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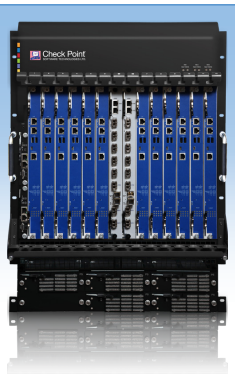

61000

Multi-Blade hardware architecture provides scalable performance for data centers and telecommunication companies

61000 Security System

Large data centers and telecommunication infrastructures have non-compromising needs for performance, uptime and scalability. High end security gateway solutions must perform network access control within the unique requirements of these environments—ultra-high throughput, connection capacity, session and logging rate—while supporting the latest networking standards like IPv6. With the increase in sophisticated attacks, additional security layers such as Identity Awareness, IPS, Application Control, URL Filtering, Antivirus and others are also required.

In addition to their vast performance and security needs, the telecommunication and data center environments are characterized by rigid requirements for high reliability of its various systems. All of these requirements drive the need for redundant, serviceable and highly available components and systems.

The Check Point 61000 Telco-grade network appliance is built for these demanding environments and is based upon the award winning and proven technologies used by Fortune 100 companies and telecommunication vendors all over the world. The Check Point Firewall, IPS and Application Control and Identity Awareness technologies have been awarded the highest certification possible in the industry.

OVERVIEW

The Check Point 61000 Security System is the industry's fastest security system, offering scalable performance for data centers and telecommunication companies. It's based on a multi-bladed hardware platform that is capable of an unprecedented performance of more than 1 Tbps of firewall throughput, and achieves over 200 Gbps in 2011. Even more, the ability to support 70 million concurrent connections and 600,000 sessions per second brings unparalleled performance to multi-transaction environments.

The 61000 Security System is an ATCA compliant, scalable system that can contain up to 12 hardware Security Gateway Modules and 2 hardware Security Switch Modules. With flexibility in the number of hardware Security Gateway Modules utilized, the system can provide a throughput range from 40 to 200 Gbps in a single firewall instance.

Offering lightning-fast security performance, the 61000 Security System delivers a SecurityPower™ range starting at 3,000 units and growing up to 14,600 units with 12 modules. In addition to its performance scalability, the 61000 Security System, based on the Check Point Software Blade Architecture, can be widely extended by adopting new and additional software blades.

FEATURES

- 14600 SecurityPower™
- High performance, scalable security solution to 200 Gbps of firewall throughput
- High port density with up to 32x10GbE SFP+ ports, 4x40GbE QSFP
- Intra / Dual-Chassis Redundancy
- SNMP-based device monitoring
- Role-based administration
- Carrier grade ATCA compliant chassis

BENEFITS

- Designed for fast deployment
- Full redundancy eliminates down-time (No Single Point of Failure)
- High port density with up to 32 x 10GBase-Fiber ports, 4 x 40GBase-Fiber ports
- Scalable platform and performance grows as your business grows

GATEWAY SOFTWARE BLADES

	GATEWAY MODE	VS MODE
Firewall	■	■
IPsec VPN	■	■
Identity Awareness	■	■
Advanced Networking	■	■
Acceleration & Clustering	■	■
IPS	*	*
Application Control	*	*
URL Filtering	*	*
Antivirus	*	*
Anti-Bot	*	*
Mobile Access	*	*
DLP	*	N/A

*Optional

softwareblades™

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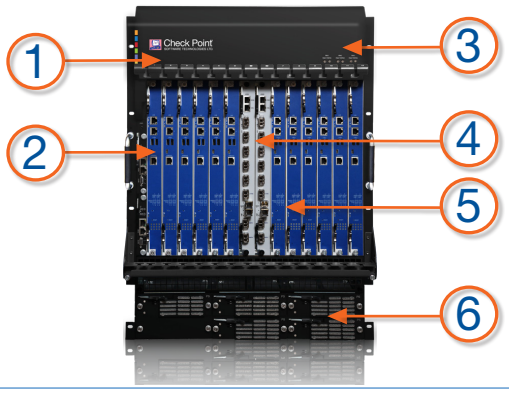
1. 61000 chassis
2. Chassis Management Module (CMM)
3. Fans (6 in the chassis)
4. Security Switch Module (SSM60 or SSM160)
5. Security Gateway Module (SGM220 or SGM220T)
6. Power Supply (AC or DC)

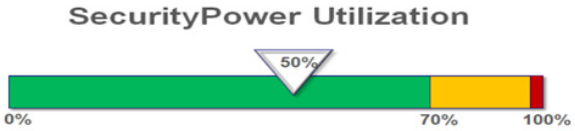


The 61000 Security System has been designed from the ground up to support the unique service requirements of Telcos and data centers. This includes system level redundancy and chassis level redundancy of the components that comprise the 61000: power-supplies, fans and the various hardware modules.

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.



