Quantum 28600 Hyperscale
Security Gateway for Maestro

Scalable, resilient AI Deep Learning powered threat prevention

Top Security Effectiveness
Leader with 99.7% malware block rate in Miercom NGFW Security Benchmark (2023)

AI ML powered Threat Prevention
Protect networks and users from zero-days, phishing, DNS, and ransomware attacks

Hyperscale Network Security
On-demand expansion and resilient access to mission-critical applications

Unified Management and Ops Efficiency
Increase protection and reduce TCO with a consolidated security architecture

Industry Recognition
Named a Leader for the 23rd time in the Gartner® Magic Quadrant™ for Network Firewalls
Named a Leader in the Forrester Wave™ Enterprise Firewalls Q4 2022
Awarded the Frost & Sullivan Firewall Company of the Year

The Maestro hyperscale network security solution orchestrates multiple Quantum firewalls as one unified system, with seamless and near limitless scaling. Bring scale, agility and elasticity of the cloud on premises with efficient N+1 clustering based on Check Point HyperSync technology.

Maestro Hyperscale Orchestrators distribute internal and external network traffic equally across multiple 28600 firewalls managed as a single group with a common security feature set and policy. With Maestro, businesses of all sizes can have cloud scale and agility with datacenter resiliency — all while maximizing cost efficiency.

PERFORMANCE HIGHLIGHTS

Firewall	Next Gen Firewall	Threat Prevention
145 Gbps	51.5 Gbps	30 Gbps

28600 Hyperscale Security Gateway

1. Sync 10/100/1000 Base-T port
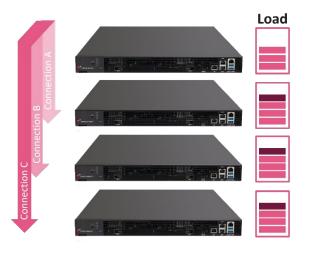2. RJ45 console port
3. 2x 100 GbE QSFP28 ports
4. USB Type-C console port
5. Lights-out Management port
6. Management 10/100/1000 Base-T port
7. 2x USB 3.0 ports
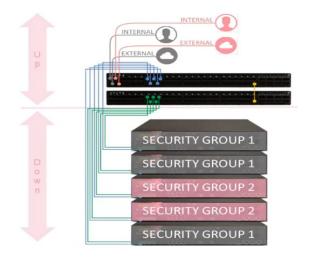8. Redundant hot-swap power supplies

Hyperscale Security System

With Maestro, you can start with two gateways and then can grow to up to 52 gateways. For example, when you start with 30 Gbps using two 28600HS gateways you can finish with a 1.5 Tbps security solution that supports over 500 million concurrent connections. Simply by using Check Point Maestro.

Hyperscale Orchestrator Connections

When a Security Group is created, an IP address is created for a Single Management Object connection to the security management server. Easily create and assign IP addresses to the internal and external network interfaces. These uplinks are the visible components of the Maestro security solution.

Fully Operational within Minutes

When we add a gateway to the system, it gets all the configurations, the policy, even the software version, updated and aligned with the existing deployment, ready to go within 6 minutes.

Maestro Traffic Distribution

HyperSync tracks the Active/Standby/Backup state of group members. Sync traffic is limited to only the Active and Standby members handling the connection.

Cost-Efficient N+1 Deployments

Now businesses of all sizes can enjoy cloud-level resiliency and telco-grade technology using the efficient Maestro N+1 clustering design.

SPECIFICATIONS

Performance

Enterprise Test Conditions

Threat Prevention (Gbps)[1]	30
NGFW (Gbps)[2]	51.5
IPS (Gbps)	52.5
Firewall (Gbps)	145

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

Firewall 1518B UDP (Gbps)	193
VPN AES-128 (Gbps)	44
Connections/sec	590,000
Concurrent connections	49M

1. Includes Firewall, Application Control, URL Filtering, IPS, Antivirus, Anti-Bot and SandBlast Zero-Day Protection with logging enabled. 2. Includes Firewall, Application Control and IPS with logging enabled.

