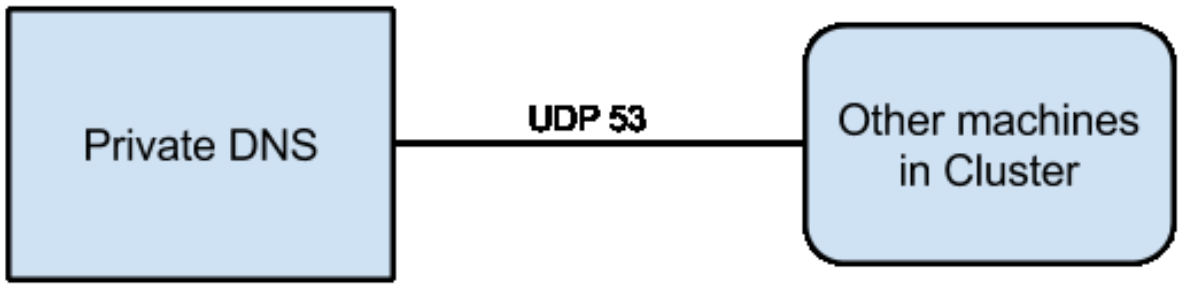
Private DNS server

1. Introduction

This document describes the requirements, design and implementation of the private Domain Name System (DNS). This server provides the domain name resolution for all other servers in the cluster. This server resolves both the private zones (vlabs.ac.in and virtual-labs.ac.in) and the external zones (eg. gnu.org, google.com) for all other servers.

Generally a DNS is configured in a master-slave replication topology. In such a configuration, if any changes are performed on the master, then such changes are automatically replicated to the slave. Thus the master-slave replication allows for having redundant servers without requiring the administrators to manually keep multiple DNS servers synchronized. This redundancy is useful when the master machine fails (eg power failure, network failure) as, then the slave can handle all the queries without affecting the service up-time.

2. Diagram



3. Implementation

3.1. Private DNS server configuration

3.1.1. Private DNS server

- Private-DNS Network Setup
  - Creates a password for private-dns and configures so that this container will be active with internet.

```
---
- name: Set root password
  command: vzctl set 1005 --userpasswd root:{{container_root_password}}
```

```
- name: copy interface ifcfg-eth1 file
  template: src=ifcfg-eth1 dest=/vz/private/1005/etc/sysconfig/network-
scripts/

- name:  Network restart
  command: vzctl exec 1005 service network restart

# tasks file for dns-server
```

- Private-DNS Private NetworkConfigures the network-interface in /etc/sysconfig/network-scripts/ifcfg-eth1 of private-dns with the following fields

```
DEVICE=eth1
BOOTPROTO=static
ONBOOT=yes
NM_CONTROLLED=no
IPADDR=10.100.1.5
GATEWAY=10.100.1.1
NETMASK={{net_mask}}
```

- dependencies

```
dependencies:
    - common-vars
```