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21700

Datacenter-grade security appliance (3551 SPU/110 Gbps[1]) with high port density, low latency and acceleration options

Check Point 21700 Appliance

Today's firewall is a security device presented with an ever-increasing number of sophisticated threats. As a security gateway it must use multiple technologies to control network access, detect sophisticated attacks and provide additional security capabilities like data loss prevention and protection from web-based threats. The proliferation of mobile devices like iPhones and Tablets and new streaming, social networking and P2P applications requires a higher connection capacity and new application control technologies. Finally, the shift towards enterprise private and public cloud services, in all its variations, changes the company borders and requires enhanced capacity and additional security solutions.

Check Point's new 21700 Appliance combines fast networking technologies with high performance multi-core capabilities—providing the highest level of security without compromising on network speeds to keep your data, network and employees secure. Optimized for the Software Blades Architecture, the appliance is capable of running any combination of Software Blades—providing the flexibility and the precise level of security for any business at every network location by consolidating multiple security technologies into a single integrated solution.

The 21700 Appliance supports the Check Point 3D security vision of combining policies, people and enforcement for unbeatable protection and is optimized for enabling any combination of the following Software Blades: (1) Firewall, (2) VPN, (3) IPS, (4) Application Control, (5) Mobile Access, (6) DLP, (7) URL Filtering, (8) Antivirus, (9) Anti-spam, (10) Anti-Bot, (11) Identity Awareness and (12) Advanced Networking & Clustering.

OVERVIEW

Leveraging its multi-core and acceleration technologies, with 3551 SecurityPower Units, the Check Point 21700 appliance supports lightning fast firewall throughput of up-to 110 Gbps[1] with sub 5µs latency and IPS throughput of more than 25 Gbps. The 21700 is designed from the ground up for unmatched flexibility for even the most demanding enterprise and data center network environments.

The 21700 appliance has 3 expansion slots supporting a wide range of network options. The standard configuration includes one on-board 10/100/1000 RJ-45 Management port and a twelve 1 Gigabit Ethernet copper port card. In addition the 21700 Appliance includes an on-board 10GbE Sync port (SR transceiver included). A maximally configured 21700 provides up to 37 Gigabit Ethernet copper ports or 36 fiber ports or thirteen 10 Gigabit Ethernet fiber ports.

[1] With Security Acceleration Module

KEY FEATURES

- 2922 - 3551[1] SecurityPower™
- Simple Deployment and Management
- High Availability and Serviceability
- Optimized for Software Blades Architecture
- Optimized for low latency
- High Port Density
- Maximum Security and Performance

KEY BENEFITS

- Security of data center assets
- A modular, serviceable platform fits easily into complex networking environments
- High availability and redundant components eliminates down time
- Centralize control with unified security management and LOM
- Ideal for applications that require low latency transactions

GATEWAY SOFTWARE BLADES

	NGFW	NGDP	NGTP	SWG
Firewall	■	■	■	■
IPsec VPN	■	■	■	■
Mobile Access (5 users)	■	■	■	*
Advanced Networking and Clustering	■	■	■	■
Identity Awareness	■	■	■	■
IPS	■	■	■	*
Application Control	■	■	■	■
Data Loss Prevention	*	■	*	*
URL Filtering	*	*	■	*
Antivirus	*	*	■	■
Anti-Spam	*	*	■	*
Anti-Bot	*	*	■	*

* Optional

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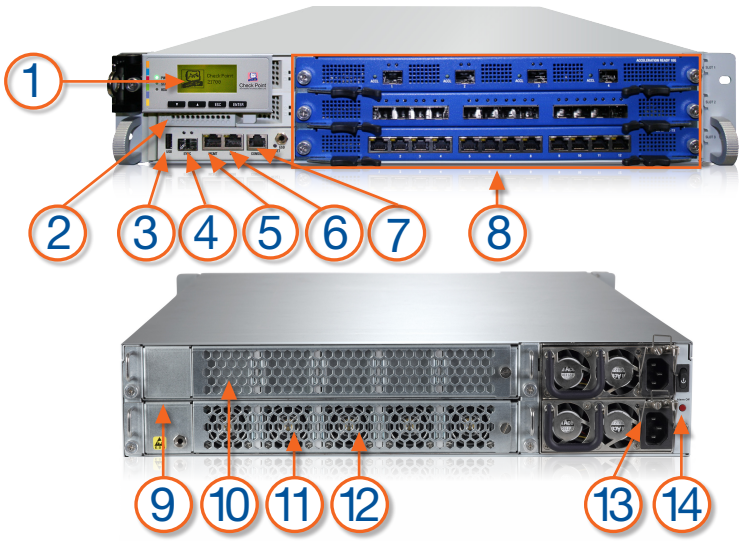
21700