Additional Features

Highlights

- 2x 100 GbE QSFP28 ports
- 2x CPUs, 36 physical cores, 72 virtual cores
- 1x 480 GB storage
- 2x AC power supplies
- 192 GB memory
- Virtual Systems: up to 250

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 10,000+ 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

Dynamic User-based Policy

- Integrates with Microsoft AD, LDAP, RADIUS, Cisco pxGrid, Terminal Servers and with 3rd 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

IPv6

- NAT66
- CoreXL, SecureXL

Unicast and Multicast Routing (see SK98226)

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

Maestro

Maximums

- Up to 8 Security Groups
- Up to 31 gateways in a Security Group
- Up to 28 gateways in a Security Group (dual site deployment, 14 from each site)
- 32x 100 GbE ports or 128x 10GbE (MHO 175)

Physical

Power Requirements

- Single Power Supply rating: 850W
- Power input: 100 to 240V (47-63Hz), 40~-72VDC
- Power consumption avg/max: AC341W/676W
- Maximum thermal output AC: 2306 BTU/hr.

Dimensions

- Enclosure: 1RU
- Dimensions (WxDxH): 17.4 x 24 x 1.73 in. (442 x 610 x 44mm)
- Weight: 28.7 lbs. (13 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[1], ISO14001[1]

[1] factory certificate

ORDERING QUANTUM 28600HS MAESTRO SOLUTIONS

MAESTRO HYPERSCALE SOLUTION PACKAGES	SKU
Maestro Solution with 2x 28600HS gateways and 1x Orchestrator (MHO-175), includes 5 Virtual Systems plus SandBlast (SNBT) Security Subscription Package for 1 Year. Each appliance includes 2x 1GbE copper on-board, 2x 100GbE QSFP28 ports, 2x AC PSUs, 1x 480GB SSD, 192 GB RAM, telescopic rails, plus 2x 100 G DAC cables (3m, 3m). MHO-175 includes 1x 100 G DAC (3m).	CPAP-SG28602-HS-MHS-MHO175-SNBT
Maestro Solution with 3x 28600HS Security Gateways and 1x Orchestrator (MHO-175), includes 5 Virtual Systems plus SandBlast (SNBT) Security Subscription Package for 1 Year. Each appliance includes 2x 1GbE copper on-board, 2x 100GbE QSFP28 ports, 2x AC PSUs, 1x 480GB SSD, 192 GB RAM, telescopic rails, plus 2x 100 G DAC cables (3m, 3m). MHO-175 includes 1x 100 G DAC (3m).	CPAP-SG28603-HS-MHS-MHO175-SNBT

SECURITY GATEWAY APPLIANCES FOR SCALE-UP	SKU
28600HS security gateway for Maestro, SNBT subscription for the first year. Each appliance includes 2x 1GbE copper on-board, 2x 100GbE QSFP28 ports, 2x AC PSUs, 1x 480GB SSD, 192 GB RAM, telescopic rails, plus 2x 100 G DAC cables (3m, 3m).	CPAP-SG28600-HS-MHS-SNBT
SECURITY GATEWAY ACCESSORIES	**SKU**
100G QSFP28 Direct Attach Copper (DAC) cable, 3 meters	CPAC-DAC-100G-3M
40G QSFP+ Direct Attach Copper (DAC) cable, 3 meters	CPAC-DAC-40G-3M
Replacement 16GB RAM memory module for 28600 and 16600 Security Gateway	CPAC-RAM16GB-16/28K-HS
Replacement AC power supply for 16600HS, 26000, 28000, 28600HS Security Gateways	CPAC-PSU-AC-26000/28000
Dual DC power supplies for 16000, 26000, 28000 Security Gateways	CPAC-PSU-DC-Dual-16000/26000/28000
DC power supply for 16000, 26000, 28000 Security Gateways	CPAC-PSU-DC-16000/26000/28000
Lights-Out Management Module	CPAC-NLOM-C
Extended slide rails for 28600 Security Gateways (24" - 36")	CPAC-RAIL-EXT-L

