Cyberoam®

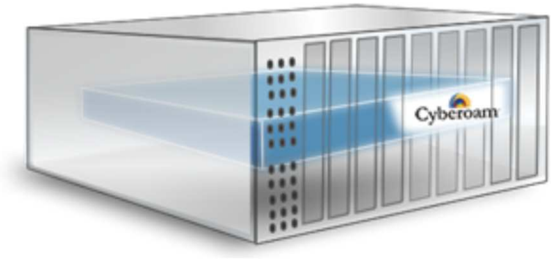
Cyberoam Virtual UTM Appliances

Tech Sheet

Take Control of Your Security Infrastructure!

Cyberoam virtual UTM appliances give complete control of security in virtual data-centers, Security-in-a-Box or Office-in-a-Box set-ups, to organizations and MSSPs. With virtualized security appliance for virtual environments, Cyberoam enables scanning of inter-VM traffic, allowing granular firewall and security policies over inter-VM traffic, and offers comprehensive network security in virtualized environments to organizations without the need for deploying a hardware security appliance anymore. Cyberoam virtual UTMs allow organizations and MSSPs to optimize the resource utilization in their own/customer networks by capitalizing on lean and peak periods of activities in the networks.

Cyberoam's licensing model for its virtual UTM appliances is based on the number of vCPUs, that gives deployment flexibility to organizations and MSSPs, unlike most competitor models that are based on concurrent sessions and number of users. Organizations get maximum benefits of Cyberoam's multi-core processing architecture with virtual UTM appliances by flexibly allotting vCPUs from the virtual infrastructure to the virtual UTM appliance. With an easy upgrade feature using a simple activation key, organizations and MSSPs can match the growing needs of their business and customers in no time.



Feature Specifications

Stateful Inspection Firewall
- Layer 8 (User - Identity) Firewall
- Multiple Security Zones
- Access Control Criteria (ACC) : User-Identity, Source and Destination Zone, MAC and IP address, Service
- UTM policies - IPS, Web Filtering, Application Filtering, Anti-virus, Anti-spam and Bandwidth Management
- Application (Layer 7) Control and Visibility
- Access Scheduling
- Policy based Source and Destination NAT
- H.323, SIP NAT Traversal
- 802.1q VLAN Support
- DoS and DDoS attack prevention
- MAC and IP-MAC filtering and Spoof prevention

Gateway Anti-Virus & Anti-Spyware
- Virus, Worm, Trojan Detection and Removal
- Spyware, Malware, Phishing protection
- Automatic virus signature database update
- Scans HTTP, HTTPS, FTP, SMTP, POP3, IMAP, IM, VPN Tunnels
- Customize individual user scanning
- Self Service Quarantine area
- Scan and deliver by file size
- Block by file types
- Add disclaimer/signature

Gateway Anti-Spam
- Inbound/Outbound Scanning##
- Real-time Blacklist (RBL), MIME header check
- Filter based on message header, size, sender, recipient
- Subject line tagging
- Redirect spam mails to dedicated email address
- Image-spam filtering using RPD Technology
- Zero hour Virus Outbreak Protection
- Self Service Quarantine area
- IP address Black list/White list
- Spam Notification through Digest
- IP Reputation-based Spam filtering

Intrusion Prevention System
- Signatures: Default (4500+), Custom
- IPS Policies: Multiple, Custom
- User-based policy creation
- Automatic real-time updates from CRProtect networks
- Protocol Anomaly Detection
- DDoS attack prevention

Web Filtering
- Inbuilt Web Category Database
- URL, keyword, File type block
- Web Categories: Default(82+), Custom
- Protocols supported: HTTP, HTTPS
- Block Malware, Phishing, Pharming URLs
- Category-based Bandwidth allocation and prioritization
- Block Java Applets, Cookies, Active X
- CIPA Compliant
- Data leakage control via HTTP, HTTPS upload
- Schedule-based access control
- Custom block messages per category

Application Filtering
- Inbuilt Application Category Database
- 11+ Application Categories e.g. Gaming, IM, P2P, Proxy
- Schedule-based access control
- Block
    - P2P applications e.g. Skype
    - Anonymous proxies e.g. Ultra surf
    - "Phone home" activities
    - Keylogger
- Layer 7 (Applications) & Layer 8 (User - Identity) Visibility

Web Application Firewall
- Positive Protection model
- Unique "Intuitive Website Flow Detector" technology
- Protection against SQL Injections, Cross-site Scripting (XSS), Session Hijacking, URL Tampering, Cookie Poisoning etc.
- Support for HTTP 0.9/1.0/1.1
- Extensive Logging and Reporting
- Back-end servers supported: 5 to 200 servers

