



Service Level Agreement: Arelion Internet Services

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1 OVERVIEW

This Appendix is an integral part of the “Arelion Master Service Agreement (MSA)” and shall apply, on the terms specified herein, to the following products provided to Customer by Arelion:

- Arelion Internet Services
- Arelion SecureConnect Services

This document defines levels of service and Customer’s right to apply for credits in the event that the applicable service levels are not achieved. Terms not defined herein shall have the same definition as in the Agreement

2 SERVICE DESCRIPTION ARELION INTERNET SERVICES

Arelion Internet Services provides connectivity to the global Internet through Arelion’s global Internet backbone (all links between and including Points of Presence (POPs) constituting the AS number AS1299). Arelion offers customer four types of Internet Services:

IP Connect

IP Transit

SecureConnect DIA

SecureConnect Transit

For each type of service, customers are provided with connectivity to the Internet via a Port using standard transmission interfaces at a Point of Presence (POP) on Arelion’s global Internet backbone.

2.1 IP Connect

Arelion IP Connect provides connectivity to the Global Internet for customers who do not have their own autonomous systems number (“AS”) number, or do not wish to use their own AS number.



2.1.1 IP Addresses

IP Connect Customers can apply for the loan of Public IP addresses (IPv4 and IPv6) from Arelion. If the application is approved, Arelion will provide the Customer with IP addresses subject to availability and the Customer's agreement to use the IP addresses in accordance with the terms and conditions of this Agreement as well as the directives and rules for the use and handling of public IP addresses rules issued by Réseaux IP Européens (RIPE) for Europe, the American Registry for Internet Numbers (ARIN) for the U.S. and by Asia Pacific Network Information Centre (APNIC) for Asia. Arelion reserves the right to modify, add or delete restrictions governing the use of public IP addresses and to require Customer to return any IP Addresses if Customer fails to abide by the terms of this Agreement and/or the rules issued by RIPE, ARIN or APNIC.

For Public IP address, or so called PA address (Provider Aggregatable) applications. Upon receipt of an application for Public IP addresses, Arelion will determine whether to grant the application based on Customer's need, the availability of IP addresses and the technical solution set forth in the IP address application. If Customer is loaned any public IP addresses, Customer shall:

- within six (6) months of receipt be able to trace which of Customer's customers has used or is using a certain IP address. (This also applies also to private IP addresses);
- serve as Arelion's sole point of contact and be responsible for all contacts with any third parties who gain access to the IP addresses through Customer (i.e., Customer's customers);
- apply for the IP addresses for the account of its customers;
- not promise its customers the loan or provision of a certain amount of public IP addresses;
- require its customers to comply – without any additions or changes – with the rules and guidelines provided by Arelion concerning the handling and use of public IP addresses;
- return all loaned addresses without delay upon the termination of the Service and not assert any right or interest in any IP addresses loaned pursuant to this Agreement;
- not transfer any public IP addresses to another organisation or company;
- require its customers to return any public IP addresses upon Customer's termination of the provision of service to such customer ; and
- provide a working reverse lookup in at least two domain name servers for public IP addresses.



Arelion will not loan Customer any additional public IP addresses unless Customer submits an application demonstrating that at least 80% of previously loaned public IP addresses are being utilized.

Customer is not allowed to route IP addresses provided by Arelion to another Internet Service Provider.

2.2 SecureConnect DIA

Arelion SecureConnect DIA provides connectivity to the Global Internet for customers who do not have their own autonomous systems number ("AS") number, or do not wish to use their own AS number. In addition, SecureConnect DIA offers a DDOS protection service designed to mitigate volumetric attacks.

2.2.1 IP Connect

SecureConnect DIA is based on IP Connect and as such, all descriptions and requirements under 2.1 also apply to SecureConnect DIA

2.2.2 DDOS Protection

Arelion offers a best efforts DDOS mitigation service with SecureConnect based on a fixed detection template and network based protection mechanisms . Arelion will make every effort to ensure that this service provides protection against common forms of volumetric DDOS attack.

