

Provision of landline telephony, dark fiber, IP TV, UIFN and freephone services

Part 2: Technical Specifications

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1. List of terms and acronyms (Glossary)

Configuration:	Adapting the systems to meet the exact requirements
EFR:	Entrance Facility Room
EU:	European Union
Eurojust:	The European Union's Judicial Cooperation Unit
Europol:	The European Union Agency for Law Enforcement Cooperation (Europol)
Eurojust Headquarters:	Johan de Wittlaan 9, 2517 JR, The Hague, The Netherlands
Eurojust Satellite Building:	Johan Willem Frisolaan 13, 2517 JS The Hague, The Netherlands
Europol Headquarters:	Eisenhowerlaan 73, 2517 KK, The Hague, The Netherlands
ICT:	Information Communication Technology
KPI:	Key Performance Indicator
Migration:	The transfer of data and services from one system to another system
PoP:	Point of Presence
Set up:	Implementing and installing systems to deliver the service
SLR:	Service Level Requirements
UIFN:	Universal International Freephone Number

2. Contracting authorities

This call for tenders is inter-institutional, meaning that the following two agencies will participate as contracting authorities to the framework contract resulting from this call for tenders.

The European Agency for Criminal Justice Cooperation (Eurojust) is the leading contracting authority, and the European Union Agency for Law Enforcement Cooperation (Europol) is participating.

3. Scope

The contracting authorities require a contract for the provision of:

1. Landline telephony services for the voice and data communication to and from the premises;
2. Dark Fiber between Eurojust Headquarters and Eurojust Satellite Building;
3. IP TV services;
4. UIFN and freephone services;
5. Consultancy services (e.g. on new services and technologies).

N.B.! The contractor must be able to provide all above mentioned services. This is a minimum requirement.

4. Background information

4.1. Landline Telephony

4.1.1. In Eurojust

Within Eurojust, the Information Management Unit is responsible for the provisioning and management of Landline Telephony for approximately 540 Eurojust users.

These services are currently delivered to and made available at Johan de Wittlaan 9, 2517 JR, The Hague, The Netherlands.

In the near future part of Eurojust post holders will move into a satellite building located at Johan Willem Frisolaan 13, 2517 JS The Hague, The Netherlands.

The contractor must be able to provide products and services in both locations.

Eurojust relies on Landline Telephony services to communicate with regional offices, partners, clients, international agencies and other institutions or persons.

Two different types of Telephony Connectivity have been implemented at Eurojust: SIP and PSTN.

A) SIP (Session Initiation Protocol)

The geo-redundant SIP solution is built on top of the infrastructure components used by one of the Eurojust Internet connections as depicted in figure 1. In addition, the incumbent contractor deployed two ISR routers in Entrance Facility Rooms 1 and 2, which are interconnected – using fibre optic cables – to the ISR routers managed by Eurojust.

The four SIP trunks provided by the incumbent contractor facilitate a maximum of 60 (= 4 x 15) simultaneous inbound/outbound (national and international) voice and fax calls for the +31 70 412 5XXX numbers (XXX in [000...999], 1000 numbers) and +31 70 304 12XX (XX in [00..99], 100 numbers).

