RAVEN 5000 Series
Next Generation Firewall

RAVEN NGFW is Hirschmann IT's next generation firewall, which is designed and manufactured specially for IT/OT convergence application. It accommodates to the needs of high reliability, low latency and flexible deployment via compact design, robust HA (High Availability) mechanism and control/forwarding layer separation design. With the help of RAVEN EYE global threat update center, RAVEN NGFW can take a quick reaction to newly arising threats. Besides, RAVEN supports multiple media modules and the speed rate of the interface on these media modules ranging from 1G to 40G, which further enhances the capability of firewall and supports various networks.

RAVEN NGFW reduces the security risk resulting from the integration of new information technologies and traditional operating technologies in any IT/OT converged network. Via functions such as HA (High Availability), NGFW, NGIPS, etc. RAVEN NGFW significantly reduce network risk exposure, enhance cyber security level and reduce total cost of ownership in the whole network life cycle.

+ Offer Application Identification, App-Id
RAVEN understands thousands protocols, and each protocol will be carefully inspected. RAVEN prevent any unexpected behavior

+ Continuous Threat Prevention
Benefit from RAVEN EYE, RAVEN NGFW will quickly adapt to new security trends continuously

+ Flexible Deployment
Provide HA (High Availability) and virtualization. Support transparent and routing mode. RAVEN doesn't break your security strategy and can work anywhere

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Key Feature:

Close Integration with Current Network

- RAVEN NGFW is designed to be part of the security strategy in IT/OT converged network. It can be easily integrated in any network architecture.

- It supports RIP, OSPF and BGP routing protocol, which offers more convenience in routing management and flow redirection. By integrating with advanced traffic management module, RAVEN can support HQoS and speed limitation based on application identification.

- Multi-mode deployment can assure RAVEN is able to be integrated into current network seamlessly without changing the IP address and is able to perform all security features in IPv4/IPv6 dual stack condition.

Full-featured NGFW

- RAVEN's NGFW function can improve security policy of the network. With the help of application intelligence engine, AI application identification engine and RAVEN EYE, RAVEN NGFW can operate application scanning, threat identification, attack prevention and DDoS remission in the traffic flow without interruption.

- All the NGFW features of RAVEN NGFW can integrate with its other traditional firewall functions, including ACL, traffic control, embedded QoS, router management and so on, which can realize a unified security policy of traffic from L3 to L7 and can reduce the IT/OT convergence risk exposure.

RAVEN EYE

- RAVEN EYE is an intelligent analysis center which contains compressed behavior signature and profile information database. It can get latest cyber security events from over 70 traffic flow sampling centers around the world. By combining these collected data with RAVEN EYE security analysis, tracking and modeling database, any new network attack and security events around the world will be updated onto RAVEN EYE database within 6 hours. Through regular updates to the information base, RAVEN NGFW and RAVEN IDS can identify the latest network attacks and implicit risks.

High Performance Core Engine

- With the development of process manufacture applications such as on-site AI, edge computing and computer vision, traditional OT firewall faces huge challenges on performance and scalability. RAVEN NGFW copes with these challenges by using brand new designed high performance forwarding engine.

- RAVEN NGFW separates forwarding plane and control plane. This design can help the firewall avoid the additional traffic jitter due to complex control plane implementation. On the other hand, this design also gives the firewall predictable performance and operability in any situation.

Virtualization and High Availability (HA)

- RAVEN uses the virtualization engine based on build-in kernel to implement a more flexible virtual firewall (aka vFW) function. Each vFW is a duplicate of all the features of its host FW, which can realize all the functions of host FW and can set the resource limitation of vFW while enhancing the stability of service.

- RAVEN has implemented multiple functions that can enhance availability, including BFD, VRRP and the detection and switching technology based on multi-dimension HA status detection. What's more, under HA mode, RAVEN NGFW can work at active-active mode or active-standby mode.

SDWAN

- RAVEN NGFW has been equipped with the ability to quickly establish SDWAN link between multiple links. Via SDWAN link selection strategy, users can use L3 to L7 information as forwarding conditions of SDWAN, and meanwhile, SDWAN link also support IPSec or GRE tunnel.

