

CANSO Guidance on technical cooperation agreements between ANSPs

Version 1.0

1. Introduction

Editor's note: The term "Technical Cooperation Agreement (TCA)" is used in this document synonymously with "Technical Services Agreement (TSA)/Service Level Agreement (SLA)" or "Memorandum of Cooperation (MoC)".

There is a long history of technical cooperation agreements between ANSPs and signing parties are therefore very experienced in creating, maintaining, and operating such agreements. As such agreements grow more comprehensive and complex, they move beyond the reduction of bilateral exchange barriers into the challenges of "deeper" integration of ANSPs. Following the guidance provided herein would help to minimise individual solutions between signing ANSPs and thus increase efficiency and consistency of such agreements.

This document aims to assist ANSPs in drawing up a Technical Cooperation Agreement (TCA) and, if needed, administrative and technical annexes comprising more detailed material grouped separately for convenience but forming part of the TCA.

This document has been intentionally kept at a high level as it only discusses the key principles.

It is well known that many agreements contain gaps, omissions, and ambiguities despite parties' best efforts to anticipate every scenario. This document is intended to help create new or review existing agreements and develop them further based on best practices, when needed.

Disseminating this document as widely as possible amongst ANSPs would help to consolidate best practices included herein.

It is the intention to amend this document when new experiences are available. In this regard ANSPs are invited to share their best practices through their CANSO collaboration.

2. Background

The purpose of a TCA is to enhance cooperation by defining arrangements pertaining to different technical domains for sharing of data, services or facilities owned and/or operated by the signing parties.

Such agreements address for example the exchange of ATS or flight plan messages, shared use of ground radio stations for voice or data communication, ground-ground data and telephony interconnections between ATS units, surveillance data sharing, joint use of navigation facilities or other related subjects.

When specific operational needs require cooperation and concurrence between ANSP (e.g. air traffic control procedures and coordination requirements, delegation of responsibility for ATS services), then Letters of Agreement (LoA) or similar are signed. Operational agreements are outside the scope of this guidance material.

Signing an agreement is an official indication that the involved parties have a shared interest in achieving a given goal and may make a successful outcome more likely.

3. Basic principles

Title of the agreement

The title of such agreement should be selected that it best reflects the purpose. For this document "Technical Service Agreement (TCA)" was chosen, but any other title such as "Technical Service Agreement/Service Level Agreement", "Memorandum of Cooperation", "Data Sharing Agreement" or "Technical Letter of Agreement" is also a good choice.

The need for an agreement

Specific legal obligations require ANSP to sign technical cooperation agreements. For example, Regulation (EU) 2017/373 ATM/ANS.OR.B.005 (f), require, inter alia, that service provider as part of their management system "shall establish formal interfaces with the relevant service providers ... to ensure that the aviation safety hazards entailed by its activities are identified and evaluated, and the associated risks are managed and mitigated as appropriate...".

For ease of reference, a non-inclusive list of Commission Implementing Regulations valid in 2021 and containing references to the need of formal arrangements between ANSPs is provided in Annex 1.

Moreover, special cases exist where a technical cooperation agreement is directly or indirectly derived from existing other partnership agreements, such as FAB Cooperation Agreements, or Interconnection Framework Agreements¹

Best practices encourage ANSPs, even without having a legal obligation, to sign technical cooperation agreements and thus documenting the details of their collaboration in the technical domain. Such an agreement spells out the parties' rights and obligations and allows to agree on any specific details such as the organisation of work, power of attorney, confidentiality, liability, and exploitation and dissemination of data and information and third-party involvement.

New agreements should to the extent possible consider the guidance provided in this document which is intended to help reduce the number of different agreement variants and thus contribute to a more efficient relationship between ANSPs.

¹ For example, Interconnection Framework Agreement concerning the mutual use of infrastructure required for data and voice communication services, or on Regional Network for the Transmission of Information.

Purpose of the agreement

The purpose of a technical cooperation agreement is to enhance collaboration between ANSPs in a transparent manner by authorizing to share data with one another, interconnect and exchange information on one another's ATM/ANS systems, coordinate and cooperate with regard to the joint use of services or facilities to achieve improved operating efficiencies and cost savings in a safe manner, optimize utilization of systems, and provide high quality ATM/ANS services including at network level. The list of subject areas is exemplary and will most-likely further expand in the future.

Drafting guide:

A purpose clause is a simple statement of intent that appears at the beginning of an agreement. It is essentially a quick, general overview of what the agreement including its annexes sets out to do.

Scope of the agreement

Technical domain

The scope will give essential details of what the agreement including its annexes sets out to do. Subject areas of a technical cooperation agreement typically include:

- Interconnection of Networks
- Operational Voice Communication
- ATS Message Exchange
- Flight Data Exchange
- Surveillance Data Exchange
- Exchange of information on the frequency-load of 1030/1090 MHz
- Joint use of ground radio station sites
- Exchange of navigation system status information
- Joint use of terrestrial navigation signals
- GNSS interference monitoring

The list of subject areas is exemplary and will most-likely further expand in the future. New operational and technological developments including cloud computing, ADSP, virtual centres, etc. will require new methods of cooperation between ANSP in the technical domain and thus may enlarge the scope of current technical cooperation agreements. Any enlargement of the scope requires careful consideration of backward compatibility with those systems and services already captured by the technical cooperation agreement.