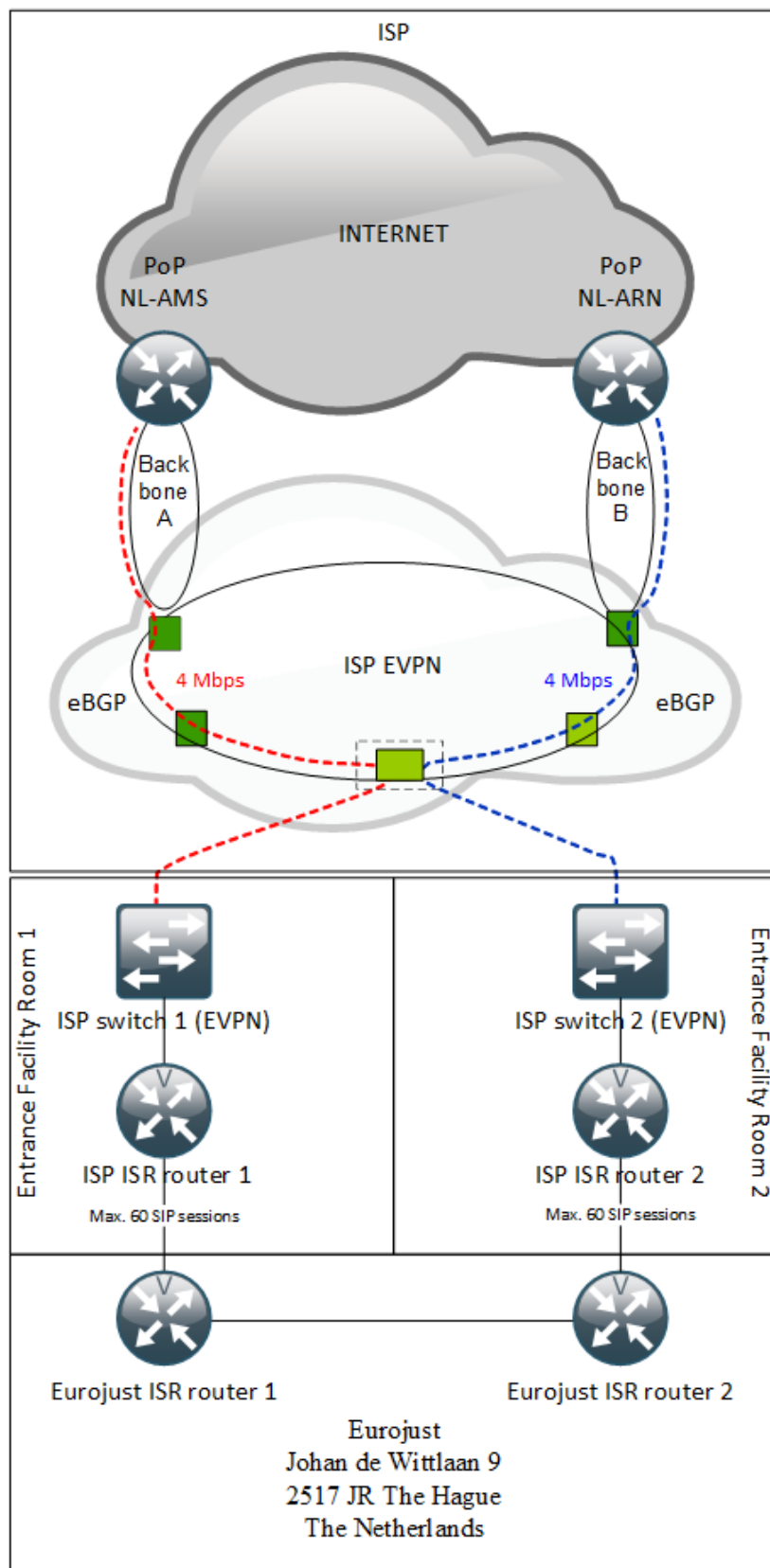


Figure 1. Geo-redundant SIP solution

B) PSTN (Public Switched Telephone Network)

At Eurojust, there are a number of digital communicators which use PSTN signalling fire and security system alarms.

4.1.2. In Europol

Within Europol, the C1 Unit is responsible for the provisioning and management of Landline telephony services for approximately 1000 Europol users.

Europol relies on Landline telephony services to communicate with regional offices, partners, clients, international agencies and other institutions or persons.

Two different types of Telephony Connectivity are implemented at Europol:

- SIP: main telephony connectivity
- PSTN: voice connections, used for emergency and unexpected events, very limited use, mostly national calls.

