

Route servers (RS)

In addition to our LITIX internet exchange point service, we also offer free route-server (RS) service which facilitates peering configuration. RS service only ensures a route exchange function, and data is exchanged directly between the members using a L2 network. When you activate a BGP session with both RSs, you start receiving the route of all LITIX members. Once you connect to RSs, make sure to activate BGP sessions with both LITIX RSs and advertise all your prefixes equally to both RSs so that you can achieve a reliable route exchange action as a preventative measure or in case one of the RSs fails.

Route 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

Prefix filtering

Litix RS ensures basic filtering of prefixes received from the members in the route-server.

RS blocks RFC1918 network ranges, non-existent prefixes and the default route.

Max-prefix: RS limits the maximum number of prefixes received from each member. The maximum limit of prefixes received from each member is set for each member separately, depending on the possible number of prefixes advertised by a given member (a BGP session restarts once the limit is reached).

Length of a prefix address: IPv4 prefix address length must be ≥ 8 and ≤ 24 , IPv6 prefix address length must be ≥ 19 and ≤ 48 Checking the first autonomous system (AS) number in the AS path (AS-PATH).

Filtering inbound prefixes

If you want to avoid receiving prefixes advertised by certain members (e. g. international prefixes), please let us know (NOC@datalogistics.lt) and we will create inbound flow filters.

Filtering outbound flow using the BGP community method

Litix RS has an integrated outbound flow filtering feature based on the BGP community method. This filter is used for the prefixes advertised by you. Litix members have the option of filtering the prefixes advertised by them by using special markings. If prefixes are unmarked or marked with other markings than those specified in the tables below, those prefixes will be advertised to all Litix members. We recommend that you use an extended community method since it will enable you to control advertised prefixes for those Litix members who have 16-bit or 32-bit ASNs.

For members with 16-bit or 32-bit ASNs (extended community)	
No advertising of a prefix to a specific Litix member. The member's ASN should be entered in place of the word "peer-as".	rt:0:peer-as
Advertising own prefix to a specific member (peer-as).	rt:58146:peer-as
No advertising of any prefixes.	rt:0:58146
Advertising of all prefixes to all members.	rt:58146:58146

If your software does not support the extended community method, you can use the standard community method.

Note: the standard community method will not enable you to control prefixes that you may want to advertise to members with 32-bit ASNs.

For members with 16-bit ASNs only (standard community)	
No advertising of a prefix to a specific Litix member. The member's ASN should be entered in place of the word "peer-as".	0:peer-as
Advertising own prefix to a specific member (peer-as).	58146:peer-as
No advertising of any prefixes.	0:58146
Advertising of all prefixes to all members.	58146:58146

Router configuration tips

- When configuring a router for RS, stop checking the first AS since RS does not import ASN to AS_PATH:
"no bgp enforce-first-as" (Cisco IOS and IOS-XE)
"bgp enforce-first-as disable" (Cisco IOS-XR)

General rules

- Fill out and verify to ensure that the data (ASN/AUT-NUM and AS-SET objects) in the data registers (e.g. RIPE, etc.) remain up to date.
- Add your prefix to LITIX (<https://peeringdb.comix/542>) (Public Peering Exchange Points) in the peering database (<https://peeringdb.com>).
- When the maximum daily data flow in Lithuania reaches 90 percent, and the international data flow reaches 50 percent of physical link bandwidth, please order an additional communication link with LITIX by contacting us via email at info@datalogistics.lt.