Important Information

Latest Software
We recommend that you install the most recent software release to stay up-to-date with the latest functional improvements, stability fixes, security enhancements and protection against new and evolving attacks.

Latest Documentation
The latest version of this document is at:
http://supportcontent.checkpoint.com/documentation_download?ID=22453
For additional technical information, visit the Check Point Support Center (http://supportcenter.checkpoint.com).

Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>2 April 2013</td>
<td>SBXN-200*-3 models only support firmware 8.2.55 and higher. Added to Limitations (on page 13).</td>
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<tr>
<td>27 February 2013</td>
<td>Added Limitations (on page 13)</td>
</tr>
<tr>
<td>3 December 2012</td>
<td>First release of this document</td>
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Feedback
Check Point is engaged in a continuous effort to improve its documentation.
Please help us by sending your comments
(mailto:cp_techpub_feedback@checkpoint.com?subject=Feedback on Check Point Embedded NGX Version 8.2.55 Release Notes).
Safety, Environmental, and Electronic Emissions Notices

Read the following warnings before setting up or using the appliance.

**Warning** - Do not block air vents. A minimum 1/2-inch clearance is required.

**Warning** - This appliance does not contain any user-serviceable parts. Do not remove any covers or attempt to gain access to the inside of the product. Opening the device or modifying it in any way has the risk of personal injury and will void your warranty. The following instructions are for trained service personnel only.

To prevent damage to any system board, it is important to handle it with care. The following measures are generally sufficient to protect your equipment from static electricity discharge:

- When handling the board, to use a grounded wrist strap designed for static discharge elimination.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Handle the board by its edges only. Do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling processor chips or memory modules, avoid touching their pins or gold edge fingers.
- Restore the communications appliance system board and peripherals back into the antistatic bag when they are not in use or not installed in the chassis. Some circuitry on the system board can continue operating even though the power is switched off.
- Under no circumstances should the lithium battery cell used to power the real-time clock be allowed to short. The battery cell may heat up under these conditions and present a burn hazard.

**Warning** - DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER’S INSTRUCTIONS.

- Disconnect the system board power supply from its power source before you connect or disconnect cables or install or remove any system board components. Failure to do this can result in personnel injury or equipment damage.
- Avoid short-circuiting the lithium battery; this can cause it to superheat and cause burns if touched.
- Do not operate the processor without a thermal solution. Damage to the processor can occur in seconds.
- Class 1 Laser Product Warning

Rack Mount Instructions

The following or similar rack-mount instructions are included with the installation instructions:

1. Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature specified by the manufacturer.
2. Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
3. Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
4. Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

5. Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

For California:

Perchlorate Material - special handling may apply. See http://www.dtsc.ca.gov/hazardouswaste/perchlorate

The foregoing notice is provided in accordance with California Code of Regulations Title 22, Division 4.5, Chapter 33. Best Management Practices for Perchlorate Materials. This product, part, or both may include a lithium manganese dioxide battery which contains a perchlorate substance.

Proposition 65 Chemical

Chemicals identified by the State of California, pursuant to the requirements of the California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code s. 25249.5, et seq. ("Proposition 65"), that is "known to the State to cause cancer or reproductive toxicity" (see http://www.calepa.ca.gov)

WARNING:
Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

Federal Communications Commission (FCC) Statement:

For a Class A digital device or peripheral

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For a Class B digital device or peripheral

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Information to user:

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.
Canadian Department Compliance Statement:
This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.
This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Japan Compliance Statement:

Class A

![Japanese text for Class A]

Class B

![Japanese text for Class B]

European Union (EU) Electromagnetic Compatibility Directive

Product Disposal
This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office or your household waste disposal service.
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Chapter 1

Introduction

In This Chapter

- Highlights of This Version
- Supported Platforms
- Availability
- Changes from 8.2.26 to 8.2.55
- Limitations

Highlights of This Version

Embedded NGX 8.2 has these new and improved features:

- New platforms with integrated ADSL modem**
- ExpressCard cellular modem slot**
- Gigabit SFP ports**
- Multicast routing support (PIM-SM v2/DVMRP protocol support)*
- Dynamic routing enhancement (RIP protocol support addition)*
- Support for new cellular modems*
- L2TP dialup connection support
- Cellular modem extended information
- Full URL logging
- Enhanced URL filtering
- Extended troubleshooting tools

* Available only on N series appliances.
** Available only on N series ADSL models.

Note: Some features are license dependent.

