

Samba File Server

One of the most common ways to network Ubuntu and Windows computers is to configure Samba as a File Server. This section covers setting up a *Samba* server to share files with Windows clients.

The server will be configured to share files with any client on the network without prompting for a password. If your environment requires stricter Access Controls see [Securing a Samba File and Print Server](#)

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Installation

The first step is to install the *samba* package. From a terminal prompt enter:

```
sudo apt-get install samba
```

That's all there is to it; you are now ready to configure Samba to share files.

Configuration

The main Samba configuration file is located in `/etc/samba/smb.conf`. The default configuration file has a significant amount of comments in order to document various configuration directives.

Not all the available options are included in the default configuration file. See the `smb.conf` *man* page or the [Samba HOWTO Collection](#) for more details.

1. First, edit the following key/value pairs in the `[global]` section of `/etc/samba/smb.conf`:

```
2.     workgroup = EXAMPLE
3.     ...
4.     security = user
```

The *security* parameter is farther down in the `[global]` section, and is commented by default. Also, change *EXAMPLE* to better match your environment.

5. Create a new section at the bottom of the file, or uncomment one of the examples, for the directory to be shared:

```
6.     [share]
7.         comment = Ubuntu File Server Share
8.         path = /srv/samba/share
9.         browsable = yes
10.        guest ok = yes
11.        read only = no
12.        create mask = 0755
```

1. *comment*: a short description of the share. Adjust to fit your needs.
2. *path*: the path to the directory to share.

This example uses `/srv/samba/sharename` because, according to the *Filesystem Hierarchy Standard (FHS)*, `/srv` is where site-specific data should be served. Technically Samba shares can be placed anywhere on the filesystem as long as the permissions are correct, but adhering to standards is recommended.

3. `browsable`: enables Windows clients to browse the shared directory using *Windows Explorer*.
 4. `guest ok`: allows clients to connect to the share without supplying a password.
 5. `read only`: determines if the share is read only or if write privileges are granted. Write privileges are allowed only when the value is *no*, as is seen in this example. If the value is *yes*, then access to the share is read only.
 6. `create mask`: determines the permissions new files will have when created.
13. Now that *Samba* is configured, the directory needs to be created and the permissions changed. From a terminal enter:

```
14. sudo mkdir -p /srv/samba/share
15. sudo chown nobody.nogroup /srv/samba/share/
```

The `-p` switch tells `mkdir` to create the entire directory tree if it doesn't exist.

16. Finally, restart the *samba* services to enable the new configuration:

```
17. sudo restart smbd
18. sudo restart nmbd
```

Once again, the above configuration gives all access to any client on the local network. For a more secure configuration see [Securing a Samba File and Print Server](#).

From a Windows client you should now be able to browse to the Ubuntu file server and see the shared directory. If your client doesn't show your share automatically, try to access your server by its IP address, e.g. `\\192.168.1.1`, in a Windows Explorer window. To check that everything is working try creating a directory from Windows.

To create additional shares simply create new `[dir]` sections in `/etc/samba/smb.conf`, and restart *Samba*. Just make sure that the directory you want to share actually exists and the permissions are correct.

The file share named `"[share]"` and the path `/srv/samba/share` are just examples. Adjust the share and path names to fit your environment. It is a good idea to name a share after a directory on the file system. Another example would be a share name of `[qa]` with a path of `/srv/samba/qa`.

Resources

1. For in depth Samba configurations see the [Samba HOWTO Collection](#)
2. The guide is also available in [printed format](#).
3. O'Reilly's [Using Samba](#) is another good reference.
4. The [Ubuntu Wiki Samba](#) page.