

CONFIGURATION ROUTING

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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

Router Configuration Reference

Part 2

Traffic Filtering & Security

- **Filters / Access Control**
 - Access Control Lists (ACLs)
 - Firewall filter rules
 - Source and destination filtering
 - Port-based traffic filtering
 - Anti-spoofing policies
 - ICMP control
 - Management access restrictions
 - Traffic protection against unauthorized access

Route Filtering & Policy Control

- Prefix Lists
- Route Maps / Routing Policies
- AS Path Filters
- Community-based routing policies
- Import and export route filters
- Bogon and private ASN filtering

Interface Configuration

- Physical Ethernet interfaces
- VLAN interfaces (802.1Q)
- Trunk and Access port configuration
- Interface descriptions and labeling
- MTU configuration
- Speed and duplex settings
- Interface monitoring

Infrastructure Services

- DNS configuration
- NTP synchronization
- SNMP monitoring
- Syslog remote logging
- SSH secure management access
- User account and privilege management

Change Management

- Configuration backup before deployment
- Configuration validation after implementation
- Documentation updates
- Rollback procedures
- Post-change monitoring and verification