SIP (Session Initiation Protocol)

The geo-redundant SIP solution is built on top of the providers EVPN infrastructure with a required capacity of up to 30 simultaneous calls. Europol uses a cluster of Cisco Unified Communication Managers (CUCM) that is connected to two Cisco CUBE router, with the CUBE routers connect to the provider EVPN routers. The redundant routers are located in separate Main Equipment Rooms (MERs) located at Europol Headquarters. Europol uses different number ranges, 2 x 1000 numbers, 1 x 700 numbers and 1 x 100 numbers.

For redundancy, different building entry points need to be used to reach each MER. Connectivity to the MERs can be done only via fiber connectivity.

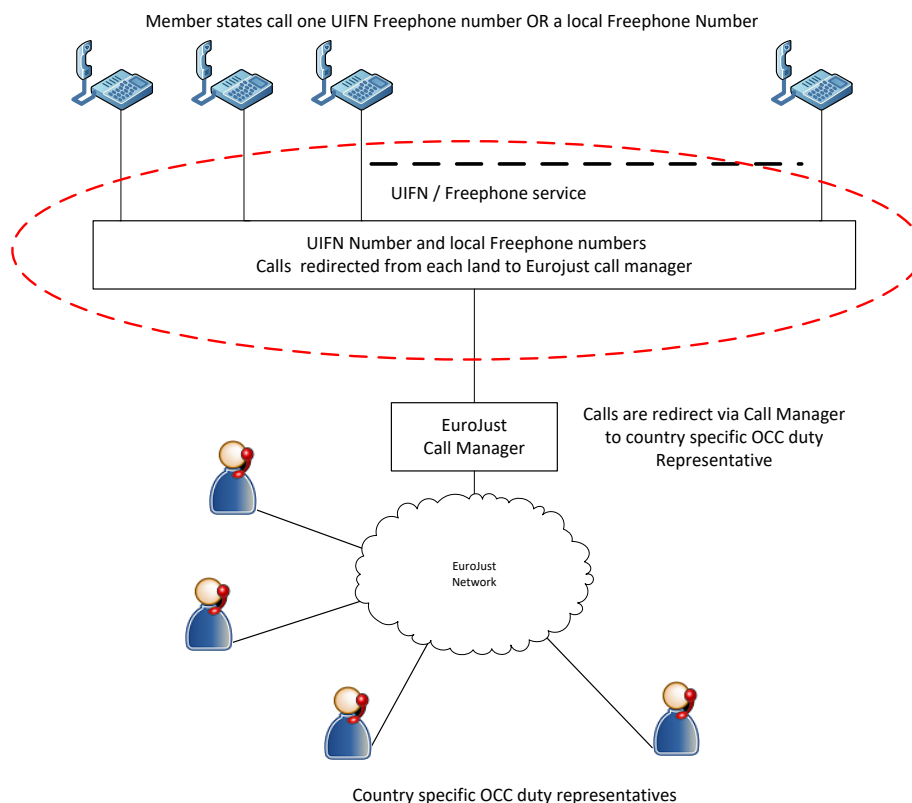
PSTN: voice connections used for emergency and unexpected events, very limited use, mostly national calls.

Europol uses 3 analogue PSTN lines via copper at a temporary building, to be phased out this year. Similar temporary buildings are planned over the next few years which might require the same type of connectivity.

4.2. Universal International Freephone Numbers (UIFN) and Freephone services

Eurojust relies on the internet and telephone to communicate with regional offices, partners, clients, international agencies and other institutions or persons. These services are currently delivered to and made available at at Johan de Wittlaan 9, 2517 JR, The Hague, The Netherlands.

Eurojust operates a call coordination service which uses a single UIFN telephone number across all EU member states. When a UIFN cannot be implemented in an EU member state a local Freephone number is used and redirected to the call coordination desk in The Hague, the Netherlands.



Eurojust currently has one UIFN number for 26 member states, which is also registered as a so called “vanity” number. Currently 2 member states cannot use the UIFN, Greece and Romania; these countries use redirected local Freephone numbers.

