In Linux networking, within the Linux network stack, routes define traffic paths, iptables

configures packet filtering, lo is a local loopback interface for testing, and eth0 is the primary

Ethernet interface for external connections. Let's inspect the network stack, in short.

Network interfaces allow us to establish communication between a network and a device.

ip link list

lo is the loopback interface, allowing local network communication

within a device without external network involvement. Verify the loopback interface is up

ifconfig lo

A route in networking specifies the path for network traffic from source to destination. View the routing table:

ip route show

iptables is a user-space utility for configuring packet filter rules in the Linux kernel's Netfilter framework. View iptables rules:

iptables -L

Create Custom Network Namespace

Let's create a custom namespace using ip netns add utiliy.

sudo ip netns add poridhi

sudo ip netns list

Now, entering a network namespace in Linux:

ip netns exec

It is part of the iproute2 package and is often used for managing network namespaces.

sudo ip netns exec poridhi bash

nsenter

The nsenter utility is commonly used to enter into namespaces in Linux, including network namespaces.

sudo nsenter --net=/var/run/netns/poridhi bash

Now, check the network interfaces inside the new ns.

ip link show

Let's check for iptable rules for custom ns

ifconfig lo