

Juniper Routers



J-Series



M-Series

Juniper – M & J Series Routers

- **Configure IPv6 on Interfaces**

```
interfaces {
  fe-0/1/0 {
    unit 0 {
      family inet6 {
        address 2001:abc:xxxx:xxxx::1/64;
      }
    }
  }
}
```

- **Configure IPv6 Default Static Route**

```
routing-options
  rib inet6.0 {
    static {
      route 0::0/0 next-hop 2001:abc:xxxx:xxxx::1;
    }
  }
}
```

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- **IPv6 Static Routing (if needed)**

```
routing-options
  rib inet6.0 {
    static {
      route 2001:abc::2480/48 next-hop 2001:X:X:X::1;
    }
  }
}
```

- **IPv6 Router Advertisement (if needed)**

```
user@Router1# show protocols
router-advertisement {
  interface fe-1/3/1.101 {
    prefix 2001:abc:2480:36aa::/64;
  }
}
```

JUNOS CLI - Set Commands

- **Set commands below are the IPv6 Router Advertisement (if needed)**

Interfaces

```
set interfaces fe-0/1/0 unit 0 family inet6 address 2001:abc:X:X::1/64
```

IPv6 Default Route

```
set routing-options rib inet6.0 static route 0::0/0 next-hop 2001:abc:X:X::1
```

IPv6 Router Advertisement

```
set protocols router-advertisement interface fe-1/3/1.101 prefix 2001:abc:X:X::/64
```

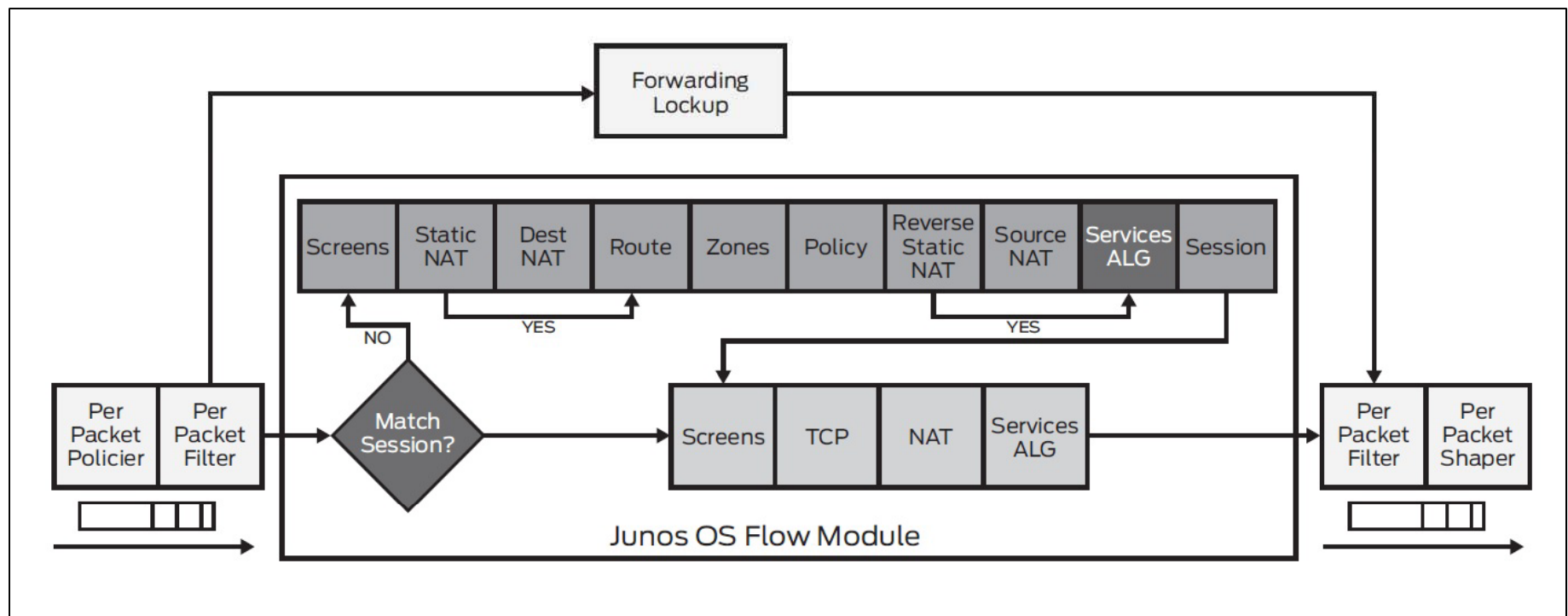
IPv6 e-BGP

```
set protocols bgp group v6-To-Customer-Sitel type external
set protocols bgp group v6-To-Customer-Sitel import v6_import_To_Customer_Sitel
set protocols bgp group v6-To-Customer-Sitel family inet6 any
set protocols bgp group v6-To-Customer-Sitel export v6_export_To_Customer_Sitel
set protocols bgp group v6-To-Customer-Sitel peer-as 65502
set protocols bgp group v6-To-Customer-Sitel local-as 65500
set protocols bgp group v6-To-Customer-Sitel neighbor 2001:abc:X:X::X local-address 2001:abc:X:X::X
set protocols bgp group v6-rr-clients type internal
```

Juniper – J-Series

- **Flow chart for Packet Versus Flow Forwarding**

- (See reference - Branch SRX Series and J Series Selective Packet Services)



To Flow to Not to Flow...that is the question!

Juniper Routers – J-series

- **With post-9.6 JUNOS code, on J-series, IPv6 traffic is set to flow-mode processing by default.**
- **Options are...**
 - Convert all IPv6 traffic to packet forwarding mode
 - Implement policies to permit IPv6 traffic and services
- **J-Web is limited on IPv6 configurations...**
 - Can't configure IPv6 address on interface
 - Documentation not great for J-Web

Juniper J-Series – Bypass Flow Mode

- **To bypass Flow Mode, enter the following...**

```
user@Router6# show security
forwarding-options {
  family {
    inet6 {
      mode packet-based;
    }
  }
}
```

Set command -

```
set security forwarding-options family inet6 mode packet-based
```

- **All IPv6 traffic will now bypass the new security hierarchical settings.**

Juniper J-Series – Security Zones

- If using flow mode, you will need to configure security zones

```
zones {
  security-zone TRUST {
    interfaces {
      ge-0/0/0.0 {
        host-inbound-traffic {
          system-services {
            all;
          }
          protocols {
            all;
          }
        }
      }
    }
  }
}
```

```
zones {
  security-zone UNTRUST {
    interfaces {
      ge-0/0/1.0 {
        host-inbound-traffic {
          system-services {
            all;
          }
          protocols {
            all;
          }
        }
      }
    }
  }
}
```


Juniper J-Series – Security Policies

- ... and policies.

```

policies {
  from-zone UNTRUST to-zone TRUST {
    policy allow-inbound {
      match {
        source-address any;
        destination-address any;
        application any;
      }
      then {
        permit;
        log {
          session-init;
          session-close;
        }
      }
    }
  }
}

```

```

policies {
  from-zone TRUST to-zone UNTRUST {
    policy allow-outbound {
      match {
        source-address any;
        destination-address any;
        application any;
      }
      then {
        permit;
        log {
          session-init;
          session-close;
        }
      }
    }
  }
}

```