

# QUANTUM 16000 SECURITY GATEWAY



## Quantum Security Gateway™ Advantage

Protect larger environments

Greater resilience, faster operations

Handle more workloads

**Check Point Quantum 16000 Next Generation Firewalls** enables enterprises to deploy the industry's leading threat prevention capabilities at all points of their infrastructure, scaling security almost infinitely according to their changing business needs. It also dramatically accelerates the efficiency of their security operations. This enables enterprises to prevent and block even the most advanced attacks, before they can disrupt business.



### Always Protected against Gen V Attacks

Highest caliber prevention  
with unified security



### Security at Hyperscale

On-demand expansion  
with hyperscalability



### Efficient Operations

Cut operation management  
time by up to 80%

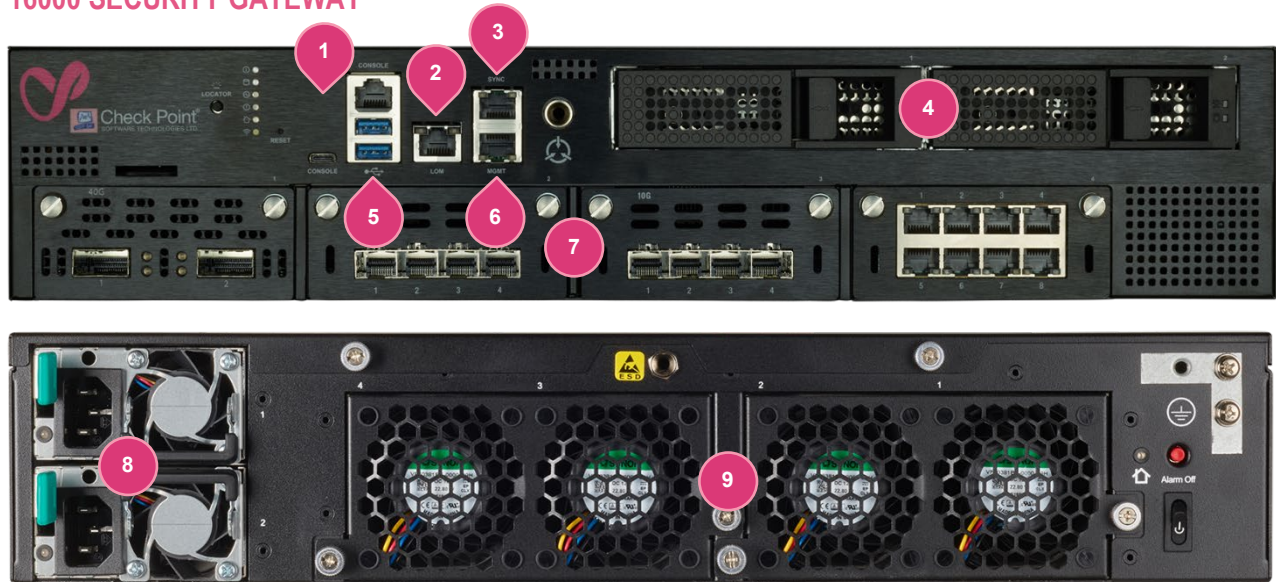
## PERFORMANCE HIGHLIGHTS

Gen II Security Firewall	Gen III Security NGFW <sup>1</sup>	Gen V Security Threat Prevention + SandBlast <sup>2</sup>
58 Gbps	20 Gbps	12 Gbps

Performance measured with enterprise testing conditions. Additional performance details on page 3. 1: Includes Firewall, Application Control, and IPS. 2: Includes Firewall, Application Control, URL Filtering, IPS, Antivirus, Anti-Bot and SandBlast Zero-Day Protection.

## SPOTLIGHT

### 16000 SECURITY GATEWAY



- |                                  |   |
|----------------------------------|---|
| 1. RJ45, USB Type-C console port | 6. Management 10/100/1000 Base-T port   |
| 2. Lights-out Management port    | 7. Four network card expansion slots    |
| 3. Sync 10/100/1000 Base-T port  | 8. 2x redundant hot-swap power supplies |
| 4. 2x 480GB SSD RAID1            | 9. 4x field replaceable fans            |
| 5. 2x USB 3.0 ports              |   |

#### Prevent Known and Zero-day Threats

Zero-day protection offering network security with evasion-resistant malware detection and complete protection from the most advanced attacks, ensuring quick delivery of safe content to users.

#### High Performance Options

Purchase the affordable Plus package and get a base system plus two 4x 10Gb interface cards, transceivers, 2x AC power supplies, 2x 480 GB SSD drives and 64 GB of memory for high connection capacity.

	NGFW	NGTP	SNBT
Firewall, VPN, Mobile Access	✓	✓	✓
Content Awareness	✓	✓	✓
Application Control	✓	✓	✓
Intrusion Prevention System	✓	✓	✓
URL Filtering		✓	✓
Antivirus and Anti-Bot		✓	✓
Threat Emulation (sandboxing)			✓
Threat Extraction (CDR)			✓

Next Generation Firewall, Next Generation Threat Prevention and Threat Prevention + SandBlast packages



#### All-inclusive Security Solutions

Check Point 16000 security gateways include all security technologies including the SandBlast (sandboxing) software package for one year. Purchase a renewal for NGFW, NGTP or SandBlast (SNBT) for subsequent years as you like.

