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=31853

To learn more, visit the Check Point Support Center http://supportcenter.checkpoint.com.

For more about this release, see the R77.20 home page

Revision History

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
</table>
| 02 December 2015  | Updated Add-on install and uninstall instructions
                  | Fixed link to Appendix
| 2 November 2014   | • Corrected Security Gateway and VSX versions in Compatibility with Gateways (on page 7)
                  | • Updated Appliances in Compatibility with Gateways (on page 7) and Before You Upgrade! (on page 10)
                  | • Corrected Recommended Upgrade: CPUSE (on page 12) |
| 18 September 2014 | Updated ESX information in Newly Supported Platforms (on page 8) |
| 12 August 2014    | Added Endpoint Security and Remote Access Client Support (on page 8) |
| 31 July 2014      | Updated Recommended Upgrade: CPUSE (on page 12) |
| 20 July 2014      | Updated Installation and Upgrade Packages (on page 16)
                  | Updated Important Note! (on page 5)
                  | Replaced Gaia Multi-Domain Security Management Upgrade Package from R76 and R75.4x ("Installation and Upgrade Packages" on page 16), resolving sk101589
| 03 July 2014      | First release of this document |

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 R77.20 Release Notes.
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Introduction

This version installs important Check Point product and Gaia Operating System updates on computers and appliances running R77.20 Multi-Domain Server, Security Management Server, or Security Gateways.

Please read this document before installing. This document has general data and requirements, installation, and upgrade instructions for Gaia only. To install or upgrade on other platforms, see the Appendix to R77.20 Release Notes

Review the Known Limitations http://supportcontent.checkpoint.com/solutions?id=sk101209
before you begin installation.

Important Note!

Effective 20 July 2014, the Gaia Upgrade Package for Multi-Domain Security Management from R76 and R75.4x has been replaced, resolving sk101589

What's New

R77.20 includes resolved issues http://supportcontent.checkpoint.com/solutions?id=sk101211,
with additional support for existing features:

- VSX fixes and enhancements.
- MultiCore support for SSL – improved performance for portals (including Mobile Access) and SSL Network Extender. See sk101223
- New upgrade procedure for clusters, Connectivity Upgrade, which maintains connectivity when you upgrade from R76 and R75.40VS, to R77.20.
- Threat Prevention detection and functionality enhancements:
  - Scan files that are passing on CIFS
  - Anti-Spam support in MTA
  - Anti-Virus support for links inside emails *
  - Threat Emulation support in VSX *
- DHCP simplified configuration and stability fixes. See sk98839
- IPsec VPN enhancements, including: MSS adjustments and 3rd party connectivity. For more enhancements, see sk101219 http://supportcontent.checkpoint.com/solutions?id=sk101219.
• SNMP: Quality improvements and Best Practices Guide
  http://supportcontent.checkpoint.com/documentation_download?id=31396

• Routing stability fixes and enhancements. See sk98226

* The R77.20 Add-on brings more enhancements to R77.20. Read more in sk101217

## Supported Upgrade Paths

You can install this release on supported appliances and open servers as a new installation. See the *R77 Release Notes* http://supportcontent.checkpoint.com/documentation_download?ID=24827 for platform details.

You can upgrade from these releases to R77.20:

<table>
<thead>
<tr>
<th>Version</th>
<th>Upgrade Path</th>
</tr>
</thead>
<tbody>
<tr>
<td>R77, R77.10</td>
<td>Install the appropriate upgrade package.</td>
</tr>
<tr>
<td>R76</td>
<td>See Gaia Installation and Upgrade Packages (on page 16).</td>
</tr>
<tr>
<td>R75.40, R75.45, R75.46, R75.47, R75.40VS</td>
<td>• To upgrade to Gaia, install the appropriate upgrade package</td>
</tr>
<tr>
<td></td>
<td>• To upgrade to other platforms: upgrade first to R77.</td>
</tr>
<tr>
<td>R75, R75.10, R75.20, R75.30</td>
<td>Upgrade first to R77.</td>
</tr>
<tr>
<td>R70.40, R70.50, R71.50</td>
<td>Advanced Upgrade</td>
</tr>
<tr>
<td>R71 - R71.45</td>
<td>Upgrade first to R71.50.</td>
</tr>
<tr>
<td>R70 - R70.30</td>
<td>Upgrade first to R70.50.</td>
</tr>
</tbody>
</table>
Compatibility with Gateways

