



Asi@Connect Connectivity Procurement 2019
Terms of Reference

Issue 1
June 2019

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1 INTRODUCTION

This document invites organisations, the tenderers, to make a formal offer for the **Asi@Connect Connectivity procurement 2019** tender. The projected timeline is given in the Annex 2.

2 BACKGROUND INFORMATION

2.1 Asi@Connect and TEIN background

The Trans-Eurasia Information Network (TEIN) Initiative was first launched by the 3rd Asia Europe Meeting (ASEM) between the European Union and Asian leaders held in Seoul in October 2000 as an initiative to use ICT to improve research and education collaborations between the two regions. The first TEIN interconnection between Europe and Asia, sometimes referred to as TEIN1, started operation in November 2001 between Paris and Seoul. This link was well used and upgraded several times, illustrating the latent demand for better connectivity.

The TEIN2 and TEIN3 network successfully operated by DANTE (currently GEANT Association) in UK from January 2006 to March 2012 and connected the national research and education networks of 17 Asia Pacific countries to each other and also with the pan-European R&E network, GEANT. It reached out over 40M users in over 4,000 research and education establishments.

TEIN4 has continued to develop the pan-Asian research and education network. It connected national research and education networks in 20 Asia Pacific countries with over 55M users. The project was funded by the European Commission (EC) and TEIN partners with a matching principle of 50:50. It was managed and operated by TEIN*Cooperation Centre (TEIN*CC), not for profit organization, based in Republic of Korea since 2012.

Asi@Connect, Successor of TEIN4, provides dedicated high-capacity internet connectivity for research and education communities across Asia-Pacific; it currently interconnects universities and research centres in 23 countries. It also connects to the 50 million European researchers and academics served by the GEANT network and supports collaborative programmes in areas such as Earth observation, disaster warning, climate research, food security, delivery of e-health and e-learning. Asi@Connect is jointly funded by the European Commission and Asian partners and is managed by TEIN*CC (TEIN*Cooperation Center) based in Seoul, Korea.

A video clip introducing Asi@Connect project, TEIN and TEIN*CC can be found at:

<http://www.tein.asia/sub/index.php?page=1&mc=7060&idx=1962&a=view>

The current topology of the TEIN network can be found at:

<http://www.tein.asia/sub/?mc=2030>

The TEIN network currently has network Point of Presences (POPs) in Beijing, Hong Kong, Mumbai and Singapore. The backbone between the POPs and with Europe is based on 10Gbps Internationally Private Leased Circuits (IPLCs). Access links between the Asian NREN partners and TEIN are in the range 45Mbps to 100Gbps. In addition, several additional links are provided by other TEIN partners and managed co-operatively. These

circuits make a significant contribution to the backbone and provide access for partners in some instances.

The TEIN network is managed by a Network Operation Centre (NOC) based in Hong Kong run by Tsinghua University.

The TEIN network is well used, with traffic levels growing steadily and innovative applications in fields including e-learning, crop research, telemedicine, environmental monitoring and culture heritage being actively promoted.

2.2 Use of TEIN Infrastructure

The TEIN infrastructure will be used entirely for non-commercial purposes, underpinned by the Acceptable Use Policies that each partner has put in place. These stipulate that no commercial re-sale or transit is permitted over the infrastructure. Tenderers are therefore invited to take into account the non-commercial status and national importance to the participating Asian countries when making their pricing offers

2.3 TEIN*Co-operation Center

The Asi@Connect project is contracted between the EC and TEIN*CC. TEIN*CC is a not for profit organization registered in Seoul, Republic of Korea. It has been expressly set up to run the TEIN program and has the support of the existing TEIN partners. It is supported by the Korean Government – the Ministry of Science and ICT (MSIT) which has committed to fund its operational costs for the project.

TEIN*CC has full responsibility for the operation of the Asi@Connect, and this includes contracting for all connectivity awarded through this tender. All contracts will be between the successful tenderers and TEIN*CC.