The table below shows the member states which currently are included and use the call coordination services:

1	Austria	15	Italy
2	Belgium	16	Latvia
3	Bulgaria	17	Lithuania
4	Croatia	18	Luxembourg
5	Cyprus	19	Malta
6	Czech Republic	20	Netherlands
7	Denmark	21	Poland
8	Estonia	22	Portugal
9	Finland	23	Romania
10	France	24	Slovakia
11	Germany	25	Slovenia
12	Greece	26	Spain
13	Hungary	27	Sweden
14	Ireland	28	United Kingdom

4.3. Darkfiber

In the near future, some of Eurojust's staff will move to additional premises (Eurojust Satellite Building). To make all ICT services available in the satellite building a Dark Fiber may be required between Eurojust Headquarters and Eurojust Satellite Building via two physically separated feeds.

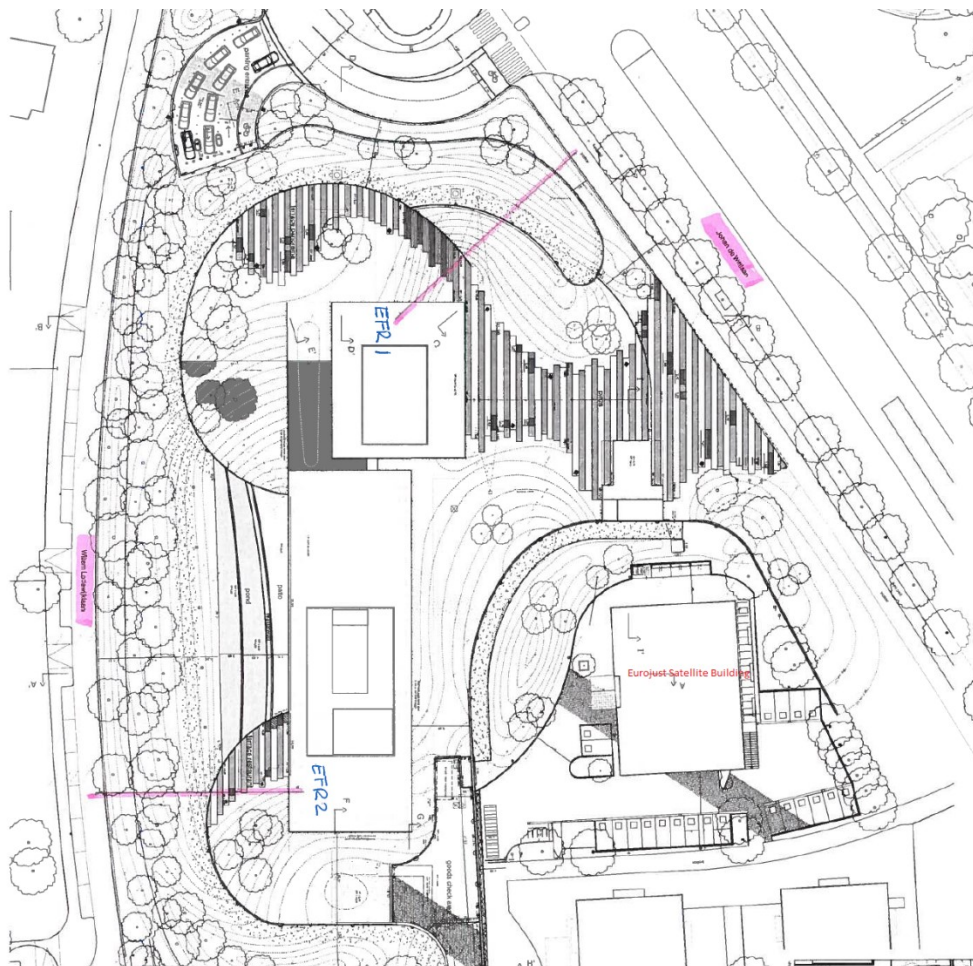


Figure 2. Physically separated feeds

5. Estimated volumes of the contract

Quantities and requirements may change during the implementation and duration of the contract. The contracting authorities do not commit to these volumes, neither can be held liable to compensate the contractor if volumes are lower than originally estimated.

