QUANTUM RUGGED SERIES SECURITY GATEWAYS

Secure. Rugged. Simple.

Check Point Quantum Rugged appliances ensure industrial sites, manufacturing floors and mobile fleets are connected and secure. The solid-state design of the Quantum Rugged security gateways operates in temperatures ranging from -40°C to 75°C, making it ideal for securing any industrial application — power and manufacturing plants, oil and gas facilities, maritime fleets, building management systems, and more. Connect your field devices to the Rugged LAN switch and your Rugged gateway to OT management networks via copper and fiber Ethernet ports as well as via integrated 5G cellular connectivity.

1595R 5G

| Transportation | Oil & Gas | Manufacturing | Energy | Utilities |

SECURE SCADA AND ICS ENVIRONMENTS

The Check Point Quantum Rugged Next Generation Firewall (NGFW) secures Critical Infrastructure and Industrial Control Systems (ICS) without impacting operations. Our NGFWs identify and secure over 70 standard and proprietary SCADA (Supervisory Control and Data Acquisition) and ICS protocols. This includes the most popular protocols used in utilities and energy sectors, manufacturing sectors, Building Management Systems and IoT (Internet of Things) devices.

NETWORK RELIABILITY

Quantum Rugged ensures your remote sites stay connected and secure. Deploy the firewall in Layer 3 routed mode or in Layer 2 bridge mode. Set up site-to-site VPN and client-to- site VPNs to protect data in transit and restrict access to designated personnel. Finally, the dynamic routing suite enables Quantum Rugged to fit seamlessly into existing large-scale networks.

RUGGED FORM FACTOR

The rugged solid-state form factor enables Quantum Rugged to operate in a temperature range of -40C to +75C, making it ideal for deployment in harsh environments. The Rugged family is certified for the industrial specifications IEEE 1613 and IEC 61850-3 for heat, vibration, and immunity to electromagnetic interference (EMI). In addition, these firewalls are certified for maritime operation per IEC-60945 and IACS E10 and comply with DNV-GL-CG-0339.

HIGHLY AVAILABLE HARDWARE

The small desktop form factor Quantum Rugged models mount on walls or on DIN rails from the back or bottom. Connecting redundant power supplies is supported, ensuring continuous operation in case one power source fails. For added redundancy, two firewalls can be deployed in a High Availability cluster. The dual SIM wireless modem ensures you stay connected to operational management networks.

SPOTLIGHT ON SECURITY

Advanced security, uncompromising performance

The Quantum Rugged industrial security gateways ensures robust cybersecurity for critical infrastructure and OT environments. These security gateways offer top-tier protection for your mission-critical operations. They are managed through the latest R81 software, providing a fortified defense against cyber threats in industrial and OT environments.

1570R	1570R Wi-Fi LTE	1595R	1595R 5G

Comprehensive Protection
- ❖ Next Generation Firewall
- ❖ Site-to-Site VPN
- ❖ Remote Access VPN
- ❖ Application Control and Web Filtering
- ❖ IoT Device Recognition & Protection
- ❖ Intrusion Prevention (IPS)
- ❖ Antivirus
- ❖ Anti-Bot
- ❖ SandBlast Threat Emulation (sandboxing)

IT/OT Network Segmentation

Check Point Next-Generation Firewalls provide boundary protection between IT and OT networks and micro- segmentation among product lines and departments on the shop floor. With granular visibility into over 1,800 SCADA protocols and commands, these firewalls provide access control throughout the entire OT environment.

Virtual Patching

Protect unpatched ICS systems from known exploits. Automatically activate security protections against known CVEs by installing the appropriate IPS signatures on the gateways.
This allows effective protection against unpatched systems or systems running on legacy operating systems and software; without disrupting critical processes and business operations.

ICS/SCADA Protocol Support

BACNet, CIP, DNP3, IEC-60870-5-104, IEC 60870-6 (ICCP), IEC 61850, MMS, ModBus, OPC DA & UA, Profinet, Step7 (Siemens) and more; 1400+ in all. See the full list at appwiki.checkpoint.com.