BUSINESS CONTINUITY AND RELIABILITY

The Check Point 61000 system delivers business continuity and serviceability through features such as hot-swappable redundant power supplies.

Two redundant **Security Switch Modules (SSM)** provide the switching fabric, physical interfaces and routing functions for the 61000 Security System.

Two redundant **Chassis Management Modules (CMM)** continuously check and monitor the health of the chassis including fans, power supplies and Security Gateway Modules (SGM). The CMM also enables control of power to the SGM and SSM modules.

For optimal reliability, Check Point ClusterXL in High Availability and Load Sharing modes operates between Security Gateway Modules in one chassis. Check Point SyncXL provides for highly efficient synchronization of system and security information between components in order to ensure high system performance. Two 61000 chassis operate in High Availability mode to eliminate down-time.

EXTENSIBLE PLATFORM AND SOFTWARE

From two to twelve **Security Gateway Modules (SGM)** enforce the Software Blade security policies and scale with your business. Additional security controls can be added by enabling optional Software Blades.

VIRTUAL SYSTEMS

Check Point Virtual Systems enable organizations to harness the power of the 61000 by creating up to 250 virtualized security gateways to consolidate infrastructure and segment the network while reducing costs and offering customized per-Virtual System Software Blade security. The solution supports seamless performance scale-up by adding more Virtual Systems and hardware blades, with traffic evenly balanced across the entire chassis.

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.

softwareblades™

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TECHNICAL SPECIFICATIONS

Chassis

Dimensions

Enclosure: 14RU/15RU[1]

Standard (W x D x H): 17.5 x 15.16 x 24.3 in.

Metric (W x D x H): 445 x 385 x 618.3 mm

Weight (Chassis, 5 PSUs, fans, 2 CMM): 38 kg (83.78 lbs)

Weight (Chassis, 5 PSUs, fans, 2 CMM, 12 SGM, 2 SSM): 90 kg (198.4 lbs)

Operating Environmental Conditions

Temperature: 23° to 131°F / –5° to 55°C

Humidity: 5%-90% (non-condensing)

Storage Conditions

Temperature: –40° to 158°F / –40° to 70°C

Humidity: 5%-95% (non-condensing)

Certifications

Safety: CE, UL, TUV

Emissions: CE, FCC part 15

Environmental: SGM220T designed for NEBS level 3 and ETSI compatibility

AC Power Requirements

AC Input Voltage: 100-240VAC

Frequency: 47-63Hz

Single Power Supply Rating: 1200W @ 110V, 1500W @ 220V

DC Power Requirements

DC Input: 48 VDC/60 VDC, four feeds per module, designed to carry 50 Amp per feed

Power Consumption Maximum

5 KW per chassis

Production Performance[3]

Up to 14600 SecurityPower

Up to 140 Gbps firewall throughput

Up to 26 Gbps firewall and IPS throughput

RFC 3511, 2544, 2647, 1242 performance tests (LAB)

Up to 200 Gbps firewall throughput, 1518 byte UDP

Up to 110 Gbps IPS Default profile, IMIX traffic blend

Up to 40 Gbps IPS Recommended profile, IMIX traffic blend

Up to 70 million concurrent connections, 64 byte HTTP response

Up to 600,000 connections per second, 64 byte HTTP response

Virtual Systems

Max VSs: 250

Security Switch Module (SSM) 2 per chassis

SSM60

6 x10GBase-F XFP

50 Gbps throughput

Management interface ports:

- 2 x 10GBase-F XFP
- 2 x 1000Base-F SFP

SSM160

8 x 10GBase-F SFP+ ports

2 x 40GBase-F QSFP ports—can be split to 8 x 10GBase-F

100 Gbps throughput

Management interface ports:

- 2 x 10GBase-F SFP+
- 2 x 1000Base-F SFP+

Security Gateway Module (SGM) 2 to 12 per chassis

SGM220/SGM220T[2]

12 GB Memory

Software Edition R75.x 64 bit

1660 SecurityPower

18 Gbps per module

Up to 60K connections per second

Accessories

Chassis Management Module (CMM) 2 per chassis

Manage and monitor the chassis and all modules; SGM and SSM

Fully redundant

Cooling Fans

6 per chassis

Power Supplies

Redundant hot-swappable

2 x DC

5 x AC

Transceivers

QSFP: 40GBase-F QSFP splitter to 4x10GBase-F SFP (SSM160)

QSFP: 40GBase-F QSFP short range (SSM160)

SFP+:10GBase-F SFP+ short range and long range (SSM160)

XFP: 10GBase-F XFP short range and long range (SSM60)

SFP: 1000Base-F SFP short range and long range (SSM60, SSM160)

SFP: 1000Base-T RJ45 SFP (SSM60, SSM160)

Memory (for SGM)

12 GB upgrade option

[1] 15RU with additional 1RU Power supply expansion

[2] Designed for NEBS level 3

[3] 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.