5.1. Estimated Landline Telephony volumes for Eurojust

The following table shows the historic usage (destinations, number of calls made and duration), over the previous 12 months, for all telephone calls placed from Eurojust.

Summary overview of past 12 months			
Categories*	No of calls	Average no of calls/month	Duration in hours
Voice emergency	0	0	0
Voice international (Zone 1)	15575	1297	1162
Voice international (Zone 2)	114	9	7
Voice international (Zone 3)	189	16	2
Voice international (Zone 4)	119	10	4
Voice international (Zone 5)	0	0	0
Voice international fixed (Zone 1)	7290	607	615
Voice international fixed (Zone 2)	66	5	5
Voice international fixed (Zone 3)	0	0	0
Voice international fixed (Zone 4)	84	7	3
Voice international mobile (Zone 1)	8285	690	547
Voice international mobile (Zone 2)	48	4	2
Voice international mobile (Zone 3)	189	16	2
Voice international mobile (Zone 4)	35	3	1
Voice MNC On Net national fixed-fixed	260	22	9
Voice MNC On Net national fixed-mobile	15338	1278	440
Voice national fixed	4822	402	278
Voice national mobile	3524	294	106
Voice premium	22	2	2
Voice premium free of VAT	13	1	1
Voice short number	13	1	1
Voice toll free (from mobile included)	374	31	13
Total	56360		

*The breakdown of zones is based on the services of KPN BV

5.2. Estimated Landline Telephony Volumes for Europol

The following table shows the historic usage, over the previous 12 months, for all telephone calls placed from Europol.

	Number of calls						Duration of calls in hours					
	Int	Free	National	Mobile	Regional	Service	Int	Free	National	Mobile	Regional	Service
Jan-24	1164	36	127	1012	114	12	128	6	19	43	5	1
Feb-24	1041	47	135	1170	119	10	132	8	18	44	9	0
Mar-24	1223	58	130	981	105	4	133	10	9	32	7	0
Apr-24	1098	39	126	1082	109	14	106	7	14	47	9	1
May-24	1002	52	113	930	128	52	82	11	8	42	12	0
Jun-24	1092	39	130	1005	114	9	94	11	11	43	14	0
Jul-24	863	39	122	914	100	21	88	8	8	39	12	1
Aug-24	730	25	69	625	77	7	67	7	11	25	2	0
Sep-24	1030	36	88	980	136	15	83	8	6	35	6	1
Oct-24	1013	37	137	1080	107	7	75	8	15	45	4	0
Nov-24	890	32	91	804	118	11	87	5	13	33	3	1
Dec-24	615	31	93	704	73	13	54	7	13	28	2	0
Jan-25	802	26	156	845	89	19	74	7	16	39	5	1
Average	966	38	117	933	106	15	93	8	12	38	7	0.5

Int.: International; Free: 0800 Numbers; National: NL - outside 070 area; Mobile: NL - Mobile numbers; Regional: NL - in 070 area; Service: 09xxservice numbers

However, quantities and requirements may change considerably during the implementation and duration of the contract; Europol is not liable to compensate the contractor if volumes are lower than originally estimated.

5.3. Estimated Dark Fiber volumes

Eurojust shall need redundant dark fibre services to extend the ICT services from Eurojust Headquarters to maximum two other buildings, Eurojust Satellite Building one of them.

5.4. Estimated IP TV services volumes

Eurojust shall need one instance of IP TV services (approximately 30 IP TV channels).

5.5. Estimated UIFN Volumes

Historically, because of the nature and use of the call coordination service, the telephone traffic volume is low, amounting to several calls per month. In the period 2024 approximately 100 calls were made.

The technical requirements for the UIFN and Freephone services are based on historic information and trends over 2024. Due to the nature and use of the Online Call Coordination services the traffic

volume is expected to remain much the same as the historical and predicted use over the life of the new contract.

5.6. Estimated Consultancy service volumes

The contracting authorities estimate that maximum 25 man days of consultancy might be required annually (for both agencies).