#### 100, 40 and 25 GbE Connectivity

If you're ready to move from 10 to 25, 40 or 100 GbE, so is the 16000 Next Generation Security Gateway. The 16000 Security Gateway lets you connect your 10 GbE server uplinks to your core network.

## DATA CENTER GRADE PLATFORM

	1 GbE copper	1 GbE fiber	10 GbE	40 GbE	100/25 GbE	Memory	Redundant Storage	Redundant Power	LOM
Base model	10	0	0	0	0	32 GB	○	○	○
Plus model	10	0	8	0	0	64 GB	●	●	●
Max capacity	34	16	16	8	8	128 GB	●	●	●

○ optional accessory

## SPECIFICATIONS

### Performance

#### Enterprise Test Conditions

Threat Prevention <sup>1</sup> (Gbps)	12
NGFW <sup>2</sup> (Gbps)	20
IPS (Gbps)	21
Firewall (Gbps)	58

#### RFC 3511, 2544, 2647, 1242 PERFORMANCE (LAB)

Firewall 1518B UDP (Gbps)	118
VPN AES-128 (Gbps)	17
Connections/sec	375,000
Concurrent connections <sup>3</sup>	8/16/32

1. Includes Firewall, Application Control, URL Filtering, IPS, Antivirus, Anti-Bot and SandBlast Zero-Day Protection.

2. Includes Firewall, Application Control and IPS. 3. Performance measured with Base/Plus/maximum memory.

### Additional Features

#### Highlights

- 2x CPUs, 16 physical cores, 32 virtual cores
- 1x 1TB HDD or 480 GB SSD (2x in Plus)
- 1x AC power supplies, 2x in Plus (DC option)
- 32, 64 GB, 128 GB memory options
- Lights-Out-Management card (optional in Base package)
- Virtual Systems (Base/Plus/max mem): 60/250/250

#### Network Expansion Slot Options (2 of 4 slots open)

- 8x 10/100/1000Base-T RJ45 port card, up to 34 ports
- 4x 1000Base-F SFP port card, up to 16 ports
- 4x 10GBase-F SFP+ port card, up to 16 ports
- 2x 40G QSFP+ port card, up to 8 ports
- 2x 100/25G QSFP28 port card, up to 8 ports

### Content Security

#### First Time Prevention Capabilities

- CPU-level, OS-level and static file analysis
- File disarm and reconstruction via Threat Extraction
- Average emulation time for unknown files that require full sandbox evaluation is under 100 seconds
- Maximal file size for Emulation is 100 MB
- Emulation OS Support: Windows XP, 7, 8.1, 10

#### Applications

- Use 8,000+ pre-defined or customize your own applications
- Accept, prevent, schedule, and apply traffic-shaping

#### Data Loss Prevention

- Classify 700+ pre-defined data types
- End user and data owner incident handling

### Content Security (continued)

#### Dynamic User-based Policy

- Integrates with Microsoft AD, LDAP, RADIUS, Cisco pxGrid, Terminal Servers and with 3<sup>rd</sup> parties via a Web API
- Enforce consistent policy for local and remote users on Windows, macOS, Linux, Android and Apple iOS platforms

### Network

#### Network Connectivity

- Total physical and virtual (VLAN) interfaces per appliance: 1024/4096 (single gateway/with virtual systems)
- 802.3ad passive and active link aggregation
- Layer 2 (transparent) and Layer 3 (routing) mode

#### High Availability

- Active/Active L2, Active/Passive L2 and L3
- Session failover for routing change, device and link failure
- ClusterXL or VRRP

#### IPv6

- NAT66, NAT64, NAT46
- CoreXL, SecureXL, HA with VRRPv3

#### Unicast and Multicast Routing (see SK98226)

- OSPFv2 and v3, BGP, RIP
- Static routes, Multicast routes
- Policy-based routing
- PIM-SM, PIM-SSM, PIM-DM, IGMP v2, and v3

### Physical

#### Power Requirements

- Single Power Supply rating: 1300W
- Power input: 100 to 240V (47-63Hz), 40~72VDC
- Power consumption avg/max<sup>1</sup>: AC261W/392W
- Maximum thermal output AC<sup>1</sup>: 1048 BTU/hr.

