

Cyberoam offers Next-Generation security along with high performance to SOHO, SMEs and Enterprise networks with its Next-Generation Firewalls and UTM appliances. Cyberoam moves beyond offering comprehensive network security to simplify security management for organizations with multiple offices with its centralized security management solution, Cyberoam Central Console (CCC), and its centralized visibility solution, Cyberoam iView. These future-ready security solutions are available for both physical and virtual networks.

**Cyberoam Products Portfolio**



**Cyberoam Network Security Appliances**

**CyberoamOS**

- The Security-Hardened Operating System

**Extensible Security Architecture**

- Agility to prolong the life and performance of its NGFW appliances
- Supports newer enterprise security features and enhancements

**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

**Intrusion Prevention System**

- Signatures: Default (4500+), Custom
- IPS Policies: Multiple, Custom
- User-based policy creation
- SCADA-aware IPS with pre-defined category for ICS and SCADA signatures

**Web Filtering**

- Inbuilt Web Category Database
- Web Categories: Default(89+), Custom
- Protocols supported: HTTP, HTTPS

**Application Filtering**

- Layer 7 (Applications) & Layer 8 (User - Identity) Visibility
- Block
  - P2P applications e.g. Skype
  - Anonymous proxies e.g. Ultra surf
- Securing SCADA Networks
  - SCADA/ICS Signature-based Filtering for Protocols
  - Modbus, DNP3, IEC, Bacnet etc
  - Control various Commands and Functions

**Web Application Firewall<sup>1</sup>**

- Positive Protection model
- Unique "Intuitive Website Flow Detector" technology
- Protection against SQL Injections, Cross-site Scripting (XSS), Session Hijacking, URL Tampering, Cookie Poisoning etc

**High Availability<sup>1</sup>**

- Active-Active and Active-Passive
- Stateful Failover

**Bandwidth Management**

- Application and User Identity based Bandwidth Management
- Category-based Bandwidth restriction

**Networking**

- Automated Failover/Failback, Multi-WAN
- WRR based Load balancing
- Dynamic Routing: RIP v1& v2, OSPF, BGP, Multicast Forwarding

**Wireless WAN**

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

**Virtual Private Network**

- IPsec, L2TP, PPTP
- Encryption - 3DES, DES, AES, Twofish, Blowfish, Serpent
- Authentication: Preshared key, Digital certificates

**IPsec VPN Client<sup>2</sup>**

- 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 3 2/64-bit, Windows 7 RC1 32/64-bit, Windows 8 RC1 32/64-bit

**SSL VPN**

- TCP & UDP Tunneling
- Authentication - Active Directory, LDAP, RADIUS, Cyberoam (Local)
- TCP-based Application Access - HTTP, HTTPS, RDP, TELNET, SSH

**Administration and System Management**

- Web-based configuration wizard
- Command line interface (Serial, SSH, Telnet)
- SNMP (v1, v2, v3)

**User Authentication**

- Internal database
- Active Directory Integration
- Automatic Windows Single Sign On
- External LDAP/RADIUS database Integration

**User Identity-based and Group-based Controls**

- Access time restriction
- Time and Data Quota restriction, P2P and IM Controls

**On-Appliance Cyberoam - iView Reporting**

- Integrated Web-based Reporting tool
- 1,200+ drill-down reports
- 45+ Compliance reports
- Historical and Real-time report



**Logging and Monitoring**

- Graphical real-time and historical Monitoring
- Log Viewer - IPS, Web filter, WAF, Anti-Virus, Anti-Spam, Authentication, System and Admin Events

**Gateway Anti-Virus & Anti-Spyware**

- Scans HTTP, HTTPS, FTP, SMTP, POP3, IMAP, IM, VPN Tunnels
- Self Service Quarantine area<sup>2</sup>

**Gateway Anti-Spam**

- Inbound/Outbound Scanning
- Inbound Blacklist (RBL), MIME header check
- Self Service Quarantine area<sup>2</sup>

**Certification**

- Common Criteria - EAL4+
- ICSA Firewall - Corporate
- Checkmark UTM Level 5 Certification
- VPNC - Basic and AES Interoperability
- IPv6 Ready Gold Logo