1595R Performance Highlights

VPN	Firewall	NGFW[1]	Threat Prevention[2]
1,100 Mbps	1,900 Mbps	700 Mbps	400 Mbps

1: Includes Firewall, Application Control, IPS. 2: Includes Firewall, Application Control, URL Filtering, IPS, Antivirus, Ant i-Bot, sandboxing

SPOTLIGHT ON HARDWARE

Reliable, Rugged, Always Available

The solid-state Quantum Rugged security gateways have no moving parts like disks or fans, enabling them to operate in environments with extreme temperatures and are certified for industrial applications. The embedded wireless modem dual SIM functionality enables automatic fail over between SIMs and has a peak download rate of 4.5 Gbps and an uplink rate of 660 Mbps.

Rugged 1595R

Wired | 5G

1. Embedded Dual SIM 5G modem (optional)
2. RJ45 serial console port
3. 1x 1GbE copper/fiber WAN interface
4. 4x 1GbE LAN switch
5. DC power connector
6. AC to DC power adapter connection
7. USB-C console port
8. USB 3.0 port
9. 1x 1GbE copper/fiber DMZ interface

Rugged 1570R

Wired | Wi-Fi with LTE

1. 802.11 n/ac Wi-Fi (optional)
2. 1x 1GbE WAN interface
3. LED tower
4. 8x 1GbE LAN switch
5. 1x 1GbE DMZ interface
6. USB-C console port
7. DB9 RS232/422/485 to PLCs
8. USB 3.0 port
9. GPS connector
10. AC to DC power adapter connection
11. Ground screw
12. DC power connector
13. Embedded Dual SIM LTE modem (optional)

SPOTLIGHT ON MANAGEMENT

Lower the complexity of managing your security

Check Point Infinity delivers a fully consolidated cybersecurity architecture that protects your business and IT infrastructure across complex environments against Gen VI multi-vector 'Nano' cyber-attacks across networks, IoT devices, endpoint, cloud and mobile. Check Point Infinity delivers unprecedented protection against current and potential attacks—today and in the future.

Zero-touch Deployment, Central Management

An intuitive web-based user interface, enables large enterprises to provision security efficiently. Apply a template to your inventory of new security gateways. The template specifies common device configuration settings and readies the gateway for central security management. When powered on Check Point gateways get their configuration from the cloud and are ready for a security policy.
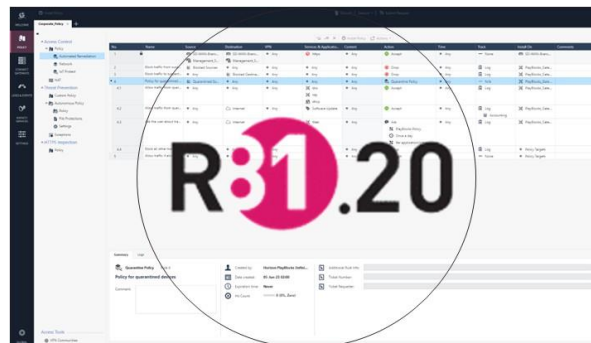
Cyber security management for Industrial IoT (IIoT)

Check Point offers the industry's most comprehensive cyber-security solution for different IoT environments, including Smart Office, Smart Building, Industrial, and Healthcare. The solution enables organizations to prevent IoT related attacks and minimize their IoT attack surface. All in a way that is easily scalable and non-disruptive to critical processes.

BENEFITS

- Instantly secure all your existing IoT devices and safely implement new ones.
- Cut down security man-hours with automated detection and remediation of threats.
- Keep critical processes undisrupted with adaptive policies and no need to physically patch devices.

CAPABILITIES

IoT Risk Analysis: Check Point offers two solutions for discovering IoT devices: IoT Protect and integrations with leading IIoT discovery vendors who use the Check Point IoT API. IoT Protect leverages Check Point firewalls for discovery and this can be enriched with imports of discovered IIoT devices from leading IIoT discovery vendors. Objects are classified based on their risk level. The solution continually performs a comprehensive risk analysis to expose all the risks associated with your devices.