1. Graphic LCD display for IP address and image management
2. Two hot-swappable 500GB RAID-1 hard drives
3. One USB port for ISO installation
4. Sync port 10GBase-F SFP+ (SR Transceiver included)
5. Management port 10/100/1000Base-T RJ45
6. Lights Out Management card
7. Console port RJ45
8. Three network card expansion slots (default one 12 x 10/100/1000Base-T port card)
9. Removable mother board
10. Security Acceleration Module slot
11. Removable fans
12. 16GB RAM upgrade (optional)
13. Two redundant hot-swappable AC power supplies
14. Telescopic rails

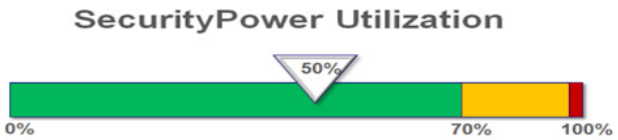


Furthermore, the 21700 also has a slot for an optional Security Acceleration Module. In addition to hot-swappable redundant disk drives and power supply units, the 21700 appliance also supports Lights-Out-Management (LOM) for remote support and maintenance capabilities. The 21700 Appliance is a highly serviceable chassis. Access to all components is easily available from the front and the back of the unit when mounted in the rack.

SECURITYPOWER

Until today security appliance selection has been based upon selecting specific performance measurements for each security function, usually under optimal lab testing conditions and using a security policy that has one rule. Today customers can select security appliances by their SecurityPower ratings which are based on real-world customer traffic, multiple security functions and a typical security policy.

SecurityPower is a new benchmark that measures the capability and capacity of an appliance to perform multiple advanced security functions (Software Blades) such as IPS, DLP and Application Control in real world traffic conditions. This provides an effective metric to better predict the current and future behavior of appliances under security attacks and in day-to-day operations. Customer SecurityPower Unit (SPU) requirements, determined using the Check Point Appliance Selection Tool, can be matched to the SPU ratings of Check Point Appliances to select the right appliance for their specific requirements.



SECURITY ACCELERATION MODULE

The optional Check Point Security Acceleration Module (SAM-108) for the 21000 Appliances is ideal for latency-sensitive applications such as financial trading and VoIP communication. With sub 5 micro-seconds firewall latency, this purpose-built acceleration module boasts 108 SecurityCores™ accelerating traffic on all interface ports with a single SAM-108. Performance for the 21700 appliance is boosted to 110 Gbps of firewall throughput and 300,000 connections per second and 50 Gbps of VPN throughput.

The 21700 Appliance may be purchased with a Security Acceleration Module bundle pre-installed resulting in a significant cost savings. Included in the SAM-108 bundle is one 4 x 10 GbE Acceleration Ready card instead of the default 12 x 1 GbE network interface card.

INTEGRATED SECURITY MANAGEMENT

The appliance can either be managed locally with its available integrated security management or via central unified management. Using local management, the appliance can manage itself and one adjacent appliance for high availability purposes.

ALL-INCLUSIVE SECURITY SOLUTIONS

The Check Point 21700 Appliance offers a complete and consolidated security solution based on the Check Point Software Blade architecture. The appliance is available in four Software Blade packages and extensible to include additional Software Blades for further security protection.

Next Generation Firewall (NGFW): identify and control applications by user and scan content to stop threats—with IPS and Application Control.
Secure Web Gateway (SWG): enables secure use of Web 2.0 with real time multi-layered protection against web-borne malware—with Application Control, URL Filtering, Antivirus and SmartEvent.

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Next Generation Data Protection (NGDP): preemptively protect sensitive information from unintentional loss, educate users on proper data handling policies and empower them to remediate incidents in real-time - with IPS, Application Control and DLP.
Next Generation Threat Prevention (NGTP): apply multiple layers of protection to prevent sophisticated cyber-threats—with IPS, Application Control, Antivirus, Anti-Bot, URL Filtering and Email Security.

BUSINESS CONTINUITY, RELIABILITY AND EXTENSIBILITY

The Check Point 21700 appliance delivers business continuity and serviceability through features such as hot-swappable redundant power supplies, hot-swappable redundant hard disk drives (RAID), redundant fans and an advanced LOM card for out-of-band management. Combined together, these features ensure a greater degree of business continuity and serviceability when these appliances are deployed in the customer's networks.

REMOTE ACCESS CONNECTIVITY FOR MOBILE DEVICES

The 21700 appliance arrives with mobile access connectivity for 5 users, using the Mobile Access Blade. This license enables secure remote access to corporate resources from a wide variety of devices including smartphones, tablets, PCs, Mac and Linux.

REMOTE PLATFORM MANAGEMENT AND MONITORING

A Lights-Out-Management (LOM) card provides out-of-band remote management to remotely diagnose, start, restart and manage the appliance from a remote location. Administrators can also use the LOM web interface to remotely install an OS image from an ISO file.