**Cyberoam Virtual Appliance advantages**

- Supported Virtualization Platforms: VMware and Microsoft Hyper-V
- Protects virtual data-centers, "Security-in-a-Box", and "Office-in-a-Box" set-ups
- Scans traffic within virtual networks, protecting hypervisor management console, hypervisor & Guest OS, securing zero trust networks
- Easy to deploy and upgrade

<sup>1,2,3</sup>Available in all the Models except CR15iNG & CR15wiNG

<sup>2</sup>Not supported in CR15iNG & WiFi series of appliances

<sup>4</sup>Additional Purchase Required

**Centralized Security Management with Cyberoam Central Console (CCC)**

**Centralized Remote Management**

**Configure and Manage**

- Individual Appliances
- Appliance Groups

**Global Enforcement**

- Firewall - Rule, NAT Policy and DoS
- Network configuration - Zone, Static Route, DNS and DHCP
- Web Filtering - Settings, Policy and Category
- Application Filtering - Category and Policy
- QoS Policy
- IPS - Policy and Custom Signatures
- Anti Virus - Mail, HTTP/S and FTP

- Anti Spam - Configuration, Spam Rules, Spam Digest and Trusted Domain

**Configuration Management**

- Centralized upgrade for
  - AV and IPS signatures
  - Web filtering categories
- Automated and Manual Backup for Appliances

**Appliance Monitoring & Alerts**

- Dashboard for Appliance Group, Individual Appliance

**Email Alerts for**

- CPU usage, Memory usage
- IPS threats
- Spam mail
- Web virus, Mail virus

**Centralized logging**

- Audit and System log

**Upgrade Distribution**

- Cyberoam Firmware
- Anti-Virus and IPS Signature
- Web Filtering Categories

**Administration**

- Role-based Administration
- Granular Administrative controls

**Communication**

- SSL RC4 128bit Encryption
- Mutual Authentication
- HTTP, HTTPS

**System Management**

- Web Based User Interface
- Command Line Interface

**Compliance**

- CE, FCC

**Centralized Visibility across Networks with Cyberoam iView<sup>1</sup>**

**Logs**

- Real-time logs
- Log storage (Backup/restore)

**Reports**

- 1,200+ drilldown Reports
- Compliance Reports - HIPPA, SOX, FISMA, GLBA, PCI

- User and Group based Reports - Web, Email, IM, FTP, Application
- Internet Usage Reports - Data Transfer, Surfing Time
- Security Reports - Firewall, Attacks, Spam, Virus, Blocked Attempts

**Administration**

- Web based Management Console
- Role-based administration
- Multiple Dashboards - Resource, Device, User, Host, Email Address

**Supported Web Browsers**

- Microsoft Internet Explorer 6.0+
- Mozilla Firefox 2.0+ (Best view)
- Google Chrome

**Operating Environment**

- Hardened Linux OS

**Supported Network and Security Devices**

- Custom/Proprietary devices including UTM
- Proxy Firewalls, Access Gateway
- Smart Wireless Router
- Endpoint Security Solution
- Syslog-compatible devices