Auto-Segmentation: Minimize risk exposure with auto-generated IoT policies. Save time manual creating the IoT security policy and ensure IoT devices are secure from the moment they connect to your network. The solution automatically generates and enforces a policy for every device. Policies that allow only authorized access to (and from) IoT devices and ensure devices only use communication protocols they were designed to use.

Source	Destination	Service & Application	Action
Function=HMI	Function=PLC	Any	From HMI
Manufacture=Dell	Manufacture =Risco	Modbus Protocol	Accepted

SmartConsole Policy Automatically Generated by IoT Vendor using the IoT API

Threat Prevention: Block known and unknown IoT related attacks with virtual patching. The IoT import can also include a CVE assessment of the imported IoT object so that a threat prevention policy can be applied. This protects vulnerable devices against known malicious exploits with the appropriate IPS signatures on the Check Point firewalls.

1500 RUGGED SPECIFICATIONS

	1570R	1595R
Enterprise Testing Conditions		
Threat Prevention (Mbps) [1]	400	
Next Generation Firewall (Mbps) [2]	700	
IPS Throughput (Mbps)	770	
Firewall Throughput (Mbps)	1,900	
RFC 3511, 2544, 2647, 1242 Performance (LAB)		
Firewall 1518 Byte UDP Packets (Mbps)	4,000	
VPN AES-128 Throughput (Mbps)	1,100	
Connections per Second	13.500	
Concurrent Connections	500,000	1,000,000
Software		
Security	Firewall, VPN, User Awareness, QoS, Application Control, URL Filtering, IPS, Anti-Bot, Antivirus and SandBlast Threat Emulation (sandboxing)	
Unicast, Multicast Routing and Clustering	OSPFv2, BGPv4 and 4++, RIP, PIM (SM, DM, SSM), IGMP, ClusterXL High Availability	
IPv6	local network and internet connections, dual stack tunneling IPv4 over IPv6 networks, prefix delegation	
Mobile Access License (Users)	200 remote SNX or Mobile VPN client users	
Protocols	Over 70 protocols, including the most popular in the industry: Modbus, Bacnet, CIP, S7, IEC-104, DNP3 and many more	
Hardware		
WAN Port	1x 10/100/1000Base-T RJ-45 / 1x 1000BaseF SFP port (transceiver not included)	
DMZ Port	1x 10/100/1000Base-T RJ-45 / 1x 1000BaseF SFP port (transceiver not included)	
LAN Ports	8x 10/100/1000Base-T RJ-45 ports	4x 10/100/1000Base-T RJ-45 ports
Wi-Fi (optional)	802.11 n/ac MIMO 3x3	-
Wi-Fi Radio Bands (association rate)	One radio band non-concurrent: 2.4GHz (max 450 Mbps) or 5GHz (max 1,300 Mbps)	-
Wireless (optional)	3/4G/LTE Embedded modem, CAT6 with Main and Auxiliary antennas	5G Embedded modem, sub-6 GHz, max 4.5 Gbps downlink and 660 Mbps uplink speed
SIM (optional)	Dual SIM (Nano and Micro)	
Console Port	1x USB-C	1x USB-C and RJ45
USB Port	1x USB 3.0	
SD Card Slot	Micro-SD slot	
Bypass NIC	No	Yes
Serial Port	1x DB9 female connector, supports RS232 serial protocols, (RS422, R485 ready)	1 x RJ45 female connector, supports RS232 serial protocols
Dimensions		
Enclosure	Desktop, wall mount, DIN rail (bottom and back mount options)	
Dimensions (W x D x H)	150 x 150 x 90 mm, 5.9 x 5.9 x 3.5 in.	150 x 170 x 42 mm, 5.9 x 6.7 x 1.7 in.
Weight	1.8 kg (3.0 lbs.)	Wired 1.21kg (2.66lbs), 5G 1.36kg (2.99lbs)
Environment		
Operating	-40ºC ~ 75ºC (-40ºF ~ +167ºF)	
Storage	-45ºC ~ 85ºC, (-49ºF ~ 185ºF), 5~95%, non-condensing	
Power Requirements		
Power Redundancy	Supported	
Power Adapter AC Input	110 – 240VAC, 50 – 60 Hz, AC socket IEC 320-C14 Type	
Power Adapter Options	12V/10A 120W industrial grade (-40º ~ 70ºC, -40º ~ 158ºF) power adapter _Note: 1595R power adapter sold separately_	
DC Input (3-pin terminal)	Nominal 12 to 60VDC, -48VDC, Maximum Range 10.2VDC to 72VDC	
Power Consumption (Max)	Wired: 25.1W, Wi-Fi-LTE: 30.7W	Wired 26.8W, 5G 29.5W
Heat Dissipation	Wired: 85.6 BTU/hr., Wi-Fi-LTE: 104.8 BTU/hr.	Wired 91.4 BTU/hr., 5G 100.6 BTU/hr.

