

- Define the client component network address for the client subnet using the `+CLONE_MAC` option, e.g.,

```
LAN 192.168.1.10+CLONE_MAC
```

When run in single user mode, the `+CLONE_MAC` suffix is ignored. When run with multiple Labtainer instances, the last four bytes of the network MAC address for each client is cloned from the network interface tied to the MACVLAN. When all multi-user Labtainer workstations run on a single VM, then the IP address is incremented by one less than the clone instance number.

- Include a dhcp server as one of your containers, e.g., per the dhcp-client lab. The labtainer.network base includes the dnsmasq service, which includes a DHCP server. Reconfigure dnsmasq to start the DHCP service, e.g., in your fixlocal.sh script.
- Edit the dhcp container's `_system/etc/dnsmasq.conf` file to include the range of DHCP addresses you wish to allocate to the clients. When multiple instances of Labtainers are run, then "client" is the per-student Labtainer workstation. When there is a single Labtainers VM, then "clients" are the VMs from which students SSH into their Labtainer workstations. An example dnsmasq.conf entry is:

```
dhcp-range=192.168.1.10, 192.168.1.99, 12h
```

- Enable dhcp on the client workstation components by installing isc-dhcp-client (via the Dockerfile), and putting this in the workstation `_system/etc/rc.local`:

```
/sbin/dhclient-labtainer eth0
```

Note the dhclient-labtainer invokes the dhclient program and then manually sets the ip address. This is a workaround for a Docker limitation.

- Include an SSH server in the workstation container, e.g., by deriving it from the labtainer.network base. Include a `_system/etc/ssh/sshd_config` file for the workstation container that permits X11 forwarding (if desired), e.g., by copying the file from the kali-test lab.
- Password management (only has an effect in multiuser mode when all Labtainers components are on a single VM). Assuming you'd like to allocate each student a unique (insecure) password for purposes of further ensuring one student does not accidentally ssh into some other student's workstation, put this in the workstation's `_bin/fixlocal.sh` file:

```
newpwd=studentCLONE\_NUM
user=$2
/usr/bin/passwd $user <<EOF
$1
$newpwd
$newpwd
EOF
```

Add, this in the labs/[your lab]/config/parameter.config

```
PASSWD : CLONE_REPLACE : .local/bin/fixlocal.sh : CLONE_NUM : CLONE
```