

# Nokia IP Security Solutions

Nokia IP2255



# Nokia for Business

**Nokia IP2255 Security Platform is a high-performance, highly reliable yet easy to manage security appliance for Check Point Check Point VPN-1. Nokia IP2255 is designed specifically for the demanding performance and port-density requirements of carriers, service providers, e-commerce sites and enterprise data center cores.**

Nokia IP2255 is a flash-based security appliance providing in excess of 8 Gbps of performance, up to 20 gigabit Ethernet interfaces or up to 36 10/100 Ethernet interfaces for the Check Point VPN-1 Power application. Harnessing the power of two network-processors and Nokia Accelerated Data Path (ADP) software acceleration technology, Nokia IP2255 running Check Point VPN-1 Power provides up to<sup>1</sup>:

- 8.9 Gbps of firewall throughput 87,000 firewall connections per second 2.3 Gbps of AES256 encrypted VPN throughput

Like all Nokia Firewall/VPN Appliances, Nokia IP2255 is a best-of-breed, trusted security appliance purpose-built to run the Check Point VPN-1 firewall application, and it is optimized to provide:

- Consistent in-line reliability
- Ease of management
- Simple acquisition and implementation

## Consistent Inline Reliability

Nokia Firewall/VPN appliances are purpose-built to protect corporate applications and data while running inline within the world's most demanding network environments, and architected specifically for the demands of Check Point VPN-1. Nokia IPSO™ operating system natively supports key networking

1. Maximum achieved performance achieved under ideal testing situations. Achieved performance will vary depending upon usage.
2. Local Check Point management is not currently supported on Nokia IP2255.

needs such as dynamic and multicast routing, IPv6, VLANs, and link aggregation, making integration into complex networks transparent.

For optimal reliability, Nokia IP2255 is flash-based<sup>2</sup> and includes redundant, hot-swappable power supplies and fans. And it includes VRRP and IP Clustering for high availability.

## Ease of Management

To increase administrator productivity, Nokia Firewall/VPN appliances make executing sophisticated security simple. The acclaimed Check Point SMART Management framework simplifies complex policy definition and deployment. Nokia Network Voyager and Cluster Voyager provide complete local and remote WebUI appliance management, and Nokia Horizon Manager and Nokia Appliance Manager provide simple, comprehensive, centralized management of multiple appliances.

## Simple Acquisition and Implementation

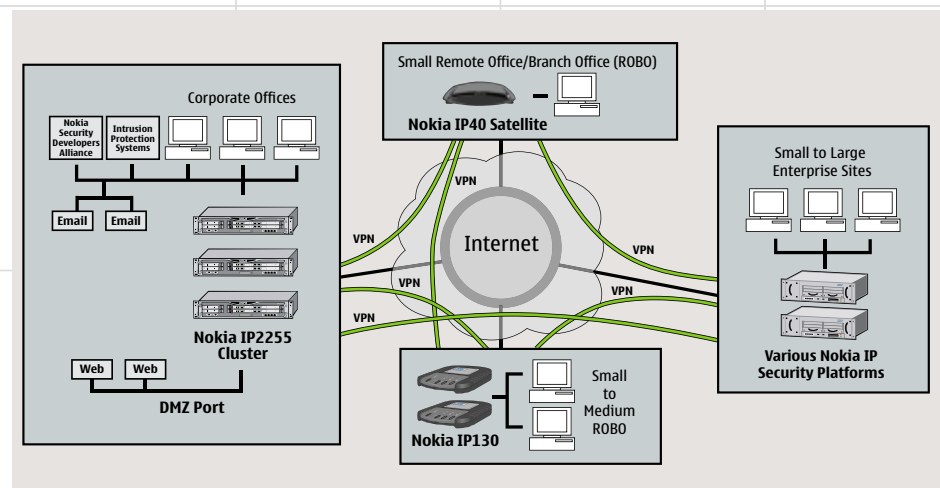
Nokia Firewall/VPN appliances minimize acquisition and installation complexity. Stable hardware configurations are pre-tested and pre-integrated with Check Point VPN-1 and



**Nokia IPSO.** Nokia IPSO is security-hardened and supports key capabilities such as role-based administration, AAA, and TACACS+ client, 3rd party administrator authorization and the elimination of the need for local administrator accounts that many compliance mandates require. Check Point VPN-1 is preinstalled on the appliance, and native Nokia IPSO features—such as software acceleration, dynamic and multicast routing, and high availability—are included with no additional installation, licensing, or activation required.

