Cyberoam®
A SOPHOS Company

FleXi Ports Module

| 8-port 1 GbE Copper Module | 8-port 1 GbE Fiber Module | 4-port 10 GbE Fiber Module |

NG CR2500iNG-XP
Future-ready

Next-Generation Firewall for Enterprise Networks | CR2500iNG–XP

Data Sheet

The mobilization of workforce has led to demand for anytime-anywhere access to network resources. This, along with increasing number of users like customers and partners connecting to an enterprise network from outside, and trends like rise in number of network users and devices, application explosion, virtualization, and more are leading to loss of security controls for enterprises over their networks. Cyberoam Next-Generation Firewalls (NGFW) with Layer 8 Identity-based technology offer actionable intelligence and controls to enterprises that allow complete security controls over L2-L8 for their future-ready security. Cyberoam's Human Layer 8 acts like a standard abstract layer that binds with real Layers 2-7, enabling organizations to regain lost security controls.

Cyberoam CR2500iNG-XP offers inline application inspection and control, website filtering, HTTPS inspection, Intrusion Prevention System, VPN (IPSec and SSL) and granular bandwidth controls. Additional security features like WAF, Gateway Anti-Virus, Anti-Spam are also available. The FleXi Ports (XP) available in CR2500iNG-XP appliances offer flexible network connectivity with I/O slots that allow additional Copper 1G, Fiber 1G/10G ports on the same security appliance.

Cyberoam security appliances offer high performance, assured Security, Connectivity and Productivity and an Extensible Security Architecture (ESA) for future-ready security in enterprises.

Next-Generation Firewall for Enterprises:
Offering Actionable Intelligence and Controls

Cyberoam's Layer 8 Technology treats "User Identity" as the 8th Layer in the protocol stack

L8	USER	
L7	Application	
L6	Presentation	ASCII, EBCDIC, ICA
L5	Session	L2TP, PPTP
L4	Transport	TCP, UDP
L3	Network	192.168.1.1
L2	Data Link	00-17-BB-8C-E3-E7
L1	Physical	

Cyberoam NGFW offers security across Layer 2-Layer 8 using Identity-based policies

Cyberoam NGFWs assure Security, Connectivity, Productivity

Security

Network Security
- Firewall
- Intrusion Prevention System
- Web Application Firewall

Administrative Security
- Next-Gen UI
- iView- Logging & Reporting

Content Security
- Anti-Virus/Anti-Spyware
- Anti-Spam (Inbound/Outbound)
- HTTPS/SSL Content Security

Connectivity

Business Continuity
- Multiple Link Management
- High Availability

Network Availability
- VPN
- 3G/4G/WiMAX Connectivity

Future-ready Connectivity
- "IPv6 Ready" Gold Logo
- FleXi Ports (XP)

Productivity

Employee Productivity
- Content Filtering
- Instant Messaging Archiving & Controls

IT Resource Optimization
- Bandwidth Management
- Traffic Discovery
- Application Visibility & Control

Administrator Productivity
- Next-Gen UI

Specification

Interfaces

Maximum number of available Ports	42
Copper GbE Ports (Fixed)	10
Number of Slots for FleXi Ports Module[*]	4
Port Options for FleXi Ports Module[*]	8 / 8 / 4
(GbE Copper/GbE Fiber/10GbE Fiber)	
Console Ports (RJ45)	1
Configurable Internal/DMZ/WAN Ports	Yes
USB Ports	2

System Performance[**]

Firewall Throughput (UDP) (Mbps)	60,000
Firewall Throughput (TCP) (Mbps)	36,000
New sessions/second	300,000
Concurrent sessions	10,000,000
IPSec VPN Throughput (Mbps)	9,000
No. of IPSecTunnels	5,000
SSL VPN Throughput (Mbps)	1,450
WAF Protected Throughput (Mbps)	2,600
Anti-Virus Throughput (Mbps)	6,500
IPS Throughput (Mbps)	16,000
NGFW Throughput (Mbps)[***]	8,000
Fully Protected Throughput (Mbps)[****]	5,500

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
- Security 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