<sup>1</sup>Also available as Software



Specifications	15iNG	25iNG/6P	35iNG	15wiNG	25wiNG/6P	35wiNG
<b>Interfaces</b>						
Copper GbE Ports	3	4/6	6	3	4/6	6
Console Ports (RJ45)	1	1	1	1	1	1
USB Ports	2	2	2	2	2	2
Hardware Bypass Segments*	-	-	-	-	-	-
Configurable Internal/DMZ/WAN Ports	Yes	Yes	Yes	Yes	Yes	Yes
<b>System Performance**</b>						
Firewall Throughput (UDP) (Mbps)	1,000	1,500	2,300	1,000	1,500	2,300
Firewall Throughput (TCP) (Mbps)	750	1,000	2,000	750	1,000	2,000
New sessions/second	3,500	5,000	12,000	3,500	5,000	12,000
Concurrent sessions	60,000	150,000	350,000	60,000	150,000	350,000
IPSec VPN Throughput (Mbps)	110	210	250	110	210	250
No. of IPSec Tunnels	50	100	150	50	100	150
SSL VPN Throughput (Mbps)	50	75	100	50	75	100
WAF Protected Throughput (Mbps)	-NA-	45	65	-NA-	45	65
Anti-Virus Throughput (Mbps)	180	300	525	180	300	525
IPS Throughput (Mbps)	140	200	350	140	200	350
UTM Throughput (Mbps)	80	110	210	80	110	210
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
<b>Built-in Wireless LAN (Only for wiNG series)</b>						
Wireless Standards				IEEE 802.11 a/b/g/n (WEP, WPA, WPA2, 802.11i, TKIP, AES, PSK)		
Antenna				Detachable 3x3 MIMO		
Access Points				Up to 8 bssid		
Transmit Power (EIRP)				11n HT40 : +15dBm, 11b CCK: +15dBm, 11g OFDM: +15dBm		
Receiver Sensitivity				-68dBm at 300Mbps, -70dBm at 54Mbps, -88dBm at 6Mbps		
Frequency Range				2.412 GHz - 2.472 GHz		
				5.200 GHz - 5.825 GHz		
Number of Selectable Channels				USA (FCC) - 11 channels, EU (ETSI) / Japan (TELEC) - 13 channels		
Data Rate				802.11n: up to 450Mbps, 802.11b: 1, 2, 5.5, 11Mbps, 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps		
<b>Dimensions</b>						
H x W x D (inches)	1.7 x 6 x 9.1	1.7 x 6 x 9.1	1.7 x 6 x 9.1	1.7 x 6 x 9.1	1.7 x 6 x 9.1	1.7 x 6 x 9.1
H x W x D (cms)	4.4 x 15.3 x 23.2	4.4 x 15.3 x 23.2	4.4 x 15.3 x 23.2	4.4 x 15.3 x 23.2	4.4 x 15.3 x 23.2	4.4 x 15.3 x 23.2
Appliance Weight	1.5 kg, 3.307 lbs	2.3 kg, 5.07 lbs	2.3 kg, 5.07 lbs	1.5 kg, 3.307 lbs	2.3 kg, 5.07 lbs	2.3 kg, 5.07 lbs
<b>Power</b>						
Input Voltage	100-240VAC	100-240VAC	100-240VAC	100-240VAC	100-240VAC	100-240VAC
Consumption	13.2W	33.5W	47.8W	13.2W	33.5W	47.8W
Total Heat Dissipation (BTU)	45	114	163	45	114	163

Specifications	50iNG	100iNG	200iNG/XP	300iNG/XP
<b>Interfaces</b>				
Copper GbE Ports	8	8	10 / 6	10 / 6
FleXi Ports Module*** (for XP Appliances) (1 GbE Copper / 1 GbE SFP / 10 GbE SFP)	-	-	8 / 8 / 4	8 / 8 / 4
Console Ports (RJ45)	1	1	1	1
USB Ports	2	2	2	2
Hardware Bypass Segments*	2	2	2	2
Configurable Internal/DMZ/WAN Ports	Yes	Yes	Yes	Yes
<b>System Performance**</b>				
Firewall Throughput (UDP) (Mbps)	3,250	4,500	10,000	12,000
Firewall Throughput (TCP) (Mbps)	3,000	3,500	8,000	9,500
New sessions/second	30,000	45,000	70,000	85,000
Concurrent sessions	1,000,000	1,250,000	1,500,000	2,000,000
IPSec VPN Throughput (Mbps)	400	450	800	1,200
No. of IPSec Tunnels	200	250	300	400
SSL VPN Throughput (Mbps)	300	400	450	500
WAF Protected Throughput (Mbps)	300	500	650	850
Anti-Virus Throughput (Mbps)	1,000	1,400	2,200	2,600
IPS Throughput (Mbps)	750	1,200	2,000	2,400
UTM Throughput (Mbps)	550	750	1,200	1,500
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited
<b>Dimensions</b>				
H x W x D (inches)	1.7 x 14.6 x 17.3	1.7 x 14.6 x 17.3	1.7 x 17.3 x 11.85	1.7 x 17.3 x 11.85
H x W x D (cms)	4.4 X 37.2 X 44	4.4 X 37.2 X 44	4.4 x 43.9 x 30.1	4.4 x 43.9 x 30.1
Appliance Weight	5 kg, 11.02 lbs	5 kg, 11.02 lbs	5.1 kg, 11.24 lbs	5.1 kg, 11.24 lbs
<b>Power</b>				
Input Voltage	100-240VAC	100-240VAC	100-240VAC	100-240VAC
Consumption	99W	99W	137W	137W
Total Heat Dissipation (BTU)	338	338	467	467

**Environmental Conditions:** Operating Temperature 0 °C to 40 °C, Storage Temperature -25 °C to 75 °C, Relative Humidity (Non condensing) 10% to 90%

\*If Enabled, will bypass traffic only in case of Power failure.

