Rules and Standards

As OSPF has some challenges in deployment outside of a datacenter environment, we will need to all adhere to some rules to prevent from encountering a routing problem. OSPF, unlike BGP or other protocols, may/will refuse to connect to a peer which has different parameters set and can be a source of confusion. Please follow these rules unless there is a good reason not to:

1. General
   1. All OSPF usage will be on area `0.0.0.0` (backbone area)
   2. Set Router ID to the 10-69-net address of the Node
   3. All OSPF timers will be set to (this is typically default):
      - Link Cost 10
      - Retransmit Interval 5
      - Transmit Delay 1
      - Hello Interval 10
      - Dead Router Interval 40
2. Interfaces should be in PtMP mode (not broadcast)
3. OSPF "networks" should only be the 10-69-net, unless there is a special case
4. Redistribute Default Route should be `never`, unless you are distributing a default route
   - If you are redistributing a default route, do so `as type 1`
   - Check with the rest of the network what the correct metric should be
5. Redistribute user networks via Redistribute Connected `as type 1`
6. Mikrotik Only: Filter VPN point-to-point /32 links. They cause trouble.
7. For RouterOS 6, do not also run BGP on the standard mesh bridge, unless there is a special case; this has been known to cause problems in the past
8. For RouterOS 7, BGP is working on the mesh bridge in a few locations as of July 2024; as ROS7 is not widely utilized within NYC Mesh yet, thorough testing and monitoring should be done for ROS7 routers

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