If you choose to install R77.20 Security Management Server, you can manage gateways of these versions:

<table>
<thead>
<tr>
<th>Release</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Gateway</td>
<td>NGX R65, R70, R70.1, R70.20, R70.30, R70.40, R70.50</td>
</tr>
<tr>
<td></td>
<td>R71, R71.10, R71.20, R71.30, R71.40, R71.50</td>
</tr>
<tr>
<td></td>
<td>R75, R75.10, R75.20, R75.30, R75.40, R75.45, R75.40VS, R75.46, R75.47, R76, R77, R77.10, R77.20</td>
</tr>
<tr>
<td>Security Gateway 80</td>
<td>R71.45, R75.20.x</td>
</tr>
<tr>
<td>1100 Appliance</td>
<td>R75.20.x</td>
</tr>
<tr>
<td>13800 &amp; 21800 Appliances</td>
<td>R77.20</td>
</tr>
<tr>
<td>UTM-1 Edge</td>
<td>7.5.x and higher</td>
</tr>
<tr>
<td>61000/41000 Security System</td>
<td>61000 R75.035, 61000 R75.05x, R75.40VS for 61000, R76SP</td>
</tr>
<tr>
<td>VSX</td>
<td>VSX R67, VSX R67.10, R75.40VS, R76, R77, R77.10, R77.20</td>
</tr>
<tr>
<td>Other gateways</td>
<td>DLP-1: R71 and higher, IPS-1: R71 Connectra Centrally Managed: NGX R66 GX 4.0, 5.0</td>
</tr>
</tbody>
</table>

Compatibility with Management Servers

If you choose to install R77.20 Security Gateway only, you can manage the new gateways with these versions of the Security Management Server or Multi-Domain Server:

<table>
<thead>
<tr>
<th>Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>R77, R77.10</td>
<td>Some Resolved Issues on the server may not be applied to the new R77.20 Security Gateways.</td>
</tr>
<tr>
<td>R76</td>
<td>Install the Hotfix and SmartConsole as instructed in sk97626 <a href="http://supportcontent.checkpoint.com/solutions?id=sk97626">http://supportcontent.checkpoint.com/solutions?id=sk97626</a>.</td>
</tr>
</tbody>
</table>
Newly Supported Platforms

These platforms and components were added in R77.20 or R77.10:

<table>
<thead>
<tr>
<th>Platform/Version</th>
<th>Related Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows 8.1, 32-bit and 64-bit</td>
<td>SmartConsole, Mobile Access client features, Identity Awareness agent, UserCheck agent</td>
</tr>
<tr>
<td>Windows Server 2012 and 2012 R2</td>
<td>Security Management Server, SmartConsole, Active Directory for AD Query, Identity Agent for Terminal Servers</td>
</tr>
<tr>
<td>Windows 7 SP1, 32-bit and 64-bit</td>
<td>All installations and upgrades supported for Windows 7 SP1</td>
</tr>
<tr>
<td>Red Hat Enterprise Linux 5.9, 32-bit</td>
<td>All installations supported for Linux</td>
</tr>
<tr>
<td>Red Hat Enterprise Linux 6.5, 32-bit</td>
<td>All installations supported for Linux</td>
</tr>
<tr>
<td>Internet Explorer 11</td>
<td>Mobile Access client features</td>
</tr>
<tr>
<td>ESX 5.5, ESX 5.1</td>
<td>Security Gateway Virtual Edition Network Mode</td>
</tr>
</tbody>
</table>

Endpoint Security and Remote Access Client Support

R77.20 Servers with the Endpoint Policy Management blade enabled can manage these Endpoint Security clients: E80.51, E80.50, E80.4x

R77.20 Servers and gateways support these Remote Access Clients: E80.5x, E80.4x, E75.x. For details see sk67820 http://supportcontent.checkpoint.com/solutions?id=sk67820, VPN Client Version and Supported Gateway Version section.
## Build Numbers

This table contains the R77.20 software products updated in this release and their build numbers. To confirm installation, run the version command for each product.

<table>
<thead>
<tr>
<th>Software Blade / Product</th>
<th>Build No.</th>
<th>Version Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Gateway</td>
<td>Build 221</td>
<td><code>fw ver -k</code></td>
</tr>
<tr>
<td>Security Management</td>
<td>Build 039</td>
<td><code>fwm ver</code></td>
</tr>
<tr>
<td>Multi-Domain Security Management</td>
<td>Build 158</td>
<td><code>fwm mds ver</code></td>
</tr>
</tbody>
</table>

You must install an upgraded SmartConsole after you install the management server and gateways.