GAiA—THE UNIFIED SECURITY OS

Check Point GAiA™ is the next generation Secure Operating System for all Check Point appliances, open servers and virtualized gateways. GAiA combines the best features from IPSO and SecurePlatform into a single unified OS providing greater efficiency and robust performance. By upgrading to GAiA, customers will benefit from improved appliance connection capacity and reduced operating costs. With GAiA, customers will gain the ability to leverage the full breadth and power of all Check Point Software Blades. GAiA secures IPv4 and IPv6 networks utilizing the Check Point Acceleration & Clustering technology and it protects the most complex network environments by supporting dynamic routing protocols like RIP, OSPF, BGP, PIM (sparse and dense mode) and IGMP. As a 64-Bit OS, GAiA increases the connection capacity of select appliances.

GAiA simplifies management with segregation of duties by enabling role-based administrative access. Furthermore, GAiA greatly increases operation efficiency by offering Automatic Software Updates. The intuitive and feature-rich Web interface allows for instant search of any commands or properties. GAiA offers full compatibility with IPSO and SecurePlatform command line interfaces, making it an easy transition for existing Check Point customers.

TECHNICAL SPECIFICATIONS

Base Configuration
1 on-board 10/100/1000Base-T RJ45
1 on-board 10GbE SFP+ (SR Transceiver included)
12 x 10/100/1000BaseT RJ45 NIC (default) or 4 x 10GbE SFP+ Acceleration Ready NIC (with SAM-108 bundle)
Security Acceleration Module (with SAM-108 bundle)
16 GB Memory
Redundant dual hot-swappable Power Supplies
Redundant dual hot-swappable 500GB Hard Drives
LOM card
Telescopic rails (26" - 35")
Network Expansion Slot Options (3 slots)
12 x 10/100/1000Base-T RJ45 ports
12 x 1000Base-F SFP ports
4 x 10GBase-F SFP+ ports
Max Configuration
Up to 37 x 10/100/1000Base-T RJ45 ports
Up to 36 x 1000Base-F SFP ports
Up to 13 x 10GBase-F SFP+ ports
32 GB RAM

Production Performance[2]
2922 - 3551[1] SecurityPower
25.4 Gbps firewall throughput
4.1 Gbps firewall and IPS throughput
RFC 3511, 2544, 2647, 1242 Performance Tests (LAB)
78 - 110[1] Gbps of firewall throughput, 1518 byte UDP
11 - 50[1] Gbps of VPN throughput, AES-128
25 Gbps of IPS throughput, IPS Default profile, IMIX traffic blend
8 Gbps of IPS throughput, IPS Recommended profile, IMIX traffic blend
6/13[3] million concurrent connections, 64 byte response
170,000/300,000[1] connections per second, 64 byte response
Network Connectivity
IPv4 and IPv6
1024 VLANs
256 VLANs per interface
802.3ad passive and active link aggregation
Layer 2 (transparent) and Layer 3 (routing) mode

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High Availability
Active/Active - L3 mode
Active/Passive - L3 mode
Session synchronization for firewall and VPN
Session failover for routing change
Device failure detection
Link failure detection
ClusterXL or VRRP
Virtual Systems
Max VSs: 150 (w/16GB), 250 (w/32GB)
Dimensions
Enclosure: 2RU
Standard (W x D x H): 17 x 28 x 3.5 in.
Metric (W x D x H): 431 x 710 x 88 mm
Weight: 26 kg (57.4 lbs.)
Power Requirements
AC Input Voltage: 100-240V
Frequency: 47-63Hz
Single Power Supply Rating: 1200W
Power Consumption Maximum: 489W/784W[1]
Maximum thermal output: 1669.4 BTU/2673.4 BTU[1]

Operating Environmental Conditions
Temperature: 32°to104°F / 0° to 40°C
Humidity: 20%-90% (non-condensing)
Storage Conditions
Temperature: –4° to 158°F / –20° to 70°C
Humidity: 5% to 95% at 60°C (non-condensing)
Certifications
Safety: UL/cULT
Emissions: FCC, CE
Environmental: RoHS

[1] With Security Acceleration Module
[2] Maximum production performance based upon the SecurityPower benchmark. Real-world traffic, Multiple Software Blades, Typical rule-base, NAT and Logging enabled. Check Point recommends 50% SPU utilization to provide room for additional Software Blades and future traffic growth. Find the right appliance for your performance and security requirements using the Appliance Selection Tool.
[3] With the Gaia OS and memory upgrade