Application Filtering
- Inbuilt Application Category Database
- 2,000+ Applications Supported
- Schedule-based access control
- Block
  - Proxy and Tunnel
  - File Transfer
  - Social Networking
  - Streaming Media
- Layer 7 (Applications) & Layer 8 (User - Identity) Visibility
- Securing SCADA Networks
  - SCADA/ICS Signature-based Filtering for Protocols
  - Modbus, DNP3, IEC, Bacnet, Omron FINS, Secure DNP3, Longtalk
  - Control various Commands and Functions

Intrusion Prevention System (IPS)
- 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
- SCADA-aware IPS with pre-defined category for ICS and SCADA signatures

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

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: English, Chinese, Hindi, French, Japanese
- Cyberoam Central Console (Optional)
- Network Time Protocol Support

User Authentication
- Internal database
- Active Directory Integration
- Automatic Windows Single Sign On
- External LDAP/RADIUS database integration
- Thin Client support - Microsoft Windows Server 2003/2008

Terminal Services and Citrix XenApp - Novell eDirectory
- 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, gateway status, viruses and attacks
- Syslog support
- Log Viewer - Firewall, IPS, Web filter, WAF, Anti Virus, Anti Spam, Authentication, System and Admin Events

On-Appliance Cyberoam-iView Reporting
- Integrated Web-based Reporting tool - Cyberoam-iView
- 1200+ drilldown reports
- 45+ Compliance Reports
- Historical and Real-time reports
- Multiple Dashboards
- Username, Host, Email ID specific Monitoring Dashboard
- Reports - Security, Virus, Spam, Traffic, VPN, Search Engine keywords
- Multi-format reports - tabular, graphical
- Exportable formats - PDF, Excel
- Automated Report Scheduling

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 and Spoke VPN support

SSL VPN
- TCP and UDP Tunneling
- Authentication - Active Directory, LDAP, RADIUS, Cyberoam (Local)
- Multi-layered Client Authentication - Certificate, Username/Password
- User and 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

Web Filtering
- Inbuilt Web Category Database
- URL, keyword, File type block
- Categories: Default(89+), Custom
- Protocols supported: HTTP, HTTPS
- Block Malware, Phishing, Pharming URLs
- Schedule-based access control
- Custom block messages per category
- Block Java Applets, Cookies, Active X
- CIPA Compliant
- Data leakage control via HTTP, HTTPS upload

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

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

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
- IP address Black list/White list
- Redirect Spam mails to dedicated email address
- Image-based Spam filtering using RPD Technology
- Zero hour Virus Outbreak Protection
- Self Service Quarantine area
- Spam Notification through Digest
- IP Reputation-based Spam filtering

Wireless WAN
- USB port 3G/4G and Wimax Support
- Primary WAN link
- WAN Backup link

Networking
- Failover - Automated Failover/Failback, Multi-WAN Failover, 3G/4G Modem Failover
- 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
- Support for HTTP Proxy
- Dynamic Routing: RIP v1 and v2, OSPF, BGP, Multicast Forwarding
- Parent Proxy support with FQDN
- "IPv6 Ready" Gold Logo

High Availability
- Active-Active
- Active-Passive with State Synchronization
- Stateful failover
- Alerts on appliance status change

IPSec VPN Client[*****]
- 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 32/64-bit
- Import Connection configuration

Certification
- Common Criteria - EAL4+
- ICSA Firewall - Corporate
- Checkmark Certification
- VPNC - Basic and AES interoperability
- "IPv6 Ready" Gold Logo

Hardware Specifications

Memory	16GB
Compact Flash	4GB
HDD	250GB or higher

Compliance
CE
FCC
UL

Dimensions

H x W x D (inches)	3.54 x 17.52 x 23.23
H x W x D (cms)	9 x 44.5 x 59
Weight	19kg, 41.8lbs

Power

Input Voltage	90-260 VAC
Consumption	258 W
Total Heat Dissipation (BTU)	881
Redundant Power Supply	Yes

Environmental

Operating Temperature	0 to 40 °C
Storage Temperature	0 to 70 °C
Relative Humidity (Non condensing)	10 to 90%

Applicable to Hardware Version 1.0 – 10 February, 2014

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