Quantum Force 29100
Security Gateway

YOU DESERVE THE BEST SECURITY

Quantum
Secure the Network

Top Security Effectiveness

Check Point #1 for the 2nd year in a row with 99.8% malware block rate in Miercom Next-Generation Firewall Security Benchmark (2024)

Named a Leader by Top Analyst Firms

Forrester Wave™ for Zero Trust Platform Providers, Q3 2023
Gartner® Firewall Magic Quadrant™ (2022)

AI/ML powered Threat Prevention

Protect networks and users from zero-days, phishing, DNS, and ransomware attacks

Hyperscale Network Security

On-demand expansion, load balancing firewall clustering, and resilient access to mission-critical applications

Unified Management and Ops Efficiency

Increase protection and reduce TCO with a consolidated security architecture

Quantum 29100 firewalls deliver up to 1.4 Tbps of firewall and 47.4 Gbps of threat prevention throughput with integrated AI ML security, power efficiency and space savings in a modular 2 RU platform.

Increase the efficiency of your datacenter's security operations. Prevent even the most advanced attacks before they can infect their target. And manage your on-premises and cloud firewalls from a unified platform.

Fastest AI-Powered Threat Prevention

Network Resilience & Power Efficiency

Unified Security Management

29100 Performance Highlights

Firewall	Next Gen Firewall	Threat Prevention
365 Gbps	130 Gbps	47.4 Gbps

AI-Powered advanced security and uncompromising performance, built for data centers

Check Point Quantum Force 29100 data center firewalls deliver high threat prevention performance in a small 2 RU form factor to protect employees, networks, and data from cyber-theft. Seven network I/O slots can be configured to fit your network with a high port density of up to 56x1/10GbE, 28x10/25GbE or 14x40/100GbE port capacity.

Comprehensive and Industry-Leading Security

- Next Generation Firewall
- Site-to-Site and Remote Access VPN
- Application and Web Filtering
- Intrusion Prevention
- Antivirus and Anti-Bot
- Advanced DNS Security
- Sandboxing with file sanitization
- Zero-phishing (no agent required)

Highest Performance Threat Prevention

With the 29100, organizations can inspect encrypted traffic and prevent even the most evasive attacks without impacting internal network performance. Achieve 47.4 Gbps of threat prevention throughput or up to 1.4 Tbps of firewall throughput (UDP 1518B) with a single 2RU firewall.

Modular, High Port Density 2RU Chassis

The 29100 offers the flexibility to fit your changing network requirments. Populate seven network I/O slots with your choice of network cards: 2x40/100G, 4x10/25G and 8x1/10G. In addition, the 40/100 card benefits for ASIC based firewall acceleration.
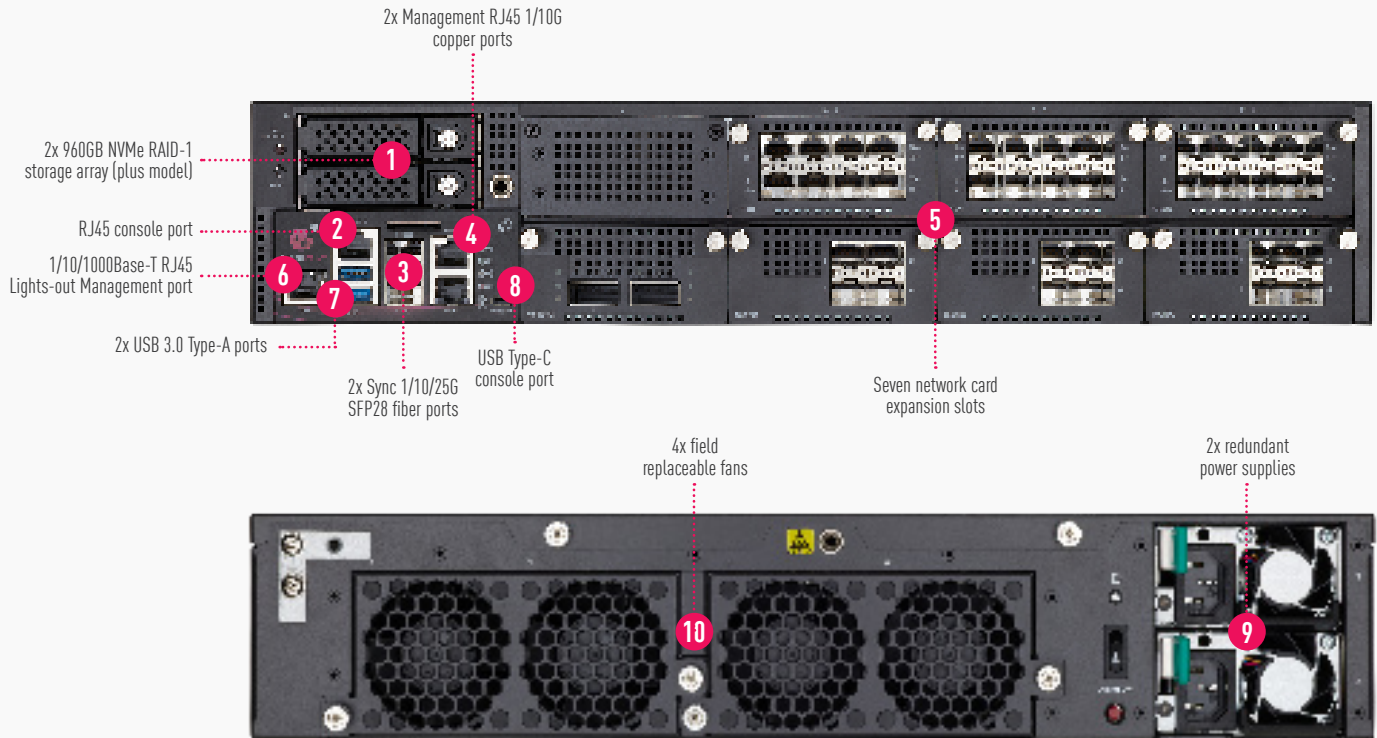

