

Joining A Network Appliance (NetApp) to Samba

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Introduction

Contrary to popular wisdom, it is possible to join a Filer to Samba. In fact, once joined you can actually enumerate users and groups by name or SID. Keep in mind that this document was created using Data ONTAP 7.3.1.1, AIX 5.3 and the pWare distribution of Samba, however, everything in here will work for any site combination.

However, to master this particular feat, you will need one little patch from the Samba Team.

It is likely that 3.0.x series is just fine. But a bug introduced in 3.2.0 and carried through until at least 3.3.6 has made it impossible to enumerate users. You can join – you just can't use any user or group data for permissions. This bug manifest in the Filer by virtue of SID lookups working, but user/group lookups did not. Then, once cached, the user or group could be added to a CIFS managed share.

The patch is based on bug #6484 (https://bugzilla.samba.org/show_bug.cgi?id=6484) that has to do with “*Subject: [PATCH] s3-lsa: Fix _lsa_LookupNames2() server implementation which always returned a NULL sid_array since 3.2.0.*”

NOTE: If you are using a specific distribution's Samba (like Ubuntu, RedHat, Suse) you may need to build your own Samba to fix this problem – which is way beyond the scope of this document. (Samba 3.3.5 was just accepted on Ubuntu Karmic Koala, but doesn't seem to have this patch).

AIX users can use Samba 3.2.13, 3.3.6 or 3.4.0 released at <http://pware.hvcc.edu>. These packages contain the specified patch.

The Setup

First, create a machine account in Samba for the NetApp Filer. In our example, the filer will be called NETAPP. So the first step is to create the user account in Unix, then a Samba account.

Assuming the machine account is in the standard Unix `passwd` file and you do not have any automated account creation scripts in the Samba configuration file, run the follow two commands as the root user:

The Ubuntu `adduser` command would be something like:

```
# adduser --home /home/NETAPP$ --gecos "NETAPP Machine Account" NETAPP$
```

An AIX version of the command is something like:

```
# mkuser gecos="NETAPP Machine Account" NETAPP$
```

Once you've created the Unix account with something resembling the above create the Samba account with:

```
# smbpasswd -m -a -s NETAPP$ <<EOF
> netapp
> netapp
> EOF
```

NOTE: The “#” signs are prompts and the “>” are the secondary prompts for the here-document.

The first command creates the machine account as a Unix account. The second command creates a Samba account tied to the Unix account as a machine trust account with the password set to the lower case equivalent of the machine account name *minus* the “\$”.

Joining the Filer

If you are using the GUI or the command line to do the CIFS Setup, all you need to know is the following before you get started:

- Filer name.
- WINS Servers (if any)
- Authentication is **NT 4 domain** – oh yes
- Domain Name
- Security mode – either **Multi-protocol** or **NTFS only**.

Check your settings prior to committing the changes.

That's it. If everything was done correctly you should now have the Filer joined to the Samba domain controller. Otherwise, bump the Samba log level and check log.smbd and the filer for hints as to what went wrong.

Cheers!

Bill