SOFTWARE BLADE PACKAGE SPECIFICATIONS

Base Systems	SKU
61000 Security System with base configuration (including Chassis, 2xCMM, 2xSSM60, 2xSGM220, 6 fans, and AC Power Supplies; and with 5 Software blades (Firewall, VPN, Identity Awareness, Advanced Networking, Acceleration & Clustering blades)	CPAP-SG61005-BASE
61000 Appliance with base configuration (including Chassis, 2xCMM, 2xSSM60, 2xSGM220, 6 fans, and DC Power Supplies); and with 5 Software blades (Firewall, VPN, Identity Awareness, Advanced Networking, Acceleration & Clustering blades)	CPAP-SG61005-BASE-DC
Software Blades	**SKU**
Check Point IPS blade for 1 year	CPSB-IPS-XXL
Check Point URL Filtering blade for 1 year	CPSB-URLF-XXL
Check Point Application Control blade for 1 year for 61000 Security System	CPSB-APCL-XXL
Check Point Mobile Access Blade for unlimited concurrent connections	CPSB-MOB-U
Check Point Anti-Bot blade for 1 year for 61000 Security System	CPSB-ABOT-XXL-1Y
Check Point Antivirus blade for 1 year for 61000 Security System	CPSB-AV-XXL
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

Security Switch Modules	SKU
Security Switch Module SSM60 for 61000 System with 6x10GbE fiber ports	CPAP-SSM60
XFP transceiver module for 10G fiber ports - long range (10GBase-LR) for CPAC-SSM60	CPAC-TR-10LR-SSM60-XFP
XFP transceiver module for 10G fiber ports - short range (10GBase-SR) for CPAC-SSM60	CPAC-TR-10SR-SSM60-XFP
SFP transceiver module for 1G fiber ports - long range (1000Base-LX) for CPAC-SSM60	CPAC-TR-1LX-SSM60-SFP
SFP transceiver module for 1G fiber ports - short range (1000Base-SX) for CPAC-SSM60	CPAC-TR-1SX-SSM60-SFP
1000Base-T (RJ45) transceiver to use with 1G SFP ports on CPAC-SSM60	CPAC-TR-1T-SSM60-SFP
Security Switch Module SSM160 for 61000 System with 8x10GbE and 2x40GbE fiber ports	CPAP-SSM160
SFP+ transceiver module for 10G fiber ports - long range (10GBase-LR) for CPAC-SSM160	CPAC-TR-10LR-SSM160-SFP+
SFP+ transceiver module for 10G fiber ports - short range (10GBase-SR) for CPAC-SSM160	CPAC-TR-10SR-SSM160-SFP+
QSFP transceiver module for 40G fiber ports - short range (40GBase-SR4) for CPAC-SSM160	CPAC-TR-40SR-SSM160-QSFP
QSFP transceiver module for 40G fiber ports - long range (40GBase-LR4) for CPAC-SSM160	CPAC-TR-40LR-SSM160-QSFP
QSFP splitter module for 40G fiber ports - short range for CPAC-SSM160	CPAC-TR-40SPLIT-QSFP-SR
SFP transceiver for 1G fiber port - short range (1000Base-SR) for CPAC-SSM160	CPAC-TR-1SR-SSM160-SFP
SFP transceiver for 1G fiber port - long range (1000Base -LX) for CPAC-SSM160	CPAC-TR-1LX-SSM160-SFP
1000Base-T (RJ45) transceiver to use with 10G SFP+ ports on CPAC-SSM160	CPAC-TR-1T-SSM160-SFP+
Security Gateway Modules	**SKU**
Check Point Security Gateway Module SGM220	CPAP-SGM220
Check Point Security Gateway Module SGM220T (NEBS ready)	CPAP-SGM220T
Security Gateway Module SGM220 with 24GB RAM and NEBS	CPAP-SGM220T-24GB
Security Gateway Module SGM220 and 24GB RAM	CPAP-SGM220-24GB

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Miscellaneous	SKU
Memory upgrade to 24GB RAM for CPAC-SGM220 and CPAC-SGM220T	CPAC-RAM24GB-SGM
Check Point 61000 Chassis	CPAC-CHASSIS-61000
Check Point 61000 Chassis with DC Power Supplies and 6 Fans	CPAC-CHASSIS-61000-DC
Additional/replacement 61000 Chassis Management Module CMM 100	CPAC-CMM100
Replacement parts kit (including one AC Power Supply, one Fan) for 61000 Security System	CPAC-SPARE-61000
Replacement parts kit (including one DC Power Supply, one Fan) for 61000 appliance	CPAC-SPARE-61000-DC
Replacement AC Power Supply for 61000 Security System	CPAC-PSU-L-AC-61000
Replacement DC Power Supply for 61000 Security System	CPAC-PSU-DC-61000
Replacement fan for 61000 Security System	CPAC-SPARE-FAN

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