2.4 Tender Process

2.4.1 Legal Basis of the Tender

The tender is being conducted for the Asi@Connect project financed by the European Commission under DCI Regulation. The European Commission is contributing up to 20M EURO of the costs of the project during the period 2016 to 2021 to support the participation of the developing Asian countries. TEIN*Cooperation Center is the contracting party for all contracts awarded as a result of this tender.

2.4.2 Additional Points to Note

i) While all Asi@Connect partners listed in Annex 1 are interested in connectivity resulting from this tender, decisions as to whether to participate and at what capacities will only be taken once formal tender responses are provided, and the affordability of the offers received can be assessed. TEIN*CC reserves the right not to award contracts.

ii) Although it is expected that contracts will be awarded through this tender, certain elements requested in this tender may not be awarded if partners or third parties agree to donate this capacity in the coming months.

iii) TEIN*CC wishes to contract only for whole circuit services (end to end), whether Tenderers are using their own infrastructure or with the assistance of subcontracts with their correspondent relationships.

3 OVERVIEW OF TECHNICAL REQUIREMENTS

The basic requirement in this tender is for **high speed international point-to-point connectivity** listed in Annex 1. Access capacities are expected to be in the range 100Mbps to 10Gbps depending on the route and the affordability of the offers received.

3.1 TEIN Points of Presence

The Asi@Connect project has existing Points of Presence (PoPs) in Beijing, Hong Kong, Mumbai and Singapore at which the connectivity will be routed between multiple circuits using Internet network routing equipment provided and managed by the TEIN NOC. These are well established and will continue to support the TEIN network.

It is the responsibility of tenderers to arrange and manage local access services to achieve the end to end services. This includes the need to satisfy that any tenderers and their suppliers to have the necessary licenses and approvals.

3.2 Connectivity Technology Options

Tenderers are invited to propose any type of transmission technology for this connectivity; the choice(s) will, of course, have implications for equipment provision, including the type of interfaces needed on the routers and possible other client equipment.

End to end provisioning and reconfiguration of circuits are managed by the connectivity tenderers. The management boundary (demarcation point), whether at a TEIN or partner, will be one or more physical interfaces on the customer router (most preferred) or in a patch panel on the customer rack. The nature of the physical interface(s) will most likely reflect the nature of the physical interface(s) used by the vendors of popular IP routers and will, in part, depend on the capacity of the circuits offered by the tenderers.

These circuits can be offered with or without full or partial protection switching and/or automatic restoration (manual restoration might be acceptable for dual submarine cable system protection). For the avoidance of further doubt, protection switching is taken to mean fast (<50ms) 1+1 or 1+N protection implemented using sub-network connection protection (SNCP) or ring-based protection mechanisms and automatic restoration is taken to mean slower restoration mechanisms (within a minute) implemented using some sort of mesh-based restoration mechanism (e.g. realized by an ASON/GMPLS control plane).

3.3 Detailed Technical Requirements

Detailed technical requirements are set out in Annex 3, for point by point responses required by all Tenderers.

4 COMMERCIAL TERMS

4.1 General Guidelines

- 4.1.1 TEIN*CC does not undertake that all or part of the tender will be awarded to any specific Tenderer. Any contracts that are awarded will be in accordance with the terms and conditions established between TEIN*CC and the European Commission. The remainder of this section is believed to be in accordance with these terms and conditions but, in the event of any conflicts, the terms between TEIN*CC and the European Commission will take precedence.
- 4.1.2 Tenderers who are selected to provide elements of the requirement will be required where necessary to co-operate with other tenderers in the provision of the TEIN connectivity service.
- 4.1.3 Tenderers must confirm that any services they offer conform to any relevant national or supra-national regulatory requirements.
- 4.1.4 All expenses relating to the submission of responses and any subsequent contract negotiations are the responsibility of the Tenderer.
- 4.1.5 All offers that are formally tendered must remain valid for 90 days from the deadline for the submission of tenders. In exceptional cases, before the period of validity expires, TEIN*CC may ask the tenderers to extend the period for a specific number of days, which may not exceed 40 days. This exceptional extension may be done once only. The successful tenderer must maintain the validity of the tender for a further 60 days. The further period of 60 days is added to the validity period irrespective of the date of notification.