## Nokia First Call—Final Resolution Support

Best of all, like all Nokia Firewall/VPN Appliances, Nokia IP2255 and Check Point VPN-1 are both backed by world-class Nokia First Call—Final Resolution support and service. Nokia First Call—Final Resolution offers a single point of technical support and assistance for both Nokia IP2255 and Check Point VPN-1.



**NOKIA**  
Connecting People

# Technical Specifications

<p><b>Internet Protocols</b></p> <ul style="list-style-type: none"> <li>• IP RFC 791</li> <li>• ICMP RFC 792</li> <li>• ARP RFC 826</li> <li>• ICMP Router Discovery (Server) RFC 1256</li> <li>• CIDR RFC 1519</li> <li>• Static Routes</li> <li>• RIP RFC 1058</li> <li>• RIP Version 2 (with authentication) RFC 1723</li> <li>• OSPF RFC 2328</li> <li>• OSPF NSSA</li> <li>• DVMRP (multicast) RFC 1075</li> <li>• IGMP (multicast) RFC 2236</li> <li>• PIM-DM (multicast), PIM-SM</li> <li>• Multicast Tunnels</li> <li>• IGRP (optional) Cisco</li> <li>• BGP4 (optional) RFC 1771</li> <li>• Route Maps</li> <li>• IPv6 Core RFCs</li> <li>• Requirements for IPv4 Routers RFC 1812</li> <li>• Differentiated Services (EF) RFC 2598</li> <li>• Bootp/DHC P Relay RFC 2131</li> <li>• Route Aggregation and Redistribution</li> <li>• BGP4+ (for IPv6)</li> <li>• Unnumbered Interfaces</li> </ul>	<p><b>Security</b></p> <ul style="list-style-type: none"> <li>• Secure Administrative Access</li> <li>• Role-Based Administration</li> <li>• 3rd party administrator authorization</li> <li>• Read/Write and Read-Only Access Modes</li> <li>• SSH (secure Telnet and FTP)</li> <li>• SSL/TLS (secure HTTP) RFC 2246</li> <li>• S/Key (one-time password) RFC 1760</li> <li>• Access Control Lists</li> <li>• Traffic Management</li> <li>• MD5 Routing</li> <li>• Authentication (RIPv2) RFC 1723</li> <li>• Centralized Authentication</li> <li>• Native IPSec (for non-firewall applications)</li> <li>• DNS Client, NTP Client and Server</li> <li>• RADIUS Client, TACACS+ Client</li> </ul> <p><b>Supported Standards</b></p> <ul style="list-style-type: none"> <li>• IPSec (RFCs 2401-2411, 2451)</li> <li>• GRE (RFCs 1701 and 1702) Generic Routing Encapsulation</li> <li>• Designed to meet NEBS III, and FIPS 140-2 (kit required)</li> <li>• Directive 2002/95/EC Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS)</li> <li>• Directive 2002/96/EC Waste Electrical and Electronic Equipment (WEEE)</li> </ul> <p><b>Safety</b></p> <ul style="list-style-type: none"> <li>• UL60950, CAN/CSA 22.2, No. 60950-M95, (CE Mark) EN60950:1992, A1, A2:1993, A3:1995, A4:1997, A11:1998 with Japanese National Deviations Emission Compliance</li> </ul>
<p><b>LAN Support</b></p> <ul style="list-style-type: none"> <li>• 10/100 Mbps Ethernet 10/100 BASE-TX</li> <li>• 1000 BASE-SX Multimode Fiber (MMF)</li> <li>• 1000 BASE-T (1000 Mbps only)</li> <li>• 1000 Mbps MMF Ethernet</li> <li>• 10/100/1000 Copper Ethernet</li> <li>• 1000 Mbps Copper Ethernet (1000 Mbps only)</li> <li>• 10 Gigabit Ethernet 10GBASE-SR</li> </ul>	<p><b>Emission Compliance</b></p> <ul style="list-style-type: none"> <li>• FCC Part 15, Subpart B, Class A, EN55024, EN55022A: 1998, CISPR 22 Class A 1985, EN61000-3-2, EN61000-3-3</li> </ul>