This protection is offered as-is, and comes with only the SLA's specified in Section 5.5

2.3 IP Transit

Arelion IP Transit offers Customers four different Route Options; Global Connect, Euro Connect, Content Connect, and Asia Connect, all of which support the routed protocols IPv4 and IPv6. Each Customer will be provided with IPv4 and/or IPv6 route announcements using the BGP-4 routing protocol.



2.3.1 Global Connect

- AS1299 and customers
- All Peers interconnected with AS1299

2.3.2 Euro Connect

- AS1299 and customers with European route community set
- All Private Peers and Public Peers interconnected with AS1299 European route community set

2.3.3 Content Connect

- AS1299 and customers

2.3.4 Asia Connect

- AS1299 and customers with Asia route community set
- All Private Peers and Public Peers interconnected with AS1299 Asia route community set

2.3.5 IP Addressing and Routing

Customer purchasing IP Transit must be assigned an autonomous system in accordance with the rules issued by Réseaux IP Européens (RIPE) for Europe, the American Registry for Internet Numbers (ARIN) for the U.S., or by Asia Pacific Network Information Centre (APNIC) for Asia. All border routing between the Customer's AS and the IP backbone (AS1299) will be facilitated through the use of the BGP-4 protocol. The Customer is solely responsible for configuring its own border routing equipment.

Customer will be connected to Arelion's Network using a link network address(s) (/31 for IPv4 and /126 for IPv6), which under normal circumstances will be provided by Arelion's Registry. Any link network addresses allocated to IP Transit Customers will remain the property of Arelion and shall be relinquished immediately upon termination of the Service. Customer shall not assert any claims to any IP Addresses loaned or provided by Arelion in connection with this Agreement.

2.3.6 Optional Value Added Services

- **Secure Blackhole** : Secure Blackhole enables the possibility to disable routing for selected host routes in case of an emergency, e.g. DDoS attack. Customer can announce the desired host routes to be blackholed using the BGP-4 community 1299:999. A prerequisite for using the Secure Blackhole service is that all Customer BGP-4 route announcements are filtered by a prefix filter based upon a Customer maintain RIPE or RADB route object database entry.

2.4 SecureConnect Transit

2.4.1 IP Transit

SecureConnect DIA is based on IP Connect and as such, all descriptions and requirements under 2.3 also apply to SecureConnect Transit

2.4.2 DDOS Protection

Arelion offers a best efforts DDOS mitigation service with SecureConnect Transit based on a fixed detection template and network based protection mechanisms . Arelion will make every effort to ensure that this service provides protection against common forms of volumetric DDOS attack.

This protection is offered as-is, and comes with only the SLA's specified in Section 5.5

2.5 Fair Usage

The below clause is only pertinent to customers which exceed 50Gb of outbound traffic on a 95th percentile basis over their total IP services.

The Service is provided based on the condition that it will be used by Customer to send a reasonable distribution of traffic to all of the routes announced by Arelion and that it will not be used to send a disproportionate amount of traffic to any one IP network directly connected to Arelion.

If the volume of traffic sent by Customer to or via the BGP AS number of an IP network directly connected to Arelion is greater than fifteen percent (15%) of Customer's total monthly usage of the Service (as determined based on the 95th percentile measurement methodology), then Arelion reserves the right to notify Customer and Customer shall have fourteen days from receipt of the notice to reduce the amount of traffic sent to or



via the relevant IP network below the 15% limit. If Customer fails to do so within fourteen days of receipt of the notice, then Arelion shall have the right without liability or further notice to take traffic management measures, including restricting, filtering, or blocking traffic in order to reduce the level of traffic sent to or via the relevant IP network(s).

2.6 Rates, Charges and Usage Measurements

Internet Service prices shall be set forth either in the Agreement or in a Service Order Form and may include Installation, Bandwidth Fees and charges for third party services (e.g. local tail circuits and cross-connects), which shall be imposed each month on either a flat-rate or burstable (i.e., usage-sensitive) basis.