6. Detailed requirements

6.1. Services Level Agreement/Service Level Requirements

The Service Level Requirements defined in the Appendix to these Technical specifications are the minimum and preferred service levels that the contracting authorities will accept. The contractor shall comply with the minimum requirements and may propose their own improved values where SLR and KPI values.

The contractor is fully responsible for the setup, configuration, management and maintenance of deliverables.

6.2. Landline Telephony

6.2.1. Place of Delivery for Landline telephony Services

The place of delivery for landline telephony services is:

- Eurojust Headquarters: Johan de Wittlaan 9, 2517 JR, The Hague, The Netherlands;
- Eurojust Satellite Building: Johan Willem Frisolaan 13, 2517 JS The Hague, The Netherlands (optional);
- Europol Headquarters: Eisenhowerlaan 73, 2517KK, The Hague, The Netherlands.

Europol is considering implementation of temporary buildings with a capacity requirement equal to 3 PSTN lines or equivalent service provided via SIP, solution with integrated connectivity independent of any existing Europol Internet connections.

In case contracting authorities obtain new satellite buildings or change their location, the contractor is expected to ensure service delivery in the new premises.

6.2.2. Service Migration & Handover

Lead-in and Migration

There is a lead-in period for a new contractor to guarantee a seamless and transparent migration of services without impacting the services or degrading the service levels. This transition (or introduction) period is an integral part of the service provision.

The contractor shall commit to actively collaborate with the incumbent provider and with the contracting authorities to minimize the cost and the impact on the service during the migration from

the current situation. All existing phone numbers (see section 4) must be retained (a.k.a. number portability).

No additional cost for the contracting authorities shall result from this migration procedure.

Lead-out and Hand-over

At the end of the framework contract a lead-out and hand-over period is required to seamlessly and transparently hand-over the services to a new contractor without impacting the services or degrading the service levels. This period is an integral part of the service provision.

The contractor shall commit to handing over any relevant information to a potential future contractor in order to ensure a smooth transition and the business continuity.

No additional cost for the contracting authorities shall result from this handover procedure.

6.2.3. Technical Requirements

The Contractor shall provide the following products and services:

- Connectivity Services for Telephony
 - Service type 1: a geo-redundant SIP solution to facilitate the inbound/outbound voice and fax calls; The contractor shall prevent any form of SIP/VoIP abuse; when it occurs, the contractor shall inform contracting authority accordingly
 - Service type 2: PSTN service. If the service can't be supported during the lifespan of the contract, an alternative solution shall be provided
- The hardware equipment required for each solution.
- The installation of each solution.
- Technical assistance and maintenance.
- 24x7 support.

6.3. IP TV

The IP TV solution is currently delivered in Entrance Facility Room 1 at Eurojust Headquarters and then distributed towards the AV/VC network. The signal is then multi-casted to 26 televisions. The contractor shall provide a solution based on IP multicast in order to distribute the TV channels to the aforementioned number of televisions.

Lead-in and lead-out a period is required to seamlessly and transparently take over/hand-over the services to a new contractor without impacting the services or degrading the service levels. This period is an integral part of the service provision.

6.4. UIFN and Freephone Services

National authorities requesting Eurojust assistance can do this via Eurojust's on-call coordination mechanism (OCC) by calling 00800-EUROJUST (a toll-free number available in most EU member states).

Eurojust operates a free call service utilising a Freephone number enabling calling from all EU member states. The UIFN number is one unique number which is the same in all EU member states.

When a UIFN is not supported in a member state a local Freephone number may be used and redirect to the OCC service. Therefore, the service provider shall indicate for which countries they cannot implement UIFN and suggest an alternative Freephone solution.

UIFN also supports the so called “Vanity number” where the last 8 digits are replaced by letters to create a meaningful word. Eurojust has registered the vanity number: “EUROJUST” (full number: 00800-EUROJUST). Existing UIFN and Freephone numbers must be retained (ported to the service provider in the event of changing service provider).