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

MTBF		
DC Input (@ 25ºC)	268.8 years	Wired (11.27 years), 5G (8.35 years)
AC Input, Industrial grade (@ 25ºC)	30.2 years	Wired (30.16 years), 5G (15.37 years)
Certifications		
Safety	CB IEC, UL, CE LVD - IEC 62368-1, UL/c 62368-1, CE LVD EN62368-1, ASNZ 62368-1	CB IEC, UL, CE LVD - IEC 62368-1, UL/c 62368-1, CE LVD EN62368-1, ASNZ 62368-1
EMC (Emissions)	CE, UKCA, FCC, IC , VCCI, AS_NZS ACMA	CE, UKCA, FCC, IC , VCCI, AS_NZS ACMA
Environment	RoHS, REACH, WEEE, POP, TSCA	RoHS, REACH, WEEE, POP, TSCA
Industrial Certifications	IEEE 1613, IEC 61850-3, IEC 60945, EN/IEC 60529	IEEE 1613, IEC 61850-3
Rugged Certifications	EN/IEC 60529, IEC 60068-2-27 shock, IEC 60068-2-6 vibration	EN/IEC 60529, IEC 61850-3, IEC 60255-27 C2.2
Maritime	IEC-60945 B, DNV-GL-CG-0339	-
IP Rating	IP30	IP30 according EN/IEC 60529
Cellular	PTCRB, GCF and Carriers AT&T and Verizon certified	PTCRB, GCF and Carrier AT&T

1595R - 1570R SPECIFICATIONS (continued)

ORDERING THE 1595R - 1570R RUGGED

SECURITY APPLIANCE [1]	
1595R Ruggedized Next Generation appliance with one year SNBT subscription package	CPAP-SG1595R-SNBT
1595R 5G Ruggedized Next Generation appliance with one year SNBT subscription package	CPAP-SG1595R5G-SNBT
1570R Ruggedized Next Generation appliance with one year SNBT subscription package	CPAP-SG1570R-SNBT-DC
1570R WiFi and LTE Ruggedized Next Generation appliance with one year SNBT subscription package	CPAP- SG1570RWLTE-xx-SNBT-DC
1570R WI-FI REGIONS (replace –xx in the SKU to specify the Wi-Fi region)	
USA, Canada	change –xx to -US
Europe	change –xx to -EU
Japan	change –xx to -JP
Australia, Argentina	change –xx to -AU
Israel	change –xx to -IL
China	change –xx to -CN
India, Chile	change –xx to -IN
New Zealand	change –xx to -NZ
Latin America, Singapore, Hong Kong, Thailand, Sri-Lanka	change –xx to -LA
ACCESSORIES	
SFP Short range transceiver (for the DMZ 1000BaseF port)	CPAC-1500-TR-1SX
SFP Long range transceiver (for the DMZ 1000BaseF port)	CPAC-1500-TR-1LX
SFP Short Range 100BaseF transceiver. compatible with 1570R appliance	CPAC-1500-TR-100BASE-FX
SD memory card 32 GB	CPAC-1500-32GB-SD
SD memory card 64 GB	CPAC-1500-64GB-SD
Replacement 5G Antenna (4 antennas)	CPAC-1595R-5G-ANTENNA
Replacement Wi-Fi Antenna (4 antennas)	CPAC-1500-WIFI-ANTENNA
Replacement LTE Antenna (1 piece)	CPAC-1590-LTE-ANTENNA
Industrial grade power adapter, 120W (-40º ~ 70ºC, -40º ~ 158ºF)	CPAC-1575R/1595R-PSU
Rack Mount shelf for Single/Dual for 1570R security gateways	CPAC-1570R-RM-DUAL