With respect to IP connectivity provided on a burstable basis, the Customer must agree to utilize a minimum amount of bandwidth each month with the opportunity to “burst” beyond such minimum subject to an agreed upon charge for each Mbps of usage in excess of the Customer’s committed usage and a maximum amount of available bandwidth. Each month the Customer is responsible for the payment of an amount equal to the greater of (i) the applicable charges for IP connectivity provided to Customer during the monthly measurement period, or (ii) an amount equal to Customer’s minimum monthly commitment.

Usage-sensitive charges shall be measured each month based upon a monthly percentile calculation using bandwidth samples taken by Arelion. Bandwidth samples are sorted by Arelion in increasing order, with the sample above the agreed percentile not considered for the purposes of invoicing the Customer for bandwidth usage. The charged amount is based on the highest value of outgoing and incoming traffic.

Any charges for third party services required to deliver the Service to the agreed service demarcation point will be shown as installation and recurring charges against the applicable IP Service in the Service Order Form.

3 DELIVERY

3.1 Credits for RFS Delay



The Service shall be installed and operated in accordance with the applicable specification on or prior to the committed RFS Date, subject to any special conditions applicable to the Order. If the committed RFS Date is not met by Arelion, Customer is entitled to claim credits according to the table set forth below for each day of delivery delay beyond the committed RFS Date, which shall be Customer's sole and exclusive remedy in connection with the delay.

Number of full working days by which Arelion fails to meet the committed RFS date for service	Service credits as a % of the committed monthly recurring charge (MRC)
1 to 5 days	10%
6 to 10 days	20%
11 to 20 days	30%
>21 days	50%

The Customer shall not be entitled to any credits for RFS delays arising out of Customer's acts or omissions, a delay caused by Customer failing to provide access to its premises, the failure of a third-party to deliver or provide services, or an event of force majeure.

4 FAULT AND AVAILABILITY

4.1 Definition of Fault

A fault is considered to have occurred during the period of time in which a Service is not available to the Customer. The Service will be considered unavailable if:

- There is a critical failure of the Customer access port in the relevant IP Backbone access equipment or the access equipment itself.
- The IP Backbone experiences physical or logical routing problems resulting in total packet delivery failure of Customer traffic in the IP Backbone.



The term “IP Backbone” refers to Arelion’s global IP Network comprised of the links, or circuits, between international points-of-presence in different countries and is the platform over which IP connectivity is provided.

4.2 Exclusions to Fault Definition

For the purposes of calculating the Fault Time, the unavailability of the Service shall not be considered a fault to the extent caused by any of the following:

- Planned Work (see The Customer Service Handbook)
- The failure of equipment, cabling, services or network not included in the Service or not provided by Arelion
- Environmental conditions at the Customer site such as power supply, climate or housing
- The Customer’s actions or intervention
- An event of Force Majeure
- The suspension, interruption or termination of Service in accordance with the Agreement
- The failure of a third-party local tail and/or cross-connect service

4.3 Fault Time Calculation

With respect to the availability guarantees set forth in this Appendix, a Fault is recognized upon initiation of an incident case by Customer and Arelion confirmation of a problem. The Fault or restoration time is calculated as the time between the opening of the trouble-ticket until Arelion notifies Customer that Service at the affected site has been restored through the implementation of a full or a temporary repair reduced by the following:

- Delay of Fault repair caused by the Customer not giving access to its premises to Arelion and/or Arelion subcontractors.

*Arelion

- Delay of the closure of the trouble-ticket due to Arelion not being able to reach the Customer.
- Other delays caused by the Customer or Customer's employees, agents or representatives.

If necessary, Customer must provide Arelion and/or Arelion's subcontractors (e.g. local tail or professional service providers) with access to its premises or a third-party's premises in order to perform testing, maintenance and/or Fault repair.

A fault will be considered to have been repaired in the event that either a full repair or a temporary repair restoring the continuity of the relevant Service has been implemented.

4.4 Service Availability Calculation

The measurement period of the availability of the Service shall be coterminous with the monthly billing cycle. The availability is calculated monthly beginning with the first full month of service.

$$Availability = \frac{TotalTime - \Sigma(FaultTime_n)}{TotalTime} * 100\%$$

where *TotalTime* = the total time during the measurement period

and $\Sigma(FaultTime_n)$ = the sum of all fault times of the faults that occurred during the measurement period

5 SERVICE LEVELS

The IP backbone service level guarantees and credits set forth in this Section shall apply only to Arelion Internet Services and shall not apply to any other service. For the avoidance of doubt, if a particular subsection below does not expressly state that it will apply to a particular IP Service, then the relevant guarantees and credits set forth in the subsection shall not apply to the omitted Service.



