Installing PXE Network Boot

After you have all prerequisites (Prerequisites for Using PXE Network Boot) in order, follow the instructions below to install PXE Network Boot.

> **Note**
> If you do not have administrative access to the DHCP, TFTP, and NFS servers, ask the server administrator to install PXE Network Boot on the TFTP and NFS Server and configure the DHCP Server to enable it.

> **New in Version 3**
> The Disaster Recovery Boot Media 3x CD is based on the Debian Live Linux distribution. Several modifications have been made to Debian Live including removing unnecessary packages to make the ISO size smaller, configuring the CDP Agent to start automatically at boot, and adding the option to start SSH after configuring network settings.

> **Note**
> The instructions below apply both to PXE server and PXE agent. The only difference is that any reference to server should be changed to agent (for example, archive directory is called `pxe-agent` instead of `pxe-server`).

1. Extract the archive. If you have saved the PXE server archive to the `/root` directory, and the filename of the archive is `r1soft-cdp-pxe-server.tar.gz`, execute the following commands (as root):

```
[root@pxeserver ~]# cd
[root@pxeserver ~]# tar xfvz r1soft-cdp-pxe-server.tgz
```

The archive contains only one directory `pxe-server`. Inside this directory there are two directories: `debian-live` and `tftpboot`. The first directory should be placed inside NFS share. The second directory should itself be shared via TFTP. If your NFS share is `/nfsroot` and TFTP service is configured to serve files from `/tftpboot` directory, execute the following commands:

```
[root@pxeserver ~]# cd pxe-server
[root@pxeserver ~]# rm -rf /tftpboot
[root@pxeserver ~]# mv tftpboot /
[root@pxeserver ~]# mv debian-live /nfsroot
```

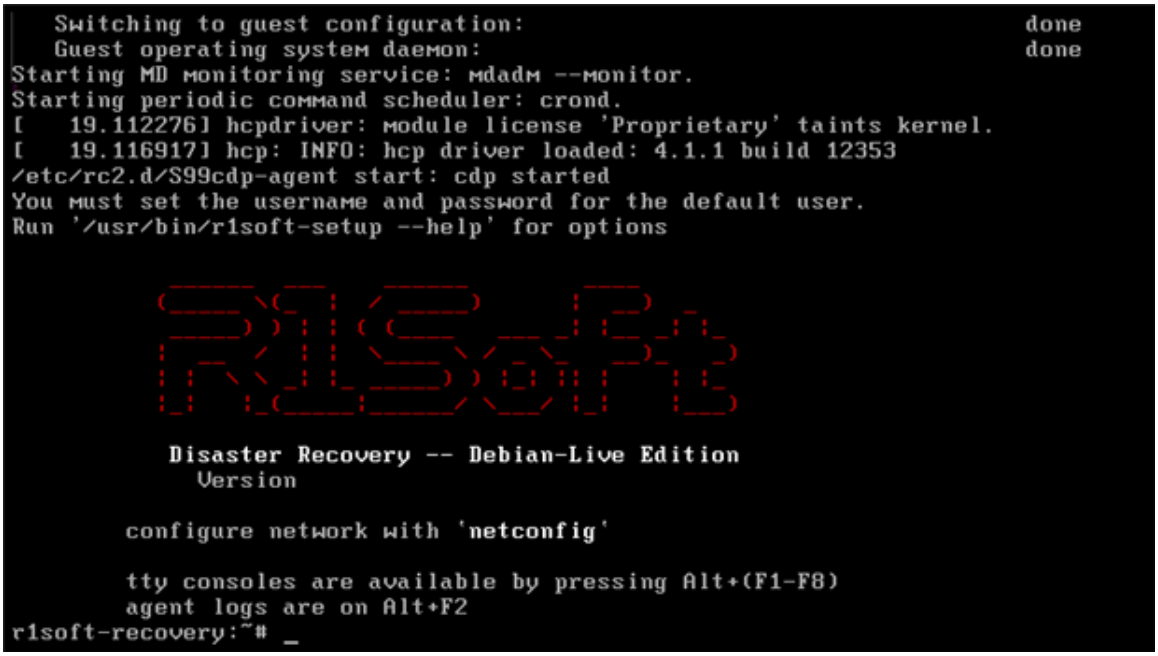
> **Note**
> PXE boot environment comes preconfigured for NFS server with IP Address 192.168.1.1. If your NFS server has a different IP Address, please open the file `/tftpboot/debian-live/i386/boot-screens/live.cfg` in your favorite text editor and change all occurrences of 192.168.1.1 to the IP address of your NFS server. Otherwise, booting from the network will not work.

2. The `life.cfg` file contains the following information:

```
label R1SOFT-PXEBOOT-AGENT
menu label R1SOFT-PXEBOOT-AGENT
kernel debian-live/i386/vmlinuz-2.6.32-5-686
append initrd=debian-live/i386/initrd.img-2.6.32-5-686 boot=live config boot=live username=root
hostname=r1soft-recovery union=aufs nolvm noswap username=root hostname=r1soft-recovery
netboot=nfs nfsroot=10.230.100.254:/mnt/nfs/debian-live-agent

label R1SOFT-PXEBOOT-SERVER
menu label R1SOFT-PXEBOOT-SERVER
kernel debian-live/i386/vmlinuz-2.6.32-5-686
append initrd=debian-live/i386/initrd.img-2.6.32-5-686 boot=live config boot=live username=root
hostname=r1soft-recovery union=aufs nolvm noswap username=root hostname=r1soft-recovery
netboot=nfs nfsroot=10.230.100.254:/mnt/nfs/debian-live-server
#noapic noapm nodma nomce nolapic nomodeset nosmp vga=normal

label R1SOFT-PXEBOOT-AGENT-TWO
menu label R1SOFT-PXEBOOT-AGENT-TWO
kernel debian-live/i386/vmlinuz-2.6.26-2-686
append initrd=debian-live/i386/initrd.img-2.6.26-2-686 boot=live config boot=live username=root
hostname=r1soft-recovery union=aufs nolvm noswap username=root hostname=r1soft-recovery
netboot=nfs nfsroot=10.230.100.254:/mnt/nfs/debian-live-agent-2

label MEMTEST
menu label MEMTEST
kernel debian-live/i386/memtest

#labelfloppy
# localboot 0x00

#label disk1
# localboot 0x80

#label disk2
# localboot 0x81

#label nextboot
# localboot -1
```

3. Boot the server from the network. If the DHCP server, TFTP server, and network itself are set up and working correctly, the first screen that you will see after booting from network is the Debian Live welcome screen. Press Enter to continue boot process.

4. You will see a lot of debugging messages from booting Linux kernel. In a couple of minutes, you should see the "R1Soft Disaster Recovery" welcome screen. Even if you are booting PXE server environment, CDP Agent will be started automatically.



5. You do not need to run the `netconfig` command because the network should already be configured. Read more on this topic in Configuring Network for Bare-Metal Restore.

6. You are ready to perform a Bare-Metal Restore. Proceed to the next step: Launching Bare-Metal Restore.