\*\*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.

\*\*\*Additional Purchase required, only single FleXi Ports Module can be used at a time.



Specifications	500iNG-XP	750iNG-XP	1000iNG-XP	1500iNG-XP	2500iNG-XP
<b>Interfaces</b>					
Copper GbE Ports	8	8	10	10	10
Flexi Ports Module* (for XP Appliances) (1 GbE Copper / 1 GbE SFP / 10 GbE SFP)	8 / 8 / 4	8 / 8 / 4	8 / 8 / 4	8 / 8 / 4	8 / 8 / 4
Console Ports (RJ45)	1	1	1	1	1
USB Ports	2	2	2	2	2
Hardware Bypass Segments**	2	2	-	-	-
Configurable Internal/DMZ/WAN Ports	Yes	Yes	Yes	Yes	Yes
<b>System Performance***</b>					
Firewall Throughput (UDP) (Mbps)	18,000	22,000	27,500	32,000	60,000
Firewall Throughput (TCP) (Mbps)	16,000	18,000	22,500	26,000	36,000
New sessions/second	100,000	140,000	240,000	265,000	300,000
Concurrent sessions	2,500,000	3,000,000	5,500,000	7,500,000	10,000,000
IPSec VPN Throughput (Mbps)	1,500	2,250	3,000	4,500	9,000
No. of IPSec Tunnels	1,000	1,500	3,000	4,000	5,000
SSL VPN Throughput (Mbps)	650	750	850	1,050	1,450
WAF Protected Throughput (Mbps)	900	950	1,150	1,350	1,550
Anti-Virus Throughput (Mbps)	3,500	4,000	4,500	5,000	6,500
IPS Throughput (Mbps)	4,500	6,500	10,500	12,500	16,000
NGFW Throughput (Mbps)****	3,250	3,600	5,000	6,000	8,000
Fully Protected Throughput****	1,650	1,800	3,000	3,600	5,500
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
<b>Dimensions</b>					
H x W x D (inches)	1.7 x 17.44 x 18.75	1.7 x 17.44 x 18.75	3.54 x 17.52 x 23.23	3.54 x 17.52 x 23.23	3.54 x 17.52 x 23.23
H x W x D (cms)	4.4 X 44.3 X 47.62	4.4 X 44.3 X 47.62	9 x 44.5 x 59	9 x 44.5 x 59	9 x 44.5 x 59
Appliance Weight	5.1 kg, 11.24 lbs	5.1 kg, 11.24 lbs	19kg, 41.8lbs	19 kg, 41.8 lbs	19 kg, 41.8 lbs
<b>Power</b>					
Input Voltage	100-240 VAC	100-240 VAC	90-260 VAC	90-260 VAC	90-260 VAC
Consumption	208 W	208 W	258 W	258 W	258 W
Total Heat Dissipation (BTU)	345	345	881	881	881
Redundant Power Supply	-	Yes	Yes	Yes	Yes

**Environmental Conditions:** Operating Temperature 0 °C to 40 °C, Storage Temperature -25 °C to 75 °C, Relative Humidity (Non condensing) 10% to 90%

\*Additional Purchase required. \*\*If Enabled, will bypass traffic only in case of Power failure.

\*\*\*Antivirus, IPS and Fully Protected Throughput performance is measured based on HTTP traffic as per RFC 3511 guidelines. Actual performance may vary depending on the real network traffic environments. \*\*\*\*NGFW throughput is measured with Firewall, IPS and Web & Application Filtering features turned on. \*\*\*\*\*Fully Protected Throughput is measured with Firewall, IPS, Web & Application Filtering and Anti-Virus features turned on.

## Cyberoam Virtual Security Appliances



	CRiV-1C	CRiV-2C	CRiV-4C	CRiV-8C	CRiV-12C
<b>Technical Specifications</b>					
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
<b>System Performance*</b>					
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
Fully Protected Throughput** (Mbps)	250	450	1,000	1,400	1,550
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited

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 Fully Protected Throughput performance is measured based on HTTP traffic as per RFC 3511 guidelines. Actual performance may vary depending on the real network traffic environments. \*\*Fully Protected Throughput is measured with Firewall, IPS, Web & Application Filtering and Anti-Virus features turned on.

