

# Requirements

**HW:** 2 nic device

**OS:** Ubuntu server 17.10

```
apt install bash debootstrap schroot syslinux nfs-kernel-server tftpd-hpa  
xorriso pigz zfsutils-linux
```

## Optional config

```
apt install isc-dhcp-server
```

# Preparazione ambiente livenet

## Preparazione dell'ambiente zfs

```
zpool create livenet /dev/sdb
```

```
zfs create livenet/images
```

```
zfs create livenet/boot
```

Download package git clone <https://github.com/scipioni/livenet-server.git>

# DHCP

## Abilitare dhcpd su specifica scheda

Editare la riga in

```
/etc/default/isc-dhcp-server
```

```
INTERFACESv4="ens3"
```

## Configurazione dhcpd

editare il file `/etc/dhcp/dhcpd.conf` al termine `service isc-dhcp-service restart`

```
ddns-update-style none;  
authoritative;  
  
option domain-name "livenet";
```

```
option domain-name-servers      8.8.8.8;

allow bootp;
allow booting;

option space PXE;
# Code 1: Multicast IP address of bootfile
option PXE.mtftp-ip code 1 = ip-address;
# Code 2: UDP port that client should monitor for MTFTP responses
option PXE.mtftp-cport code 2 = unsigned integer 16;
# Code 3: UDP port that MTFTP servers are using to listen for MTFTP requests
option PXE.mtftp-sport code 3 = unsigned integer 16;
# Code 4: Number of secondes a client must listen for activity before trying
#         to start a new MTFTP transfer
option PXE.mtftp-tmout code 4 = unsigned integer 8;
option PXE.mtftp-delay code 5 = unsigned integer 8;
# Code 5: Number of secondes a client must listen before trying to restart
#         a MTFTP transfer
option PXE.discovery-control code 6 = unsigned integer 8;
option PXE.discovery-mcast-addr code 7 = ip-address;
set vendor-string = option vendor-class-identifier;

class "PXE" {
    match if substring(option vendor-class-identifier, 0, 9) = "PXEClient";
    option vendor-class-identifier "PXEClient";
    vendor-option-space PXE;
    option PXE.mtftp-ip 0.0.0.0;
}

class "Etherboot" {
    match if substring(option vendor-class-identifier, 0, 9) = "Etherboot";
    option vendor-class-identifier "Etherboot";
    vendor-option-space PXE;
    option PXE.mtftp-ip 0.0.0.0;
}

class "LIVENET" {
    match if (substring(option vendor-class-identifier,0,7) = "LIVENET") or
(substring(option vendor-class-identifier,0,9) = "PXEClient") or
(substring(option vendor-class-identifier,0,9) = "Etherboot");
    log ( info, "Packet from PXE or LIVENET client");
}

shared-network "clients" {
    subnet 10.1.22.0 netmask 255.255.255.0 {
        option subnet-mask 255.255.255.0;
        option routers 10.1.22.2;
        #default-lease-time 28800;
        #max-lease-time 86400;

        pool {
```

```
# restringe il lease solo alla classe LIVENET
allow members of "LIVENET";
range 10.1.22.10 10.1.22.100;
filename "/pxelinux.0";
next-server 10.1.22.2;
}
}
}
```

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Permanent link:  
<https://wiki.csgalileo.org/projects/livenet/server?rev=1520894269>

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