

# Introducing Services configured on IPA Server

FreeIPA – Open-Source Identity Management Solution

- DNS Server
- 389 Directory Server
- NTP Server
- Kerberos and more (not really needed for RHCSA)

Other Services :

- NFS Server
- Samba Server

- **DNS Server** : DNS records have been created to provide Hostname resolution and Reverse DNS functionality as per below table.

<b>Forward DNS lookup</b>	<b>Result (Output)</b>
host system.example.com	192.168.99.10
host ipaserver.example.com	192.168.99.254
<b>Reverse DNS lookup</b>	
host 192.168.99.10	system.example.com
host 192.168.99.254	ipaserver.example.com

We can also use [nslookup](#) or [dig](#) commands for same purpose.

Note: Firewall should allow inbound traffic for DNS service ([firewall-cmd --list-all](#) ).

- **389 Directory Server** : The enterprise-class [Open-Source](#) LDAP server for Linux .It provides LDAP functionality to store Identities, groups and Organization data.
- Four users have been created on Directory Server.
- Later we will configure System VM as LDAP client (IPA Server Client) to use remote users on System VM.

Username	Home Directory
ldap	/home/ldapuser/ldap
ldap1	/ldap/home/ldap1
ldap2	/ldap/home/ldap2
smb1	/home/smb1

Note: Firewall should allow inbound traffic for LDAP service ([firewall-cmd --list-all](#) )

- **NTP Server** - Implements Network Time Protocol to provide time sync services
- Later, we will configure System VM as NTP Client to IPA Server to sync time.

<b>Command</b>	<b>Action/Description</b>
systemctl status chronyd	chronyd service must be running and enabled.
more /etc/chrony.conf	Network 192.168.99.0/24 must be allowed to use time services.
firewall-cmd --list-all	Firewall must allow inbound NTP traffic

- **NFS Server** : Implements Network File Sharing Protocol .
- Exports LDAP user's Home Directories and one more NFS share.
- Later we will configure System VM as NFS client to mount NFS shares.

Command	Action/Description
systemctl status nfs-server	<b>nfs-server</b> must be active and enabled.
more /etc/exports	Verify <b>/nfsshare</b> , <b>/home/ldapuser</b> & <b>/ldap/home</b> directories are exported.
firewall-cmd --list-all	Firewall must allow traffic for <b>nfs</b> , <b>rpc-bind</b> , <b>mountd</b> services

- **Samba Server** – Implements SMB networking protocol.
- Later we will configure System VM as Samba client to mount Samba share.

Command	Action/Description
systemctl status smb	<b>smb.service</b> must be active (running) and enabled
more /etc/samba/smb.conf	samba service is configured to share <b>samba</b> share with write permissions
pdbedit -L	Verify samba user with username smb1 exists.
firewall-cmd --list-services	Firewall must allow inbound samba traffic
ls -ldZ /samba	Correct SELinux context must be set (samba_share_t)