Supported Platforms

Embedded NGX 8.2 GA supports the following hardware platforms:

- Check Point Safe@Office 100B series
- Check Point Safe@Office 200 series
- Check Point Safe@Office 400W series
- Check Point Safe@Office 500 series
- Check Point Safe@Office 1000N series
- Check Point UTM-1 Edge X series
- Check Point UTM-1 Edge W series
- Check Point UTM-1 Edge N series
- Check Point ZoneAlarm Z100G
- NEC SecureBlade 300

**Availability**

Embedded NGX 8.2 is available to existing Embedded NGX customers with a valid software subscription contract. For more information and documentation, visit the Check Point website [http://www.checkpoint.com/](http://www.checkpoint.com/).

⚠️ **Warning:** Check Point Security Management users upgrading to firmware v8.2 need to download and install the Management Update Package.
Changes from 8.2.26 to 8.2.55

**8.2.55**
- Added support for 3G modem MobiData MBD-200HU
- Added CLI flags to alter DHCP client behavior
- Improved NAT performance when using dynamic objects
- Resolved: End Point connect stops connecting to edge when changing SNMP management policy
- Resolved: Polycom video conference Software (Telepresence M100) couldn’t connect when hide nat is used
- Resolved: Fix socket leak in SSH connections
- Resolved: VLAN limitation for EdgeN devices using a limited node license
- Resolved: NTP connectivity issues when using PPPOE connection
- Resolved: Diagnostics page required read/write ADMIN permissions
- Resolved: Long output from SSH commands causes the stream to freeze
- Resolved: EAP on WLAN chooses radius automatically on Z100G
- Resolved: Wrong value in traffic monitor
- Resolved: Load balancing info is reset when there are changes in internet configuration or connectivity
- Resolved: Edge freezes after few internet disconnections
- Resolved: The Block-Frame attribute status of the UFP feature, is set to disabled after editing the content of the displayed message in Services > Web filtering > Settings
- 802.1x is not supported on some of the hardware models. For more information, see sk89322 (http://supportcontent.checkpoint.com/solutions?id=sk89322).

**8.2.50**
- Added support for Huawei Ec1561 modem
- Added additional SSH connections
- Resolved: Command info device displays SMP node limitation
- Resolved: Unknown connection type appears in the SMP logs
- Resolved: The export CLI command should prepend clear nat rules only when export is called without parameters
- Resolved: WAN connection is restarted whenever WAN configuration is set, even if the configuration was not changed
- Resolved: Edge N becomes unresponsive when transfer a shared file over PPTP Tunnel
- Resolved: syslog messages do not display IP address correctly on kernel generated messages
- Resolved: First ADSL connection attempt always fails if not configured fast enough
- Resolved: PPTP tunnel fixes

**8.2.48**
- Upgraded PPPoE plugin for EdgeX
- Added support for Novatel MC547
- Added support for Huawei E372 and Pantech UMW190 USB serial modem
- Added support for E75.20 Endpoint Security VPN
• Resolved: Box forwarded GRE packet to the wrong destination if two tunnels had the same IP address
• Resolved: Reconnect a VPN tunnel if tunnel-test failed
• Resolved: Disconnected NATed EPC tunnel also disconnected all other NATed tunnels from the same source
• Resolved: TCP connection was frozen during P2 renegotiation, if TCP streamer was active and traffic was passing
• Resolved: Problem accessing certain HTTP servers from some linux clients
• Resolved: Edge Device dropped MM packet during renegotiation
• Resolved: Users (with no Admin permissions) behind hotspot should not have access to my.firewall page

8.2.45
• Resolved: Ping and traceroute did not work with firmware 8.2.44

8.2.44
• Resolved: When the MTU of an Edge N switch is configured less than the default value (1500), the device drops packets that are larger than the MTU
• Resolved: When Vstream is enabled with an unstable connection and packets are lost, sometimes the connection is dropped
• Resolved: Changing the GMT offset time in a SmartProvisioning profile does not change the time on an Edge device
• Resolved: Multiple security vulnerabilities. For more information see sk65460 (http://supportcontent.checkpoint.com/solutions?id=sk65460).
• Resolved: Trying to allocate more than 200 DHCP addresses can cause the device to restart
• Resolved: DHCP requests do not pass through a VTI tunnel

8.2.42
• Brand name changed to Check Point

8.2.39
• Resolved: Hotspot logs in the even and security tabs

8.2.38
• Resolved: In some cases disabling the L2TP while connecting to the management causes the appliance to reboot

8.2.37
• Improve L2TP performance
• Resolved: Gateway-bind network feature to support unassigned LAN port

8.2.36
• Resolved: In some cases when connected with L2TP and a virus is caught the appliance reboots
• Add better support for Internet Explorer 9

8.2.35
• Resolved: Ping command from GUI causes the appliances to reboot
• USB Monitor should always run

8.2.34
• Add better treatment of VPN tunnel (Add delete_IKE_SA feature)
• 3G infor feature should be disabled by default