Virtual Private Network
- IPSec, L2TP, PPTP
- Encryption - 3DES, DES, AES, Twofish, Blowfish, Serpent
- Hash Algorithms - MD5, SHA-1
- Authentication: Preshared key, Digital certificates
- IPSec NAT Traversal
- Dead peer detection and PFS support
- Diffie Hellman Groups - 1,2,5,14,15,16
- External Certificate Authority support
- Export Road Warrior connection configuration
- Domain name support for tunnel end points
- VPN connection redundancy
- Overlapping Network support
- Hub & Spoke VPN support

SSL VPN
- TCP & UDP Tunneling
- Authentication - Active Directory, LDAP, RADIUS, Cyberoam (Local)
- Multi-layered Client Authentication - Certificate, Username/Password
- User & Group policy enforcement
- Network access - Split and Full tunneling
- Browser-based (Portal) Access - Clientless access
- Lightweight SSL VPN Tunneling Client
- Granular access control to all the enterprise network resources
- Administrative controls - Session timeout, Dead Peer Detection, Portal customization
- TCP-based Application Access - HTTP, HTTPS, RDP, TELNET, SSH

Instant Messaging (IM) Management
- Yahoo and Windows Live Messenger
- Virus Scanning for IM traffic
- Allow/Block: Login, File Transfer, Webcam, One-to-one/group Chat
- Content-based blocking
- IM activities Log
- Archive files transferred
- Custom Alerts

Bandwidth Management
- Application and User Identity based Bandwidth Management
- Category-based Bandwidth restriction
- Guaranteed & Burstable bandwidth policy
- Application & User Identity based Traffic Discovery
- Multi WAN bandwidth reporting

User Identity-based and Group-based Controls
- Access time restriction
- Time and Data Quota restriction, P2P and IM Controls
- Schedule-based Committed and Burstable Bandwidth

Networking
- Automated Failover/Failback, Multi-WAN
- WRR based Load balancing
- Policy routing based on Application and User
- IP Address Assignment - Static, PPPoE, L2TP, PPTP & DDNS Client, Proxy ARP, DHCP server, DHCP relay
- Supports HTTP Proxy, Parent Proxy with FQDN
- Dynamic Routing: RIP v1& v2, OSPF, BGP, Multicast Forwarding

High Availability*
- Active-Active
- Active-Passive with state synchronization
- Stateful Failover
- Alerts on Appliance Status change

Administration and System Management
- Web-based configuration wizard
- Role-based Access control
- Firmware Upgrades via Web UI
- Web 2.0 compliant UI (HTTPS)
- UI Color Styler
- Command line interface (Serial, SSH, Telnet)
- SNMP (v1, v2, v3)
- Multi-lingual support: Chinese, Hindi, French, Korean
- Cyberoam Central Console (Optional)
- NTP Support

User Authentication
- Internal database
- Active Directory Integration
- Automatic Windows Single Sign On
- External LDAP/RADIUS database Integration
- Thin Client support - Microsoft Windows Server 2003 Terminal Services and Citrix XenApp
- RSA SecurID support
- External Authentication - Users and Administrators
- User/MAC Binding
- Multiple Authentication servers

Logging and Monitoring
- Graphical real-time and historical Monitoring
- Email notification of reports, viruses and attacks
- Syslog support
- Log Viewer - IPS, Web filter, Anti-Virus, Anti-Spam, Authentication, System and Admin Events

On-Appliance Cyberoam - iView Reporting
- Integrated Web-based Reporting tool - Cyberoam-iView
- 1000+ drilldown reports
- 45+ Compliance reports
- Historical and Real-time reports
- Multiple Dashboards
- Username, Host, Email ID specific Monitoring Dashboard
- Reports - Security, Spam, Virus, Traffic, Policy violations, VPN, Search Engine keywords
- Multi-format reports - tabular, graphical
- Exportable formats - PDF, Excel
- Automated Report Scheduling

IPSec VPN Client[1]
- Inter-operability with major IPSec VPN Gateways
- Supported platforms: Windows 2000, WinXP 32/64-bit, Windows 2003 32-bit, Windows 2008 32/64-bit, Windows Vista 32/64-bit, Windows 7 RC1 32/64-bit, Windows 8 RC1 32/64-bit
- Import Connection configuration

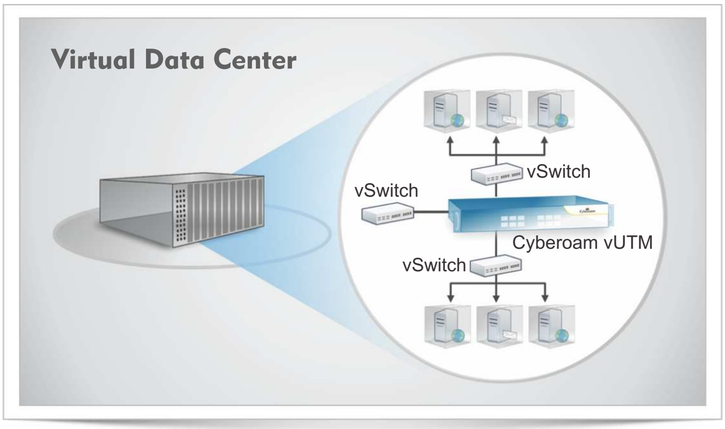
Certification
- ICSA Firewall - Corporate
- Checkmark UTM Level 5 Certification
- VPNC - Basic and AES interoperability
- IPv6 Ready Gold Logo