6.4.1. Service Migration and Handover

Lead-in and Migration

There is a lead-in period for a new service provider to guarantee a seamless and transparent migration of services with minimal impact on the services or degrading the service levels. This transition (or introduction) period is an integral part of the service provision and cannot take longer than 3 months.

The new contractor shall actively collaborate with the previous provider and with Eurojust to minimize the cost and the impact on the service during the migration from the current situation.

No additional cost for Eurojust shall result from this migration procedure.

Lead-out and Hand-over

At the end of the framework contract a lead-out and hand-over period is required to seamlessly and transparently hand-over the services to a new service provider without impacting the services or degrading the service levels. This period is an integral part of the service provision.

The service provider must commit to handing over any relevant information to a potential future service provider in order to ensure a smooth transition and the business continuity.

No additional cost for Eurojust shall result from this handover procedure.

6.5. Darkfiber

Requirements:

6.5.1. Fiber Type

- Single-mode fiber (SMF) – ITU-T G.652.D or G.657.A1/A2 (bending-resistant)

6.5.2. Fiber Count and Configuration

- Number of fiber strands: 128
- Fiber must be delivered in bi-directional pairs (for full-duplex transmission)
- Dedicated fibers, not shared or multiplexed with others

6.5.3. Physical Path Requirements

- Route details with clear path documentation (duct, conduit, aerial, etc.)
- Path diversity or redundancy options (diverse physical routes)
- Distance and total link length (affects attenuation and signal reach)

6.5.4. Loss and Attenuation

- Maximum allowable attenuation:
 - 1310 nm $\leq$ 0.35 dB/km
 - 1550 nm $\leq$ 0.25 dB/km
- Total end-to-end link loss budget: $\leq$ 10 dB
- Splice loss: $\leq$ 0.1 dB per splice
- Connector loss: $\leq$ 0.5 dB per connector (if any)

6.5.5. Demarcation and Hand-off

- Demarcation Point: fiber termination panel (FTP) in Eurojust Headquarter Entrance Facility Room 1 and Entrance Facility Room 2, as well as other building(s).
- Termination Type: LC

6.5.6. Testing and Documentation

- OTDR (Optical Time-Domain Reflectometer) test results
- IL (Insertion Loss) and ORL (Optical Return Loss) reports
- End-to-end fiber continuity and quality reports
- Fiber route maps and as-built documentation

6.5.7. Fiber Plant Quality

- Must comply ETSI (European Telecommunications Standards Institute) standards
- Proper labeling and identification at both ends

- Slack loops for future maintenance

6.5.8. Access and Maintenance

- Defined demarcation points (demarcs)
- 24/7 access availability (remote hands if provided)
- SLA for fault restoration should be less than 4-hour MTTR

6.5.9. Security

- Secure and locked enclosures at handoff points
- Physical access controls and notifications for co-located infrastructure

6.5.10. Future-Proofing

- Support for DWDM systems (low dispersion and loss)
- Route support for fiber expansion or higher counts

6.5.11. Compliance

- ETSI
- EECC Directive (2018/1972/EU)
- GDPR
- Fiber optic systems must comply with environmental directives: RoHS 2 (Directive 2011/65/EU) and WEEE (Directive 2012/19/EU)

6.6. Consultancy services

During the contract implementation contracting authorities may require advisory services (for example: the design, implementation, and management of telecommunications solutions, new services and technologies etc).

The proposed consultants shall fulfil the below requirements. Contracting authorities will be entitled to verify the compliance of the proposed personnel with the mandatory requirements listed below.

Title	Requirements
Consultant	English at least level B2 (CEFR) Minimum five years of experience consulting in the field of work related to the scope of this contract.

7. External approvals

The service provider must be in possession of the appropriate certificates/licenses from the relevant national authorities or other equivalent institutions to be able to provide the services as described in these Technical Specifications.

8. Quality requirements

The contractor shall have a functioning quality management system related to the provision of services and shall supply a valid quality management certificate (ISO 9001:2008 or equivalent) as proof.

9. Constraints

9.1. Security requirements

The contractor shall handle information relayed and processed on ICT systems with a high degree of security and confidentiality.

