

Slackware Network Install on Raspberry Pi 3

Introduction

This is an abridged version of the SARPi (<http://sarpi.co.uk/>) installation guide dealing with the 'headless' install case for installing Slackware 14.2. There is nothing wrong with the original guide, it is **very** complete, but it will be somewhat wordy for people with prior Slackware installation experience, includes many screenshots familiar to users of Slackware and I found myself wanting to see just the differences between Intel and RPi install instead of the whole shebang.

Requirements

- uSD card at least 16GB in size
- Card reader for your PC
- The RPi 3 itself
- A power supply for the Pi
- Ethernet cable

SD card preparation

(On your desktop machine) Assuming your SD device is /dev/sdc

```
# wget
http://sarpi.co.uk/files/rpi3/142/img/sarpi3-installer_slack14.2_20Jul18_sp1
.img.xz
# xz -dc sarpi3-installer_slack14.2_20Jul18_sp1.img.xz | dd of=/dev/sdc
bs=65536
# mount /dev/sdc1 /mnt/hd
# vim /mnt/hd/cmdline.txt
```

Add the following text to the end of the line with the boot parameters:

```
kbd=us nic=auto:eth0:dhcp
```

Booting the installer

Put the uSD card back in the Pi, and boot it. It will boot into a ramdisk which is running the installer. Boot the Pi while running tcpdump on your desktop to figure out what IP address it takes, you will see a line printed like this:

```
16:27:19.173035 IP 0.0.0.0.bootpc > 255.255.255.255.bootps: BOOTP/DHCP,
Request from b8:27:eb:fe:b8:53 (oui Unknown), length 361
```

```
16:27:19.401973 ARP, Request who-has 172.17.0.71 tell 172.17.0.71, length 46
```

In this case the IP address of the Pi is 172.17.0.71.

ssh into the Pi as root:

```
# ssh root@172.17.0.71
```

Press <enter> for password.

Set the date:

```
# ntpdate 0.pool.ntp.org
```

Set the terminal to something that will allow the dialog program to work properly if you don't want setup screens to look like garbage:

```
# export TERM=vt320
```

Using fdisk (or your favourite Slackware partition editor), update the partition table on the /dev/mmcbk0 device to reflect how you want your system.

```
# fdisk /dev/mmcbk0
```

The dd command when preparing the uSD will have already given you a 'boot' partition (/dev/mmcbk0p1), leave that alone and only add partitions to leave something like this:

Device	Boot	Start	End	Sectors	Size	Id	Type
/dev/mmcbk0p1	*	32	205055	205024	100.1M	c	W95 FAT32 (LBA)
/dev/mmcbk0p2		206848	2303999	2097152	1G	82	Linux swap
/dev/mmcbk0p3		2304000	124735487	122431488	58.4G	83	Linux

Swap is of course optional.

Running setup

Setup is now much the same as for Intel. Remap keyboard, format partitions etc.. There will be a warning about the lack of RTC when choosing EXT4 FS, just do as it suggests.

Choose HTTP install, and set the location as:

```
http://ftp.arm.slackware.com
```

Set the source directory as:

```
/slackwarearm/slackwarearm-14.2
```

The source directory is the one that contains PACKAGES.TXT.

Run the install as normal.

Booting from the Linux partition

You've now installed the necessary packages, but your system will still boot the installer ramdisk image from the FAT partition until you change some things.

If you didn't during setup make the partition `/dev/mmcblk0p1` visible to your Linux system just mount it now, e.g.:

```
# mount /dev/mmcblk0p1 /mnt/boot
```

To free up some space, remove the ramdisk image:

```
# rm /mnt/boot/initrd.gz
```

Now, assuming your rootfs is mounted at `/mnt`, and boot partition at `/mnt/boot` install extra packages:

```
# ROOT=/mnt installpkg /rpi-extra/kernel* /rpi-extra/sarpi*
```

Final configuration

You can also, during setup or at a later stage make the following change if no RTC has been installed:

edit `/etc/ntp.conf` and comment-in these lines:

```
server 0.pool.ntp.org iburst
server 1.pool.ntp.org iburst
server 2.pool.ntp.org iburst
server 3.pool.ntp.org iburst
```

```
# chmod 755 /etc/rc.d/rc.ntpd
# /etc/rc.d/rc.ntpd start
```

Note that the RPi ssh identity has now changed from the one used for the installer, so when you ssh to your newly installed Slackware box you will have to remove the entry from `.ssh/known_hosts` on your ssh client.

Sources

- Much information taken from the [SARPi website](#)
- Page written by [User bifferos](#)

[howtos](#), [RPi](#), [raspberrypi3_network](#), [arm](#), [author](#) [bifferos](#)

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