Technical Guides

In line with support best operational practice, we've prepared several guides to assist peering participants with configuration of their peering devices, all of which may be found below. Please report E&O to ops [@] inx.net.za.

- BGP Route Servers
  There are two BGP separate route servers on each peering LAN. It is recommended to **alw ays** peer with both BGP Route Servers at a location, as sessions to both servers ensure that there is no disruption to the advertisement of your prefixes should it be necessary to performance maintenance on a Route Server. The Route Servers do **not** peer with each other by design, so peering with only one server is an unnecessary risk for your network!
- BGP Route Collector
  Each INX peering LAN has a BGP route collector. A BGP session with the collector is pre-configured for every peer. Peering sessions to route-collectors are done in advance of port turn-up, and set to passive, so we will automatically respond to, and activate peering sessions from peers. BGP prefix information gathered via this service, is made available via our integrated Looking Glass, as a diagnostics tool for the Internet community. We heartily encourage all peers to peer with the route-collector at each of the INXes that they are present at.
- Layer-2 Filtering Policy
  By default, all ports are subjected to a standard layer-2 filtering policy to limit frames that are considered unwanted at the peering fabric. Below is a list of frames that are filtered (dropped) by default: This list is expected to grow.

```
ethernet-destination-address 01:80:c2:00:00:00
ethernet-destination-address 01:00:0c:cc:cc:cc ; snap-type 0x2000
ethernet-destination-address 01:00:0c:cc:cc:cc ; snap-type 0x2003
ethernet-destination-address 01:00:0c:cc:cc:cd
ethernet-destination-address 01:00:0c:cc:cc:cc ; snap-type 0x2004
ethernet-destination-address 01:00:0c:cc:cc:cc ; snap-type 0x0111
ethernet-destination-address 01:00:0c:cc:cc:cc ; snap-type 0x0104
ethernet-destination-address 00:e0:2b:00:00:00 ; snap-type 0x00bb
ethernet-destination-address 01:80:c2:00:00:0e ; ethernet-type
0x88cc
```

- Looking Glass
  INX operates two looking glass services that provide different views of the INXes to the public. Every INX LAN has a Route Collector that engages in peering with participants on the LAN, and we are able to provide a view of what peering looks like from the perspective of the INX Route Servers as well. Both these serve useful, and yet separate purposes, and users of the service are encourage to ensure that understand the differences.
- Peering Interface Configuration
  To ensure that your connection to the INX is easy, as well as secure, we have created a set of templates for the configuration of various types of hardware in common use at the exchange point.

  Although we do filter specific types of Layer-2 frames, we still encourage peers to keep their ports clean, and may insist on this before moving you out of quarantine.
- RPKI Validation
  Attacks against the routing system are increasing, and it's not uncommon in today's Internet world to experience prefix hijacking. The IETF has for a while, been woking on an Internet Resource Public Key Infrastructure, to help validate routing (BGP) announcements.

  Details on RPKI and how this works is best followed up through your RIR. The RIPE-NCC in particular has excellent resources for you to peruse, and another excellent set of guidelines is available at https://rpki.readthedocs.io. INX runs separate workshops on IRR and RPKI usage, so look out for our announcements, and join the classes.