**Hardware CCC Appliance Range**

CCC Hardware Appliance	CCC15	CCC50	CCC100	CCC200	CCC500	CCC1000
<b>Interfaces</b>						
10/100/1000 GBE Ports	6	6	6	6	6	8
Console Ports (RJ45)	1	1	1	1	1	1
SFP (Mini GBIC) Ports	-	-	-	-	-	-
USB Ports	2	2	2	2	2	2
<b>Dimensions</b>						
H x W x D (inches)	1.72 x 17.25 x 11.50	1.72 x 17.25 x 11.50	1.72 x 17.25 x 11.50	1.72 x 17.44 x 15.98	1.72 x 17.44 x 15.98	1.77 x 17.25 x 18.30
H x W x D (cms)	4.4 x 43.8 x 29.21	4.4 x 43.8 x 29.21	4.4 x 43.8 x 29.21	4.4 x 44.3 x 40.6	4.4 x 44.3 x 40.6	4.5 x 43.8 x 46.5
Weight (lbs)	5.54, 12.188	5.54, 12.188	5.54, 12.188	6.04, 13.31	6.04, 13.31	13.5, 29.76
<b>Power</b>						
Input Voltage	100-240VAC	100-240VAC	100-240VAC	100-240VAC	100-240VAC	90-260VAC
Redundant Power Supply	128W	128W	128W	185W	185W	129W
Total Heat Dissipation (BTU)	375	375	375	475	475	626
<b>Environmental</b>						
Operating Temperature	5 to 40 °C	5 to 40 °C	5 to 40 °C	5 to 40 °C	5 to 40 °C	0 to 40 °C
Storage Temperature	0 to 70 °C	0 to 70 °C	0 to 70 °C	0 to 70 °C	0 to 70 °C	-20 to 80 °C
Relative Humidity (Non condensing)	10 to 90%	10 to 90%	10 to 90%	10 to 90%	10 to 90%	10 to 90%
Cooling System (40mm Fan)	3	3	3	3	3	3
<b>No. of CR Appliances Supported</b>	15	50	100	200	500	1000

**Virtual CCC Appliance Range**

Model	RAM	HDD	Interfaces	No. of CR Appliances Supported
CCCV15	2 GB	80 GB	4	15
CCCV50	4 GB	160 GB	4	50
CCCV100	4 GB	250 GB	4	100
CCCV200	4 GB	320 GB	4	200
CCCV500	4 GB	320 GB	4	500

**Hypervisor Support :** VMware ESX/ESXi 3.5/4.0/4.1/5.0, VMware Workstation 7.0/8.0/9.0, Microsoft Hyper-V 2008/2012

**Cyberoam iView Appliances** 

**Hardware Specifications**

	CR-iVU25	CR-iVU100	CR-iVU200
<b>Interfaces</b>			
Ethernet Ports (GbE)	4	4	4
Console Ports	1 (RJ45)	1 (DB9)	1 (DB9)
USB Ports	1	Dual	Dual
Number of Hard Drives	2 (500GB each)	8 (500GB each)	8 (1TB each)
Total Available Storage	500GB	3.5TB	7TB
RAID Storage Management	RAID 1	RAID 5	RAID 5
RAM (GB)	2	4	4
<b>Performance</b>			
Events per Second (EPS)	250	500	1,000
Devices recommended	25	100	200
<b>Dimensions</b>			
H x W x D (inches)	1.72 x 10.83 x 17.32	3.46 x 16.7 x 20.9	3.46 x 16.7 x 20.9
H x W x D (cms)	4.4 x 27.5 x 44	8.8 x 42.4 x 53.1	8.8 x 42.4 x 53.1
Weight	3.78kg, 8.35lbs	16 kg, 36lbs	16 kg, 36lbs
<b>Power</b>			
Input Voltage	100-240 VAC	100-240 VAC	100-240 VAC
Consumption	65W	265W	265W
Total Heat Dissipation (BTU)	175	425	425
<b>Environmental</b>			
Operating Temperature	5 to 40 °C	5 to 40 °C	5 to 40 °C
Storage Temperature	20 to 70 °C	20 to 70 °C	20 to 70 °C
Relative Humidity (Non condensing)	20 to 70%	20 to 70%	20 to 70%

**Toll Free Numbers**

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