

Product: [RAVEN 5500](#) 

RAVEN Next Generation Firewall - RAVEN 5500



Product Description

1U rack mount, 6 × fixed FE/GE TX ports, 2 × 100/1000M SFP ports, 2 × 1/10G SFP ports, 2 × extended media module slot, redundant PSU

Technical Specifications

Product description

Type:	RAVEN 5500
Name:	RAVEN 5500
Description:	1U rack mount, 6 × fixed FE/GE TX ports, 2 × 100/1000M SFP ports, 2 × 1/10G SFP ports, 2 × extended media module slot, redundant PSU
Part Number:	942999702
Port type and quantity:	6 × fixed FE/GE TX ports, 2 × 100/1000M SFP ports, 2 × 1/10G SFP ports, 2 × USB, 1 × RJ45 console port
Heat Radiation Type:	Fixed fan
Extended Slot:	2 × extended media module slots
Storage:	60G SSD

Performance and Capacity

Performance:	20G (Firewall), 6G (enable NGFW)
Connections per Second:	90000/s (Firewall), 21000/s (enable NGFW)
IPSec VPN default tunnel:	4000
Concurrent Connections:	2.9 million

More Interfaces

Power Supply:	2 × fixed redundant PSUs
---------------	--------------------------

Power requirements

Operating Voltage:	100-240VAC, 47-63Hz, redundant PSU supported
--------------------	--

Ambient conditions

Permissible Humidity (Storage/Transport):	5% to 95%
Operating temperature:	-5-+45 °C
Storage/transport temperature:	-20°C to +70 °C
Relative humidity (non-condensing):	5-85 %

Mechanical construction

Width:	435 mm
Height:	44.5 mm
Depth:	360 mm
Weight:	7.5 kg
Mounting:	Rack mount

Software Specifications

Security	Access control	Access control based on network interface, security zones, source/destination IP, domain name, port, application and customer; support time-based policy. Support DPI identification in access control.
		Support security policies pre-compile during committing configuration, complex security policies will not reduce chassis performance

		Support default policy, permit all or deny all is available for all policies
		Support logging for policy match, include flow and hitting
		Support shadowing checking in security policies
		Support session management for special security policy
		Support group based security policies management
	APT (Advanced Persistent Threat) protection	Chassis has another dedicated hardware based APT engine. Sandbox is used to detect malicious code. APT engine has abilities for protecting long-term detection attack and 0 DAY attack
		APT engine can process at least 20 types of files, such as exe, rtf, Office file, rar, zip, pdf and so forth.
	Raven Eye cloud security protection	Raven can sync all system libraries from Raven Eye. Raven is able to prevent either known or unknown threaten when it is captured by Raven Eye in past 6 hours
		Support both IPv4 and IPv6 environment.
		Support one-key process for captured host
	IPS	Support flow based protocol analysis and protocol tree algorithm, support both IPv4 and IPv6
		Attack sample library has more than 3600 entries, weekly update, and support online user manual
		Support online, bypass and complex deployment
	Anti-Virus	Based on Raven eye cloud security center, Raven has more than 36k virus samples, weekly update
		Support HTTP, FTP, POP3, IMAP and SMTP attachment scanning
		Support customized scan template
		Anti-virus policy can base on interface, security zone, address, user, service and time
		Support online, bypass and complex deployment, support both IPv4 and IPv6
	Web application protection	Support protection for SQL injection and XSS script attack, support Web application security in IPv4/IPv6 protection
	DDoS	Support TCP flooding protection, include packet rate, source host packet rate and destination packet rate limitation. SYN cookie, dropping violation packets or only alarm are available protection actions
		Support UDP flooding protection, include packet rate, source host packet rate and destination packet rate. Dropping violation packets and only alarm are available protection actions
		Support ICMP flooding protection, include packet rate, source host packet rate and destination packet rate. Dropping violation packets and only alarm are available protection actions
		Support inhibition for malicious scanning, such as TCP scanning, UDP scanning and ICMP scanning
		Support protection for Jolt2, Land-Base, Ping of death, Syn flag, Tear drop, Winnuke, Smurf
	Session Control	Total connection control based on interface, address, user, application and time
		CPS control based on interface, address, user, application and time
		Source total connection control based on interface, address, user, application and time
		Source CPS suppression control based on interface, address, user, application and time
		Destination total connection control based on interface, address, user, application and time
		Destination CPS control based on interface, address, user, application and time
	ARP protection	Support IP-MAC mapping protection and unique mapping validation
		Support protection of ARP spoofing. Raven support static MAC learning or reverse flooding to correct ARP to strike back the attacker
		Support ARP suppression to defense ARP flooding
	Deny List	Support IP based deny list, deny list up to 30K entries
		Support import/export operation for deny list
Application-based control	Application Identification	App ID engine based on DPI, DFI and network behavior analysis
	Application control	Support application identification by classes, such as: IM, class-based URL management, social media, download tools, video application and so forth
	Email application control	Support deep email inspection based on parameters such as email title, email body, attachments and protocol commands
	Application library	Application library support at least 1000 applications
	Application library update	Application library update support both online and offline operation, weekly update
	IPv4/IPv6 support	Support application behavior management in IPv4/IPv6
Traffic control	Token bucket	Multi-level token bucket mechanism, minimum particle size 1K bps
	Flexible QoS	Support QoS policy on physical interface and VLAN interface
	Application based QoS	QoS policy support application traffic inspection
	Hierarchical QoS	Support 4-level nesting HQoS, each level has 64 queue
	Per-user bandwidth control	Support assign per-user bandwidth schedule in customer communication for upstream traffic and downstream traffic
	Bandwidth reserve	Support to configure upstream bandwidth and downstream bandwidth
	Priority queue	Support priority queue
	Shaping	Support shaping
Network	Deployment	Support routing mode and transparent mode firewall, support complex deployment
	IPv4/IPv6 dual stack	Support IPv4/IPv6 dual stack, all functions can work both under IPv4 and IPv6
	Physical interface	Support static IP address and DHCP client, support multiple addresses under interface
	802.1Q VLAN	Support 4096 VLANs
	LAG	Support LACP and static LAG. Load balancing mode can be configured.
	GRE	Support GRE tunnel
	Static route	Support static route and ECMP under static route. Support various methods of static route health check
	Routing protocol	Support RIP, OSPF and BGP