<table>
<thead>
<tr>
<th>Console</th>
<th>Build No.</th>
<th>Version Command</th>
</tr>
</thead>
<tbody>
<tr>
<td>SmartConsole Applications</td>
<td>990170198</td>
<td><code>Help &gt; About Check Point &lt;Application Name&gt;</code></td>
</tr>
</tbody>
</table>
Installation and Upgrade

For platforms other than Gaia, see the Appendix to R77.20 Release Notes http://supportcontent.checkpoint.com/documentation_download?ID=31854.

To install or upgrade to VSX, follow the instructions in sk97552 http://supportcontent.checkpoint.com/solutions?id=sk97552.

Before You Upgrade!

- Back up your system before installing or upgrading to this release.
- R77.20 supports Cluster Connectivity Upgrade (from R76 or R75.40VS) and Full Connectivity Upgrade (from R77). To learn more, see the R77 Installation and Upgrade Guide http://supportcontent.checkpoint.com/documentation_download?ID=24831.
- If you upgrade from R77 or later, and manually configured a Mobile Access-enabled gateway, use the important pre-upgrade instructions in sk98213 http://supportcontent.checkpoint.com/solutions?id=sk98213.
- For optimal LOM operational experience on 13500, 13800, 21600, 21700, and 21800 appliances being upgraded from versions earlier than 77.10, we recommend that you upgrade the LOM firmware version according to sk98788 http://supportcontent.checkpoint.com/solutions?id=sk98788.
Required Disk Space on Gaia

In R77.20, free disk space is verified before installation. To make sure you have enough space, delete the downloaded TGZ after extracting.

**Note:** Upgrades (CPUSE) upgrade has the lowest requirements and is recommended when possible.

<table>
<thead>
<tr>
<th>Current Version / Tool</th>
<th>Server or Standalone</th>
<th>Gateway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Install</td>
<td>/ - 4356 MB</td>
<td>/ - 3825 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 630 MB</td>
<td>/var/log – 525 MB</td>
</tr>
<tr>
<td>R77 - CLI</td>
<td>/ - 2848 MB</td>
<td>/ - 2731 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 325 MB</td>
<td>/var/log – 317 MB</td>
</tr>
<tr>
<td>R77 - WebUI</td>
<td>/ - 50 MB</td>
<td>/ - 1667 MB</td>
</tr>
<tr>
<td></td>
<td>/opt – 2211 MB</td>
<td>/var/log – 4143 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 2211 MB</td>
<td></td>
</tr>
<tr>
<td>R77.10 - CPUSE</td>
<td></td>
<td>/ - 791 MB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/var/log – 285 MB</td>
</tr>
<tr>
<td>R77.10 - CLI</td>
<td>/ - 2719 MB</td>
<td>/ - 664 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 324 MB</td>
<td>/var/log – 328 MB</td>
</tr>
<tr>
<td>R76 - CPUSE</td>
<td></td>
<td>/ - 730 MB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/var/log – 90 MB</td>
</tr>
<tr>
<td>R76 - WebUI</td>
<td>/ - 2460 MB</td>
<td>/ - 1667 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 2523 MB</td>
<td>/var/log – 4143 MB</td>
</tr>
<tr>
<td>R75.47 - CPUSE</td>
<td>/ - 1151 MB</td>
<td>/ - 610 MB</td>
</tr>
<tr>
<td></td>
<td>/var/log – 132 MB</td>
<td>/var/log – 89 MB</td>
</tr>
<tr>
<td>R75.47 - In-place Upgrade (with ISO)</td>
<td></td>
<td>/ - 1435 MB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>/var/log – 2970 MB</td>
</tr>
</tbody>
</table>

Required Disk Space for Multi-Domain Security Management:

Before you run a clean install of R77.20 on Multi-Domain Servers, make sure that at least 10GB of free disk space in the root partition is available. For an environment with many Domain Management Servers, more than 10GB of free disk space is often required.
Recommended Upgrade: CPUSE

To upgrade a supported Gaia server or gateway, we recommend CPUSE (Check Point Upgrade Service Engine; previously known as Gaia Software Updates).

