

Route servers (RS)

Litix Internet Exchange offers a route servers which eases peering configuration. The route servers just provide routing information, the actual traffic flows directly between the participants. After you establishing a BGP session to both route servers you start receiving all routes from all Litix members. When peering with the route servers we mandate you that routers are set up to connect to both route servers and advertise the same amount and length of prefixes for resilience.

Route servers details:

rs1.litix.lt	
ASN	58146
IPv4	185.1.113.1/24
IPv6	2001:7f8:c4::1/64

rs2.litix.lt	
ASN	58146
IPv4	185.1.113.2/24
IPv6	2001:7f8:c4::2/64

Filtering

Incoming Prefixes Sanitization

Litix route servers only implement very basic incoming filters for prefixes received from members.

We block RFC1918 ranges, bogon prefixes and the default route.

Max-prefix: limits the number of prefixes learned per peer on RS. Max-limit is set for each peer independently according possible prefixes announcement (restarts the BGP session if the threshold is exceeded).

Prefix length: IPv4 netmask must be $\geq /8$ and $\leq /24$, IPv6 netmask must be $\geq /19$ and $\leq /48$

Enforce First AS : verification that the leftmost AS of the AS-PATH is the peer AS.

Incoming filtering

If you don't want to receive some peers prefixes (i.e. international traffic), inform our NOC (NOC@datalogistics.lt) and we will include filters in our RS to start filtering.

Outgoing BGP Community based filtering

Litix route servers implement outgoing filtering based on BGP community. This filtering is applied on outgoing advertisements. Litix members has the ability to filter outbound announcements by tagging them with the following predefined communities. By default all incoming prefixes are announced to all Litix members, if they do not have specific community listed in tables.

For destination peers with 16-bit or 32-bit ASN (extended community)	
Do not announce a prefix to a certain peer	rt:0:peer-as
Announce a prefix to a certain peer	rt:58146:peer-as
Do not announce a prefix to any peer	rt:0:58146
Announce a prefix to all peers	rt:58146:58146

If your equipment doesn't support extended community you can use standard community.

Note: with standard community you can't control prefixes that are announced to 32-bit ASN Litix members.

For destination peers with 16-bit ASN (standard community)	
Do not announce a prefix to a certain peer	0:peer-as
Announce a prefix to a certain peer	58146:peer-as
Do not announce a prefix to any peer	0:58146
Announce a prefix to all peers	58146:58146

Peer routers configuration

- When setting your router to peer with RS you need disable first AS check, as RS do not add their ASN in the AS_PATH.
 "no bgp enforce-first-as" (Cisco IOS and IOS-XE)
 "bgp enforce-first-as disable" (Cisco IOS-XR)

Common policies

- Fill, and keep up-to-date your ASN / AUT-NUM (and eventually AS-SET) object.
- Add your network to Litix (<https://peeringdb.com/ix/542>) in Peering DB (<https://peeringdb.com>)
- When maximum daily National traffic is over 90% or daily International traffic is over 50% of the physical port speed for the last month, Litix member is asked to order additional port to Litix (info@datalogistics.it).