Check Point is #1 in Miercom 2024 Security Benchmark
Highest Threat Prevention Scores for 2nd year in a row

Power Efficient, Resilient Design

With a low power consumption per Gbps of threat prevention throughput, these large enterprise firewalls cut power costs in half when compared with similar firewalls from other vendors. Dual, redundant hot-swap power supplies and dual 960 GB RAID-1 NVMe storage provides complete redundancy.

Flexible, High Performance HTTPS Inspection

While commonly used for good, HTTPS traffic can also hide illegal user activity and malicious traffic. Enterprises need the ability to inspect a broad range of encrypted TLS 1.3 and HTTP/2 channels while also excluding inspection of sensitive industry traffic, such as Health Care and Financial that have special regulatory requirements. Check Point makes it easy to fine-tune HTTPS security using customizable dynamic security policies.

2x Management RJ45 1/10G
copper ports

2x 960GB NVMe RAID-1
storage array (plus model)

RJ45 console port

1/10/1000Base-T RJ45
Lights-out Management port

2x USB 3.0 Type-A ports

2x Sync 1/10/25G
SFP28 fiber ports

USB Type-C
console port

Seven network card
expansion slots

4x field
replaceable fans

2x redundant
power supplies

Specifications

Performance

Enterprise Test Conditions[1]

Threat Prevention[2] [Gbps]	47.4
NGFW[3] [Gbps]	130
IPS [Gbps]	175
Firewall [Gbps]	365

RFC 3511, 2544, 2647, 1242 Performance (Lab)

Firewall 1518B UDP [Gbps]	1,400
Firewall Latency (avg)	1.85µSec
VPN AES-GCM 1452B [Gbps]	103
Connections/sec	1,250,000
Concurrent connections (Base/Plus/Max)	30M/48M/67M

HTTP/TLS Inspection Performance

Threat Prevention[1,2] [Gbps]	24.36
Threat Prevention[2] web mix[4] [Gbps]	14.6
IPS web mix[4] [Gbps]	19.3

Additional Features

Highlights

- CPU: 56 physical cores, total of 112 logical cores
- Storage: BASE x 1 SSD 960GB NVMe, PLUS x 2 SSD 960GB NVMe
- 2x AC power supplies
- 128, 192 and 256 GB memory options
- Lights-Out-Management card (included in Plus package)

Network Expansion Slot Options

- 8 x 1/10GBASE-F SFP+ port card, up to 56 ports
- 4 x 10/25GBASE-F SFP28 port card, up to 30 ports
- 2 x 40/100GBASE-F QSFP28 port card, up to 14 ports