- Through bi-directional acceleration engine, RAVEN NGFW connected to each other can obviously speed up the data transmission rate between two stations. This engine can reduce the influence to TCP owing to packet loss and jitter and enhance the link usage rate by using technologies such as data compression, jitter detection and data rearrangement technology, etc.

- If the SDWAN of RAVEN NGFW is connected to multiple links, user can decide the forwarding strategy according to multiple dimensions such as RR, WRR, delay, jitter and lost rate, etc.

Hardware Feature:

Type	RAVEN 5300-F	RAVEN 5300	RAVEN 5500	RAVEN 5700
Hardware Specifications				
Port type & quantity	6 × FE/GE TX	6 × FE/GE TX	6 × fixed FE/GE TX ports, 2 × 100/1000M SFP ports, 2 × 1/10G SFP ports	6 × FE/GE TX 4 × 100/1000M SFP slots
USB ports	2			
Console ports	1 × RJ45 Console port			
Default storage capacity	Optional		60G SSD	
Extended media module slot	-	1	2	2
Extended media module type	-	RAVEN 5000M-XX		
Extended media module port type	-	4GE/8GE/4SFP/8SFP/4GE4SFP/2SFP+/4SFP+		4GE/8GE/4SFP/8SFP/4GE4SFP /2SFP+/4SFP+/2QSFP+
Performance and Capacity				
Performance (firewall)	4G	4G	20G	40G
Connection per second (firewall)	68,000/s	68,000/s	90,000/s	320,000/s
Performance (enable NGFW)	3.4G	3.4G	17G	23G
Connection per second (NGFW)	12,000/s	12,000/s	21,000/s	89,000/s
IPSec VPN default tunnel	200	1,000	4,000	5,000
Virtual FW (default/maximum)	-	-	-	2/5
Concurrent connection	1.2million	1.2million	2.9million	3.2million
Mechanical Construction				
Dimension (W × D × H)	435mm × 360mm × 44.5mm	435mm × 360mm × 44.5mm	435mm × 360mm × 44.5mm	435mm × 500mm × 44.5mm
Weight	7.6kg	8.1kg	7.5kg	13.2kg
Mounting	Rack mount, 1U	Rack mount, 1U	Rack mount, 1U	Rack mount, 1U
Power Requirement				
Operating voltage	1 × fixed single PSU 100-240VAC, 50-60Hz	2 × fixed redundant PSU 100-240VAC, 50-60Hz	2 × fixed redundant PSU 100-240VAC, 47-63Hz	2 × fixed redundant PSU 100-240VAC, 47-63Hz
Ambient Condition				
Operating temperature	-5℃ ...45℃			
Storage/ transport temperature	-20℃ ...70℃			
Relative humidity (non-condensing)	5%...85%			
Storage/ transport humidity (non-condensing)	5%...95%			
Certification				
Compliance	RoHS ((EU) 2015/863) and RoHS (GB/T26572-2011) compliant			
Certifications	CE/FCC/China Network Access Certificate			

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Order Information:

