



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**



CR NG series UTMs



CR NG series NGFWs



Virtual Security Appliances



Cyberoam Central Console (CCC)



CR iView (Logging & Reporting)

**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**

- On-Cloud Web Categorization
- Web Categories: Default(89+), Custom
- Protocols supported: HTTP, HTTPS

**Application Filtering**

- Layer 7 (Applications) & Layer 8 (User - Identity) Visibility
- Control over 2,000+ Applications, classified in 21 Categories
- Filter based selection: Category, Risk Level, Characteristics and Technology
- 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, PIM-SM, 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
- AD Integration with support for OU-based Security Policies
- Automatic Windows Single Sign On
- External LDAP/DAPS/RADIUS database Integration

**On-Appliance Cyberoam - iView Reporting<sup>2</sup>**



- Integrated Web-based Reporting tool
- 1,200+ drill-down reports
- Compliance reports - HIPAA, GLBA, SOX, PCI, FISMA
- Historical and Real-time report
- Reports – Application, Internet & Web Usage, Mail Usage, Attacks, Spam, Virus, Search Engine, User Threat Quotient (UTQ) for high risk users and more
- Supports 3rd party PSA Solution - ConnectWise

**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/S, POP3, IMAP, IM, VPN Tunnels
- Self Service Quarantine area<sup>3</sup>

**Gateway Anti-Spam**

- Inbound, Outbound Scanning<sup>4</sup>
- Real-time Blacklist (RBL), MIME header check
- Self Service Quarantine area<sup>3</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, Microsoft Hyper-V, KVM and Citrix XenServer
- 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

<sup>1,2,3,4,5</sup> Available in all the Models except CR10iNG, CR15iNG & CR15iWing

<sup>1</sup> Not supported in 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

- VPN
- User, User Groups and Guest Users and more...

**Centralized logging**

- Audit and System log

**Communication**

- Secure Encryption
- Mutual Authentication
- HTTP, HTTPS, Syslog & Secure Syslog

**Global Policy Enforcement**

- Firewall
- Network configuration
- Web Filter
- Application Filter
- QoS Policy
- IPS
- Anti Virus, Anti Spam
- Web Application Firewall
- Logs & Reports

**Configuration Management**

- Template-based configuration
- Configuration Synchronization
- Backup and Restore

**Upgrade Distribution Service**

- Security Upgrades
- AV, IPS & Application Signatures
- Web Filtering Categories
- CyberoamOS Firmware Updates

**System Management**

- Web Based User Interface
- Command Line Interface

**Appliance Monitoring & Alerts**

- Dashboard for Appliance Group, Individual Appliance
- Appliance Monitor Graph
- Email Alerts

**Administration**

- Role-based Granular control over Appliance and Appliance Groups
- Health Monitoring: CCC, Managed Appliances

**Compliance**

- CE, FCC, UL, RoHS

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

**Logs**

- Real-time/Archived logs
- Log storage (Backup/restore)
- Audit logs Categories - Mail, User, Device, Application, Views, Data, Archive, Report

- User and Group based Reports
- Internet Usage Reports - Data Transfer, Surfing Time, Client Type
- Security Reports - Firewall, Attacks, Spam, Virus, Blocked Attempts, WAF
- Remote Access Reports
- Exportable formats - PDF, Excel
- Email Alerts/automated Report Scheduling

**Administration**

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

**Operating Environment**

- Hardened Linux OS

**Reports**

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

**Supported Web Browsers**

- Microsoft Internet Explorer 8.0+
- Mozilla Firefox 3.0+ (Best view)

