

Service Level Agreement Arelion Capacity Services

Table of Contents

1 OVERVIEW3

2 SERVICE DESCRIPTION3

2.1 Wavelength.....3

2.2 Managed Optical Private Network3

2.3 Managed Networks.....3

3 DELIVERY4

3.1 Delivery and testing.....4

3.2 Credits for RFS Delay5

4 FAULT AND AVAILABILITY5

4.1 Definition of Fault Arelion Capacity Services.....5

4.2 Exclusions to Fault Definition.....6

4.3 Fault Time Calculation.....6

4.4 Service Availability Calculation7

5 SERVICE LEVELS.....7

5.1 Availability Guarantees7

5.2 Availability Credits.....8

6 SERVICE TERMINATION REMEDY8

7 CLAIM OF CREDITS.....9

7.1 Limitation of Credits.....9

7.2 Procedure.....9



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 Capacity Services provided to Customer by Arelion:

- Arelion Wavelength Services
- Arelion Managed Optical Private Network
- Arelion Managed Network

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

This Section describes the Capacity Services identified above.

2.1 Wavelength

The Arelion Wavelength Service is comprised of a bi-directional wavelength channel or a full duplex Ethernet service provisioned in one or a sequence of DWDM systems within the Arelion fibre optic network.

2.2 Managed Optical Private Network

The Arelion Managed OPN is a 100% transparent network that allows customers to build a Digital Optical Network across Arelion’s optical network. The end terminals and all services running on the OPN are managed by Arelion.

2.3 Managed Networks

The Arelion Managed Network Service comprises a dedicated DWDM network built on Arelion fiber optic network and/or on leased third party fiber. The Service includes all colocation sites for termination, amplification and regeneration along the network route, as required, to maintain the integrity of the network.

3 DELIVERY

3.1 Delivery and testing

During the delivery process, Arelion will make all appropriate efforts to ensure that the link is active before it is handed over to Customer. If applicable, tests (e.g., an internal PRBS test or a short RFC test) will be performed after any required line side network buildout has been completed. When a link is already active in the network, no tests are performed.

If Customer requires testing to be performed prior to handover, Arelion may perform one of the following tests:

- RFC test with test protocol
- 24 – hour BERT test
- 48 – hour BERT test

Customer agrees and accepts that Arelion needs to plan the activities to perform these tests and that the scheduling of tests is subject to the number of Services to be tested and the availability of testers. Customer shall not be entitled to any credits for RFS delays, as specified in clause 3.2, with respect to any period of delay caused by the tests required by Customer. Customer shall make the request for additional testing in writing prior to the execution of Service Order for the Service and applicable charges may be included in the Service Order. Arelion will only perform the tests specified above.

3.2 Credits for RFS Delay

The Service shall be installed, completed and put into operation on or prior to the committed RFS Date set forth in the relevant Service Order, 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 business days by which Arelion fails to meet the committed RFS Date for Service	Service credits as a % of the committed monthly recurring charge (MRC) for the Affected Services at the Site
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 any period of delay arising out of the following, which shall be excluded from any calculation of RFS delay: 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 Arelion Capacity Services

A Fault is considered to have occurred with respect to Capacity Services during the period in which ES and SES exceed the limits for unacceptable performance level given in ITU-T recommendation M.2101 due to problems within the Arelion network. Subject to the terms below, every sequence of unavailability is a Fault.

4.2 Exclusions to Fault Definition

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)
- Environmental conditions at the Customer site such as power supply, climate or housing
- Customer's actions or intervention
- An Event of Force Majeure
- The suspension, interruption or termination of Service in accordance with the Agreement

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 in Fault repair was caused by Customer not giving access to its premises to Arelion and/or Arelion's subcontractors.
- Delay of the closure of the trouble-ticket due to Arelion not being able to reach Customer.
- Other delays caused by 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 services providers) with access to its premises or a third-party's premises in order to perform testing, maintenance and/or Fault repair. The period during which a Service is unavailable due to Faults shall be determined based on Arelion's records.

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 for the availability of the Service at a site shall be coterminous with the monthly billing cycle. The availability is calculated monthly beginning with the first full month of Service at the site.

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

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 service level guarantees and credits set forth in this Section apply only to Arelion Wavelength, Arelion Managed Optical Private Network, and Arelion Managed Network and shall not apply to any other services.