Product No.	Product Code	Description
Next Generation Firewall (NGFW)		
942999704	RAVEN 5300-F	6 × fixed GE TX ports
942999703	RAVEN 5300	6 × fixed GE TX ports, 1 × extended slot
942999702	RAVEN 5500	6 × fixed GE TX ports, 2 × 100/1000M SFP ports, 2 × 1/10G SFP ports, 2 × extended media module slot
942999701	RAVEN 5700	6 × fixed GE TX ports and 4 × fixed 100/1000M SFP slots, 2 × extended media module slots
NGFW Bundle		
942999757	RAVEN 5700-1YR Bundle	RAVEN 5700 bundle, 1 × RAVEN 5700 device + 1 year premium support & warranty + 1 year subscription
942999758	RAVEN 5500-1YR Bundle	RAVEN 5500 bundle, 1 × RAVEN 5500 device + 1 year premium support & warranty + 1 year subscription
942999759	RAVEN 5300-1YR Bundle	RAVEN 5300 bundle, 1 × RAVEN 5300 device + 1 year premium support & warranty + 1 year subscription
942999760	RAVEN 5300-F-1YR Bundle	RAVEN 5300-F bundle, 1 × RAVEN 5300-F device + 1 year premium support & warranty + 1 year subscription
Extended Media Module for NGFW		
942999705	RAVEN 5000M-4T	4 × GE TX ports media module, applicable for RAVEN 5000 series
942999706	RAVEN 5000M-4F	4 × GE SFP ports media module, applicable for RAVEN 5000 series
942999707	RAVEN 5000M-8T	8 × GE TX ports media module, applicable for RAVEN 5000 series
942999708	RAVEN 5000M-8F	8 × GE SFP ports media module, applicable for RAVEN 5000 series
942999709	RAVEN 5000M-4T4F	4 × GE TX ports and 4 × GE SFP ports media module, applicable for RAVEN 5000 series
942999710	RAVEN 5000M-2X	2 × 10GE SFP+ ports media module, applicable for RAVEN 5000 series
942999711	RAVEN 5000M-4X	4 × 10GE SFP+ ports media module, applicable for RAVEN 5000 series
942999712	RAVEN 5000M-2Q	2 × 40GE QSFP+ ports media module, only applicable for RAVEN 5700
RAVEN 5000 Premium Support & Warranty[1]		
942999721	RAVEN 5700-Support-1YR	Premium support & warranty 1 year, RAVEN 5700
942999722	RAVEN 5700-Support-3YR	Premium support & warranty 3 year, RAVEN 5700
942999723	RAVEN 5700-Support-5YR	Premium support & warranty 5 year, RAVEN 5700
942999724	RAVEN 5500-Support-1YR	Premium support & warranty 1 year, RAVEN 5500
942999725	RAVEN 5500-Support-3YR	Premium support & warranty 3 year, RAVEN 5500
942999726	RAVEN 5500-Support-5YR	Premium support & warranty 5 year, RAVEN 5500
942999727	RAVEN 5300-Support-1YR	Premium support & warranty 1 year, RAVEN 5300
942999728	RAVEN 5300-Support-3YR	Premium support & warranty 3 year, RAVEN 5300
942999729	RAVEN 5300-Support-5YR	Premium support & warranty 5 year, RAVEN 5300
942999730	RAVEN 5300-F-Support-1YR	Premium support & warranty 1 year, RAVEN 5300-F
942999731	RAVEN 5300-F-Support-3YR	Premium support & warranty 3 year, RAVEN 5300-F
942999732	RAVEN 5300-F-Support-5YR	Premium support & warranty 5 year, RAVEN 5300-F
RAVEN 5000 Signature Database Subscription[2]		
942999733	RAVEN 5700-Subscription-1YR	Next generation Firewall features subscription 1 year, RAVEN 5700
942999734	RAVEN 5700-Subscription-3YR	Next generation Firewall features subscription 3 year, RAVEN 5700
942999735	RAVEN 5700-Subscription-5YR	Next generation Firewall features subscription 5 year, RAVEN 5700
942999736	RAVEN 5500-Subscription-1YR	Next generation Firewall features subscription 1 year, RAVEN 5500
942999737	RAVEN 5500-Subscription-3YR	Next generation Firewall features subscription 3 year, RAVEN 5500
942999738	RAVEN 5500-Subscription-5YR	Next generation Firewall features subscription 5 year, RAVEN 5500
942999739	RAVEN 5300-Subscription-1YR	Next generation Firewall features subscription 1 year, RAVEN 5300
942999740	RAVEN 5300-Subscription-3YR	Next generation Firewall features subscription 3 year, RAVEN 5300
942999741	RAVEN 5300-Subscription-5YR	Next generation Firewall features subscription 5 year, RAVEN 5300
942999742	RAVEN 5300-F-Subscription-1YR	Next generation Firewall features subscription 1 year, RAVEN 5300-F
942999743	RAVEN 5300-F-Subscription-3YR	Next generation Firewall features subscription 3 year, RAVEN 5300-F
942999744	RAVEN 5300-F-Subscription-5YR	Next generation Firewall features subscription 5 year, RAVEN 5300-F

1: premium support does not contain on-site support
2: subscription contains signature database (threat prevention & URL filtering & anti-virus & APP-ID) updates

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