[1] Enterprise traffic profile measured with maximum memory
[2] ncludes Firewall, App Control, URLF, IPS, Anti Malware (Bot, Virus & Spam), DNS Security, Zero-Phishing and SandBlast Threat Emulation & Extraction with logging enabled
[3] Includes Firewall, App Control and IPS with logging enabled
[4] Web traffic mix is based on RFC 9411 (NetSecOpen) web traffic profile

Network

Network Connectivity

- Integrated SD-WAN network optimization and resilience
- 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 AC: 1300W
- Power input: 100 to 240VAC (47-63Hz)
- Power consumption 110VAC avg/max: 516W/860W
- Maximum thermal output AC: 2934.4 BTU/h

Dimensions

- Enclosure: 2RU
- Dimensions (WxDxH): 17.25 x 24 x 3.5 in. (442 x 610 x 88mm)
- Weight: 41.1 lbs. (18.8 kg)

Environmental Conditions

- Operating: 0° to 40°C, humidity 5% to 95%
- Storage: −20° to 70°C, humidity 5% to 95% at 60°C
- MTBF: > 10 years

Certifications

- Safety: CB IEC 62368-1, CE LVD EN62368-1, UL62368-1, ASNZS 62368.1
- Emissions: CE, FCC IC, VCCI, ASNZS ACMA
- Environmental: ROHS, REACH, WEEE, ISO14001

Maximum Virtual System Capacity

	Firewall VS	Firewall + IPS VS	Next Gen Threat Prevention VS
Base model	300	160	84
Plus model	300	160	112
Max capacity	300	160	112
Maestro / MHS	300	160	80

Ordering Quantum Force 29100 Security Gateway

The 29100 includes 2x 1/10 copper GbE management ports plus an additional 2x 1/10/25 SFP28 ports for synchronization when using the 29100 in a cluster. With the seven network I/O slots, modify the base or plus configuration to meet your networking requirements. The 40/100G ports enable firewall traffic acceleration at line-rate.

	1/10 GbE Copper	1/10 GbE Fiber	10/25 GbE Fiber	40/100 GbE Fiber	Memory	Redundant Power	Redundant Storage	LOM
Base model	2	8	2	0	128 GB	●	○	○
Plus model	2	16	6	0	192 GB	●	●	●
Max capacity	2	56	30	14	256 GB	●	●	●
Maestro / MHS	2	0	0	4	192 GB	●	●	●

● Included
○ Supported / Not Included
● Not Supported

SECURITY APPLIANCE [1]	SKU
29100 Base configuration: 2x 1/10GbE copper management ports, 2x, 1/10/25GbE SFP28 fiber sync ports, 8x 1/10GbE SFP+ ports, 128 GB RAM, 1x 960 GB NVMe, 2x 10 GbE Short Range Transceivers, 2x AC PSUs, telescopic rails, SandBlast (SNBT) Security Subscription Package for 1 Year	CPAP-SG29100-SNBT
29100 Plus configuration: 2x 1/10GbE copper management ports, 2x 1/10/25GbE SFP28 fiber sync ports, 16x 1/10 GbE SFP+ ports, 4x 10/25GbE SFP28 fiber ports, 192 GB RAM, 2x 960GB NVMe, 2x 10 GbE Short Range Transceivers, 2x AC PSUs, Lights-Out Management (LOM), telescopic rails, 5 Virtual Systems, SandBlast (SNBT) Security Subscription Package for 1 Year	CPAP-SG29100-PLUS-SNBT
Quantum Force 29100 Maestro / MHS HyperScale configuration: 2x2x40/100GbE QSFP fiber ports, 2x100GbE DAC 3m transceivers, 128 GB RAM, 2x 960GB NVMe, 2x 10 GbE Short Range Transceivers, 2x AC PSUs, Lights-Out Management (LOM), Sliding rails, with SandBlast subscription package for 1 year	CPAP-SG29100-PLUS-MHS-SNBT
Next Generation Threat Prevention & SandBlast package for 1 year for Quantum Force 29100 appliance	CPSB-SNBT-29100-1Y
Next Generation Threat Prevention package for 1 year for Quantum Force 29100 appliance	CPSB-NGTP-29100-1Y
Next Generation Firewall Package for 1 year for Quantum Force 29100 appliance	CPSB-NGFW-29100-1Y
Quantum IoT Network Protection for 1 year for Quantum Force 29100 appliances	CPSB-IOTP-29100-1Y
Quantum SD-WAN subscription for 1 year for Quantum Force 29100 appliances	CPSB-SDWAN-29100-1Y
Data Loss Prevention (DLP) blade for 1 year for Quantum Force 29100 appliances	CPSB-DLP-29100-1Y

