cituser@ubuntu:~$ sudo apt-get update
cituser@ubuntu:~$ sudo apt-get install samba samba-client ntp
joe@it3110-dhcp:/etc/dhcp$ echo "Added a fixed dhcp address for this linux client"
Added a fixed dhcp address for this linux client
joe@it3110-dhcp:/etc/dhcp$
joe@it3110-dhcp: /etc/dhcp$ echo "Added a fixed dhcp address for this linux client"
Added a fixed dhcp address for this linux client
joe@it3110-dhcp: /etc/dhcp$ cat dhcpd.conf
host logger {
  hardware ethernet 52:54:00:08:01:E0;
  fixed-address 144.38.220.212;
}

host ldap{
  hardware ethernet 52:54:00:08:03:47;
  fixed-address 144.38.220.201;
}

host ldap2{
  hardware ethernet 52:54:00:08:03:56;
  fixed-address 144.38.220.202;
}

host win10{
  hardware ethernet 52:54:00:08:01:45;
  fixed-address 144.38.220.215;
}

host linsambaclient{
  hardware ethernet 52:54:00:08:00:3e;
  fixed-address 144.38.220.204;
}
cituser@ubuntu:~$ echo "Edit hosts file"
Edit hosts file
cituser@ubuntu:~$ cat /etc/hosts
127.0.0.1 localhost
144.38.220.204 linuxsambaclient.zero.cs.dixie.edu linuxsambaclient

# The following lines are desirable for IPv6 capable hosts
::1 localhost ip6-localhost ip6-loopback
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
cituser@ubuntu:~$ sudo vi /etc/hostname
sudo: unable to resolve host ubuntu
cituser@ubuntu:~$ cat /etc/hostname
linuxsambaclient
cituser@ubuntu:~$ sudo reboot
sudo: unable to resolve host ubuntu
cituser@ubuntu:~$

Broadcast message from cituser@ubuntu
         (/dev/pts/2) at 11:22 ...

The system is going down for reboot NOW!
Connection to 144.38.220.204 closed by remote host.
Connection to 144.38.220.204 closed.
joe@yavin:~$
cituser@linuxsambaclient:~$ sudo service ntp stop
[sudo] password for cituser:
* Stopping NTP server ntpd
  [ OK ]
cituser@linuxsambaclient:~$ sudo ntpdate -B 0.ubuntu.pool.ntp.org
17 Feb 11:24:54 ntpdate[1236]: adjust time server 171.66.97.126 offset -0.002897 sec
cituser@linuxsambaclient:~$ sudo service ntp start
* Starting NTP server ntpd
  [ OK ]
cituser@linuxsambaclient:~$
cituser@linuxsambaclient:~$ echo "name tests"nname testsncituser@linuxsambaclient:~$ host -t SRV _ldap._tcp.pdc.zero.cs.dixie.edu _ldap._tcp.pdc.zero.cs.dixie.edu has SRV record 0 100 389 dc1.pdc.zero.cs.dixie.eduncituser@linuxsambaclient:~$ echo "YAY"nYAYncituser@linuxsambaclient:~$
$ sudo apt-get install krb5-user winbind cifs-utils smbclient libnss-winbind libpam-winbind
Configuring Kerberos Authentication

When users attempt to use Kerberos and specify a principal or user name without specifying what administrative Kerberos realm that principal belongs to, the system appends the default realm. The default realm may also be used as the realm of a Kerberos service running on the local machine. Often, the default realm is the uppercase version of the local DNS domain.

Default Kerberos version 5 realm:

ZERO.CS.DIXIE.EDU

<Ok>
Package configuration

Confirguring Kerberos Authentication

Enter the hostnames of Kerberos servers in the ZERO.CS.DIXIE.EDU Kerberos realm separated by spaces.

Kerberos servers for your realm:

pdc.zero.cs.dixie.edu

<Ok>
Configuring Kerberos Authentication

Enter the hostname of the administrative (password changing) server for the ZERO.CS.DIXIE.EDU Kerberos realm.