For that purpose the contractor shall have in place policies, procedures, technical controls and processes at an organizational level related to information security including where appropriate physical, human, network and access security. These measures shall be ensured through a formal certification, such as ISO 27001, that covers all facilities and systems for transmitting and processing information in the scope of this tender.

The contractor shall be responsible for ensuring that any sub-contractors meet the above security requirements and certification needs.

The contracting authorities reserve the right to perform a review of security measures in place, to assess the risk to their information handled by the contractor's information systems.

Tenderers are invited to take into consideration the impact of the security requirements on their proposed service delivery methodology when submitting their offer.

Contracting authorities will not be responsible for any delays and/or additional costs that may result from non-compliance or non-familiarity with the below listed instructions.

All members of the successful tenderer's personnel carrying out services at the contracting authorities premises will be required to have a recent certificate of good conduct accepted by contracting authority or a security clearance at least at the level of CONFIDENTIEL UE/EU CONFIDENTIAL or equivalent.

For this contract, unless particular services are identified as requiring a security clearance, the majority of the contractor's personnel carrying out services on-site at contracting authorities' premises will be required to have a certificate of good conduct.

Whether contracting authority will require a certificate of good conduct or a security clearance will depend on the specific services; generally, a certificate of good conduct will suffice for services which do not require access to classified or sensitive information or areas. The type of screening required will be stated in each request for services or offer sent by contracting authority to the successful tenderer during the implementation of the contract.

Security clearance

Security clearances must be obtained and presented for contractings authorities' verification prior to carrying out services at their premises.

Tenderers may find the equivalents of security clearance levels and the list of national security authorities of EU Member States in Annex B and C of the document:

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32013D0488>

Security clearances that are not issued by national security authorities of EU Member States (for example issued by third countries or international organisations) may be accepted by contracting authority on a case-by-case basis. Contracting authorities expressly reserves the right to reject any security clearance not issued by a national security authority of an EU Member State.

Certificate of good conduct

Certificates of good conduct must be obtained and presented for contracting authorities' acceptance prior to carrying out services at their premises. The certificates of good conduct must not be older than three months at the time of submission to contracting authority and, once accepted by contracting authority, will be considered valid for the duration of two calendar years from the date of the issuance.

For EU nationals, the certificates of good conduct must be issued by the relevant authorities of the country of nationality of the member of the successful tenderer's personnel. Tenderers may find the official names of certificates of good conduct in EU Member States in Annex A of the Europol Recruitment Guidelines:

<https://www.europol.europa.eu/publications-documents/europol-recruitment-guidelines>

For non-EU nationals, contracting authorities may accept, on a case-by-case basis, a certificate of good conduct issued by the country of nationality of the member of the successful tenderer's personnel or an EU Member State in which they reside. Contracting authorities expressly reserve the right to reject certificates of good conduct submitted for non-EU nationals.

Obligation of discretion and confidentiality

Each members of the successful tenderer's personnel providing services to contracting authorities (regardless of location of service performance) shall undertake to treat in strictest confidence and not make use of or divulge or disclose to third parties any information and/or documents which are linked to performance of the contract, without prior written permission from contracting authority. The members of the successful tenderer's personnel shall continue to be bound by this obligation for an unlimited period even after the expiry or termination of the resulting contract.

Each member of the successful tenderer's personnel providing services at contracting authority's premises will be required to sign and submit to contracting authority a declaration of confidentiality. The declaration of confidentiality describes the circumstances in which the members of the successful tenderer's personnel would be required to follow e-learning modules on (i) physical security and/or (ii) confidentiality and information security for contractors (estimated total completion time 60 minutes) at no additional cost. The declaration of confidentiality template is included as Annex V to

the draft contract. This template is not to be completed at this stage. It is only to be used during contract implementation.

It will be the responsibility of the successful tenderer to ensure that its personnel comply with the obligations above.

9.2. Official Language

The official language of the contracting authorities is English; therefore, all communication between the contractor and the contracting authorities shall be carried out in English.