[1] The Base package includes 2 virtual systems (VS)—one management VS and one production/data VS which are not additive or counted when adding additional VS licenses. Plus model 5 VS licenses which are additive when adding additional VS licenses.

ACCESSORIES

INTERFACE CARDS	SKU
8 Port 1/10 G Base-F SFP+ interface card for 19000/29000 appliances	CPAC-8-1/10F-D
4 Port 10/25G Base-F SFP28 interface card for 19000/29000 appliances	CPAC-4-10/25F-D
2 Port 10/25/40/100G Base-F QSFP28 interface card for 19000/29000 appliances	CPAC-2-40/100F-D

TRANSCEIVERS	SKU
Compatible with the CPAC-8-1/10F-D and CPAC-4-10/25F-D, Interface Cards	
SFP transceiver module for 1000 BASE fiber ports - long range (1000BASE-LX), SM Fiber, LC	CPAC-TR-1LX-D
SFP transceiver module for 1000 BASE fiber ports - short range (1000BASE-SX), MM Fiber, LC	CPAC-TR-1SX-D
SFP transceiver to 1000 BASE-T RJ45 (Copper), CU, RJ45	CPAC-TR-1T-D
SFP+ transceiver module for 10GbE fiber ports - long range (10GBASE-LR), SM Fiber, LC	CPAC-TR-10LR-D
SFP+ transceiver module for 10GbE fiber ports - short range (10GBASE-SR), MM Fiber, LC	CPAC-TR-10SR-D
SFP+ transceiver module for 10GbE fiber ports - for links up to 40km (10GBASE-ER), SM Fiber, LC	CPAC-TR-10ER-D
SFP+ transceiver 10GBASE-T RJ45 (Copper) - for links up to 30m over CAT6a/CAT7, CU, RJ45	CPAC-TR-10T-D
Compatible with the CPAC-4-10/25F-D Interface Cards	
SFP28 transceiver module for 25GbE fiber ports - short range (25GBASE-SR), MM Fiber, LC	CPAC-TR-25SR-D
Compatible with the CPAC-2-40/100F-D Interface Card	
SFP+ transceiver module for 10GbE fiber ports - long range (10GBASE-LR), SM Fiber, LC with QSFP28 Adapter	CPAC-TR-10LR-D-ADP
SFP+ transceiver module for 10GbE fiber ports - short range (10GBASE-SR) MM Fiber, LC with QSFP28 Adapter	CPAC-TR-10SR-D-ADP
SFP+ transceiver module for 10GbE fiber ports - for links up to 40km (10GBASE-ER) SM Fiber, LC with QSFP28 Adapter	CPAC-TR-10ER-D-ADP
SFP+ transceiver 10GBASE-T RJ45 (Copper) - for links up to 30m over CAT6a/CAT7 with QSFP28 Adapter	CPAC-TR-10T-D-ADP
SFP28 transceiver module for 25GbE fiber ports - short range (25GBASE-SR) MM Fiber, LC with QSFP28 Adapter	CPAC-TR-25SR-D-ADP
QSFP+ transceiver for 40GbE fiber Ports - short range (40GBASE-SR4) , MM Fiber, MPO-12	CPAC-TR-40SR-QSFP-100m-D
QSFP+ transceiver module for 40GbE fiber ports - short range (40GBASE-eSR4), MM Fiber, MPO-12	CPAC-TR-40SR-QSFP-300m-D
QSFP Bi-directional transceiver for 40GbE fiber ports - short range (40GBASE-SR-BD), MM Fiber, LC	CPAC-TR-40SR-QSFP-BiDi-D
QSFP+ transceiver module for 40GbE fiber ports for links up to 75m (40GBASE-SWDM4) MM Fiber, LS	CPAC-TR-40SWDM4
QSFP+ transceiver module for 40GbE fiber ports - long range (40GBASE-LR5), SM Fiber, LC	CPAC-TR-40LR-QSFP-10Km-D
QSFP28 transceiver module for 100GbE fiber ports - long range (100GBASE-LR4), SM Fiber, LC	CPAC-TR-100LR-D
QSFP28 transceiver module for 100GbE fiber ports - short range (100GBASE-SR4), MM Fiber, MPO-12	CPAC-TR-100SR-D
QSFP28 Bi-directional transceiver for 100GbE fiber Ports - short range (100GBase-SR1.2 BiDi), MM Fiber, LC	CPAC-TR-100SR-BiDi
QSFP28 transceiver module for 100GbE fiber ports - for links up to 75m (100GBASE-SWDM4),MM Fiber, LC	CPAC-TR-100SWDM4-D
QSFP28 transceiver module for 100GbE fiber ports - for links up to 2km (100GBASE-CWDM4), SM Fiber, LC	CPAC-TR-100CWDM4-D
QSFP28 transceiver module for 100GbE fiber ports, - for links up to 40km (100GBASE-ER4), SM Fiber, LC	CPAC-TR-100ERL4