4.2 Contractual Matters

- 4.2.1 Precise contract terms will be subject to negotiation, however, it is intended that contracts terms could be in the range 12 months up to 36 months subject to budget availability and then be renewable for further periods based on a monthly basis having each party to have rights to terminate the connectivity with a prior notice of one month.
- 4.2.2 Contracts should include specific clauses relating to quality of service including availability guarantees.
- 4.2.3 Formally tendered offers will be required to include firm commitments to delivery dates with compensation for late delivery.
- 4.2.4 Tenderers should confirm their preparedness to allow TEIN*CC to assign part of the contracted connectivity to other national research and education networks.
- 4.2.5 Tenderers should clearly state if there are any restrictions of use that apply to their offers.
- 4.2.6 Contracts will be individually negotiated with each successful tenderer, based on a generic TEIN*CC contract accompanying this tender.

4.3 Pricing

- 4.3.1 Tenderers offering connectivity must quote prices for each link at each capacity that they offer. They are welcome to offer discount arrangements for the provision of multiple links.
- 4.3.2 Prices for circuits shall be structured such that they relate to the capacity offered and should include terms and conditions for increasing capacity.
- 4.3.3 Prices for circuits must cover all components which lie within the Tenderer's boundary of responsibility (as defined in the response to Annex 3).
- 4.3.4 Tenderers will be expected to provide assurances about the competitiveness of their prices both in respect of the contractual arrangements to be entered into and also in respect of future developments in the market place. Contracts shall provide for an annual price review (which may result in capacity upgrades for the same price). Price reviews shall take account of comparisons with similar services within the network as well as competitiveness with alternative tenderers.
- 4.3.5 Prices for different service elements shall be quoted separately.
- 4.3.6 Prices must be quoted in **EURO** and, in the case of recurrent charges, in units of EURO/year. VAT and other taxes, if applicable, at the current rate, must be quoted separately. If no taxes or VAT are declared at the time of the quotation, it will be deemed that these will not be charged. If there is a legislation change relating to Tax or VAT that affects the quotation Tenderers must notify TEIN*CC immediately. Where taxes are quoted Tenderers are expected to confirm if TEIN*CC (Korean registered not for profit organization) is able to reclaim them.
- 4.3.7 Price information must be summarized in the Pricing table in Annex 4.

4.4 Contracting Entities

The Nationality Rule: Participation in the tender procedures administered by TEIN*CC is open on equal terms to all natural and legal persons of the EU Member States and the States and territories of Asia Pacific region who are taking part in the Asi@Connect program (refer to the Annex 7). And it is also opened to legal persons from no-EU OECD/DAC member countries namely Canada, Switzerland and the United States. Tenderers are requested to provide the name(s) and country/countries of their legal entity/entities that could be used for contracting the service with TEIN*CC (a Korean based not for profit organization). Tenderers must state, in the quotation, the country of which they are nationals by presenting the usual proof of nationality under their national legislation.

	Name of legal entity	Country
Preferred		
Others		

5 INSTRUCTIONS TO THE TENDERERS

Responses must be in English and must conform to the following structure:

5.1 Overview of the Response

5.1.1 Background Information about the Tenderer's organization including:

- Brief description of funding structure including main stakeholders (less than 100 words).
- Publicly available details of any planned restructuring/refinancing which might affect the Tenderer's ability to perform its duties as detailed in the proposal submitted (less than 200 words).

5.1.2 Proposed Solution/Offer including:

- A list of the services for which the Tenderer is making a proposal.
- For each service offered a point by point response to the elements of the technical specification given in italics set out in Annex 3.

5.1.3 Statement of Conformance to commercial terms

- Point by point confirmation that the Tenderer acknowledges the requirements specified in sections 4.1- 4.4 above and is prepared to negotiate detailed contract terms on the basis of these requirements.
- Reservations, i.e. a list of any points on which the Tenderer's response explicitly does not meet the specifications set out in this tender.