<p><b>WAN Support</b></p> <ul style="list-style-type: none"> <li>• PPP RFC 1661, 1662</li> <li>• Frame Relay FRF.1, RFC 1490</li> <li>• HDLC Cisco</li> </ul>	<p><b>Immunity</b></p> <ul style="list-style-type: none"> <li>• EN55024: 1998</li> </ul>
<p><b>Performance</b></p> <ul style="list-style-type: none"> <li>• Firewall forwarding (8.9 Gbps)</li> <li>• VPN forwarding (2.3 Gbps)</li> <li>• FW Connections Per Second (87,000)</li> </ul>	<p><b>Base System Configuration</b></p> <ul style="list-style-type: none"> <li>• 4-port 1000BASE-T cPCI Management Card</li> <li>• 4 ADP slots for optional ADP cards</li> <li>• 2 Type II PCMCIA slots</li> <li>• 2 GB System RAM</li> <li>• Redundant, hot swappable power supplies</li> <li>• Redundant, hot swappable fans</li> </ul>
<p><b>Management</b></p> <ul style="list-style-type: none"> <li>• SNMP RFC 1157, SNMPv2c, SNMPv3</li> <li>• Telnet RFC 854</li> <li>• FTP RFC 959</li> <li>• SSHv2 (secure Telnet and FTP)</li> <li>• HTTP Server RFC 2068</li> <li>• SSL/TLS RFC 2246</li> <li>• Command Line Utilities</li> <li>• Supported in Nokia Horizon Manager</li> </ul>	<p><b>Card-based Options</b></p> <ul style="list-style-type: none"> <li>• 8-Port 10/100 BASE-TX Ethernet ADP Card</li> <li>• 4-Port 1000BASE-T Copper ADP Card</li> <li>• 4-Port 1000BASE-SX, MMF ADP Card</li> <li>• Nokia Encrypt Card</li> <li>• 1-Port 10GBASE-SR Interface, ADP</li> <li>• 4-port 1000BASE-T cPCI Management Card</li> </ul>
<p><b>Application Acceleration</b></p> <ul style="list-style-type: none"> <li>• VPN (requires optional card)</li> <li>• Accelerated Data Path (ADP)</li> </ul>	<p><b>Power Requirements</b></p> <ul style="list-style-type: none"> <li>• AC Input Voltage 100-120V/200-240VAC</li> <li>• Frequency 50/60Hz</li> <li>• AC Input Current 3.0/1.5A</li> </ul>
<p><b>Environment</b></p> <ul style="list-style-type: none"> <li>• Temperature: 41°F to 104°F / 5°C to 40°C</li> <li>• Humidity: 10% - 90% (non-condensing)</li> <li>• Altitude: 10,000 ft</li> </ul>	<p><b>Dimensions</b></p> <ul style="list-style-type: none"> <li>• Height: 5.21 in (13.2 cm) – 3RU</li> <li>• Width: 19 in (48 cm) – with rack mounting ears</li> <li>• Width: 17 in (43.2 cm) – without rack mounting ears</li> <li>• Depth: 24.45 in (62 cm) – including front and rear handles</li> <li>• Weight: 47.5 lbs / 21.6 kg</li> <li>• Forward slide-out tray for maintenance</li> </ul>
<p><b>High Availability</b></p> <ul style="list-style-type: none"> <li>• VRRP RFC 2338</li> <li>• Check Point FireWall-1 State Sync</li> <li>• Patented Nokia IP Clustering</li> <li>• Redundant, hot swappable fans</li> <li>• Redundant, hot swappable power supplies</li> </ul>	<p><b>System Indicators</b></p> <ul style="list-style-type: none"> <li>• Integrated 10/100 Ethernet port status</li> <li>• Power status on system</li> <li>• Failure status on system</li> <li>• Port status on network interface cards</li> </ul>



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