5.1 Availability Guarantee and Credits

Availability of Service within the IP Backbone is 99.999%, measured as specified above. Customer shall be entitled to request a credit equal to the pro-rated charges for the affected Service for 1/60 of a day (i.e. 1/60 of 1/30 of the monthly charge) for every minute of Fault Time during a calendar month. For the avoidance of doubt, the IP Backbone shall not be considered unavailable due to a fault or problem with local access services or CPE provided to the Customer by Arelion.

5.2 Network Latency and Packet Loss Service Level Measurement

Packet Loss and Network Latency are measured by Arelion sending test packets between designated routers located in Arelion's Internet Backbone. Arelion guarantees that average Network Latency and Packet Loss within Arelion's IP Backbone across identified regions will not exceed the thresholds defined in the following sections during a calendar month.

5.3 Network Latency Guarantee and Credits

The term "network latency" refers to the average time taken for test IP packets to travel between designated routers within Arelion's IP network and back again during a calendar month (also referred to as RTT or Round Trip Time). Arelion guarantees that the monthly average Network Latency for Internet Services between Arelion sites shall not exceed the committed values as specified in our portal, listed under Network Performance, measured over a calendar month. Or publicly in at the website, <https://www.arelion.com/our-network/ip-sla-network-performance>, also measured over a calendar month. For the avoidance of doubt, measurements are for Arelions backbone only and any Local Tail measurements are not taken into account.

When the guarantee is not met, Customer shall be entitled to request a credit equal to 10% of the service charges during the calendar month in which the Network Latency guarantee was not achieved.

5.4 Packet Loss Guarantee and Credits



Packet Loss shall be determined by Arelion based on averaging the packet loss of test IP packets between designated routers in Arelion's IP backbone during a calendar month. Arelion guarantees that the monthly average Packet Loss for Internet Services between Arelion sites shall not exceed 0,1% per region. The achieved values for Packet Loss are available in our portal, listed under Network Performance. Registration to access the portal is mandatory. The statistics are also available publically at <https://www.arelion.com/our-network/ip-sla-network-performance>. For the avoidance of doubt, measurements are for Arelions backbone only and any Local Tails are excluded.

When the guarantee is not met, Customer shall be entitled to request a credit equal to 10% of the service charges during the calendar month in which the Packet Loss guarantee was not achieved.

5.5 SecureConnect DDOS Guarantee and Credits

This segment is only applicable to SecureConnect DIA and SecureConnect Transit

Arelion guarantees that the overall components involved in the detection and initiation of the DDOS mitigation segment of the service will not be inoperable.

When the guarantee is not met, Customer shall be entitled to request a credit equal to 10% of the service charges during the calendar month in which the DDOS mitigation segment of the service was unavailable.

6 CLAIM OF CREDITS

6.1 Limitation of Credits

Notwithstanding the occurrence of multiple events of unavailability or failures to meet the service level guarantees set forth in this SLA, the maximum penalty reduction credit to the Customer during a monthly billing period is limited to 50% of the previous month's charges for the IP Service at the affected port(s). The charges for a given port will be determined based on the 95th percentile usage measurement for the port during the month preceding the event giving rise to the credit request.

6.2 Procedure



In order to receive credits, Customer must submit a claim within thirty (30) days of the end of the calendar month in which the failure occurred. The Customer is only entitled to request credits as set forth above if Arelion fails to meet the service level guarantees set forth in this SLA. If Customer fails to submit a claim within thirty days (30) of the end of the month in which the Service was affected by an event of failure, Customer shall waive the right to claim credits.

Notwithstanding anything to the contrary in the Agreement, the claim and award of credits pursuant to this Service Level Agreement shall be Customer's sole and exclusive remedy in the event that the Service is unavailable or fails to meet the specified service level guarantees.