



IP TRANSIT

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SERVICE OVERVIEW

The **IP Transit** service provides dedicated access to Telekom Romania IP network and other national, regional or global IP networks. The service is generally available through a BGP session between Telekom Romania and ISP/OLO's routers. It is also possible to use the static routing for small ISPs' networks that do not scale often.

The service can be provided at a Telekom Romania PoP/eXchange node, into a Telehouse or at OLO/ISP's main PoP/eXchange node.

The IP Transit service provisioning involves the following components:

- CPE: including provisioning, configuration and management is not included in the basic offer, yet available upon request;
- The Ethernet/SDH access line/physical link between the closest Telekom Romania PoP and the customer's router;
- A /30 IP subnet for service configuration;
- Optionally, up to /24 subnets as part of the service;
- Optionally, a private ASN provided by Telekom Romania, in case the customer does not have a public ASN
- The BGP session/ static routing configuration and maintenance;
- QoS - traffic prioritization according to IP Transit service level.

The IP Transit services are generally, but not restricted, based on the establishment of a BGP session between a Telekom Romania router, and a customer router. The points of hand-over/location options are:

- Customer PoP
- Intermediate mainframe
- Telekom Romania PoP
- Neutral Telehouse.

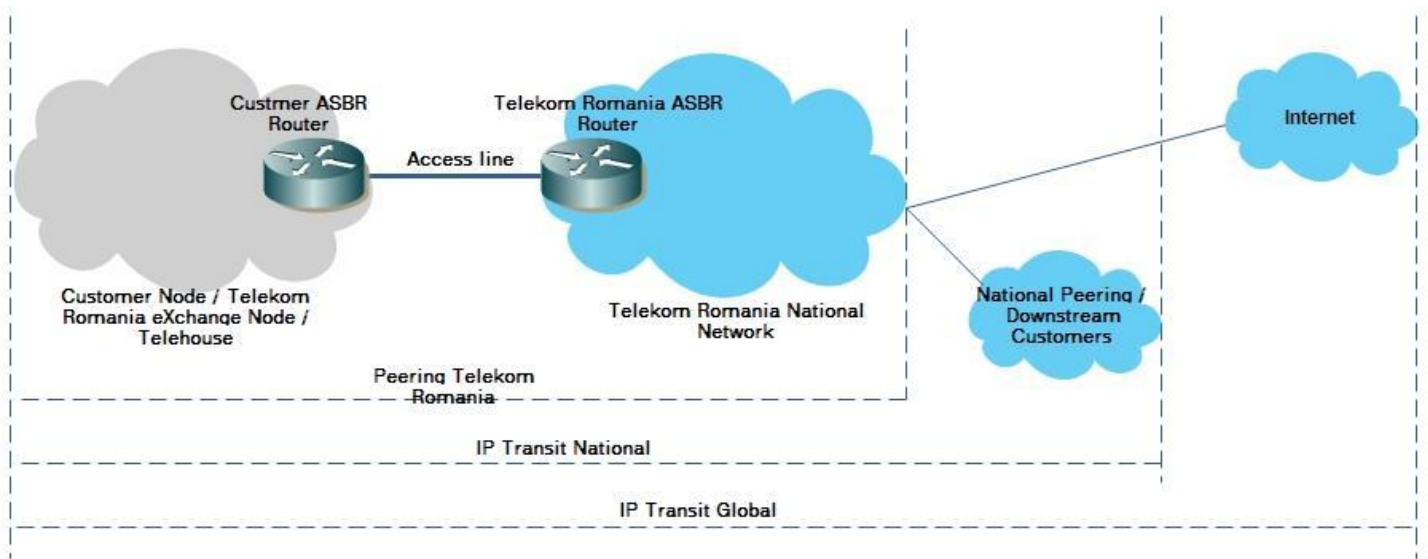


Figure 1: Technical Architecture

The IP Transit family includes the following services:

- **IP TRANSIT**
- **IP TRANSIT BACKUP**
- **IP TRANSIT BURSTABLE**

CUSTOMER BENEFITS

- best routes to Internet
- cost savings by bundling IP services on the same port
- scalable, efficient and flexible solutions of IP traffic management
- private connections using optical fiber in customer location or in colocation centers
- flexible bandwidth
- billing by usage.

IP TRANSIT ATTRIBUTES

- **Connectivity** through dedicated port, over dedicated FO access or interconnect link, using the Ethernet/SDH access technology;
- **Available bandwidths:** between 5 Mbps and 10 Gbps;
- Access via Telekom Romania IP network to other IP networks, with the following options:
 - **IP Transit National:** access to Romanian IP networks, including Telekom Romania IP network, Telekom Romania's peers and downstream customers within Romania
 - **IP Transit Regional:** access to Regional IP networks, including Telekom Romania IP network, Telekom Romania's peers and downstream customers within region
 - **IP Transit Global:** access to global Internet network
- **Routing features:**
 - Routing protocol
 - By default, BGPv4
 - Static routing will apply when customers require an IP Address range from Telekom Romania's pool, as part of the service.
 - Routing information – options, at choice:
 - Default route;
 - National Routing Table (NRT), Regional Routing Table (RRT), Full Internet Routing Table (FIRT) transfer;
- **IP Addressing**
- **Traffic monitoring** through a secured web-site.

Two options for the **Service Level:**

- Standard SLA - by default
- Premium SLA.

The IP Transit service will be charged according to bandwidth, service level and routing features, regardless of the traffic downloaded or uploaded.

IP TRANSIT BACKUP ATTRIBUTES

Provides dedicated access to Telekom Romania IP network and other national, regional, global IP networks. The service is ideal for customers that are looking to cost effectively secure the IP Transit service against the failures of the main transport route.

The IP Transit Backup service has a time-based usage fee.

Available bandwidths:

- 100 Mbps
- 1 Gbps.

IP TRANSIT BURSTABLE ATTRIBUTES

Provides dedicated access to Telekom Romania IP network and other national, regional, global IP networks. The service is ideal for customers that need a cost effective solution to Internet access.

The IP Transit Burststable service has a flat fee for the committed bandwidth, and a volume-based usage fee component. The 95% rule will apply.

Port	Minimum CIR	Mac traffic Value
1 Gbps	200 Mbps	1 Gbps
10 Gbps	2 Gbps	10 Gbps

Table: Available bandwidths



ABBREVIATIONS

BGP	Border Gateway Protocol
ISP	Internet Service Provider
OLO	Other Licensed Operators
PoP	Post Office Protocol
SDH	Synchronous Digital Hierarchy
ASD	Answer Signal Delay
QoS	Quality of Service
SLA	Service Level Agreement



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