5.1.4 Brief CV's of key personnel who are likely to be responsible for contract negotiation and service implementation

5.1.5 Reference Sales

- A list of up to three reference sales which the Tenderer puts forward as evidence of technical and operational capability and of timely implementation.
- For each reference listed, the name and contact information of a person with whom TEIN*CC can communicate to discuss the Tenderer's performance.

5.1.6 A written statement of eligibility of tenderers set out in Annex 5

5.2 Summary of Pricing Information formatted using the Pricing Table in Annex 4

5.3 Deadline for Submission

- An electronic copy of complete tender response, including the Pricing Table in Excel format (not .pdf), must be sent to the email address: tech@teincc.org.
- The electronic soft copies are required to be received no later than **23:59 15 July 2019 Korean time.**
(Please note this deadline will be strictly enforced)

6 EVALUATION CRITERIA

6.1 Contract award criteria

Contracts will be awarded to the most economically advantageous, valid and complete offers.

- Financial Evaluation
 - ✓ Cost of ownership (70%)
- Technical Evaluation
 - ✓ Reliability and continuity of supply (20%)
 - ✓ Fitness for purpose of the proposed solution (10%)

Technical evaluation will be primarily – but not limited to them - based on the information provided in Annex 3 & 4. In addition, a minimum threshold requirement of 80% of the available marks will be applied to Technical Evaluation Criteria.

ANNEX 1: SERVICE LOCATIONS

1.1 Access Connectivity for Asi@Connect partners

Tenderers are invited to offer international combinations of routes and capacities. In the attached Excel sheet (Finanal Summary of Offers Asi@Connect-19-056a), they can provide connectivity between one of TEIN POPs in the List A and one of partner POPs in the List B.

e.g. If the tenderer is interested in the Vietnam connectivity, he/she could quote on either between Hong Kong and Vietnam or between Singapore and Vietnam, or on both, considering on the evaluation criteria.

NB 1. Required capacity will be subject to Asi@Connect partners' requirements and to their affordability.

NB 2. For Laos, there is no preference on the illustrated options. Tenderers can quote on both options or either one.

List A Address of TEIN PoPs

Country	City	Address
China	Beijing	Room 206, Main Building, Tsinghua University, Beijing
Hong Kong	Hong Kong	Room 805, 8/F, Mega-iAdvantage, 399 Chai Wan Road, Chai Wan, Hong Kong
Singapore	Singapore	Suite E Room, 5th Floor, Global Switch No.2 Tai Seng Avenue Singapore 534408

List B: Partner PoP Addresses

Country	Partner Access Node City	Current Access capacity Mbps (for information only)	Partner Access Node Address
Afghanistan	Torkham	155	Torkham Point of Interconnection (POI)
Pakistan	Karachi	1000	PERN Data Center, Higher Education Commission Regional Centre, Shahzad Khalil Avenue, National Stadium Road Gulshan Town, Karachi, Pakistan
Vietnam	Hanoi	1000	VinaREN Centre, NASATI, 24 Ly Thuong Kiet Street, Hoan Kiem, Hanoi
Option 1 - Laos	Vientiane	100	LANIC, Saylom Village, Chanthabouli district, Vientiane Capital, Lao PDR, PO Box 2225
Option 2 - Laos	Vientiane	100	Friendship Bridge (Border between Vientiane and Nongkhai)

ANNEX 2: TIMELINE FOR THE TENDER

The indicative time line for the tender is as follows:

Tender Dossier Issued	12 June 2019
Deadline for Submission	~ 15 July 2019
Evaluation & Award Notice	~ 15 August 2019
Contract for Signature	~ 31 August 2019
Ready for Service	~ December 2019

ANNEX 3: TECHNICAL REQUIREMENTS IN DETAIL

A3.1 Introduction

This Annex specifies the TEIN requirements for connectivity and the information that must be supplied in tenders for connectivity of different types.

A3.2 Technical Requirements

The type of transmission technology should be clarified, i.e. Ethernet LAN/PHY, SDH, Ethernet over SDH, MPLS-VPN and the protection should also be confirmed. In addition, Tenderers offering Ethernet services will be expected to provide detailed information on flexible bandwidth upgrade, i.e. the initial bandwidth provision and acceptable bandwidth increments.

