How To Install SecurePlatform with PXE

10 May 2012
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=12498
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>
</tr>
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<tr>
<td>5/10/2012</td>
<td>First release of this document</td>
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</tbody>
</table>

**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 How To Install SecurePlatform with PXE ).
Contents

Important Information.................................................................3
How to Install SecurePlatform with PXE .....................................5
Objective ....................................................................................5
  Supported Versions .................................................................5
  Supported Appliances .............................................................5
Before You Start..........................................................................5
  Related Documentation ............................................................5
Setting up the PXE Server ............................................................5
  Step 1: Configure TFTP ............................................................6
  Step 2: Configure DHCP ........................................................6
  Step 3: Restart the DHCP and TFTP services ..........................7
  Step 4: Configure Bios ..........................................................7
Installing SecurePlatform .............................................................7
Index ..........................................................................................11
How to Install SecurePlatform with PXE

Objective

This document explains how to remotely install SecurePlatform from a network, without a CDROM or a USB stick, using a Preboot Execution Environment (PXE) server.

Supported Versions

Any Check Point version. The examples are based on R65, but the process applies to all versions.

Supported Appliances

Any appliance

Before You Start

Related Documentation

Installation and Upgrade Guide, in the Install from Network section.

Setting up the PXE Server

The server setup requires these packages, for the version of SecurePlatform that you use.

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHCP daemon</td>
<td>Check Point CD and installed, by default, on SecurePlatform.</td>
</tr>
<tr>
<td>Xinetd</td>
<td>SecurePlatform CD at /SecurePlatform/RPMS/xinetd-2.3.11-4cp.1386.rpm</td>
</tr>
<tr>
<td>TFTP daemon</td>
<td>SecurePlatform CD at /SecurePlatform/RPMS/tftp-server-0.32-5cp.i386.rpm</td>
</tr>
<tr>
<td>FTP server</td>
<td>SecurePlatform CD at /SecurePlatform/RPMS/ftpd-0.3.3-118.4cp.i386.rpm</td>
</tr>
<tr>
<td>TCP-Wrappers package</td>
<td>SecurePlatform CD at /SecurePlatform/RPMS/tcp_wrappers-7.6-34.4cp.i386.rpm</td>
</tr>
<tr>
<td>Kernel</td>
<td>SecurePlatform CD at /SecurePlatform/kernel</td>
</tr>
<tr>
<td>Ramdisk</td>
<td>SecurePlatform CD at /SecurePlatform/ramdisk-pxe</td>
</tr>
</tbody>
</table>
To install the packages:

```bash
# rpm -Uvh --force tcp_wrappers-7.6-34.4cp.i386.rpm
# rpm -Uvh --force tftp-server-0.32-5cp.i386.rpm
# rpm -Uvh --force ftpd-0.3.3-118.4cp.i386.rpm
# rpm -Uvh --force xinetd-2.3.11-4cp.i386.rpm
```

**Step 1: Configure TFTP**

1. In the TFTP root directory, under `/tftpboot`, create a directory named `pxelinux.cfg`.
2. In the `pxelinux.cfg` directory, create a file named `default`.
3. Edit the new file to have these lines:

   ```
   default bootnet
   serial 0 9600
   label bootnet
   kernel kernel
   append initrd=ramdisk.pxe lang= devfs=nomount
   ramdisk_size=80024
   console=ttyS0 pci=noacpi
   ```

4. Under `/tftpboot`, create a directory named `/iso` and copy into it the iso file from FTP/SCP.
5. Under `/tftpboot`, create a directory for the operating system to be installed.
6. Mount the `iso` file: `# mount -o loop /iso/iso_file.iso /tftpboot/R65`
7. Copy the `kernel` and `ramdisk.pxe` files from `/tftpboot/R65/SecurePlatform` to `/tftpboot`.

**Step 2: Configure DHCP**

1. Configure the DHCP server in `sysconfig`.
2. Complete the SecurePlatform setup. Install the Check Point products.
3. Edit `/etc/dhcpd.conf` with these lines, where 192.168.0.1/254 is an example IP address of the configured DHCP server:

   ```
   # DHCP server configuration:
   # Network address 192.168.0.0
   # Subnet Mask: 255.255.255.0
   # Default route / Interface IP on SPLAT is: 192.168.0.1

   ddns-update-style interim;
   subnet 192.168.0.0 netmask 255.255.255.0 {
     range 192.168.0.10 192.168.0.254;
     default-lease-time 3600;
     max-lease-time 4800;
     option routers 192.168.0.1;
     option domain-name-servers 192.168.0.1;
     option subnet-mask 255.255.255.0;
     option domain-name "new.net";
     option time-offset -8;
   }

   # MAC of the machine that we going to install is:
   # 04:4B:80:80:80:03
   host new {
     hardware ethernet 04:4B:80:80:80:03;
     fixed-address 192.168.0.254;
     option host-name "new";
     filename "pxelinux.0";
   }
   ```

This sets up a DHCP server that assigns the IP address of 192.168.0.254 to the client box with the MAC address of 04:4B:80:80:80:03 assigned to its PXE-boot capable NIC.
The private 192.168.X.X subnet is reserved in this setup. Change only the MAC address to match the NIC on your client computer.

**Step 3: Restart the DHCP and TFTP services**

Start DHCP and activate TFTP with:

```
service dhcd restart
service xinetd restart
```

**Step 4: Configure Bios**

In BIOS, set the first boot device to LAN (follow the vendor’s instructions to change the BIOS settings).

# Installing SecurePlatform

1. Boot the machine from LAN.
2. When prompted to select a network installation method, select FTP and OK.
3. Select the appropriate eth and OK.

4. Set an IP from the interface (the default gateway is the PXE server: 192.168.0.1) and select OK.

5. In FTP server name, enter 192.168.0.1. In Packages directory, enter the path to the installation directory. For example: /tfpboot/R65/

6. Select Use non-anonymous ftp and select OK.
Index

B
Before You Start • 5

H
How to Install SecurePlatform with PXE • 5

I
Important Information • 3
Installing SecurePlatform • 7

O
Objective • 5

R
Related Documentation • 5

S
Setting up the PXE Server • 5
Supported Appliances • 5
Supported Versions • 5