

# DNS

- The domain name system is a distributed way to share these name-to-IP associations instead of requiring each computer to synchronize a hosts file. A name server publishes the IP address for a domain and provides a single location to update when an IP changes.

## Ping

- **Ping** Command is use to check the remote machine is reachable or not.

```
[~]$ ping 192.168.1.11
Reply from 192.168.1.11: bytes=32 time=4ms TTL=117
Reply from 192.168.1.11: bytes=32 time=4ms TTL=117
```

- To **Ping** the remote host with a name instead of **IP Address** make an entry in **/etc/hosts** file

```
[~]$ cat >> /etc/hosts
192.168.1.11 db
```

```
[~]$ ping db
PING db (192.168.1.11) 56(84) bytes of data.
64 bytes from db (192.168.1.11): icmp_seq=1 ttl=64 time=0.052 ms
64 bytes from db (192.168.1.11): icmp_seq=2 ttl=64 time=0.079 ms
```

- You can configure as many hosts you want in the `/etc/hosts` file.

```
[~]$ cat >> /etc/hosts
192.168.1.10 web
192.168.1.11 db
192.168.1.12 nfs
192.168.1.20 web
192.168.1.21 db-1
192.168.1.22 nfs-1
192.168.1.30 web-1
192.168.1.31 db-2
192.168.1.32 nfs-2
192.168.1.40 web-2
192.168.1.41 sql
192.168.1.42 web-5
192.168.1.50 web-test
192.168.1.61 db-prod
192.168.1.52 nfs-4
192.168.1.60 web-3
192.168.1.61 db-test
192.168.1.62 nfs-prod
```

- Every host has a DNS resolution file `/etc/resolv.conf`

```
[~]$ cat /etc/resolv.conf
nameserver 192.168.1.100
```

- The `/etc/nsswitch.conf` file is used to configure which services are to be used to determine information such as hostnames, password files, and group files. There is a specific search order according to which it is performed. This order is set in this configuration file.

```
[~]$ cat /etc/nsswitch.conf
...
hosts: files dns
...
```