8.2.33
• Resolved: In some cases enterprise site disappears after reboot
• Resolved: While SC/EPC is connected to the appliance and trying to disconnect from management the appliance reboots
• Fix checkboxes in the HA (High Availability) tab
• Fix appliance behavior with EPC

8.2.32
• Enhance N series ADSL modem reset procedure

8.2.31
• Add N series to SNMP MIB
• Resolved: In some cases firmware upgrade failure causes appliance to reboot

Features
• Change 3G watchdog to 3G Monitor

8.2.30
VPN
• Add Support for EPS R75 (VPN client only)
• Resolved: EPC issue when connecting from internal network on port 443
• EPC server more secure

8.2.29
ADSL
• Improved behavior when connection to the ADSL modem is not possible

8.2.28
Any
• Resolved: “Flash write error” appears when trying to set FW level from GUI when connected to SMP and managing WAN Connection via CLI
• Improved stability when tables are full

VPN
• Resolved: Endpoint connect does not work from internal networks

8.2.27
SFP
• Resolved: SFP port icon does not turn to green when the cable is connected
• Resolved: In some cases 2 SFP ports are displayed even though there is one port
ADSL
- Improve ADSL modem handling when upgrading DSL firmware

Tools
- Resolved: Traceroute does not work on HW 1.0-1.3
- Fix stability issues on HW 1.4 DSL units

Features:

USB Modems
- Add support for USB Modem ZTE AC2627

Limitations
- N200: 3 connection types (to Internet) are supported in ADSL models – ethernet via WAN interface, ADSL via DSL port, and external modem via USB port or Express card port. But, only 2 connections (out of 3) can be utilized simultaneously.
- SBXN-200*-3 models only support firmware 8.2.55 and higher. The model number is printed on a silver sticker on the bottom of your device.
Chapter 2

New Features

In This Chapter

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User Permissions

New in 8.2.45. You can create a user account with permissions to change only service center settings and its own password.

Embedded ADSL Modem

Embedded NGX 8.2 supports hardware version 1.4 ADSL models with embedded ADSL modem. These models are based on the N series appliances specifications and offered in wired and wireless versions. They include an RJ11 port for connecting to a DSL line and an ExpressCard slot.

Express Card Cellular Modem Support

Embedded NGX 8.2 supports inserting a cellular modem ExpressCard into the appliance’s ExpressCard slot.

Note: Available only on N series ADSL models
Gigabit Ethernet and SFP Ports

Embedded NGX 8.2 supports SFP ports with 1 Gbps fiber termination. SFP ports are small form-factor pluggable ports that can act as an alterable fiber optic conduit (in addition to the already available copper option), allowing multiple options for connectivity.

The new SFP transceivers supported are:

1. Finisar FTRJ1319P1BTL 1000BaseLX
2. Finisar FTLF8519P2BNL
3. Agilent (HFBR5710LP)
4. Dlink (DEM-310VT v.E1)

Note: Available only on N series ADSL wired models

Multicast Routing (PIM-SM v2/DVMRP)

Embedded NGX 8.2 offers DVMRP and PIM-SM v2 multicast routing protocols.

Note: Available only on N series models

Dynamic Routing (RIP)

Embedded NGX 8.2 now offers RIP v2 dynamic routing protocol.

Note: Available only on N series models

Support for New Cellular Modems

The new USB 3G modems supported are:

- Sprint U301
- Sierra Wireless U250
- HUAWEI E1762
- HUAWEI EC1260
- HUAWEI EC1261
- ZTE AC2726

Note: Available only on N series models

The new ExpressCard 3G modems supported are:

- Novatel Merlin XU870
- Novatel Merlin X950D
- Sierra Wireless AirCard 880E

Note: Available only on N series ADSL models
L2TP Dialup Connection

Embedded NGX 8.2 supports L2TP protocol for faster dial-up connection.

Cellular Modem Extended Information

Embedded NGX 8.2 displays extended cellular information about the connection in GSM networks. This information aids in deploying the device and troubleshooting any problems that may arise. The following data is displayed:

- Modem Vendor
- Signal strength
- Connected operator
- Cellular technology

Note: Available only on wireless and ADSL models

Full URL Logging

Embedded NGX 8.2 can log all HTTP traffic, both blocked and accepted.

Enhanced URL Filtering

With embedded NGX 8.2, when using URL filtering, the user can choose whether to block the specific frame or entire page.

Extended Troubleshooting Tools

Embedded NGX 8.2 allows choosing the source interface on which to run the network diagnostics tools. The interface is selected in the Setup > Tools page’s Source Address field, which displays all connected Internet connections and enabled internal networks. Ping and Traceroute tools can also be used though CLI.