Tenderers are invited to provide the following information in their responses for connectivity of all types:

- R3.1 *A list of all the locations (as specified in Annex 1) to and from which high speed connectivity can be supplied.*
- R3.2 *A map or plan showing the layout of the tenderers' underlying transmission network and the pairs of locations that can be most easily interconnected. Different versions of the map or plan should show the connectivity that is available now, that which the tenderer will commit to make available in December 2019. Tenderers must distinguish between fiber that is owned by them and fiber that they have acquired by means of leasing or swapping arrangements with other organizations.*
- R3.3 *For each point to point circuit route being offered, Tenderers should provide a straight line diagram, annotated where necessary for clarity, showing the end to end path at sufficient level of detail to show the different underlying networks/cable-systems and technology used and their tenderers, switching, and the protection levels of the individual circuit elements, including backhaul, and in-house wiring provisioned by supplier to TEIN*CC (or TEIN partner) router interface or patch panel on customer rack (demarcation point). For each section of the end to end circuit please clearly show the protection level (protected or unprotected, automatically or manually switching).*
- R3.4 *A description of the technology the Tenderer proposes to use. The description should be sufficiently full to allow TEIN*CC and TEIN NOC engineers to confirm as part of the evaluation that the proposal offers a complete and effective means of meeting the requirement.*
- R3.5 *Tenderers offering SDH services must specify the overhead transparency options they can provide.*
- R3.6 *Tenderers must specify the management boundary (demarcation point) between the equipment which the Tenderer proposes to provide and TEIN*CC (or TEIN partner) equipment and the interface standards which the Tenderer is able to support across this management boundary.*
- R3.7 *If the management boundary (demarcation point) is NOT an interface port (or ports) on an IP router or other networking equipment (such as an Ethernet switch or OXC) or a patch panel supplied by TEIN*CC (or*

*Asi@Connect partner), a specification of the equipment which TEIN*CC (or Asi@Connect partner) would also have to provide in order to complete the connection to its equipment.*

- R3.8 Tenderers should specify any restrictions on the kinds of customer interface(s) that can be supported by their proposed circuit offerings (more particularly, the physical presentation of the circuit(s)).*
- R3.9 A description of the way in which the initial capacity could be progressively upgraded over a contract period of up to three years, including details of any changes which would be required to TEIN*CC (or Asi@Connect partner)'s equipment and of any dependencies which might disrupt a planned upgrade timetable.*
- R3.10 For each circuit, the actual available bandwidth of circuit (exclusive of overhead of transmission layer) for payload should be clarified by tenderers.*
- R3.11 Tenderers must confirm that the entire layer 2 headers including payload shall be preserved end to end without modification.*
- R3.12 Tenderers must confirm that the end to end connectivity support jumbo frames and specify the size supported.*
- R3.13 Tenderers must **confirm** that even though physical termination in Afghanistan will be Torkham the border between Afghanistan and Pakistan, the actual coverage of management of services (involving technical issues, for example, troubleshooting of networks failures, etc.) will be extended to AfgREN NOC located in Kabul City. Additionally, the successful tenderer should assist the interconnection at the Torkham POI – i.e. connection with a domestic link provided by Afghanistan government.*

A3.3 Installation and Acceptance

Tenderers must take responsibility for all aspects of installation, including local loop, in-house wiring and patch cable (optical attenuator where needed) to customer router interface or patch panel (with the authorization by TEIN*CC or TEIN NOC when necessary), i.e. into customer rack instead of meet-me-room, the provision of racks and support services for their equipment. Contracts will, in addition, contain clauses which cover a precise definition of the management boundary (demarcation point) between the Tenderer's and TEIN*CC (or TEIN partner)'s equipment, preliminary testing by the Tenderer using international standard tests and acceptance testing (including tests of IP performance) by TEIN*CC or TEIN NOC. Tenderers will be required to hand over circuits, after successful completion of their own tests, for acceptance testing by TEIN*CC or TEIN NOC at least five days before the planned start of service date in the case of single circuits and ten days before in the case of sets of circuits (e.g. both primary and protection routes, if the protection route can be tested by manually switchover).