ORDERING THE 1595R - 1570R RUGGED (continued)
3 and 5 Year Security Appliance, Support and Services Bundles

	NGFW	NGTP	SNBT
Security Appliance	✔	✔	✔
Premium Support (24 x 7 response, software upgrades and more)	✔	✔	✔
PRO Support option (proactive health monitoring service)	✔	✔	✔
Firewall	✔	✔	✔
VPN	✔	✔	✔
Mobile Access (includes 200 concurrent users)	✔	✔	✔
Application Control	✔	✔	✔
Intrusion Prevention System	✔	✔	✔
URL Filtering		✔	✔
Antivirus and Anti-Bot		✔	✔
Anti-Spam and Email Security		✔	✔
DNS Security		✔	✔
Threat Emulation (sandboxing)			✔
IoT Network protection for SMBs*			✔
SD-WAN network optimization for SMBs*	✔	✔	✔
IoT network protection for enterprises**	Optional	Optional	Optional
SD-WAN network optimization for enterprises**	Optional	Optional	Optional

Optional security capabilities can be ordered a-la-carte or separately.
* Supported on Web UI and Spark Management only
** Supported on Smart-1 only

SUBSCRIPTION SERVICES

See the table above for security capabilities included in the NGFW, NGTP and SNBT services packages. IoT and SD-WAN are ordered a la carte.

SERVICE	SERVICES HIGHLIGHTS
Next-Gen Firewall (NGFW): segment networks and apply zero trust policy with IPS	• Accept, prevent, schedule, and apply traffic-shaping based controls to application traffic • 10,000+ pre-defined apps or customize your own application • Protect vulnerable systems with 12,000+ IPS protections
Next-Gen Threat Prevention (NGTP): AI Deep Learning DNS security with antivirus and anti-bot prevents threats	• DNS security prevents Command & Control (C2) connections and blocks data theft through DNS tunneling • Antivirus stops incoming malicious files and links in web, email, FTP and SMB content • Anti-Bot detects infected hosts and prevents communications with external C2 servers • Apply web and application control using 100+ categories or customize your own
SandBlast (SNBT): comprehensive, multi-layered defense with sandboxing protection from unknown and zero-day threats	• Average emulation time for unknown files that require full sandbox evaluation is under 100 seconds • Emulation OS Support: Windows XP, 7, 8.1, 10 applications • CPU-level, OS-level and static file analysis • Maximal file size for Emulation is 15MB
IoT Network Protection: simple, effective, autonomous discovery and protection of IoT devices in minutes	• Passive and active discovery of enterprise IoT devices with autonomous mapping to 200+ profiles • IoT attributes include function, manufacturer, model, risk, confidence, VLAN, IP and MAC address • Automatically creates and applies an inline zero-trust IoT policy layer
SD-WAN: reliable and optimum network connectivity at the lowest cost	• Link aggregation and link prioritization according to latency, jitter, and packet loss • Advanced multi-path orchestration and steering for 10,000+ apps • Sub-second failover for overlay and supported applications • SLA monitoring and autonomous link swapping