Note: These appliances do not support install or upgrade using CPUSE:
- UTM-1 130, UTM-1 270, IP Appliances
- An appliance deployed as secondary management server

For more details, see sk98926 http://supportcontent.checkpoint.com/solutions?id=sk98926.

⚠️ Important - If you installed with CPUSE, you must uninstall with CPUSE.

To update the CPUSE agent:

1. In the WebUI, go to Software Updates > Status and Actions and select GaiaSoftwareUpdatesAgent_627.tgz
   
   Note – If you are upgrading from R75.40 and the archive GaiaSoftwareUpdatesAgent_627.tgz does not show, see sk81680 http://supportcontent.checkpoint.com/solutions?id=sk81680.

2. Click Download.
   
   The package is downloaded from the Check Point Support Center.

3. Click Install.

To upgrade to R77.20 using CPUSE:

1. In the WebUI, go to Software Updates > Status and Actions and select the R77.20 image.

2. Click Download.

3. To make sure the upgrade is allowed, click Actions > Verifier.

4. Click OK.
   
   The Installation verified - Installation is allowed window shows. Verification is complete.

5. Click Upgrade, and then reboot.

6. When upgrading a Standalone deployment, Security Management Server, Multi-Domain Server: Go to Upgrades (CPUSE) > Status and Actions and click the Full Images tab to see post upgrade completion process.

To use CPUSE to download and install SmartConsole:

1. In the WebUI, go to Software Updates > Status and Actions.

2. Click SmartConsole.

3. Click Download.
   
   The appliance or server downloads the package from the Check Point Support Center.

4. Click Install.
   
   SmartConsole is installed on the administrator’s computer.
Upgrading with Legacy CLI

To install on Gaia with the CLI, or to upgrade from R76 or R75.4x using legacy packages, see the R77 Installation and Upgrade Guide

Important - Before installing on Multi-Domain Security Management, run mdsenv and then mdsstop.
If this is not done, the system will experience functionality issues.
We recommend that you back up the system before installation: mds_backup

To upgrade from R77 or R77.10 with CLI:
1. Log on to the target machine.
2. Create a temporary directory in the /var partition.
3. Copy the upgrade package to the temporary directory using SFTP, SCP, or similar secure utility.
4. Go to the temporary directory and extract the .tgz package: gtar -zxvf <file name>
5. Start the upgrade. from the /var partition, run: ./UnixInstallScript
   Note: You must run this command from the /var partition.
6. Do the instructions on the screen to install the applicable components.
   Only components required for a specific target (management or gateway) are installed automatically.
   When the installation finishes, each successfully installed component appears in a list followed by: Succeeded.
7. When prompted, reboot.
   Note: In a cluster environment, make sure to upgrade all the cluster members.

Installing SmartConsole

Install the SmartConsole after the Security Management Server.

- If you upgraded the Security Management Server with CPUSE, we recommend that you download the SmartConsole package from CPUSE and install it.
- If you installed the Security Management Server with clean install or updated manually, download and install the SmartConsole.
- If you choose to keep the R77 or R77.10 Security Management Server to manage R77.20 Security Gateways, you must NOT install the R77.20 SmartConsole. The SmartConsole and the Security Management Server versions must match.

To install the SmartConsole:
1. Download R77.20 SmartConsole for Windows:
   Check_Point_SmartConsole_and_SmartDomain_Manager_R77.20_T124_Windows.exe
2. Double-click the file to install the SmartConsole.
Installing R77.20 Add-on

⚠️ **Important** - The R77.20 Add-on can only be installed on R77.20.

If you install the R77.20 Add-on, you must install it on every Security Management Server, Multi-Domain Server, and Log Server.

Check Point recommends that you install the R77.20 Add-on only if you require the feature it enables, or if Technical Support suggests that you do so.

To install with CPUSE:

1. In Upgrades (CPUSE), select the R77.20 Security Management Server, Multi-Domain Server, or Log Server.
2. Click **Check Point R77.20 Add-on**.
3. Click **Download**.
4. Click **Install**.