MAESTRO HYPERSCALE ORCHESTRATOR	SKU
Maestro Hyperscale Orchestrator 175 with 32x 100 GbE ports, plus 1x 100 G DAC cable (3m).	CPAP-MHO-175
MAESTRO HYPERSCALE ORCHESTRATOR ACCESSORIES	**SKU**
Fan replacement for Maestro Hyperscale Orchestrator 175	CPAC-FAN-MHO175
AC power supply unit replacement for Maestro Hyperscale Orchestrator 140 and 175	CPAC-PSU-AC-MHO140/175
Rail kit for Maestro Hyperscale Orchestrators 140 and 175	CPAC-RAIL-MHO140/175

MHO-175 TRANSCEIVERS	SKU
100G CWDM4, LC connector, 2Km/ single mode fiber	CPAC-TR-100CWDM4
100G SWDM4, LC connector, 75m/OM3 fiber	CPAC-TR-100SWDM4
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
QSFP+ transceiver for 40G fiber Ports - short range (40GBase-SR) OM3 fiber 100m, OM4 fiber 150m	CPAC-TR-40SR-QSFP-100m
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
Bi-directional QSFP transceiver for 40G fiber Ports - short range (40GBase-SR-BD)	CPAC-TR-40SR-QSFP-BIDI
QSFP+ splitter for 40G fiber ports for Maestro (MHO140 and MHO175) – 3 meters	CPAC-TR-40SPLIT-QSFP-3M
QSFP+ splitter for 40G fiber ports for Maestro (MHO140 and MHO175) – 6 meters	CPAC-TR-40SPLIT-QSFP-6M
SFP28 transceiver module for 100G fiber ports - short range (25GBase-SR SFP28)	CPAC-TR-25SR-C
SFP28 transceiver module for 100G fiber ports - long range (25GBase-LR SFP28)	CPAC-TR-25LR-C
SFP+ transceiver module for 10G fiber ports - for links up to 40km (10GBASE-ER)	CPAC-TR-10ER-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
SFP+ transceiver 10GBASE-T RJ45 (Copper) - for links up to 30m over CAT6a/CAT7	CPAC-TR-10T-C
SFP transceiver module for 1G fiber ports - short range (1000Base-SX)	CPAC-TR-1SX-C
SFP transceiver module for 1G fiber ports - long range (1000Base-LX)	CPAC-TR-1LX-C
SFP transceiver to 1000 Base-T RJ45 (Copper)	CPAC-TR-1T-C

* In the R81.20 software release and later, the MHO-140 1/10G interfaces support 25G transceivers, ** It is recommended to use the CPAC-TR-40SR-QSFP-100m when using the splitters CPAC-TR-40SPLIT-QSFP-3M or CPAC-TR-40SPLIT-QSFP-6M

All-inclusive Security

	NGFW	NGTP	SNBT (SandBlast)
	Basic access control with IPS	Prevent known threats	Prevent known and zero-day attacks
Firewall	✓	✓	✓
VPN (IPsec)	✓	✓	✓
Mobile Access	✓	✓	✓
Identity Awareness	✓	✓	✓
Application Control	✓	✓	✓
Content Awareness	✓	✓	✓
IPS	✓	✓	✓
URL Filtering		✓	✓
Anti-Bot		✓	✓
Anti-Virus		✓	✓
Anti-Spam		✓	✓
DNS Security		✓	✓
SandBlast Threat Emulation			✓
SandBlast Threat Extraction			✓
Zero Phishing			✓

Each gateway requires a license for the enabled security feature. The first-year purchase includes the SNBT package. Security subscription renewals, NGFW, NGTP and SNBT are available for subsequent years.