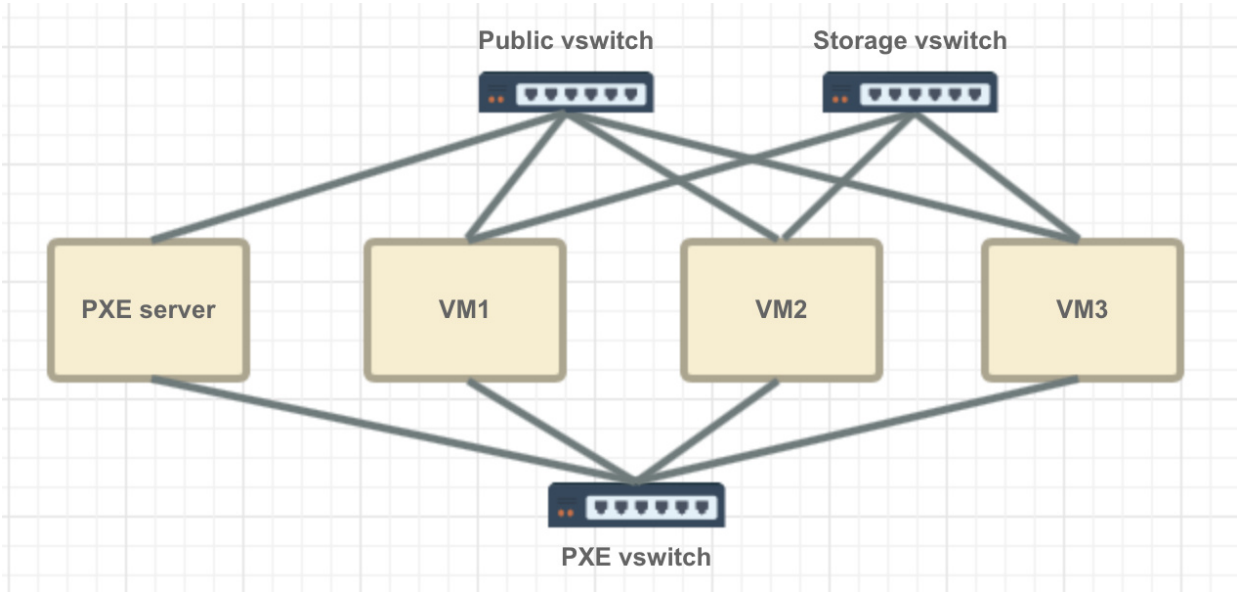
1. Check if network environment is all right

Target VMs have at least 3 nic

- Public nic
- Storage nic
- PXE nic

PXE server has at least 2 nic

- Public nic
- PXE nic



2. Check if the following packages are installed and right configured

- **DHCP**
  - Install

    ```
    apt-get -y install dhcp3-server
    ```

  - Config

```
$ cat /etc/dhcp/dhcpd.conf  # Sample, please replace IP related
with yours
......
option domain-name "bigtera.lab";
option domain-name-servers 192.168.200.1;
......
allow booting;
allow bootp;
subnet 192.168.200.0 netmask 255.255.255.0 {
    get-lease-hostnames off;
    use-host-decl-names on;
    range 192.168.200.100 192.168.200.200;
    option routers 192.168.200.1;
    option subnet-mask 255.255.255.0;
    option broadcast-address 192.168.200.255;
    next-server 192.168.200.1;
}
```

- **TFTP**
  - Install

    `apt-get install tftpd tftp xinetd`
  - Config

```
$ cat /etc/xinetd.d/tftp
service tftp
{
    protocol = udp
    port = 69
    socket_type = dgram
    wait = yes
    user = nobody
    server = /usr/sbin/in.tftpd
    server_args = -s /var/lib/tftpboot
    disable = no
}
```

- **apache2**
  - Install

    `apt-get install apache2`
  - Config

```
$ cat /etc/apache2/apache2.conf # Sample, please replace IP related
with yours
......
ServerName 192.168.200.1
......
<Directory /var/www/>
    Options Indexes FollowSymLinks
    AllowOverride None
    Require all granted
</Directory>
......
```

- **AOE**
  - Install

    `apt-get install vblade`

3. Set root dir of tftp as a softlink of apache2, to simplify the config path

Before this step, suggest backup the currenct root dir of apache2, like below:

```
mv /var/www/html /var/www/html_bak_`date +%s` # Backup currenct root dir of
apache2
ln -s /var/lib/tftpboot /var/www/html
/etc/init.d/apache2 restart
```

4. Copy files and subfolders under tftpboot into /var/lib/tfptboot

```
cp -rf tftpboot /var/lib/
```

5. Register VMs into PXE environment with json file as config

Below is a sample of json config, please note that the config must apply json format.

```
$ cat vm.json
[
    {
        "hostname":         "auto-60-1",
        "version":          "6.3",
        "pxe_mac":          "00:50:56:a7:ca:ab",
        "pxe_filename":     "pxelinux.6",
        "pxelinux.cfg":     {
            "vesamenu":     "bigtera60/vesamenu.c32",
            "vmlinuz":      "bigtera60/vmlinuz",
            "initrd":       "bigtera60/initrd.aoecdrom.gz",
            "pxeint":       "eth2",
            "httpurl":      "192.168.200.1",
            "aoecdrom":     "e1.0"
        },
        "netconf": {
            "pub_ip":       "172.17.59.101",
            "pub_mask":     "255.255.254.0",
            "pub_dev":      "eth0",
            "pub_gw":       "172.17.59.254",
            "dns_ip":       "114.114.114.114",
            "stor_ip":      "192.168.100.101",
            "stor_mask":    "255.255.255.0",
            "stor_dev":     "eth1"
        }
    },
    {
        "hostname":         "auto-60-2",
        ......
    }
]
```

Register VM with earlier config:

```
sudo .../register_new_vm.py -i vm.json
```

> For more details, please refer to the automation deployment guide.