**Supported Network and Security Devices**

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

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



Specifications	10iNG	15iNG	25iNG/6P	35iNG	15wiNG	25wiNG/6P	35wiNG
<b>Interfaces</b>							
Copper GbE Ports	3	3	4/6	6	3	4/6	6
Console Ports (RJ45)	1	1	1	1	1	1	1
USB Ports	2	2	2	2	2	2	2
Hardware Bypass Segments*	-	-	-	-	-	-	-
Configurable Internal/DMZ/WAN Ports	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>System Performance**</b>							
Firewall Throughput (UDP) (Mbps)	400	1,200	1,800	3,700	1,200	1,800	3,700
Firewall Throughput (TCP) (Mbps)	300	900	1,200	2,400	900	1,200	2,400
New sessions/second	2,000	5,000	6,000	21,000	5,000	6,000	21,000
Concurrent sessions	27,500	200,000	500,000	750,000	200,000	500,000	750,000
IPSec VPN Throughput (Mbps)	100	130	210	280	130	210	280
No. of IPSec Tunnels	25	300	550	850	300	550	850
SSL VPN Throughput (Mbps)	25	50	75	100	50	75	100
WAF Protected Throughput (Mbps)	-NA-	-NA-	100	150	-NA-	100	150
Anti-Virus Throughput (Mbps)	100	200	350	600	200	350	600
IPS Throughput (Mbps)	90	160	240	650	160	240	650
UTM Throughput (Mbps)	60	90	125	300	90	125	300
Authenticated Users/Nodes	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
<b>Built-in Wireless LAN</b> (Only for wiNG series)							
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)	1.35 x 8.75 x 6.8	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)	3.43 x 22.23 x 17.3	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	1.10 kg, 2.42 lbs	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	100-240VAC
Consumption	22W	13.2W	33.5W	47.8W	13.2W	33.5W	47.8W
Total Heat Dissipation (BTU)	75	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
Number of Slots for FleXi Ports Module	-	-	1	1
Port options per FleXi Ports Module*** (GbE Copper/GbE Fiber/10GbE Fiber)	-	-	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)	6,500	8,000	10,000/14,000	12,000/21,000
Firewall Throughput (TCP) (Mbps)	4,000	5,000	8,000	9,500/10,500
New sessions/second	45,000	60,000	85,000	100,000
Concurrent sessions	1,000,000	3,000,000	3,200,000	3,200,000
IPSec VPN Throughput (Mbps)	850	1,050	1,150	1,300
No. of IPSec Tunnels	2,000	4,000	4,500	5,000
SSL VPN Throughput (Mbps)	300	400	450	500
WAF Protected Throughput (Mbps)	450	700	1,000	1,250
Anti-Virus Throughput (Mbps)	1,500	2,200	2,600	2,900
IPS Throughput (Mbps)	1,600	2,500	3,000	4,000
UTM Throughput (Mbps)	850	1,050	1,400	1,700
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
Number of Slots for Flexi Ports Module	2	2	4	4	4
Port options per Flexi Ports Module <sup>1</sup> (GbE Copper/GbE Fiber/10GbE Fiber)	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 <sup>2</sup>	2	2	-	-	-
Configurable Internal/DMZ/WAN Ports	Yes	Yes	Yes	Yes	Yes
<b>System Performance<sup>3</sup></b>					
Firewall Throughput (UDP) (Mbps)	25,000	28,500	120,000	140,000	160,000
Firewall Throughput (TCP) (Mbps)	18,000	20,000	45,000	60,000	70,000
New sessions/second	180,000	200,000	240,000	265,000	300,000
Concurrent sessions	4,500,000	6,400,000	13,000,000	15,000,000	20,000,000
IPSec VPN Throughput (Mbps)	3,200	4,200	5,000	8,000	10,000
No. of IPSec Tunnels	6,250	7,250	8,000	8,500	9,500
SSL VPN Throughput (Mbps)	650	750	850	1,050	1,450
WAF Protected Throughput (Mbps)	1,500	1,750	2,000	2,300	2,600
Anti-Virus Throughput (Mbps)	4,300	5,500	8,000	9,000	12,000
IPS Throughput (Mbps)	7,000	8,500	12,500	15,000	20,000
NGFW Throughput (Mbps) <sup>4</sup>	3,750	5,000	7,250	8,250	10,000
Fully Protected Throughput <sup>5</sup>	3,000	4,000	5,800	6,750	8,250
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%

<sup>1</sup>Additional Purchase required. <sup>2</sup>If Enabled, will bypass traffic only in case of Power failure.

<sup>3</sup>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. <sup>4</sup>NGFW throughput is measured with Firewall, IPS and Web & Application Filtering features turned on. <sup>5</sup>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, KVM, Citrix XenServer				
vCPU Support (Min / Max)	1 / 1	1 / 2	1 / 4	1 / 8	1 / 12
Network Interface Support (Min / Max <sup>*</sup> )	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<sup>*</sup></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 <sup>**</sup> (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 Security Appliance.

<sup>\*</sup>The Number depends on the Hypervisor you are using.

<sup>\*\*</sup>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. <sup>\*\*\*</sup>Fully Protected Throughput is measured with Firewall, IPS, Web & Application Filtering and Anti-Virus features turned on.



Hardware CCC Appliance	CCC15NM	CCC50NM	CCC100NM	CCC200NM	CCC500NM
<b>Interfaces</b>					
10/100/1000 RJ45 Ports	6	6	6	8	8
Console Ports (RJ45)	1	1	1	1	1
USB Ports	2	2	2	2	2
<b>Dimensions</b>					
H x W x D (inches)	1.7 x 17.3 x 11.85	1.7 x 17.3 x 11.85	1.7 x 17.3 x 11.85	1.7 x 17.44 x 18.75	1.7 x 17.44 x 18.75
H x W x D (cms)	4.4 x 43.9 x 30.1	4.4 x 43.9 x 30.1	4.4 x 43.9 x 30.1	4.4 X 44.3 X 47.62	4.4 X 44.3 X 47.62
Weight (lbs)	5.1 kg, 11.24 lbs	5.1 kg, 11.24 lbs	5.1 kg, 11.24 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	100-240VAC
Consumption	137W	137W	137W	208W	208W
Total Heat Dissipation (BTU)	467	467	467	345	345
Redundant Power Supply	-	-	-	Yes	Yes
<b>Environmental</b>					
Operating Temperature	0 to 40 °C	0 to 40 °C	0 to 40 °C	0 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
Relative Humidity (Non condensing)	10 to 90%	10 to 90%	10 to 90%	10 to 90%	10 to 90%
<b>No. of CR Appliances Supported</b>	30	100	200	400	1,000

## 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



Specifications	CR-iVU25NR	CR-iVU100NR	CR-iVU200NR
<b>Interfaces</b>			
Ethernet Ports (GbE)	4	6	6
Console Ports (RJ45)	1	1	1
USB Ports	2	1	1
CF Card (GB)	4	4	4
Number of Hard Drives	1 (1TB)	4 (2TB each)	4 (4TB each)
Total Available Storage	1TB	8TB	16TB
RAID Storage Management	-	RAID 5	RAID 5
<b>Performance</b>			
Events per Second (EPS)	500	1,250	1,750
Devices Supported (Max)	100	250	350
GB/day of logs (Max)	17	43	60
Average retention at 4GB logs/day	6 months	3.5 years	7 years
<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%

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