SOFTWARE PACKAGE SPECIFICATIONS

Base System[1]	SKU
21700 Next Generation Firewall Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS and APCL Blades); bundled with local management for up to 2 gateways.	CPAP-SG21700-NGFW
21700 Next Generation Firewall Appliance bundle with with CPAC-SAM108 and one CPAC-ACCL-4-10F-21000, pre-installed instead of the default CPAC-12-1C-21000.	CPAP-SG21700-NGFW-SAM-BUN
Secure Web Gateway 21700 Appliance (with FW, VPN, ADNC, IA, APCL, AV and URLF Blades); bundled with local management and SmartEvent for up to 2 gateways.	CPAP-SWG21700
21700 Next Generation Data Protection Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS, APCL, and DLP Blades); bundled with local management for up to 2 gateways.	CPAP-SG21700-NGDP
21700 Next Generation Threat Prevention Appliance (with FW, VPN, ADNC, IA, MOB-5, IPS, APCL, URLF, AV, ABOT and ASPM Blades); bundled with local management for up to 2 gateways.	CPAP-SG21700-NGTP
Software Blades Packages[1]	**SKU**
21700 Next Generation Firewall Appliance Software Blade package for 1 year (IPS and APCL Blades)	CPSB-NGFW-21700-1Y
Secure Web Gateway 21700 Appliance Software Blade package for 1 year (APCL, AV and URLF Blades)	CPSB-SWG-21700-1Y
21700 Next Generation Data Protection Appliance Software Blade package for 1 year (IPS, APCL, and DLP Blades)	CPSB-NGDP-21700-1Y
21700 Next Generation Threat Prevention Appliance Software Blade package for 1 year (IPS, APCL, URLF, AV, ABOT and ASPM Blades)	CPSB-NGTP-21700-1Y

[1] SKUs for 2 and 3 years are available, see the online Product Catalog.

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Software Blades[1]	SKU
Check Point Mobile Access Blade for unlimited concurrent connections	CPSB-MOB-U
Data Loss Prevention Blade for 1 year (for 1,500 users and above, up to 250,000 mails per hour and max throughput of 2.5 Gbps)	CPSB-DLP-U-1Y
Check Point IPS blade for 1 year	CPSB-IPS-XL-1Y
Check Point Application Control blade for 1 year	CPSB-APCL-XL-1Y
Check Point URL Filtering blade for 1 year	CPSB-URLF-XL-1Y
Check Point Antivirus Blade for 1 year	CPSB-AV-XL-1Y
Check Point Anti-Spam & Email Security Blade for 1 year	CPSB-ASPM-XL-1Y
Check Point Anti-Bot blade for 1 year - for ultra high-end appliances and pre-defined systems	CPSB-ABOT-XL-1Y
Virtual Systems Packages	**SKU**
50 Virtual Systems package	CPSB-VS-50
50 Virtual Systems package for HA/VSLS	CPSB-VS-50-VSLS
25 Virtual Systems package	CPSB-VS-25
25 Virtual Systems package for HA/VSLS	CPSB-VS-25-VSLS
10 Virtual Systems package	CPSB-VS-10
10 Virtual Systems package for HA/VSLS	CPSB-VS-10-VSLS

ACCESSORIES

Interface Cards and Transceivers	SKU
Security Acceleration Module	CPAC-SAM108
4 Port 10GBase-F SFP+ Acceleration Ready interface card	CPAC-ACCL-4-10F-21000
12 Port 10/100/1000 Base-T RJ45 interface card	CPAC-12-1C-21000
12 Port 1000Base-F SFP interface card; requires additional 1000Base SFP transceiver modules per interface port	CPAC-12-1F-21000
SFP transceiver module for 1G fiber ports - long range (1000Base-LX) for CPAC-12-1F network interface card	CPAC-TR-1LX-21000
SFP transceiver module for 1G fiber ports - short range (1000Base-SX) for CPAC-12-1F network interface card	CPAC-TR-1SX-21000
SFP transceiver to 1000 Base-T RJ45 (Copper) for CPAC-12-1F	CPAC-TR-1T-21000
4 Port 10GBase-F SFP+ interface card; requires an additional 10GBase SFP+ transceiver per interface port	CPAC-4-10F-21000
SFP+ transceiver module for 10G fiber ports - long range (10GBase-LR) for CPAC-4-10F-21000 network interface card	CPAC-TR-10LR-21000
SFP+ transceiver module for 10G fiber ports - short range (10GBase-SR) for CPAC-4-10F-21000 network interface card	CPAC-TR-10SR-21000
Spares and Miscellaneous	
32 GB RAM Memory upgrade for 21700 appliance	CPAC-RAM32GB-21700
Replacement parts kit (including 1 Hard Disk Drive, one Power Supply, one Fan) for 21700 appliance	CPAC-SPARES-21700
Replacement AC Power Supply for 21700 appliance	CPAC-PSU-21700
Replacement 500G Hard Disk Drive for 21700 appliance	CPAC-HDD-500G-21000

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