

## Lab Scenario

- **Router (R1):** GigabitEthernet0/0 (Link-Local `fe80::1`, Prefix `2001:db8:acad:1::/64`)
- **Host (Client):** Connected to R1, configured for automatic IPv6.

## Step-by-Step Configuration

### 1. Enable IPv6 Routing on Router

```
R1> enable
R1# configure terminal
R1(config)# ipv6 unicast-routing
```

### 2. Configure the IPv6 Interface

```
R1(config)# interface GigabitEthernet0/0
R1(config-if)# ipv6 address fe80::1 link-local
R1(config-if)# ipv6 address 2001:db8:acad:1::1/64
R1(config-if)# no shutdown
R1(config-if)# exit
```

### 3. Configure SLAAC Advertisements

By default, enabling IPv6 on an interface sends RAs. To ensure it:

```
R1(config)# interface GigabitEthernet0/0
R1(config-if)# ipv6 nd prefix 2001:db8:acad:1::/64
```