To install with CLI:

1. Download the Check Point R77.20 Add-on Package to the Security Management Server, Multi-Domain Server, or Log Server.
2. Extract the TGZ: `tar xvfz Check_Point_R77.20_Add-on.Gaia.tgz`
3. Run the installation file: `./UnixInstallScript`
4. After installation completes, run: `cpstart`

To install on Multi-Domain Security Management environments:

1. On the Multi-Domain Server, run `mdsstart` after you upgrade to R77.20 and before you install the Add-on.
2. Install the R77.20 Add-on on the Multi-Domain Server, with CPUSE or CLI.
3. Login to the SmartDomain Manager.
4. In **Versions & Blades Updates**, right-click a relevant Domain Management Server and select **Activate**.
5. Select **R77.20 Add-on**.
6. Repeat to activate on each relevant Domain Management Server.

Uninstalling

You can uninstall from Gaia if the R77.20 was an upgrade from R77 or R77.10.

⚠️ **Important:**

- If you installed with CPUSE, you must uninstall with CPUSE!
- If you installed the Add-on [http://supportcontent.checkpoint.com/solutions?id=sk101217](http://supportcontent.checkpoint.com/solutions?id=sk101217), you must uninstall it first.
To uninstall R77.20 from Security Management Server, dedicated Domain Log Server, or Security Gateway:

1. If the R77.20 Add-on is installed, uninstall it first (see next section).
2. Run: `/opt/CPUninstall/R77.20/UnixUninstallScript`

To uninstall R77.20 in Multi-Domain Security Management environments:

1. If the R77.20 Add-on is installed, uninstall it first (see next section).
2. Run this command on each Multi-Domain Server, Domain Log Server and Multi-Domain Log Server:
   `/opt/CPUninstall/R77.20/UnixUninstallScript`
3. When prompted, run: `mdsstart`

**Note:** After you uninstall, the Login prompt and the WebUI Welcome screen still show “Check Point Gaia R77.20”.

### Uninstalling R77.20 Add-on

⚠️ **Important:** If you installed the R77.20 Add-on with CPUSE, you must uninstall it with CPUSE.

During uninstallation, objects and services added by the Add-on are removed. Before you uninstall the Add-on, delete rules and groups that use the Add-on objects and services (or remove these objects and services from the rules and groups).

If you do not remove the Add-on objects and services, and try to uninstall the R77.20 Add-on, uninstallation fails. You can see the list of the remaining Add-on objects to remove in this log: `/opt/CPshrd-R77/log/PIscrub-preuninstall.elg`

**To uninstall the R77.20 Add-on with CPUSE:**

1. Remove all Add-on objects.
2. In **Upgrades (CPUSE)**, select the R77.20 Security Management Server.
3. Click **Check Point R77.20 Add-on**.
4. Click **Uninstall**.

**To uninstall the R77.20 Add-on with CLI:**

1. Remove all Add-on objects.
2. Run: `/opt/CPUninstall/R77.20_Add-ons_Package/UnixUninstallScript`
3. After installation completes, run: `cpstart`

**To uninstall the R77.20 Add-on in Multi-Domain Security Management environments:**

1. Login to SmartDomain Manager.
2. In **Versions & Blades Updates**, right click and select **Deactivate**.
3. Run this command on each Multi-Domain Server and Multi-Domain Log Server:
   `/opt/CPUninstall/R77.20_Add-ons_Package/UnixUninstallScript`
4. When prompted, run: `mdsstart`
Installation and Upgrade Packages

If you choose to install manually, and you are not using CPUSE ("Recommended Upgrade: CPUSE" on page 12), download the appropriate legacy package from the Check Point Support Center.

Gaia Packages:

<table>
<thead>
<tr>
<th>Package</th>
<th>Clean Install of R77.20</th>
<th>Upgrade from R77 / R77.10</th>
<th>Upgrade from R76, R75.4X, R75.40VS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check_Point_R77.20_T124_Install.Gaia.iso</td>
<td>from CLI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check_Point_R77.20_T127_Upgrade.Gaia.iso</td>
<td></td>
<td>from CLI</td>
<td></td>
</tr>
<tr>
<td>Check_Point_R77.20_T124.Gaia.tgz</td>
<td></td>
<td>from CLI, SmartUpdate</td>
<td></td>
</tr>
<tr>
<td>Check_Point_R77.20_T124_upg_WEBUI_Sma rtUpdate.Gaia.tgz</td>
<td></td>
<td>from WebUI, SmartUpdate</td>
<td></td>
</tr>
</tbody>
</table>

Notes -

To upgrade from R77 or R77.10 in SmartUpdate, right-click the package name and select Distribute. The Upgrade to Management Version option is not supported for these versions.

To upgrade Multi-Domain Security Management components, you must use the ISO (or CPUSE).