ENDIAN **UTM** VIRTUAL APPLIANCE

✓ **vm**ware™

Prebuilt VMware appliance
for ESX or ESXi

✓ Xen

Support for both Xen and
Citrix XenServer

✓ KVM

Support for KVM hypervisor

endian

Endian UTM Virtual Appliance:
Secure and Protect your Virtual Infrastructure

Whether you are securing your internal virtual business environment, running a world-class hosting or colocation facility, or providing cloud services - the Endian UTM Virtual Appliance can provide superior network security to protect your virtual infrastructure from any potential threats.

Simple and Effective

By providing simple and effective network security solutions, Endian helps businesses leverage new virtual and cloud technologies to:

- Secure the entire virtual infrastructure (internally and externally)
- Seamlessly integrate with current virtual platform investments and their management tools
- Save time and effort (i.e. money) with Endian centralized management and support tools
- Securely connect all of the virtual or hosted infrastructure to the main office using VPN
- Monitor and prevent access to and from the virtual systems to the outside world
- Safeguard all inter-VM, internal, and external network connectivity

All of these objectives and more can be achieved using the Virtual Appliance.

Endian Advantages

The Virtual Appliance offers the most intuitive and universally supported solution available by including things like:

- Support for three major virtual platforms including VMWare, Xen, and KVM
- Unified, intuitive user interface across all platforms – hardware, software, and virtual
- Extremely efficient and scalable resource requirements
- Native support included for available virtual infrastructure toolsets

In addition, you can utilize all of the great features that come with all flavors of the Endian UTM family including centralized management and monitoring via Endian Network, the simplest web interface available, best of breed open-source software, top-notch Endian support and much more.

Flexible Security

Endian offers a wide range of network security products to fit any requirement including hardware, software or virtual solutions. This means you can use the leading open source unified threat management product however and wherever you need.

| Hotspot	Firewall	Network Security	Web Security	Email Security	VPN (SSL & IPsec)
IPS	Centralized Management	High Availability	Updates and Backup	Logging/Reporting	Disaster Recovery

Endian UTM Virtual Appliance Use Cases

Protect the Virtual Network

Most virtual networks are not much different from physical networks so the same networking and security principles should be applied. Whether your running a virtualized platform in the data center or at remote offices, concepts like network separation are critical to safeguard various virtual resources from each other, protect and separate the virtual data and management networks, prevent the spread of malware, and provide containment against hackers and other threats.
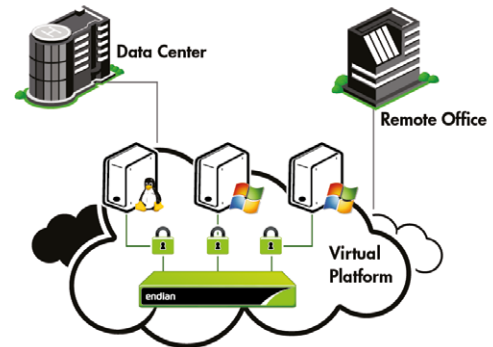
Secure External Connectivity

All virtual networks require some form of physical connectivity which means you may want to securely connect virtual resources to the outside world. Endian provides this with both IPSec or SSL VPN (OpenVPN) and multiple connectivity options including network-to-network and individual remote access (roadwarrior). Whether you are using virtual platforms to connect remote offices, link up data centers, or just for disaster recovery, Endian has the solution for you.
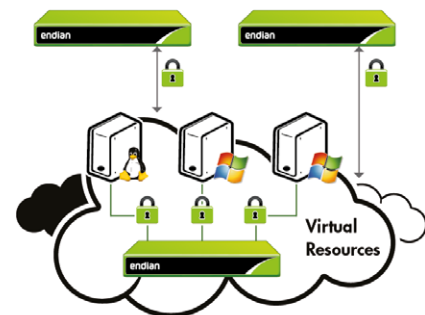
Hosted / Cloud Services

If you are providing some form of a hosted or cloud public service then you already recognize how important it is to ensure to your existing and potential customers that you implement maximum security processes and technology. Our virtual solution can enhance any hosted service from simple web and email services to more complex VoIP and VPN configurations. The Virtual Appliance makes securing your virtual platform simple, scalable, and best of all cost-effective.
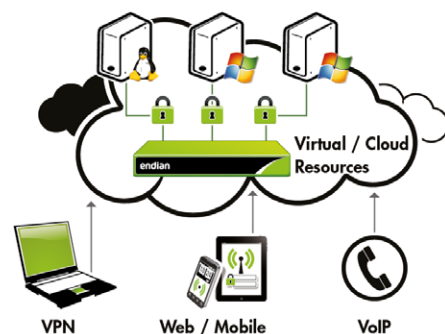
Virtual Appliance Highlights

- Optimized for Virtual Platforms
- VMware Prebuilt Appliance
- Xen Prebuilt Appliance*
- KVM Prebuilt Appliance

- Centralized Management Included
- Robust Firewall
- IPS with Deep Packet Inspection
- IPSec and SSL VPN (OpenVPN)

* Citrix XenServer & Xen are supported

Endian UTM Virtual Appliance Features

Network Security
- Stateful packet firewall
- Application control (including Facebook, Twitter, Skype, WhatsApp and more)
- Demilitarized zone (DMZ)
- Intrusion detection and prevention
- Multiple public IP addresses
- Multiple WAN
- Quality of service and bandwidth management
- SNMP support
- VoIP/SIP support
- SYN/ICMP flood protection
- VLAN support (IEEE 802.1Q trunking)
- DNS proxy/routing
- Anti-spyware
- Phishing protection