DIRECT ATTACH CABLES (DAC)	SKU
10GbE Direct Attach Cable (DAC), 3m length for CPAC-8-1/10F-D, CPAC-4-10/25F-D, and CPAC-2-40/100F-D	CPAC-DAC-10G-3M-D
25GbE Direct Attach Cable (DAC), 3m length for CPAC-4-10/25F-D, and CPAC-2-40/100F-D	CPAC-DAC-25G-3M-D
40GbE Direct Attach Cable (DAC), 3m length for CPAC-2-40/100F-D	CPAC-DAC-40G-3M-D
100GbE Direct Attach Cable (DAC), 3m length for CPAC-2-40/100F-D	CPAC-DAC-100G-3M-D

COMPATIBLE WITH SYNC PORT INTERFACE	SKU
SFP transceiver module for 1000 BASE fiber ports - short range (1000BASE-SX), MM Fiber, LC	CPAC-TR-1SX-D
SFP transceiver to 1000 BASE-T RJ45 (Copper), CU, RJ45	CPAC-TR-1T-D
SFP+ transceiver module for 10GbE fiber ports - short range (10GBASE-SR) MM Fiber, LC	CPAC-TR-10SR-D
SFP+ transceiver 10GBASE-T RJ45 (Copper) - for links up to 30m over CAT6a/CAT7	CPAC-TR-10T-D
10GbE Direct Attach Cable (DAC), 3m length	CPAC-DAC-10G-3M-D
SFP28 transceiver module for 25GbE fiber ports - short range (25GBASE-SR) MM Fiber, LC	CPAC-TR-25SR-D
25GbE Direct Attach Cable (DAC), 3m length	CPAC-DAC-25G-3M-D

MEMORY	SKU
64GB Memory upgrade kit for 29000 appliances	CPAC-RAM64GB-29000
128GB Memory upgrade kit for 29000 appliances	CPAC-RAM128GB-29000

SPARES AND MISCELLANEOUS	SKU
960GB SSD for 19000/29000 security gateways	CPAC-SSD-960G-D
Replacement AC Power Supply for 19000 appliances	CPAC-PSU-AC-19000
Lights-Out Management Module for 19000/29000 appliances	CPAC-NLOM-D
Slide rails for 19000/29000 Security Gateways (22" - 32")	CPAC-RAIL-L
Telescopic slide rails for 19000/29000 Security Gateways (24" - 36")	CPAC-RAIL-EXT-L
Blank NIC cover for 19000/29000 appliances	CPAC-NIC-COVER-D

SUBSCRIPTION SERVICES

	NGFW	NGTP	SNBT (SandBlast)
Application Control	✔	✔	✔
IPS	✔	✔	✔
URL Filtering		✔	✔
Anti-Bot		✔	✔
Anti-Virus		✔	✔
Anti-Spam		✔	✔
DNS Security		✔	✔
SandBlast Threat Emulation (sandboxing)			✔
SandBlast Threat Extraction (CDR)			✔
Zero Phishing			✔
IoT Network Protection	optional	optional	optional
SD-WAN Network Optimization	optional	optional	optional

The first-year purchase includes the SNBT package. Security subscription renewals, NGFW, NGTP and SNBT are available for subsequent years.