Information to be provided by Tenderers for connectivity of all types:

- R3.14 Statement of conformance to the requirements specified in this section, A3.3.*
- R3.15 A description of the standard tests which the Tenderer proposes to carry out before the handover of each circuit, in which the standards for test should be enumerated, e.g. ITU G.826,G.827, M.2100, M.2101 etc, as well as the target performance criteria for acceptance, e.g. BER, ES, SES, latency, etc .*
- R3.16 The Bit Error Rate (BER) with 10^{-15} or better is desirable, however the tenderers must confirm that BER with 10^{-12} is minimum and mandatory.*

A3.4 Operations

The Tenderer must manage and monitor each circuit end-to-end (i.e. between the agreed boundaries of management responsibility at each end) 24 hours per day, 7 days per week.

The Tenderer must put in place (and contracts will specify in detail) procedures to deal with fault reporting, diagnosis and correction, scheduled maintenance (within defined time constraints) and reporting of status to TEIN*CC, TEIN NOC and the NRENs.

Information to be provided by Tenderers for connectivity of all types:

- R3.17 Statement of conformance to the requirements specified in this section, A3.4.*
- R3.18 Description of circuit monitoring procedure and out of band access facilities. Clarification for whether the optical fault on any section along the circuit can be automatically detected by the Tenderer operation team.*
- R3.19 Description of fault reporting and escalation procedure, and of trouble ticket facilities, and of regular updates on troubleshooting to TEIN NOC, and of submitting formal final report for the fault to TEIN NOC after the full restoration of the fault.*
- R3.20 Description of proposed scheduled of maintenance procedures.*

A3.5 Performance and Availability

Contracts will include clauses covering, for each individual circuit, bit error rate, restoration time after circuit failure, and availability (as measured according to an agreed definition), end-to-end latency (as measured according to an agreed definition) and will provide for compensation in case of failure to meet agreed levels of performance.

Information to be provided by Tenderers for connectivity of all types:

- R3.21 Proposed definition of circuit availability; confirmation that the Tenderer is able to measure and report availability based on this definition.*
- R3.22 Proposed definition of Mean Time Between Failure (MTBF) or Mean Time To Repair (MTTR); confirmation that the Tenderer is able to measure and report MTBF/MTTR based on this definition.*
- R3.23 Description of the means used to provide backup/restoration, confirmation that backup/restoration is provided via physically diverse routes (the maximal time for automatically or manually backup switching), and procedures (with timings) for switching back to normal routes after faults have been cleared. For lengthy outage (longer than 24 hours) on unprotected circuit, whether and how the circuit can be restored by temporary allocation and coordination of other cable resource should be clarified, including the possible additional charge.*
- R3.24 Proposed guaranteed values of bit error rate, circuit availability (difference between protected and unprotected circuits), latency (original route), MTBF and restoration time after failure, as well as compensation (credit) in case of failure to meet agreed levels of performance (SLA/SLG), including the failure to deliver circuit before RFS date contracted with TEIN*CC.*
- R3.25 Statistics of cable system performance during last 12 months, especially for the segments (sea and/or land cable, backhaul, local loop) used by supplier*

for proposed circuit solutions, including availability, MTBF and restoration time after failure.

A3.6 Reports

Tenderers should provide monthly reports, to be delivered within five working days of the end of each calendar month, covering:

- Availability per circuit
- Record and description of faults and steps taken to remedy them (trouble ticket number for the fault on both supplier and TEIN NOC sides should be included)

These reports need to be sufficiently accurate and detailed to enable TEIN*CC to assess whether the connectivity meets the contracted levels of performance.

Information to be provided by Tenderers for connectivity of all types:

R3.26 Statement of conformance to the requirements specified in this section, A3.6.

*R3.27 Description of any on-line tools available to assist TEIN*CC track circuit performance*

ANNEX 4: FINANCIAL SUMMARY OF OFFERS

This Annex is an Excel spreadsheet Asi@Connect-19-56a which accompanies this document and must be completed by all Tenderers.

