Instructions for Adding a MacOS 10.4.x Server to ASURITE for File Sharing

Installation Section

Purpose: We are setting up a server in ASU's specific environment.

Power on the Server
Insert the CD
Hold down the **Alt**-key on the keyboard
Click on the CD Image
Select **Use English** as the main language
Click on the **Arrow** on the bottom right hand side of the screen
Click **Continue**
Click **Continue**
Click **Continue**
Click **Agree**

Note: *If you wish to setup a RAID or mirroring configuration then click on Utilities then Disk Utility...*
Click on a sub hard drive the click on RAID, from here you can specify the configuration you wish to apply.
When finished, Select Disk Utility, then Quit Disk Utility

Note: *If you receive an error message or wish to change your install options, then Click on Options...*
You now have the option of Upgrade Mac OS X Server or Erase and Install.
For clean or new installations, click on Erase and Install.

Click **Continue**

Note: *You have the option of Customize.*
Customize will allow you to Add or remove components you may or may not need.
I recommend removing French, German, and the Japanese language packs unless you need them.
X11 is an optional pack that gives you more options. As always, don't install unless you need it. Never install if you don't understand it.

Click **Install**
The system will run through its installation and reboot (Take a coffee break)
Click **Continue**
Click **Continue**
Enter the serial # and registration information
Click **Continue**
Type in the Name, Short Name, and Password of the Administrator Account
Click **Continue**
Type in the name of the server in Computer Name: and Local Hostname:
Click **Continue**
Verify the Ethernet ports are correct.

Note: *It's not recommended that you active AppleTalk since it is insecure and has been shutdown on campus.*

Click **Continue**

Change Configure Ipv4: from Using DHCP to Manually.
Enter the appropriate IP Address:, Subnet Mask, Router:, DNS Servers:, and the Search Domains:.

Note: *The router is also known as the Gateway*

Note: *Typical DNS Server settings for ASU are:*
129.219.17.5
129.219.13.81
129.219.17.200

Note: *Typical Search Domains for ASU are:*
asurite.ad.asu.edu
ad.asu.edu
asu.edu

Note: *Unless you're an expert do not click Configure Ipv6...*

Click **Continue**
Select **Standalone Server** from Set directory usage to:
Click **Continue**
Click **Continue**
Change the Closet City: to **Phoenix – U.S.A.** by clicking on the map
Click **Continue**
Check **Use a network time server**
Click **Continue**
Click **Apply**
The System will reboot
Login with your local administrator name and password
Click **Log In**

Note: *Before configuring your server, you may want to beef up the resolution to at least 1024x768, by clicking on the* ***System Preferences/Displays*** *then selecting* ***1024x768***

Now would be a good time to run software updates!!
Click on the Blue Apple symbol on the top left-hand side of the screen and click **Software Update**
Click **Install** *X* **Items**

Note: *You will probably have to restart your server after running the updates. Then repeat the update procedure in case there are additional updates.*

Active Directory Configuration Section

Purpose: This joins the server to Active Directory and allows authorization.

Click on the Primary Hard drive which is located on the top right hand side of the screen
Click **Applications\Utilities\Directory Access**
Put a checkmark next to **Active Directory** to enable the service
Highlight Active Directory then click on "**Configure…**"
Click on the down arrow next to "**Show Advanced Options**"

For the following options:

Active Directory Forest: *leave blank*
Active Directory Domain: **asurite.ad.asu.edu**
Computer ID: *enter the name of your server if it isn't already there*

Note: *The ComputerID will be the name of this server in Active Directory. Anything past 16 characters will be truncated.*

Unchecked Create mobile account at login
Unchecked Require confirmation before creating a mobile account

Note: *The mobile account option caches the user's identification data and authentication credentials allowing the user to login when disconnected from the Active Directory.*

Checked Force local home directory on startup disk

Note: *This creates a directory for every person that walks up to your server and logs in, you may not want to force home directories.*

Checked Use UNC path from Active Directory to derive network home location
Network protocol to be used: **smb:**

Note: ***smb:*** *is using samba which is compatible with Windows network mappings*
afp: *is used for connecting to Apple shares*

Checked Default user shell: **/bin/bash**

Under Mappings
Unchecked Map UID to attribute: *leave blank*
Unchecked Map user GID to attribute: *leave blank*
Unchecked Map group GID to attribute: *leave blank*

Under Administrative

Checked Prefer this domain server: **asurite.ad.asu.edu**
UnChecked Allow administration by: **domain admins**

enterprise admins

Note: *I highly recommend you remove domain admins, if you are going to use your Active Directory ID to administer the server. I have found problem with using my Active Directory username to administrator the computer and don't recommend this option all.*

UnChecked Allow authentication from any domain in the forest

Click on **Bind**.
Enter your local login and password if prompted

In the Network Administrator Required window
Type in your ASURITE Username and Password

Note: You must be an OU admin to do this.

