

Enterprises and service providers are faced with a variety of security challenges today: threats are becoming more sophisticated, firewall security solutions are increasingly tasked with performing deep-packet inspections, changing traffic patterns demand higher appliance throughput performance, and reduced IT costs and expenses mean organizations need higher return on their network security investment.

Nokia IP690 is a security appliance designed for the demanding price performance, multi-Gigabit Ethernet throughput, and port-density requirements of medium to large enterprises and service providers. It supports multi-core technology and is purpose-built to run Check Point VPN-1, Check Point VPN-1 UTM and next generation multi-threaded enterprise security applications. Nokia IP690 is optimized to provide scalability, reliability and ease of use. In addition, the versatile design of the Nokia IP690 platform enables customers to improve performance through next generation Accelerated Data Path (ADP) cards and OS upgrades.

Scales without Forklift Upgrades

Nokia IP690 also allows for significant performance improvement through optional interface cards and software upgrades, allowing customers to deploy now and expand capacity and performance as their needs grow, without costly hardware forklift upgrades.

Port Density and Performance

Nokia IP690 is a 1RU security appliance that delivers up to 7 Gbps of firewall throughput performance and up to 16 Gigabit Ethernet ports for the Check Point VPN-1 Power and VPN-1 UTM suite of applications.



Enhanced Business Continuity, Reliability and Expandability

Nokia IP690 delivers enhanced business continuity through features such as dual, hot-swappable power supplies and optional redundant hard disk drives. For optimal reliability, Nokia IP690 offers the option of either disk- or flash-based storage configurations and includes features such as Nokia IP Clustering and virtual router redundancy protocol (VRRP). Nokia IP690 also supports a variety of expansion options including support for existing interface cards, providing investment protection with legacy cards, as well as Accelerated Data Path (ADP) cards. ADP helps to accelerate firewall and VPN throughput. ADP is a technology designed to forward packets at the highest possible rate. Nokia ADP achieves this by off-loading processing from the main CPU to network processors. This level of reliability and expandability provides exceptional return on investment and lower total cost of ownership for Nokia IP690.

Nokia IPSO Advantage

Nokia IPSO™, a security-hardened operating system, natively supports key networking needs, such as dynamic and multicast routing, IPv6, VLANs and link

aggregation – making integration into complex networks transparent. Nokia IPSO supports key capabilities, such as role-based administration, AAA and TACACS+ clients, and third party administrator authorization. Nokia IPSO eliminates the need for local administrator accounts that many compliance mandates require. Check Point VPN-1 is preinstalled on the appliance while native Nokia IPSO features like software acceleration, dynamic and multicast routing and high availability are included with no additional installation, licensing, or activation required.

Nokia First Call-Final Resolution Global Support

Best of all, like all Nokia Firewall/VPN Appliances, Nokia IP690 and Check Point VPN-1 are both backed by world-class Nokia First Call—Final Resolution support and service. This offers organizations a single point of technical support and assistance for both Nokia IP690 and Check Point VPN-1 applications.

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Internet Protocols

IP RFC 791
 ICMP RFC 792
 ARP RFC 826
 ICMP Router Discovery (server) RFC 1256
 Router Discovery v6 (ICMP v6) RFC 2466
 CIDR RFC 1519
 Static Routes
 RIP RFC 1058
 RIP Version 2 (with authentication) RFC 1723
 RIPng (IPv6) RFC 2080
 OSPF RFC 2328
 OSPF NSSA RFC 3101
 OSPFv3 (IPv6) RFC 2740
 DVMRP (multicast) RFC 1075
 IGMP (multicast) RFC 2236 , IGMPv3 RFC 3376
 PIM-SM and PIM-SSM RFC 4601
 PIM-DM RFC 3973
 PIM-DM State Refresh draft-ietf-pim-refresh-02.txt
 Multicast Tunnels
 IGRP (optional) Cisco
 BGP4 (optional) RFC 1771
 BGP4++ RFC 2545, 2858 (unicast IPv6)
 IPv4 RFC 791
 IPv6 Core RFCs
 VRRPv2 RFC 3768
 VRRPv3 (IPv6) draft-ietf-vrrp-ipv6-spec-08.txt
 Mobile IP (IPv4) RFC 2794, RFC 3024, RFC 3344, RFC 3519
 Requirements for IPv4 Routers RFC 1812
 Differentiated Services (EF) RFC 2598
 Bootp/DHCP Relay RFC 2131
 Route Aggregation & Redistribution
 Unnumbered Interfaces
 Link negotiation IEEE 802.3
 Flow control IEEE 802.3
 Private (RFC 1918) and Public IP Routing
 VLAN 802.3Q