5.1 Availability Guarantees

Service option	Guaranteed monthly availability
Protected Link*	99.99%
Dual Link**	99.99%
Single Link*** (<4000 route km or <2485 route miles)	99.40%
Single Link*** (>=4000<7000 route km or >=2485<4349 route miles)	98.90%
Single Link*** (>= 7000 route km or >=4349 route miles)	98.40%

* Protected Link availability guarantee applies unless the Service Order Form includes information about third party Wavelength incorporated in the Protected Link (in which case the guaranteed monthly availability shall be 99.7%).

** Service in a package with two diversified Single Links with the same endpoints.

*** Service without automatic protection in case of failure.

For purposes of this Service Level Agreement, the km or miles traversed by a Service will be determined based on the distance covered by the actual transmission path on the optical route of the Service. Notwithstanding anything to the contrary herein, Dual Link Service shall be considered unavailable only if both two Links, with separate routed ways, are unavailable at the same time. The availability guarantees and credits set forth herein shall not apply to local tails unless specified otherwise under "Additional Terms" of the relevant Service Order Form.

5.2 Availability Credits

If the availability levels are not achieved, then Customer shall be entitled to claim credits from Arelion according to the following tables:

Fault Time over guaranteed monthly availability	Protected & Dual Link
Up to 4 hours	10% of monthly charge
4–8 hours	20% of monthly charge
8–12 hours	30% of monthly charge
>12 hours	40% of monthly charge

Fault Time over guaranteed monthly availability	Single Link*** (<4000 route km or <2485 route miles)	Single Link*** (≥4000<7000 route km or ≥2485<4349 route miles)	Single Link*** (≥7000 route km or ≥4349 route miles)
Up to 8 hours	5% of monthly charge	-	-
8–12 hours	10% of monthly charge	5% of monthly charge	-
12 -16 hours	20% of monthly charge	10% of monthly charge	5% of monthly charge
16-20 hours	20% of monthly charge	20% of monthly charge	10% of monthly charge
>20 hours	20% of monthly charge	20% of monthly charge	20% of monthly charge

The Outage Credit is calculated per affected circuit and based on the monthly charge for the affected Service set forth in the relevant Service Order.

6 SERVICE TERMINATION REMEDY

Notwithstanding anything to the contrary contained in the Agreement, a Service will be deemed to have suffered a Chronic Outage if:

- (a) with respect to a Protected or Dual Link Service, the Service is unavailable due to related Faults arising from the same root cause on either (i) three (3) or more separate occasions for more than six (6) consecutive hours each during a ninety day period or (ii) experiences twenty (20) aggregate hours of related Fault time during any (30) day period, or
- (b) with respect to a Single Link Service, the Service is unavailable due to related Faults arising from the same root cause on three (3) or more separate occasions of more than twelve (12) consecutive hours each during a ninety-day period.



If a Service experiences a Chronic Outage, Customer may elect to terminate the Service by providing Arelion with written notice of such termination within ninety (90) days after the end of the month in which the last Fault giving rise to the right of termination occurred. Such termination will be effective thirty (30) days after Arelion's receipt of such written notice of termination, unless Customer requests a later termination date, in which case the termination will be effective upon the date requested by the Customer. Such right of termination (i) shall not relieve Customer of the obligation to make payment in accordance with the Agreement for all services rendered prior to the effective date of the termination, (ii) shall expire if not exercised within ninety (90) days of the end of the monthly billing period in which the Fault(s) giving rise to the right of termination arose, and (iii) shall be Customer's sole and exclusive remedy for the Chronic Outage.

7 CLAIM OF CREDITS

7.1 Limitation of Credits

Notwithstanding the occurrence of multiple events of unavailability or failures to meet the service level guarantees, Arelion will not pay credits (or other types of penalties) to Customer in any monthly billing period that would exceed the monthly charge paid by Customer to Arelion for the Service circuit affected by the fault or unavailability.

7.2 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 fault occurred. The credits will be based on the actual fault time. In the event of any dispute concerning the duration of a fault, Arelion's fault monitoring and clearance records will govern. If the Customer fails to submit a claim within the applicable thirty days (30) period as defined above, the Customer shall irrevocably waive the right to claim any credits for the Services affected by the fault. Notwithstanding anything to the contrary in the Agreement, the claim and award of credits or exercise of the right of termination pursuant to this Service Level Agreement shall be Customer's sole and exclusive remedy if the Service is unavailable due to Faults or fails to meet the specified service level guarantees.