

stc

reference interconnection offer (RIO)

Annex I

quality of service measures

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1 QUALITY OF SERVICE MEASURES

1.1 Service Level Requirements

1.1.1 **stc** will provide Call Conveyance Interconnection services as set out in Annex G (Service Schedules) to the Other Licensed Operator at the same level of quality as for its own customers.

1.1.2 Both **stc** and the Other Licensed Operator will be responsible for regularly measuring and monitoring the traffic and quality of service on the Interconnect Links between their networks, and will be able to do so in real time or as close to real time as is possible. **stc** and the Other Licensed Operator will work jointly to achieve this goal in accordance with general standards and methods specified by the ITU and the processes outlined below.

1.1.3 This Annex I sets out the target service levels by which the capacity and traffic characteristics of the Interconnection services provided by **stc** to the Other Licensed Operator will be measured and assessed. It also sets out the quality of service measures to which **stc** commits for the provision and maintenance of Interconnection services under an Interconnection Agreement pursuant to this Reference Interconnection Offer (RIO).

1.1.4 Targets are set for a number of specific service level attributes.

- Delivery Lead Times:
 - Interconnect Links
 - Wholesale Leased Lines
- Performance
 - Interconnect Links
 - Wholesale Leased Lines

- Network
- Fault repair time for Interconnect Links
 - Service affecting faults
 - Non-service affecting faults

1.1.5 The service level attributes listed in Clause 1.1.4 above will apply except in the circumstances defined in Clause 23 (Force Majeure) of the Primary Document. For the avoidance of doubt, **stc** will make all reasonable efforts to comply with the terms of the service level attributes.

1.1.6 An unreasonable delay caused by the Other Licensed Operator's non-fulfilment of its obligations arising out of the Interconnection Agreement will result in the non-applicability of all or part of **stc**'s undertakings contained in this Annex I. Such obligations include, but are not limited to, access to sites for survey or provision of information required for service provisioning or fault resolution.

1.1.7 **stc** will provide traffic and quality of service reports upon request from CITC, in accordance with its licence obligations.

1.2 Delivery Lead Times

1.2.1 **stc**'s commitment to deliver within the lead times outlined below, will only apply to services ordered in accordance with the procedure for ordering and provisioning as set out in Annex H (Operations and Maintenance Manual), and within the forecast provided by the Other Licensed Operator under the procedure set out in Annex E (Forecasting).

Delivery of Interconnect Links

1.2.2 The table below details the delivery lead times applicable to Customer Sited (CS) Interconnect Links ordered within the agreed forecast by the Other Licensed Operator, starting from the end of the order negotiating period:

Order Type	Delivery Lead Time
New CS Interconnect Link to a new Point of Interconnect (POI)	14 weeks
Additional CS Interconnect Link to an existing POI where capacity is available	4 weeks

1.2.3 The delivery lead times as applicable to In Span Interconnect Links will be determined on a case by case basis.

Delivery of Wholesale Leased Lines

1.2.4 The table below details the delivery lead times applicable to Wholesale Leased Lines ordered within the agreed forecast by the Other Licensed Operator, starting from the end of the order negotiating period:

Order Type	Delivery Lead Time
New Wholesale Leased Lines where transmission equipment is available at both ends	4 weeks
New Wholesale Leased Lines where transmission equipment is required at one or both ends but not involving civil engineering work	14 weeks

1.3 Performance

Availability of Interconnect Links

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- 1.3.1 Each Interconnect Link will have a target availability of 99.8% which is the amount of time over one quarter (that is to say three (3) Calendar Months in the Gregorian calendar) during which the link is fully functional and available for the conveyance of traffic.
- 1.3.2 A higher level of availability on individual Interconnection routes may be obtained if the Other Licensed Operator and **stc** agree to install additional Interconnection Link capacity and implement alternative routing.

Availability of Wholesale Leased Lines

- 1.3.3 Each Wholesale Leased Line will have a target availability of 99.0% which is the amount of time over one quarter (that is to say three (3) Calendar Months in the Gregorian calendar) during which the link is fully available.

Overall Availability

- 1.3.4 For the overall performance of the Interconnect Links and Wholesale Leased Lines the availability should meet the performance target of 99.9% on average yearly.

Quality of Service for switching network

- 1.3.5 Unsuccessful Call Termination Ratio measurements will be carried out in each of the relevant **stc** exchanges as applicable in order to monitor the overall quality of service. The following Unsuccessful Call Termination Ratio parameters will be measured:

Total number of all attempts

Total number of Successful Calls (Calls set up successfully), which comprises:

- o total number of answered Calls

- o total number of Calls to busy subscribers
- o total number of unanswered Calls

Total number of unsuccessful Call attempts which comprises:

- o congestion due to non-availability of common resources
- o technical faults in the network

On the basis of the measurements as set out in Clause 1.3.5, **stc** will calculate the Unsuccessful Call Termination Ratio during the busy hour on any Interconnect Link. The Unsuccessful Call Termination Ratio is the percentage of unsuccessful Calls of the total Call attempts during the network busy hour.

Interconnect Links will be dimensioned so that the Unsuccessful Call Termination Ratio for the network busy hour is less than two percent (2%), which constitutes the target Unsuccessful Call Termination Ratio for any route.

1.3.6 **stc** and the Other Licensed Operator will cooperate and take joint action to address any issue arising from the result of the above measurements. In particular, in the event of extended breach of the Unsuccessful Call Termination Ratio on a particular Interconnect link, **stc** and the Other Licensed Operator will consider alternative traffic routing away from the congested link or increasing capacity on the Interconnect Path. These changes will be agreed as part of a review of the Network Plan as outlined in Annex D (Management of Interconnection).

1.3.7 If an agreement cannot be reached during the review of the Network Plan, either **stc** or the Other Licensed Operator will have the right to follow the Dispute resolution process described in Clause 19 of the Primary Document.

1.4 Interconnect Link Fault Repair

- 1.4.1 **stc** or the Other Licensed Operator will report to the other Party any fault related to Interconnect Links, in accordance with the procedure described in Annex H (Operations and Maintenance Manual).
- 1.4.2 In the event of the Other Licensed Operator’s failure to report a fault in accordance with the appropriate procedure, **stc** will not be bound by the terms of this Annex I, including the target repair time and any applicable penalties.
- 1.4.3 Both **stc** and the Other Licensed Operator will co-operate in any investigation and follow up action required for the resolution of the fault.

1.5 Repair Times

- 1.5.1 Repair times are dependent on the nature of the fault (service affecting or non-service affecting).
- 1.5.2 When a fault has been reported and both Parties agree that the fault is service affecting in accordance with the terms of Annex H (Operations and Maintenance Manual), **stc** will address service affecting faults as priority.
- 1.5.3 **stc** will address reported faults within the timescales as detailed in the table below:

Type of fault	Target Repair Time for Interconnect Links	Target Repair Time for Wholesale Leased Lines
Service affecting fault	95% within 12 hours of receipt of fault report	95% within 24 hours of receipt of fault report

Non-service affecting fault	90% within 24 hours of receipt of fault report	90% within 48 hours of receipt of fault report
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The target repair times for the remaining 10% of the cases on average are five (5) Business Days in case of service affecting faults and twenty (20) Business Days in case of non-service affecting faults.

1.6 Review and Update

- 1.6.1 The quality of service measures will be reviewed after consultation with the Other Licensed Operators, based on technical and operational capabilities and updated as appropriate.