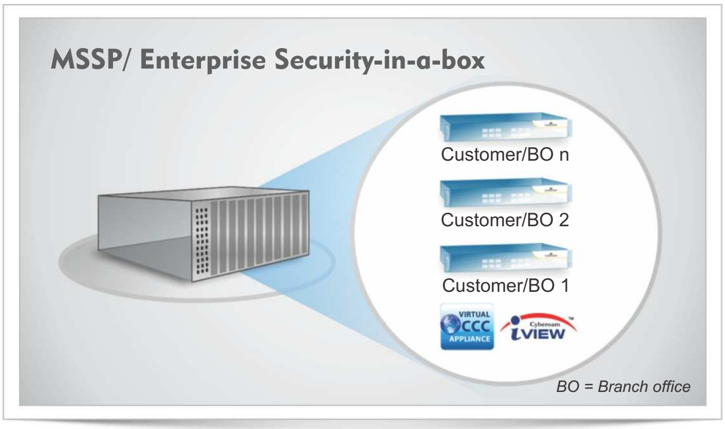
[1] Additional Purchase Required

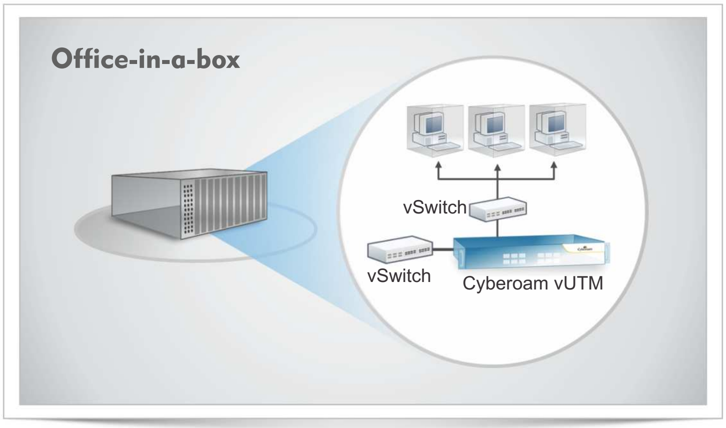
*Needs e1000/e1000e drivers emulation

	CRiV-1C	CRiV-2C	CRiV-4C	CRiV-8C	CRiV-12C
Technical Specifications					
Hypervisor Support	Vmware ESX/ESXi 4.0/4.1/5.0, VMware Workstation 7.0/8.0/9.0, VMware Player 4.0/5.0, Microsoft Hyper-V 2008/2012				
vCPU Support (Min / Max)	1 / 1	1 / 2	1 / 4	1 / 8	1 / 12
Network Interface Support (Min / Max[#])	3 / 10	3 / 10	3 / 10	3 / 10	3 / 10
Memory Support (Min / Max)	1 GB / 4 GB	1 GB / 4 GB	1 GB / 4 GB	1 GB / 4 GB	1 GB / 4 GB
System Performance*					
Firewall Throughput (UDP) (Mbps)	1,500	3,000	3,500	4,000	4,000
Firewall Throughput (TCP) (Mbps)	1,200	2,500	3,000	3,500	4,000
New sessions/second	25,000	30,000	40,000	50,000	60,000
Concurrent sessions	230,000	525,000	1,200,000	1,500,000	1,750,000
IPSec VPN Throughput (Mbps)	200	250	300	350	400
No. of IPSec Tunnels	200	1,000	1,500	2,000	2,500
SSL VPN Throughput (Mbps)	300	400	550	550	750
WAF Protected Throughput (Mbps)	300	500	800	1,400	1,550
Anti-Virus Throughput (Mbps)	900	1,500	2,000	2,200	2,450
IPS Throughput (Mbps)	450	750	1,200	1,800	1,900
UTM Throughput (Mbps)	250	450	1,000	1,400	1,550
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

Scenarios







Actual performance may vary depending on the real network traffic environments. Performance values given above were observed using server with Intel Xeon E5645 (2.4 GHz) and E1000E Ethernet Drivers, running VMware version ESXi 5.0 (Update 1) with 4 GB vRAM assigned to CR Virtual UTM Appliance.

[#] The Number depends on the Hypervisor you are using.

*Antivirus, IPS and UTM performance is measured based on HTTP traffic as per RFC 3511 guidelines. Actual performance may vary depending on the real network traffic environments.

[##] Inbound and Outbound Spam filtering cannot be used simultaneously.

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Unified Threat Management