Administrative server for your Kerberos realm:

```
pdc.zero.cs.dixie.edu
```

<Ok>
Create ticket granting ticket for client to connect with

$ kinit administrator@PDC.ZERO.CS.DIXIE.EDU
Password for administrator@PDC.ZERO.CS.DIXIE.EDU:
Warning: Your password will expire in 40 days on Tue 29 Mar 2016 10:14:22 AM MDT
Test connection

```
$ echo "Test connection"
Test connection
```

```
$ sudo smbclient -L PDC.ZERO.CS.DIXIE.EDU -U%
Domain=[PDC] OS=[Unix] Server=[Samba 4.1.6-Ubuntu]

<table>
<thead>
<tr>
<th>Sharename</th>
<th>Type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>netlogon</td>
<td>Disk</td>
<td></td>
</tr>
<tr>
<td>sysvol</td>
<td>Disk</td>
<td></td>
</tr>
<tr>
<td>profiles</td>
<td>Disk</td>
<td></td>
</tr>
<tr>
<td>IPC$</td>
<td>IPC</td>
<td>IPC Service (Samba 4.1.6-Ubuntu)</td>
</tr>
</tbody>
</table>
```

```
Domain=[PDC] OS=[Unix] Server=[Samba 4.1.6-Ubuntu]

<table>
<thead>
<tr>
<th>Server</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workgroup</td>
<td>Master</td>
</tr>
<tr>
<td>WORKGROUP</td>
<td>DC1</td>
</tr>
</tbody>
</table>
```

cituser@linuxsambaclient:~$ sudo smbclient //pdc/netlogon -UAdministrator
Enter administrator's password:
Domain=[PDC] OS=[Unix] Server=[Samba 4.1.6-Ubuntu]
smb: \>
netbios name = linuxsambaclient
security = ADS
workgroup = PDC
realm = PDC.ZERO-CS.DIXIE.EDU
password server = 144.38.220.203

idmap uid = 10000-20000
idmap gid = 10000-20000
winbind enum users = yes
winbind enum groups = yes
#template homedir = /home/%D/%U
template shell = /bin/bash
client use spnego = yes
client ntlm2 auth = yes
encrypt passwords = yes
winbind use default domain = yes
restrict anonymous = 2
cituser@linuxsambaclient:~$ sudo service samba restart


cituser@linuxsambaclient:~$ sudo net ads join -U administrator
Our netbios name can be at most 15 chars long, "LINUXSAMBACLIENT" is 16 chars long
Invalid configuration. Exiting....
Failed to join domain: The format of the specified computer name is invalid.
cituser@linuxsambaclient:~$
[global]

    netbios name = linsambaclient
    security = ADS
    workgroup = PDC
    realm = PDC.ZERO-CS.DIXIE.EDU
    password server = 144.38.220.203

    idmap uid = 10000-20000
    idmap gid = 10000-20000
    winbind enum users = yes
    winbind enum groups = yes
    #template homedir = /home/%D/%U
    template shell = /bin/bash
    client use spnego = yes
    client ntlm2 auth = yes
    encrypt passwords = yes
    winbind use default domain = yes
    restrict anonymous = 2

cituser@linuxsambaclient:~$
cituser@linuxsambaclient:~$ sudo net ads join -U administrator
Enter administrator's password:
Using short domain name -- PDC
Joined 'LINSAMBACLIENT' to dns domain 'pdc.zero.cs.dixie.edu'
No DNS domain configured for linsambaclient. Unable to perform DNS Update.
DNS update failed: NT_STATUS_INVALID_PARAMETER

cituser@linuxsambaclient:~$
cituser@linuxsambaclient:~$ sudo service winbind restart
  winbind stop/waiting
  winbind start/running, process 2499

cituser@linuxsambaclient:~$ wbinfo -u

administrator
krbtgt
guest
marty
biff

cituser@linuxsambaclient:~$ echo "Yay, those are my pdc users"
Yay, those are my pdc users

cituser@linuxsambaclient:~$
# Example configuration of GNU Name Service Switch functionality.
# If you have the `glibc-doc-reference' and `info' packages installed, try:
# `info libc "Name Service Switch"' for information about this file.

passwd: compat winbind
group: compat winbind
shadow: compat winbind

hosts: files dns
networks: files

protocols: db files
services: db files
ethers: db files
rpc: db files

netgroup: nis

cituser@linuxsambaclient:~$
$ id marty
uid=10000(marty) gid=10000(domain users) groups=10000(domain users),10001(domain admins),10002(denied rodc password replication group)

$ getent passwd marty
marty:*:10000:10000:marty:/home/PDC/marty:/bin/bash

$ su - marty
Password:
No directory, logging in with HOME=/
marty@$PWD

$ echo "Still need to fix home directories"
Still need to fix home directories

marty@$PWD