

配置NTP客户端

3120103973 王涛
计科1207

1. 在树莓派上面安装NTP客户端，使用命令
`sudo apt-get install ntpdate`

```
root@raspberrypi-wt:/etc/apt# sudo apt-get install ntpdate
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following extra packages will be installed:
  liblockfile-bin liblockfile1 lockfile-progs
The following NEW packages will be installed:
  liblockfile-bin liblockfile1 lockfile-progs ntpdate
0 upgraded, 4 newly installed, 0 to remove and 21 not upgraded.
Need to get 122 kB of archives.
After this operation, 409 kB of additional disk space will be used.
Do you want to continue [Y/n]? y
Get:1 http://mirrors.zju.edu.cn/raspbian/raspbian/ wheezy/main liblockfile-bin armhf 1.09-5 [17.9 kB]
Get:2 http://mirrors.zju.edu.cn/raspbian/raspbian/ wheezy/main liblockfile1 armhf 1.09-5 [14.4 kB]
Get:3 http://mirrors.zju.edu.cn/raspbian/raspbian/ wheezy/main ntpdate armhf 1:4.2.6.p5+dfsg-2+deb7u3 [79.0 kB]
Get:4 http://mirrors.zju.edu.cn/raspbian/raspbian/ wheezy/main lockfile-progs armhf 0.1.17 [10.6 kB]
Fetched 122 kB in 0s (471 kB/s)
Selecting previously unselected package liblockfile-bin.
(Reading database ... 76938 files and directories currently installed.)
Unpacking liblockfile-bin (from .../liblockfile-bin_1.09-5_armhf.deb) ...
Selecting previously unselected package liblockfile1:armhf.
Unpacking liblockfile1:armhf (from .../liblockfile1_1.09-5_armhf.deb) ...
Selecting previously unselected package ntpdate.
Unpacking ntpdate (from .../ntpdate_1%3a4.2.6.p5+dfsg-2+deb7u3_armhf.deb) ...
Selecting previously unselected package lockfile-progs.
Unpacking lockfile-progs (from .../lockfile-progs_0.1.17_armhf.deb) ...
Processing triggers for man-db ...
Setting up liblockfile-bin (1.09-5) ...
Setting up liblockfile1:armhf (1.09-5) ...
Setting up ntpdate (1:4.2.6.p5+dfsg-2+deb7u3) ...
Setting up lockfile-progs (0.1.17) ...
root@raspberrypi-wt:/etc/apt#
```

值得一提的是，由于路由器的nameserver 配置不完全导致外网访问的速度相当慢，因此我们采用了浙大的内网的镜像站，我们需要进入/etc/apt目录下更改apt-get的镜像位置

2. 配置ntp客户端

使用命令tzselect选择时区

选择北京时间，具体的结果见下图：

```

root@raspberrypi-wt:/etc/apt# tzselect
Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
1) Africa
2) Americas
3) Antarctica
4) Arctic Ocean
5) Asia
6) Atlantic Ocean
7) Australia
8) Europe
9) Indian Ocean
10) Pacific Ocean
11) none - I want to specify the time zone using the Posix TZ format.
#? 5
Please select a country.
1) Afghanistan      18) Israel           35) Palestine
2) Armenia           19) Japan            36) Philippines
3) Azerbaijan        20) Jordan           37) Qatar
4) Bahrain           21) Kazakhstan       38) Russia
5) Bangladesh        22) Korea (North)    39) Saudi Arabia
6) Bhutan            23) Korea (South)    40) Singapore
7) Brunei            24) Kuwait           41) Sri Lanka
8) Cambodia          25) Kyrgyzstan       42) Syria
9) China             26) Laos             43) Taiwan
10) Cyprus           27) Lebanon          44) Tajikistan
11) East Timor       28) Macau            45) Thailand
12) Georgia          29) Malaysia         46) Turkmenistan
13) Hong Kong        30) Mongolia         47) United Arab Emirates
14) India            31) Myanmar (Burma)  48) Uzbekistan
15) Indonesia        32) Nepal            49) Vietnam
16) Iran             33) Oman             50) Yemen
17) Iraq            34) Pakistan
#? 9
Please select one of the following time zone regions.
1) Beijing Time
2) Xinjiang Time
#? 1

```

The following information has been given:

```

China
Beijing Time

```

```

Therefore TZ='Asia/Shanghai' will be used.
Local time is now:      Thu Mar 26 11:50:50 CST 2015.
Universal Time is now:  Thu Mar 26 03:50:50 UTC 2015.

```

3. 使用NTP客户端连接NTP服务器获取时间：

```

root@raspberrypi-wt:/etc/apt# sudo ntpdate cn.pool.ntp.org
26 Mar 11:51:40 ntpdate[2921]: the NTP socket is in use, exiting
root@raspberrypi-wt:/etc/apt# date
Thu Mar 26 11:51:48 CST 2015
root@raspberrypi-wt:/etc/apt# █

```

可以通过cn.pool.ntp.org获得当前的北京时间，通过date命令查看当前时间，发现我们的时间的确达到了同步；

至此，ntp客户端的设置完成；