ANNEX 5: DECLARATION OF ELIGIBILITY OF TENDERERS

Candidates or tenderers will be excluded from participation in a procurement procedure if:

- (1) they are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- (2) they have been convicted of an offence concerning their professional conduct by a judgment which has the force of *res judicata*;
- (3) they have been guilty of grave professional misconduct proven by any means which the Beneficiary can justify;
- (4) they have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the Beneficiary or those of the country where the contract is to be performed;
- (5) they have been the subject of a judgment which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests;
- (6) they are currently subject to an administrative penalty referred to in section 2.3.3 of the Practical Guide to contract procedures for the European Commission external actions.

Candidates or tenderers must certify that they are not in one of the situations listed above.

ANNEX 6: DRAFT OF SERVICE AGREEMENT

This Annex is a MS word document Asi@Connect-19-56b which accompanies this document and shall be completed by successful tenderer.

ANNEX 7: THE NATIONALITY RULE

1. Participation in this tender is normally open on equal terms to the following nationals or legal persons:

a) List of countries as below:

- ✓ a) a Member State of the European Union;
- ✓ b) a Member State of the European Economic Area;
- ✓ c) an official candidate country or potential candidate that is a beneficiary of the Instrument for Pre-Accession Assistance, depending on the basic act;

b) Legal persons from Asi@Connect partners countries as follows.

Number	Country	Number	Country
1	Afghanistan	13	Mongolia
2	Australia	14	Myanmar
3	Bangladesh	15	Nepal
4	Bhutan	16	New Zealand
5	Cambodia	17	Pakistan
6	China	18	Philippines
7	Hong Kong	19	Singapore
8	India	20	South Korea
9	Indonesia	21	Sri Lanka
10	Japan	22	Thailand
11	Laos	23	Vietnam
12	Malaysia	24	Chinese Taipei

c) Legal persons from several non-EU OECD/DAC member countries namely Canada, Switzerland and the United States.

2. Please check TEIN*CC if the eligibility of your entity is still not clear addressed to tech@teincc.org. //the end//

ANNEX 8: TERMINOLOGY

In this document, the following terms are used with the specific meaning shown:

Access Port Manager (APM)	A person/function within a National Research and Education Network responsible for the national access to the TEIN network.
Circuit	A facility for transmitting full duplex bit streams between two defined end points. This term does not define the technology used and can cover a number of technologies, including dark fibre, DWDM, SDH, PDH, ATM or frame relay PVCs, etc.
Connectivity	A set of one or more circuits.
Customer	TEIN*CC or its partners of the Asi@Connect project
Dark fibre	A circuit for which the Tenderer provides only the physical fibre connection between two end points; the Tenderer takes no responsibility for any equipment, including optical repeaters, necessary to transmit data via the fibre.
Extension of International Circuit	Circuit provided by an international circuit Tenderer to interconnect his PoP with a GÉANT or TEIN PoP at a different location in the same city (sometimes known as a local tail).
Full Service	Qualified and trained staff at work, actively carrying out required activities and available to deal with fault reports and enquiries from DANTE and APMs
Lit Fiber	A dedicated fiber for which the Tenderer also provides the equipment and other facilities required for the transmission of optical signals between user equipment consisting of a selection or combination of IP routers and DWDM equipment.
Local Tail Circuit	A circuit, normally within a single city, which interconnects TEIN PoP with an NREN PoP (sometimes known as a local loop).
National Research & Education Network (NREN)	A network that provides national connectivity to Universities, schools and research centres.
Network Operations	An organisational unit which has responsibility for

Centre (NOC)	providing one of the required network management services.
Non-core Connectivity	The set of circuits within the network that link nodes other than core nodes to the core network or to other non-core nodes.
On-call Service	Fault reports and enquiries handled initially by unqualified staff who follow pre-defined filtering procedures to establish the urgency of any necessary action; qualified and trained staff available to handle faults that are deemed urgent as a result of the filtering procedure.
Point of Presence (PoP)	A location at which equipment needed to support the service is installed.
Response Time	The elapsed time between the receipt of a fault report or other communication which requires action according to agreed operational procedures and the initiation of the action, including an acknowledgement or report to the originator.