LAN Support

10/100BASE-TX (10/100 Mbps Ethernet) - copper IEEE 802.2,802.3, 802.3u
 1000BASE-T (10/100/1000 Mbps Ethernet) - copper
 1000BASE-F (1000 Mbps Ethernet) - fiber

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Performance

Firewall – large packets 7 Gbps
 VPN – large packets 1.85 Gbps, AES256
 Max TCP 725,000
 TCP session rate 35,624

Management

SNMP RFC 1157, SNMPv2c, SNMPv3
 Telnet RFC 854
 FTP RFC 959
 SSHv2 (secure Telnet and FTP)
 HTTP Server RFC 2068
 SSL/TLS RFC 2246
 Command Line Utilities Supported in Nokia Horizon Manager

Environment Operating Conditions

Temperature: 32°F to 104°F / 0°C to 40°C
 Altitude: 10,000 ft. / 3048m
 Humidity: 10% - 90% (non-condensing)

Environment Non-Operating Conditions

Temperature: -5°C to +45°C
 Humidity: up to at least 95% (non-condensing)

High Availability

VRRP (Active/Passive) RFC 2338
 Firewall-1 State Sync
 Patented Nokia IP Clustering (Active/Active)

Safety

CSA 60950 - 1 - 03/UL 60950-1, First Edition

Security

Secure Administrative Access
 Role-Based Administration
 3rd party administrator authorization
 Read/Write and Read-Only Access Modes
 SSH (secure Telnet and FTP)
 SSL/TLS (secure HTTP) RFC 2246
 Encrypt end user Passwords
 S/Key (one-time password) RFC-1760
 Access Control Lists
 Traffic Management
 MD5 Routing
 Authentication (RIPv2) RFC 1723
 Centralized Authentication
 Native IPSec (for non-firewall applications)
 NTP Client and Server RFC 1305
 RADIUS Client, TACACS+ Client

System Indicators

10/100/1000 Ethernet port status
 Power status on system
 Failure status on system
 Port status on network interface cards
 System Operational Indicator

Supported Standards

IPSec (RFCs 2401-2411, 2451)
 GRE (RFCs 1701 & 1702)
 Generic Routing Encapsulation

Emission Compliance

FCC Part 15, Subpart B, Class A,
 EN50024, EN55022A: 1998, CISPR 22 Class A:
 1998, EN61000-3-2, EN61000-3-3

Immunity

EN55024:1998

Base System Configuration

4 GB Compact Flash (Flash base systems only)
 Dual (2), Redundant Hot-Swappable Power Supplies
 VPN Accelerator Card
 2GB System RAM, expandable to 8GB
 4-port 1000BASE-T card
 40 GB Hard Disk Drive (HDD base systems only)

Optional Interfaces

Two-port 1000BASE-LX - single-mode fiber
 Four-port 10/100BASE-TX - copper
 Two-port 1000BASE-T - copper
 Two-port 1000BASE-SX, multi-mode fiber
 Four-port 1000BASE-TX - copper
 One-Slot PCMCIA carrier card
 1-GB PC Card Option

Dimensions

Height - 1.75 in. (4.3 cm) - 1U
 Width - 17 in. (43.18 cm) without mounting brackets
 - 1U, or 19 in (48.2 cm) with mounting brackets
 Depth - 24.89 in. (63.22 cm) including front bezel
 Depth - 25.41 in (64.54 cm) including front handles
 Weight - 27.34 lbs (12.4 kg)
 Standard 19-inch Rack Mountable
 Front access for maintenance

Power Requirements

AC Input Voltage 100-120V/200-240V
 Frequency 50/60Hz
 AC Input Current 4A / 2A

