

Configuration Step by Step

Juniper SRX Router Configuration for WAN Connectivity:

- **Set Hostname:**

```
set system host-name SRX-Router
```

- **Configure Interfaces:**

```
set interfaces ge-0/0/0 unit 0 description "WAN Interface 1"
set interfaces ge-0/0/0 unit 0 family inet address <WAN_IP1>/<Subnet1>
set interfaces ge-0/0/1 unit 0 description "WAN Interface 2"
set interfaces ge-0/0/1 unit 0 family inet address <WAN_IP2>/<Subnet2>
```

- **Configure Default Routes:**

```
set routing-options static route 0.0.0.0/0 next-hop <Gateway_IP1>
preference 10
set routing-options static route 0.0.0.0/0 next-hop <Gateway_IP2>
preference 20
```

- **Configure BGP for Redundant WAN Connectivity:**

```
set protocols bgp group WAN1 type external
set protocols bgp group WAN1 peer-as <ISP_ASN1>
set protocols bgp group WAN1 neighbor <ISP_IP1> description "ISP 1"
set protocols bgp group WAN1 neighbor <ISP_IP1> local-address <WAN_IP1>
```

```
set protocols bgp group WAN2 type external
set protocols bgp group WAN2 peer-as <ISP_ASN2>
set protocols bgp group WAN2 neighbor <ISP_IP2> description "ISP 2"
set protocols bgp group WAN2 neighbor <ISP_IP2> local-address <WAN_IP2>
```

- **Configure SSH for Remote Management:**

```
set system services ssh root-login allow
set system services ssh protocol-version v2
```

- **Configure Security Zones and Policies:**

```
set security zones security-zone untrust interfaces ge-0/0/0.0
set security zones security-zone untrust interfaces ge-0/0/1.0
set security zones security-zone trust interfaces ge-0/0/2.0
set security policies from-zone trust to-zone untrust policy allow-all
match source-address any
set security policies from-zone trust to-zone untrust policy allow-all
match destination-address any
set security policies from-zone trust to-zone untrust policy allow-all
match application any
set security policies from-zone trust to-zone untrust policy allow-all then
permit
```

- **Commit Configuration:**

```
commit
```

Cisco Switch Configuration for Internal VLAN Management:

- **Set hostname**

```
hostname Cisco-Switch
```

- **Configure interfaces**

```
interface range GigabitEthernet0/1 - 24
  description User Access Ports
  switchport mode access
  switchport access vlan 10
  spanning-tree portfast
```

```
interface range TenGigabitEthernet1/1 - 4
```

```
description Uplink Ports
switchport mode trunk
switchport trunk allowed vlan 10,20,30
```

• Configure VLANs

```
vlan 10
  name Users
vlan 20
  name Management
vlan 30
  name Servers
```

• Configure SFP for internal fiber connectivity

```
interface TenGigabitEthernet1/1
description Fiber Uplink to Core
switchport mode trunk
switchport trunk native vlan 10
```

• Enable SSH for remote management

```
ip domain-name example.com
crypto key generate rsa
ip ssh version 2
line vty 0 4
  login local
  transport input ssh
```

• Save configuration

```
copy running-config startup-config
```

UniFi Dream Machine Pro Configuration for WiFi Controller:

1. Initial Setup:

- Connect the Dream Machine Pro to your network.
- Access the setup wizard through the UniFi Network app or via a web browser at https://<IP_of_Dream_Machine_Pro>.

2. Create WiFi Networks:

- Log in to the UniFi Network Controller.
- Navigate to "Settings" > "WiFi" > "Create New WiFi Network".
- Configure the SSID, security settings, and VLAN assignment if applicable.

3. Adopt UniFi Devices:

- Ensure all UniFi APs are connected to the network.
- Navigate to "Devices" in the UniFi Network Controller.
- Adopt the devices and apply the necessary configurations.

UniFi USW Pro Configuration for Core Switching:

1. Initial Setup:

- Connect the USW Pro to your network.
- Access the UniFi Network Controller and navigate to "Devices".
- Adopt the USW Pro switch.

2. Configure VLANs:

- Navigate to "Settings" > "Networks" > "Create New Network".
- Define the VLAN ID, name, and settings.

3. Configure Switch Ports:

- Navigate to the USW Pro in the "Devices" section.
 - Select the ports to configure and set the desired VLANs for each port.
 - For trunk ports, configure them to allow all necessary VLANs.
4. **Set Up Link Aggregation:**
- If using link aggregation, configure LAG (Link Aggregation Groups) under the "Port Settings" in the UniFi Network Controller.