花生壳客户端

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在 Acadia 或 RPi 或 WRTnode 上实现一个花生壳（oray.com）的客户端，可以实现 3322.org 等免费域名的指向

实现目的

1. 了解花生壳客户端的概念及其基本实现方法；

2. 掌握 Acadia 或 RPi 或 WRTnode 上建立花生壳客户端的方式；

实验器材

硬件

- Acadia 板一块；

- 5V/1A 电源一个；

- microUSB 线一根；

- USB-TTL 串口线一根（FT232RL 芯片或 PL2303 芯片）。

以下为自备（可选）器材：

- PC（Windows/Mac OS/Linux）一台；

- 以太网线一根（可能还需要路由器等）。

软件

- PC 上的 USB-TTL 串口线配套的驱动程序；

- PC 上的串口终端软件，如 minicom、picocom、putty 等；

- PC 上的 SSH 软件，如 putty 等。

实验步骤

1. 安装依赖包；

```
root@Acadia:~# sudo apt-get install autoconf automake
Reading package lists... Done
Building dependency tree
Reading state information... Done
autoconf is already the newest version.
autoconf set to manually installed.
automake is already the newest version.
automake set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
```

2. 下载安装 phddns 并进行配置；

下载 phddns，并解压：

```
root@Acadia:~# wget http://download.oray.com/peanuthull/phddns-2.0.2.16556.tar.g
z
--2015-03-27 14:05:32--  http://download.oray.com/peanuthull/phddns-2.0.2.16556.
tar.gz
Resolving download.oray.com (download.oray.com)... 61.152.96.115
Connecting to download.oray.com (download.oray.com)|61.152.96.115|:80... connect
ed.
HTTP request sent, awaiting response... 200 OK
Length: 104718 (102K) [application/octet-stream]
Saving to: `phddns-2.0.2.16556.tar.gz'

100%[====================================>] 104,718      395K/s   in 0.3s

2015-03-27 14:05:32 (395 KB/s) - `phddns-2.0.2.16556.tar.gz' saved [104718/10471
8]

root@Acadia:~# tar zxvf phddns-2.0.2.16556.tar.gz
```

进入目录并编译：

```
root@Acadia:~# cd phddns-2.0.2.16556
root@Acadia:~/phddns-2.0.2.16556# aclocal
root@Acadia:~/phddns-2.0.2.16556# autoconf
root@Acadia:~/phddns-2.0.2.16556# automake
root@Acadia:~/phddns-2.0.2.16556# ./configure
```

```
root@Acadia:~/phddns-2.0.2.16556# make
```

```
root@Acadia:~/phddns-2.0.2.16556# cd src/
root@Acadia:~/phddns-2.0.2.16556/src# ls -l phddns
-rwxr-xr-x 1 root root 30834 Apr  2 17:59 phddns
root@Acadia:~/phddns-2.0.2.16556/src#
```

然后现在官网上注册，然后进行相关配置：

```
root@Acadia:~/phddns-2.0.2.16556/src# ./phddns
192.168.1.104
NIC bind success
defOnStatusChanged okConnecting
defOnStatusChanged okRedirecting
defOnStatusChanged okConnecting
defOnStatusChanged okDomainListed
defOnDomainRegistered yanghanyuoray.vicp.cc
defOnUserInfo <userInfo account='yanghanyuoray' login='yanghanyuoray'><ID>130864
77</ID><Account>yanghanyuoray</Account><Password></Password><Email>523156933@qq.
com</Email><RegDate>1427436705</RegDate><Credit>0.0</Credit><Largess>0.0</Larges
s><IsEnable></IsEnable><IsEnterprise>0</IsEnterprise><IsMale>1</IsMale><AccountU
serType>1</AccountUserType><RegDate>1427436705</RegDate><ProExpireDate>0</ProExp
ireDate><ServiceType>0</ServiceType><ClientIP>899718583</ClientIP></userInfo>
defOnAccountDomainInfo <domainInfo account='yanghanyuoray' login='yanghanyuoray'
><domains><domain><DomainName>yanghanyuoray.vicp.cc</DomainName><RegDate>1427436
714</RegDate><Account>yanghanyuoray</Account><StatusCode>1689</StatusCode><RootN
ame>vicp.cc</RootName><IsFree>1</IsFree></domain></domains><domainInfo>
defOnStatusChanged okDomainsRegistered, UserType: 0
```

看到上面这些就表示登录成功，这个时候可以按 ctrl+c 先退出程序。

再将 phddns 拷贝到相关位置：

```
root@Acadia:~/phddns-2.0.2.16556/src# cp phddns /usr/bin/
```

3. 检查运行状况。

以后台模式启动花生壳并检查运行情况：

```
root@Acadia:~/phddns-2.0.2.16556/src# /usr/bin/phddns -c /etc/phlinux.conf -d
192.168.1.104
NIC bind success
phddns started as daemon!
root@Acadia:~/phddns-2.0.2.16556/src# tail /var/log/phddns.log
<domainInfo account='yanghanyuoray' login='yanghanyuoray'><domains><domain><Doma
inName>yanghanyuoray.vicp.cc</DomainName><RegDate>1427436714</RegDate><Account>y
anghanyuoray</Account><StatusCode>1689</StatusCode><RootName>vicp.cc</RootName><
IsFree>1</IsFree></domain></domains><domainInfo>
Thu Apr  2 18:08:09 2015| SEND QUIT COMMAND...Thu Apr  2 18:08:09 2015| OK.
Thu Apr  2 18:08:09 2015| 221 Good bye
Thu Apr  2 18:08:09 2015| ExecuteUpdate OK, BeginKeepAlive!
Thu Apr  2 18:09:10 2015| SendKeepAlive() 8208
Thu Apr  2 18:09:11 2015| RecvKeepaliveResponse() Data comes, OPCODE:8272
Thu Apr  2 18:09:11 2015| Keepalive response received, client ip: 183.157.160.53
Thu Apr  2 18:10:11 2015| SendKeepAlive() 8208
Thu Apr  2 18:10:12 2015| RecvKeepaliveResponse() Data comes, OPCODE:8272
Thu Apr  2 18:10:12 2015| Keepalive response received, client ip: 183.157.160.53
```

然后退出花生壳：

```
root@Acadia:~/phddns-2.0.2.16556/src# ps -A |grep phddns
 6912 ?        00:00:00 phddns
root@Acadia:~/phddns-2.0.2.16556/src# kill -9 6912
root@Acadia:~/phddns-2.0.2.16556/src# ps -A |grep phddns
root@Acadia:~/phddns-2.0.2.16556/src#
```

将花生壳加到系统启动时运行：

```
  GNU nano 2.2.6              File: /etc/rc.local

#!/bin/sh -e
#
# rc.local
#
# This script is executed at the end of each multiuser runlevel.
# Make sure that the script will "exit 0" on success or any other
# value on error.
#
# In order to enable or disable this script just change the execution
# bits.
#
# By default this script does nothing.

sudo modprobe vivante
sudo modprobe galcore
exit 0
/usr/bin/phddns -c /etc/phlinux.conf -d
```

检查域名是否正确解析：

| yanghanyuoray.vicp.cc | A记录 | 通用 | 183.157.160.53 | - | 60 | 修改 删除 |

可以看到域名解析到了 183.157.160.53。

在 who.is 查询公网 IP：

也是 183.157.160.53，说明域名解析成功。

但这应该是学校内网的出口 IP，因为使用的是学校的 VPN，所以没有独立 IP。因此外网用户不能根据此 IP 访问到 pcDuino。