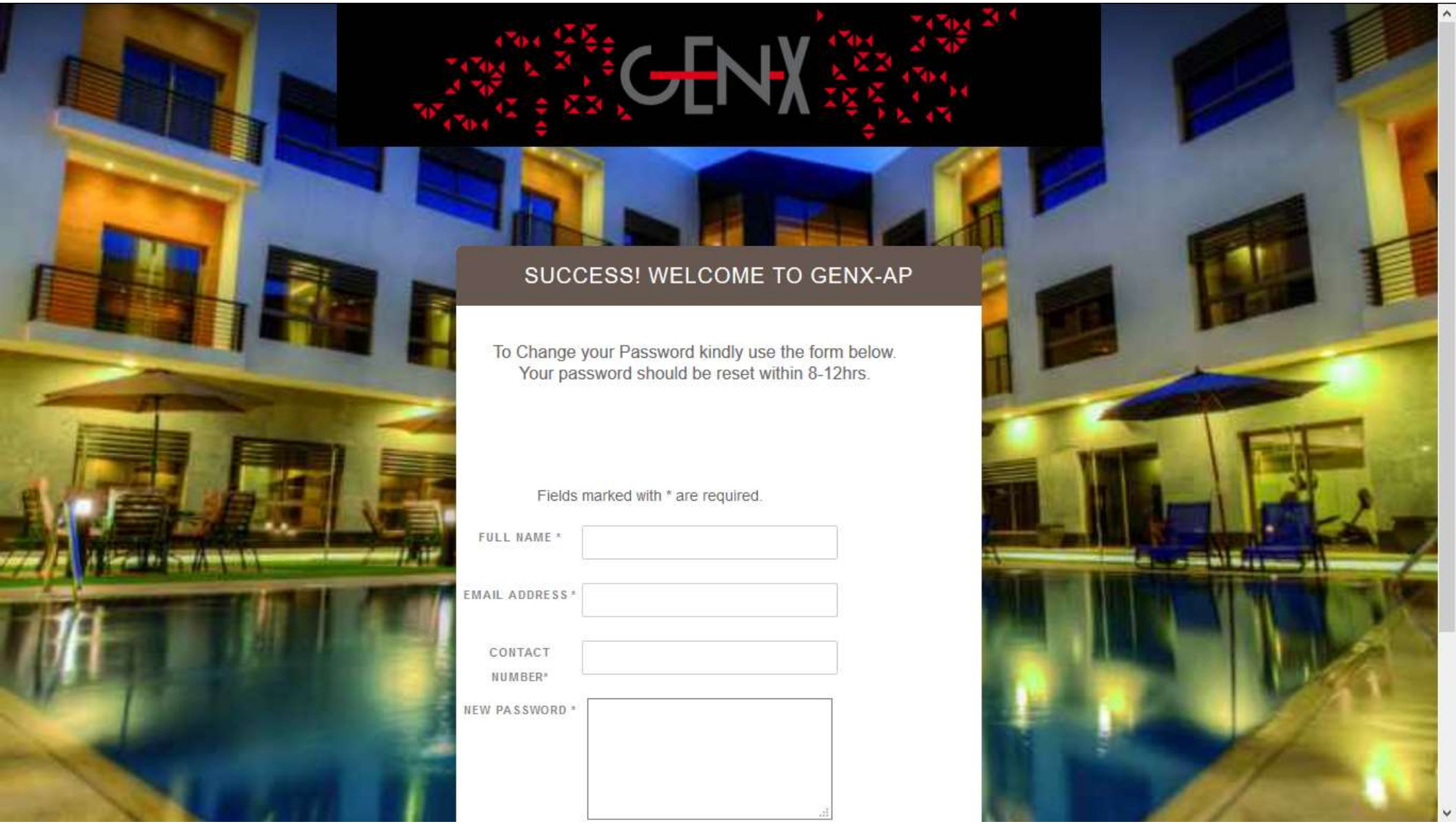
Firewall Variants

	BEST USED FOR	PROCESSOR	RAM	STORAGE OPTIONS	PORTS	POWER
MONO-2p	SOHO Network Remote Worker	TI AM3352 ARM 600 MHz	512MB DDR3	4GB eMMC Flash	2x 1GbE	2.5W (idle)
MONO-2pU	SOHO Network Remote Worker	Intel Atom® 1.7 GHz 2-Core	2GB DDR3L	4GB eMMC Flash	2x Intel 1GbE	6W (idle)
SMB-4PU	Small Business SMB Network Gigabit Speeds	Intel Atom® 1.7 GHz 2-Core	4GB DDR3L	8GB eMMC Flash 30GB mSATA SSD 128GB mSATA SSD	4x Intel 1GbE	7W (idle)
SMB-6PU	Medium Business SMB Network Gigabit Speeds	Intel Atom® 2.4 GHz 4-Core	8GB DDR3L	32GB eMMC Flash 128GB mSATA SSD	6x Intel 1GbE	7W (idle)
MB-64/ 128	Medium Business SMB Network Gigabit Speeds	Intel Atom® 2.4 GHz 8-Core	8GB DDR3L	64GB eMMC Flash 128GB mSATA SSD	6x Intel 1GbE	9W (idle)
MB-120	Medium Business Large Business Branch Offices	Intel Atom® 2.4 GHz 8-Core	16GB ECC	120GB SSD	2x 10GbE SFP+ 3x Intel 1GbE 1x Intel 1GbE RJ-45/SFP	20W (idle)
LB-X	Medium Business Large Business Branch Offices	Intel Xeon® 2.1 GHz 8-Core	16GB DDR4	120GB SSD	2x Intel 10GbE 2x Intel 1GbE	20W (idle)



CAPTIVE PORTAL SAMPLE


GENX
WELCOME TO GENX-AP
Suite Number
Password
Voucher Code Only for Guests
By checking in you agree to the terms of service
Check-in
Accept Terms Of Service.
By connecting to this network, you agree to be bound by this Acceptable Use Policy (AUP). If you cannot agree to this policy, you must not connect to the GENX-AP Internet.
Users are advised that the internet traffic is controlled and monitored by GENX Apartments. Including the websites you visit and Data downloaded. GENX Apartments is not responsible for any website visited by the Users. Also we believe that the sites visited by you reflects the behaviour of the person.



SUCCESS! WELCOME TO GENX-AP

To Change your Password kindly use the form below.
Your password should be reset within 8-12hrs.

Fields marked with * are required.

FULL NAME *

EMAIL ADDRESS *

CONTACT NUMBER*

NEW PASSWORD *

PROJECT MANAGEMENT

THE LADDER TO SUCCESS

In Order For The Success Of Our Project, We Must Adhere To Basic But Most Important Steps, Right From Inception To Commissioning & Handover.

FOUR STEPS PROCESS

Understand Requirement

We must understand what the requirement is, exactly in order to serve you in the most suitable manner, As they say right man for the right job, we must provide right Equipment at the right place

Research & Proposal

Research through our range of products, and find out the best price and quote you, also calculate the timeframe for the entire project. Believe us, what we promise we deliver before it. That is one of the reasons of our secret for success, Customer Satisfaction.

Delivery Time & Quality Check

Complete The Job On Time and Keep a check on Quality of the work at each and every Step

DELIVERY

Once the Project is upto the satisfaction of our quality control people, its ready for commissioning & handover.

CONTACT US

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