Web Security
- HTTP & FTP proxies
- HTTPS filtering
- Transparent proxy support
- URL blacklist
- Authentication: Local, RADIUS, LDAP, Active Directory
- NTLM single sign-on
- Group-based and user-based web content filter
- Time based access control with multiple time intervals
- Panda anti-virus
- Cyren URL filter

Mail Security
- SMTP & POP3 proxies
- Anti-spam with bayes, pattern and SPF
- Heuristics, black- and whitelists support
- Anti-virus
- Transparent proxy support
- **NEW** Email quarantine management
- Spam auto-learning
- Transparent mail forwarding (BCC)
- Greylisting
- Cyren anti-spam
- Panda anti-virus

WAN Failover
- Automatic WAN uplink failover
- Monitoring of WAN uplinks
- Uplink types: Ethernet (static/DHCP), PPPoE, PPTP
- Support for UMTS/GPRS/3G USB dongles

User Authentication
- Active Directory / NTLM
- LDAP
- RADIUS
- Local

Virtual Private Networking
IPsec
- Encryption: Null, 3DES, CAST-128, AES 128/192/256-bit,
  - Blowfish 128/192/256-bit, Twofish 128/192/256-bit,
  - Serpent 128/192/256-bit, Camellia 128/192/256-bit
- Hash algorithms: MD5, SHA1, SHA2 256/384/512-bit, AESXCBC
- Diffie Hellman modes: 1, 2, 5, 14, 15, 16, 17, 18, 22, 23, 24
- Authentication: pre-shared key (PSK), RSA keys
- X.509 certificates
- IKEv1, IKEv2
- Dead Peer Detection (DPD)
- NAT traversal
- Compression
- Perfect Forward Secrecy (PFS)
- VPN Site-to-Site
- VPN Client-to-Site (roadwarrior)
- L2TP user authentication
- XAUTH user authentication

OpenVPN
- Encryption: DES, 3DES, AES 128/192/256-bit, CAST5, Blowfish
- Authentication: pre-shared key, X.509 certificates
- Support for VPN over HTTP Proxy
- PPTP passthrough
- VPN client-to-site (roadwarrior)
- VPN client for Microsoft Windows and Apple OS X
- Possibility of multiple logins per user
- VPN failover
- Multiple server support
- Support for mobile devices (Android, iOS)

VPN Portal for Clientless Connections*
- **NEW** Web-based access to internal resources
- **NEW** Configurable portal page
- **NEW** Support for multiple destinations
- **NEW** Destination-based authentication
- **NEW** SSL offloading

User Management & Authentication
- Unified user management for OpenVPN, L2TP, XAUTH, VPN Portal
- Group management
- Integrated certificate authority
- External certificate authority support
- User password and certificate management
- **NEW** Multiple authentication servers (local, LDAP, Active Directory, RADIUS)
- **NEW** Fully integrated one-time password (OTP) support

BYOD / Hotspot *
- Configurable captive portal
- Free access to allowed sites (walled garden)
- Wired / wireless support
- Integrated RADIUS service
- Connection logging
- **NEW** Bandwidth limiting based on user, ticket or global settings
- MAC-address based user accounts
- **NEW** Configurable multiple logins per user
- User accounts import/export via CSV
- User password recovery
- Automatic client network configuration (support for DHCP and static IP)
- Fully integrated accounting
- Generic JSON API for external accounting and third party integration
- Instant WLAN ticket shop (SmartConnect)
- Single-click ticket generation (Quick ticket)
- SMS/e-mail user validation and ticketing
- Pre-/postpaid and free tickets
- Time-/traffic-based tickets
- Configurable ticket validity
- Terms of Service confirmation
- MAC address tracking for free hotspots
- Cyclic/recurring tickets (daily, weekly, monthly, yearly)
- Remember user after first authentication (SmartLogin)
- **NEW** Social login (Facebook, Google)
- External authentication server (Local, LDAP, Active Directory, RADIUS)

Network Address Translation
- Destination NAT
- Incoming routed traffic
- One-to-one NAT
- Source NAT (SNAT)
- IPsec NAT traversal

Routing
- Static routes
- Source-based routing
- Destination-based routing
- Policy-based routing (based on interface, MAC address, protocol or port)

Bridging
- Firewall stealth mode
- OSI layer 2 firewall functionality
- Spanning tree
- Unlimited interfaces per bridge

High Availability
- Hot standby (active/passive)
- Node data/configuration synchronization (not for BYOD/Hotspot)

Event Management
- **NEW** More Than 30 Individually Configurable Events
- Email Notifications
- **NEW** SMS Notifications
- **NEW** Powerful Python Scripting Engine

Logging and Reporting
- Reporting dashboard
- Detailed system, web, email, attack and virus reports
- Live network traffic monitoring (powered by ntopng)
- Live log viewer
- Detailed user-based web access report (not in 4i, Mini)
- Network/system/performance statistics
- Rule-based logging settings (firewall rules)
- Syslog: local or remote
- OpenTSA trusted timestamping

Extra Services
- NTP (Network Time Protocol)
- DHCP server
- SNMP server
- Dynamic DNS

Management / GUI
- Centralized management through Endian Network (SSL)
- Easy Web-Based Administration (SSL)
- Multi-language web-interface (English, Italian, German, Japanese, Spanish, Portuguese, Chinese, Russian, Turkish)
- Secure remote SSH/SCP access
- Serial console

Updates and Backups
- Centralized updates through Endian Network
- Scheduled automatic backups
- Encrypted backups via email
- Instant recovery / Backup to USB stick (Endian Recovery Key)

* not in Endian UTM Software 10, Endian UTM Virtual 10

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