Computer OU: **OU=***Your OU name***,DC=asurite,DC=ad,DC=asu,DC=edu**

Note: *If you want to put this in your sub OU, then do something like this*
*OU=m.MyOU.MySubOU,OU=m.MyOU,**DC=asurite,DC=ad,DC=asu,DC=edu***
Click **Bind**
Click **OK**
Click **OK**
Enter you local admin username and password
Click **Apply**
Restart the server

Windows Services Setup Section

Purpose: This sets up the SMB (Server Message Block) service and allows Windows and Linux users to connect.

Under your Servername, Click on **Windows**
Click on the **Settings** tab
Under the General tab, the Role: should state Domain Member
Click on the **Advanced** tab
Click on the **Register with WINS server**: radio button
Type in the WINS servers on campus

Note*: For main campus, you would type without the quotes "129.219.17.11,129.219.17.194"*

Click **Save**
Click **Start Service**
Restart the Server

AFP Services Setup Section

Purpose: This sets up the AFP (Apple Filing Protocol) service and allows Apple users to connect via AFP over TCP. This should not be confused with AppleTalk, which is an insecure protocol.

Under your Servername, Click on **AFP**
Click on the **Settings** tab
UnCheck Enable Bonjour registration
UnCheck Enable browsing with AppleTalk
Click **Save**
Click **Start Service**
Restart the Server

Joining Kerberos Section

Purpose: This sets up pass through authentication for users in Active Directory.

Click on the **Server Admin** utility located in the Dock

Note: *The Server Admin is the picture of the globe on a platter.*

Enter your local admin username and password
Click **Connect**
Under Computers & Services, you will see your server name. Click on **Open Directory** which is under your servername.

Note: *You may have to expand the tree by clicking on the pointer next to your servername if you do not see Open Directory.*

After you have highlighted **Open Directory**, Click on the **Settings** tab
If you have done everything correctly, the Role: should state "Connected to a Directory System".
Click on **Join Kerberos...**
The Realm: should state ASURITE.AD.ASU.EDU (default)
Type in your local admin username and password
Click **Join**

Configuring Shares Section

Purpose: This sets up shares with ACL's (Access Control Lists).

Click on the **Workgroup Manager** located in the Dock

Note: *The Workgroup Manager is the picture of people on a platter.*

Enter your local admin username and password
Click on the **Sharing** icon.

Note: *This is the yellow road sign of someone crossing the road.*

Best Practice Note: *I would advise removing the current shares on the System, such as Groups, Public and Users. To remove them click on the item (Example Groups), uncheck Share this item and its contents. Then click Save.*

Best Practice Note: *Avoid if possible, putting shares on the same hard drive as the operating system.*

To create a new share Click on **All**
Browse to the location where you want your share
On the bottom left hand side, you will see an icon of a blue folder and a plus sign. Click it.
Type in the name of the share.

Note: *Please do not put spaces in the name. You may have issues later when working with the command prompt.*

Click **OK**
Next highlight the share you just created
Check **Share this item and its contents**
Click **Save**
Click on the **Access** tab
Click **Users & Groups**
A new window should have appeared on the right or left side of the box.
From here you can click and drag the users and/or groups you want to give permissions to.

Note: *If you want to see groups, click on the picture with 3 people.*

Click **Save**
Click on the **Protocols** tab

Best Practice Note: *Go through the drop down menus and remove Allow XX guest access.*

Click **Save**

Done

FAQS:

I followed your directions exactly, and I can't map to the share and from the server I can't even browse to my own share I created!!

UNIX permissions are a bi#$%h for Windows Admins! Check your permissions on Everyone and make sure it is set to Read Only

Apple Computers can connect when they type in the server name, but Windows clients have problems.

Most likely you added the Windows services after joining Kerberos, instead of before.

The Windows SMB service on the server is not Kerberized. Click on the primary hard drive icon in the upper right hand corner. Click **Applications**/**Utilities**/**Terminal**
Type the following without the quotes, "**sudo dsconfigad -enablesso**"
Depress the **Enter** key
Enter your local administrator password
Depress the **Enter** key
Type **exit**
Depress the **Enter** key

Instructions by Jason Wulf
(Don't ask me questions, I just wrote up what I found out)
"I know nothing!!" – (Schultz-- Hogans Heroes)