<sup>1</sup>. base configuration, up to 800W/1337.6 BTU/hr. with max config

#### Dimensions

- Enclosure: 2RU
- Dimensions (WxDxH): 17.4 x 24 x 3.5 in. (442 x 610 x 88mm)
- Weight: 39.7 lbs. (18 kg)

#### Environmental Conditions

- Operating: 0° to 40°C, humidity 5% to 95%
- Storage: -20° to 70°C, humidity 5% to 95% at 60°C

#### Certifications

- Safety: UL, CB, CE, TUV GS
  - Emissions: FCC, CE, VCCI, RCM/C-Tick
  - Environmental: RoHS, WEEE, REACH<sup>1</sup>, ISO14001<sup>1</sup>
- <sup>1</sup>. factory certificate

## ORDERING QUANTUM 16000 SECURITY GATEWAYS

SECURITY APPLIANCE <sup>1</sup>	SKU
16000 Base configuration: 10x 1GbE copper ports, 32 GB RAM, 1x 1TB HDD, 1x AC PSUs., SandBlast (SNBT) Security Subscription Package for 1 Year, (the HDD option supports local/standalone management for 2 Gateways).	CPAC-SG16000-SNBT
16000 Plus model configuration: 10x 1GbE copper ports, 8x 10GbE SFP+ ports, 8x SR transceivers, 64 GB RAM, 2x 480GB SSD, 2x AC PSU, LOM, 5 Virtual Systems, SandBlast (SNBT) Security Subscription Package for 1 Year.	CPAC-SG16000-PLUS-SNBT
INTERFACE CARDS AND TRANSCEIVERS	
8 Port 10/100/1000 Base-T RJ45 interface card	CPAC-8-1C-C
4 Port 1000Base-F SFP interface card; requires additional 1000Base SFP transceivers	CPAC-4-1F-C
SFP transceiver module for 1G fiber ports - long range (1000Base-LX)	CPAC-TR-1LX-C
SFP transceiver module for 1G fiber ports - short range (1000Base-SX)	CPAC-TR-1SX-C
SFP transceiver to 1000 Base-T RJ45 (Copper)	CPAC-TR-1T-C
4 Port 10GBase-F SFP+ interface card	CPAC-4-10F-C
SFP+ transceiver module for 10G fiber ports - long range (10GBase-LR)	CPAC-TR-10LR-C
SFP+ transceiver module for 10G fiber ports - short range (10GBase-SR)	CPAC-TR-10SR-C
10G Direct Attach Copper (DAC) Cable, one meter (10BASE-CU)	CPAC-DAC-10G-1M
10G Direct Attach Copper (DAC) Cable, three meters (10BASE-CU)	CPAC-DAC-10G-3M
2 Port 40G QSFP28 interface card	CPAC-2-40F-C
QSFP+ transceiver module for 40G fiber ports - short range (40GBase-SR)	CPAC-TR-40SR-QSFP-300m
QSFP+ transceiver module for 40G fiber ports - long range (40GBase-LR)	CPAC-TR-40LR-QSFP-10Km
40G Direct Attach Copper (DAC) cable, one meter (40BASE-CR4)	CPAC-DAC-40G-1M
40G Direct Attach Copper (DAC) cable, three meters (40BASE-CR4)	CPAC-DAC-40G-3M
Bi-directional QSFP transceiver for 40G fiber Ports - short range (40GBase-SR-BD)	CPAC-TR-40SR-QSFP-BiDi
2 Port 100/25G QSFP28 interface card	CPAC-2-100/25F
QSFP28 transceiver module for 100G fiber ports - short range (100GBase-SR4)	CPAC-TR-100SR
QSFP28 transceiver module for 100G fiber ports - long range (100GBase-LR4)	CPAC-TR-100LR
SFP28 transceiver module for 25G fiber ports with QSFP28 adaptor - short range (25GBase-SR)	CPAC-TR-25SR-ADP
SFP28 transceiver module for 25G fiber ports with QSFP28 adaptor - long range (25GBase-LR)	CPAC-TR-25LR-ADP
4 Port 1GE copper Bypass (Fail-Open) Network interface card (10/100/1000 Base-T)	CPAC-4-1C-BP-C
2 Port 10GE Short-range Fiber Bypass (Fail-Open) Network interface card (10GBase-SR)	CPAC-2-10FSR-BP-C
MEMORY	SKU
Memory upgrade kit from 32GB to 64GB for 16000 Security Gateways	CPAC-RAM32GB-16000
Memory upgrade kit from 64GB to 128GB for 16000 Security Gateways	CPAC-RAM64GB-16000
Memory upgrade kit from 32GB to 128GB for 16000 Security Gateways	CPAC-RAM96GB-16000
SPARES AND MISCELLANEOUS	SKU
480GB SSD for 16000/26000 Security Gateways	CPAC-SSD-480G-C
1TB HDD for 16000/26000 Security Gateways	CPAC-HDD-1T-C
AC power supply for 16000 Security Gateways	CPAC-PSU-AC-16000
Dual DC power supplies for 16000 and 26000 Security Gateways	CPAC-PSU-DC-Dual-16000/26000
DC power supply for 16000 and 26000 Security Gateways	CPAC-PSU-DC-16000/26000
Replacement Lights-Out Management Module	CPAC-LOM-C
Replacement Fan	CPAC-FAN-16000
Slide rails for 16000 Security Gateways (22" - 32")	CPAC-RAIL-L
Extended slide rails for 16000 Security Gateways (24" - 36")	CPAC-RAIL-EXT-L

<sup>1</sup> Renewal NGFW, NGTP and SandBlast (SNBT) packages are available in the online product catalog.