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KNOWLEDGE BASE ARTICLE

# Ubuntu - Join Windows Active Directory Domain with Samba Winbind

*Learn how to join an Ubuntu system to a Windows Active Directory domain using Samba Winbind for SSH authentication. The article provides step-by-step instructions, including necessary configurations and testing commands.*

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DOCUMENT

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## Join Ubuntu to Active Directory for SSH AD Authentication

To join your Ubuntu desktop or server to Active Directory for SSH AD authentication, ensure your machine is on the correct network and can communicate with the domain controller. You'll need an Active Directory user account with sufficient privileges to join the domain.

```
apt-get -y install winbind libpam-winbind libnss-winbind krb5-config samba-dsdb-modules  
samba-vfs-modules
```

When prompted, enter your REALM (example.com) and the AD server hostname (myserver). Once installation is complete, edit the following files:

### Edit Configuration Files

#### smb.conf

```
vi /etc/samba/smb.conf
```

Add or alter the following:

```
workgroup = myserver  
realm = example.com  
security = ads
```

```
idmap config * : backend = tdb
idmap config * : range = 3000-7999
idmap config FD3S01 : backend = rid
idmap config FD3S01 : range = 10000-999999
template homedir = /home/%U
template shell = /bin/bash
winbind use default domain = true
winbind offline logon = false
```

## nsswitch.conf

```
vi /etc/nsswitch.conf
```

Add the following at the bottom of the config file:

```
passwd:      compat systemd winbind
group:       compat systemd winbind
```

## common-session

```
vi /etc/pam.d/common-session
```

Add the following to the bottom of the config file:

```
session optional      pam_mkhomedir.so skel=/etc/skel umask=077
```

## Join the Domain

```
net ads join -U Administrator
```

Note that joining a domain requires DNS. Ensure your machine can resolve the domain name and, where possible, add the domain/AD server to the hosts file:

```
vi /etc/hosts
192.x.x.x myserver example.com
```

Restart winbind:

```
systemctl restart winbind
```

## Testing

Use `wbinfo` to query users or groups:

```
wbinfo -u  
wbinfo -g
```