	Policy based route	Support PBR based on ingress port, source IP, destination IP, port, service and domain name, multiple next-hops are also supported
	BFD	Support BFD function.
	Load balance in WAN	Support load balance for multiple WAN interface, include PPPoE
	Health check	Support link health check via ICMP, TCP, DNS and HTTP request
	Routing control	Support ECMP, PBR and link-load balance
	NAT	Support source NAT, destination NAT, static NAT and policy NAT. Support CG-NAT.
	NAT46/NAT64	Support NAT between IPv4 and IPv6
	ALG	NAT pin-hole support on application layer
	NAT address pool	Support multiple address pool and discontinuous address pool
	VPN	Support IPSec VPN and L2TP VPN
		Support SSLVPN in proxy mode and tunnel mode. Support nested access policy in SSLVPN
	STP	Support STP protocol
	DHCP	Support DHCP server, support IP-MAC binding entry
	DNS Server	Support DNS server, Support DNS zone
	DNS record	Support DNS record, include A, AAA, NS, CNAME, TXT, MX and PTR
	DNS transparent agent	Support DNS transparent agent, support multiple algorithms for load balancing
Virtualization	Hardware based virtualization	Raven support hardware based virtualization acceleration
	Virtual FW configuration	Support full functional vFW deployment. vFW support different software, feature and HA policy
	Virtual FW management	Each vFW has private resource template and configuration
HA	Hot-standby	Support active-active and active-backup mode
	Backup node management	Backup node support OOB management
	VRRP	Support VRRP for gateway backup
	Multi-standard failure detection	Failure detection based on heart-beat detection, link flapping, remote failure.
	Session sync	Support session sync between nodes, failover will not interrupt service
	HA preempt	Support priority configuration for certain active node
Monitoring	Threaten visualization	Support threaten visualization for attack. Visualization based on threat level, country and victim, include TOP10 table and diagram.
	Application based traffic visualization	Support application visualization for TOP100 application. Diagram include traffic detail and per app/per user traffic statistics.
	User based traffic visualization	Support user based visualization for TOP100 users. Diagram include user traffic detail.
	Interface based traffic visualization	Support collecting detail information of interfaces, based on physical interface or virtual interface (VNI or GRE)
	System report	Support to generate system report in system usage. CPU usage, memory usage, concurrent connection, CPS field during real time, 1 hour, 1 day, 7 days and 1 month
Logging	Local syslog	Support local storage for system log
	Remote syslog	Support multiple syslog server
	Log level	Support standard level 0~7
	Report	System can generate traffic report and threaten report.
	Email alarm	System alarm can trigger email to certain receivers.
Address management	Address object management	Support address objects up to 8K, each object has address records up to 2K. Support domain name as address record.
	Address object bulk operation	Support import/export address objects/record for bulk operation.
	Customized application	Support customized application
System configuration	Web UI(HTTP/HTTPS)	Internationalization Web UI
	Control/VTY	Support console port, SSH and telnet for remote CLI management
	SNMP	Support SNMP v1/v2/v3
	User login management	Support local account, Radius and LDAP authentication
	User role management	Support different user roles to implement user management and operation audit.
	NTP	Support external NTP server
	System configuration backup/restore	Support export/import configuration file as plain text.
	Packet dump	Support WebUI for packet dumping

Mechanical stability

IEC 60068-2-6 vibration:	1 mm, 2 Hz-13.2 Hz, 90 min.; 0.7 g, 13.2 Hz-100 Hz, 90 min.; 3.5 mm, 3 Hz-9 Hz, 10 cycles, 1 octave/min.; 1 g, 9 Hz-150 Hz, 10 cycles, 1 octave/min
IEC 60068-2-27 shock:	15 g, 11 ms duration, 18 shocks

EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD):	4 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field:	10V/m (80-1000MHz), 3V/m (1000-6000MHz)
EN 61000-4-4 fast transients (burst):	2 kV power line, 1 kV data line
EN 61000-4-5 surge voltage:	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line
EN 61000-4-6 Conducted Immunity:	10 V (150 kHz-80 MHz)
EN 61000-4-8 power freq magnetic field:	30A/m
EN 61000-4-11 voltage dips, short interrupt:	0%(20ms), 40%(300ms), 70%(500ms), 0%(5s)

EMC emitted immunity

EN 55032:	EN 55032 Class A
EN 61000-3-2:	EN 61000-3-2 Class A
EN 61000-3-3:	EN 61000-3-3
FCC CFR47 Part 15:	FCC 47CFR Part 15, Class A

Approvals

FCC:	Compliant
China Network Access Certificate:	Compliant
RoHS Compliant:	RoHS(EU) 2015/863) and RoHS(GB/T26572-2011) compliant

Scope of delivery and accessories

Accessories to Order Separately:	SFP, media module
Scope of delivery:	2 × device, 1 × grounding wire, 2 × power cords, 1 × console cable, 1 × Cat5UTP 2M, 1 × installation package

History

Update and Revision:	Revision Number: 0.16 Revision Date: 05-14-2024
----------------------	---

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.