

★ Request a virtual machine through the CERN Virtual Machine Manager at <https://vmm.cern.ch/vmm/>. You need to login with your CERN SSO credentials.

★ Once you get notification from VMM about the successful creation of the machine, you need to ask the CERN Network Group to enable IPv6 for that machine. Sent an email to ipv6@cernNOSPAMPLEASE.ch with the hostname of your VM.

★ In order to receive an IPv6 IP address from the dhcp server, you need some tweaks to the VM configuration. While we are trying to incorporate them in the VM creation process, for the moment you would have to configure them by hand. As "root" in the VM (use the sudo command), follow the next steps.

- You need to allow the communication with the dhcp server in the IPv6 iptables. So, in **/etc/sysconfig/ip6tables** add the line in bold, then restart the ip6tables

```
[root@scipv6 scampana]# cat /etc/sysconfig/ip6tables
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
-A INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT
-A INPUT -p ipv6-icmp -j ACCEPT
-A INPUT -i lo -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 22 -j ACCEPT
-A INPUT -m state --state NEW -m udp -p udp --dport 7001 -j ACCEPT
-A INPUT -m state --state NEW -m udp -p udp --dport 546 --sport 547 -s fe80::/10 -d fe80::/10 -j
-A INPUT -j REJECT --reject-with icmp6-adm-prohibited
-A FORWARD -j REJECT --reject-with icmp6-adm-prohibited
COMMIT
```

```
[root@scipv6 scampana]# /etc/init.d/ip6tables restart
ip6tables: Flushing firewall rules:          [ OK ]
ip6tables: Setting chains to policy ACCEPT: filter [ OK ]
ip6tables: Unloading modules:                [ OK ]
ip6tables: Applying firewall rules:          [ OK ]
```

- Create the file **/etc/dhcp/dhclient.conf** and declare the mac address. You can find the address in LANDB at CERN:
 - ◆ Go to <http://network.cern.ch>
 - ◆ Click on "Display Information" and under "Device Name" put the name of your VM.
 - ◆ Take the MAC address from the "Network Interface Card(s)" field.

```
[root@scipv6 scampana]# cat /etc/dhcp/dhclient.conf
interface "eth0" {
    hardware ethernet 00:15:5D:FF:30:77;
}
```

- Delete the file **/var/lib/dhclient/dhclient6.leases** which may contain a wrong identifier used on another attempt
- In the file **/etc/sysconfig/network-scripts/ifcfg-eth0** add the line in bold below

```
[root@scipv6 scampana]# cat /etc/sysconfig/network-scripts/ifcfg-eth0
DEVICE="eth0"
BOOTPROTO="dhcp"
IPV6INIT="yes"
MTU="1500"
NM_CONTROLLED="yes"
ONBOOT="yes"
TYPE="Ethernet"
UUID="7cce3afb-f03e-4160-b37f-1d78100a400f"
DHCPV6C=yes
```

- Restart the network service

```
[root@scipv6 scampana]# /etc/init.d/network restart
Shutting down interface eth0: [ OK ]
Shutting down loopback interface: [ OK ]
Bringing up loopback interface: [ OK ]
Bringing up interface eth0:
Determining IP information for eth0... done. [ OK ]
```

- You should see your inet6 address now in the global scope

```
[root@scipv6 scampana]# ifconfig
eth0      Link encap:Ethernet  HWaddr 00:15:5D:FF:30:77
          inet addr:188.184.21.161  Bcast:188.184.23.255  Mask:255.255.252.0
          inet6 addr: 2001:1458:201:14::100:5c4/64 Scope:Global
          inet6 addr: fe80::215:5dff:feff:3077/64 Scope:Link
[...]
```

This topic: LCG > DualStackCERNVirtualMachine

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