

Fedora Remix Lab - Quick Start Guide

This guide assumes you're using a Fedora Remix Lab ISO where the lab scripts are pre-installed.



Getting Started (3 Steps)

Step 1: Create the Lab VMs

```
sudo lab-create-lab-vm
```

This creates:

- **FedoraLab1** (192.168.100.10, fedoralab1.example.com)
- **FedoraLab2** (192.168.100.11, fedoralab2.example.com)
- A dedicated virtual network called **labnet**

Step 2: Start the Lab VMs

```
sudo lab-start-lab-vm
```

This registers and starts both VMs. Wait about 30 seconds for them to fully boot.

Step 3: Configure Host Resolution

```
sudo lab-manage-hosts add
```

This adds the VM hostnames to your `/etc/hosts` file so you can reach them by name.



Verify Your Lab

Check the status of your lab environment:

```
sudo lab-lab-status
```

You should see both VMs running with their IP addresses.



Connecting to the VMs

Via SSH

```
ssh ansibleuser@fedoralab1.example.com
ssh ansibleuser@fedoralab2.example.com
```

Password: Automation!

Via Graphical Console

```
sudo virt-viewer FedoraLab1
sudo virt-viewer FedoraLab2
```



VM Credentials

Setting	Value
Username	ansibleuser
Password	Automation!
Sudo	Passwordless (no sudo password required)



Available Commands

Command	Description
<code>sudo lab-create-lab-vms</code>	Create VMs and network
<code>sudo lab-start-lab-vms</code>	Register and start VMs
<code>sudo lab-lab-status</code>	Show lab status
<code>sudo lab-reset-lab</code>	Destroy and recreate VMs
<code>sudo lab-manage-hosts add</code>	Add VM entries to /etc/hosts
<code>sudo lab-manage-hosts remove</code>	Remove VM entries from /etc/hosts
<code>sudo lab-manage-hosts status</code>	Check hosts file status



Resetting the Lab

To completely reset your lab environment:

```
sudo lab-reset-lab
```

Options:

- `--vms-only` - Reset only VMs, keep network
- `--full` - Reset everything (VMs + network + images)
- `--destroy-only` - Destroy without recreating



Using with Ansible

An inventory file is available at `/opt/FedoraRemixLab/inventory` :

```
# Test connectivity
ansible -i /opt/FedoraRemixLab/inventory nodes -m ping

# Run a command on all nodes
ansible -i /opt/FedoraRemixLab/inventory nodes -m command -a "hostname"
```

Troubleshooting

VMs won't start

Check if libvirtd is running:

```
sudo systemctl status libvirtd
sudo systemctl start libvirtd
```

Check if labnet network exists:

```
sudo virsh net-list --all
```

If labnet is missing, recreate the VMs:

```
sudo lab-reset-lab
```

Cannot connect via SSH

Check if VMs are running:

```
sudo virsh list
```

Verify network connectivity:

```
ping -c 2 192.168.100.10
ping -c 2 192.168.100.11
```

Check hosts file:

```
sudo lab-manage-hosts status
```

Permission denied errors

All lab commands require `sudo` :

```
sudo lab-create-lab-vms    # Correct
lab-create-lab-vms        # Wrong - will fail
```

virt-viewer shows blank screen

Wait 30-60 seconds after starting VMs for the boot process to complete. If still blank:

```
# Check if VM is actually running
sudo virsh list

# Try restarting the VM
sudo virsh reboot FedoraLab1
```

SSH connection refused

The VM may still be booting. Wait 30 seconds and try again:

```
# Check if SSH port is open
nc -zv 192.168.100.10 22
```

Reset everything and start fresh

If all else fails:

```
sudo lab-reset-lab --full
sudo lab-create-lab-vms
sudo lab-start-lab-vms
sudo lab-manage-hosts add
```

File Locations

Path	Description
/opt/FedoraRemixLab/	Lab scripts and files
/var/lib/libvirt/images/	VM disk images
/var/lib/libvirt/images/fedora-lab/	VM overlay images
/opt/FedoraRemixLab/inventory	Ansible inventory file

Tips

1. **Always use sudo** - All lab commands require root privileges
2. **Wait for boot** - Give VMs 30-60 seconds to fully boot before connecting
3. **Check status first** - Use `sudo lab-lab-status` to diagnose issues
4. **Reset is your friend** - When in doubt, `sudo lab-reset-lab` fixes most problems

Getting Help

- Full documentation: `/opt/FedoraRemixLab/README.md`
- Lab status: `sudo lab-lab-status`
- Check VM console: `sudo virt-viewer FedoraLab1`