

# Router Configuration Reference

## Routing Configuration

- **Static Routes**
  - Default routes (0.0.0.0/0)
  - Customer-specific static routes
  - Management and infrastructure routes
  - Route prioritization using administrative distance
- **OSPF (Open Shortest Path First)**
  - Area configuration (Backbone Area 0 and non-backbone areas)
  - Interface network types
  - Neighbor adjacency verification
  - Route summarization and redistribution
  - Cost metrics and authentication
- **BGP (Border Gateway Protocol)**
  - eBGP/iBGP neighbor configuration
  - Peer authentication (MD5 where applicable)
  - Prefix advertisement and acceptance
  - Local Preference, MED, AS Path manipulation
  - Route aggregation and route redistribution
  - Keepalive and Hold Timer configuration
  - Neighbor status monitoring

## Subscriber Management

- **PPPoE Server**
  - PPPoE server instance configuration
  - Service Name configuration
  - PPP profile assignment
  - IP pool allocation
  - RADIUS authentication and accounting
  - Session limits
  - MTU/MRU optimization
  - Subscriber interface binding

## IP Addressing

- **IP Point-to-Point (IP PTP)**

- /30 and /31 point-to-point addressing
- Backbone inter-router links
- Aggregation-to-core connections
- Router loopback interfaces
- Gateway assignment and reachability validation