Operational domain

Cooperation agreements between ANSPs on operational matters are not addressed in this document. Such agreements play an important role when specific operational needs require cooperation and concurrence between the ANSPs. In such cases Letters of Agreement (LoA) or similar are signed to address for example air traffic control procedures and coordination requirements, delegation of responsibility for ATS services. ANSP may find it beneficial to bring operational and technical cooperation agreements together under one general framework agreement. For more information see below section "best suitable agreement structure".

Relationship of signing parties

Before starting to draw up any agreement, it is advisable to develop a clear understanding of the signing parties' relationship. In general cooperation between ANSPs can be characterised as balanced, unbalanced or a combination thereof. A balanced or reciprocal relationship is a situation in which two parties agree to do something similar for each other. For example, both parties act as data providers and consumers. A relationship with one party providing services or data to the other party is called unbalanced or nonreciprocal.

If, after concluding the first SLA, both partners are satisfied with the cooperation, they will tend to expand the cooperation soon. It is important to keep this in mind from the very beginning in order to prevent future problems. With each new service (and related SLA) it is important to (re)assess the relationship between the parties again.

A balanced relationship is one that requires approximately equal effort from both partners to provide the service. It is recommended to identify both parties as Partners in such a relationship. An example of such a relationship is a mutual OLDI interconnection.

An unbalanced relationship, on the other hand, is one in which one party provides a service to the other and makes a disproportionate effort. It is recommended that the contracting parties distinguish i.e., one will be designated as the Provider and the other as the Customer (or similar). An example of such a relationship is the provision of surveillance data.

Combined relationships arise from a combination of a balanced and unbalanced relationship in one or more services between the parties. In such cases, it is important to clearly distinguish the roles and responsibilities of each party in the context of each service.

Third parties may be referred to in an SLA/Technical Annex. It's particularly the case for network supports, where a link between the two ANSP signatories (A and B) would be backed by links via a third-party C (links A-C and C-B).

It is a kind of "grey zone" and it deserves further discussion with a view to develop common understanding on acceptable rules and recommendations.

Selecting the best suitable agreement structure

The structure of an agreement should be designed in a way that suits its purpose, audience, and information requirements. This may relate also to the requirements of the signing organisations. This section will look at some proven ways to design the structure of your agreement.

Define the best agreement structure

The general idea is that you use the technical cooperation agreement as a framework agreement to establish generic terms and conditions between the signing ANSPs common for all subject areas covered under the agreement.

Technical annexes or SLAs are used to agree on specific subject areas.

Information necessary to operate the agreement may be placed in administrative annexes, if considered beneficial. It may detail for example technical support levels, procedures related to maintenance and execution of the agreement and its annexes, information on their authorisation, definitions and abbreviations, or a list of the active technical annexes or SLAs.

There are many advantages of using such a concept, and most of them are centred around the benefits of increased efficiency, and include:

- Once the TCA is signed, ANSPs can use it for years without having to continuously renegotiate the legal terms.
- Within the terms established by the TCA, ANSPs can more rapidly negotiate individual technical annexes or SLAs that focus on specific subject areas and execute them without additional review of the framework TCA.
- As addressed by the TCA, an ANSP can terminate one technical annex or SLA without terminating other technical annexes or SLAs which might be useful when ANSPs collaborating on multiple independent subject areas.

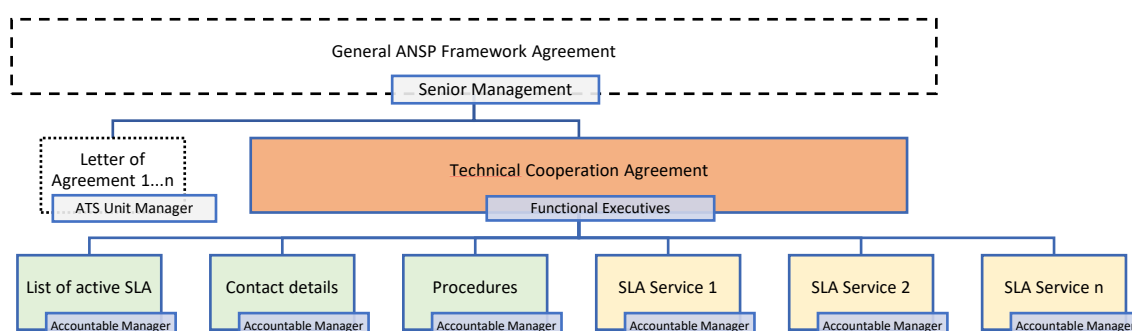


Figure 1 – General agreement structure

Minimise data redundancy

When developing a suitable agreement structure, it may be advisable to consider minimising data redundancies and data anomalies. Redundancy means that some information or data are repeated multiple times for a variety of reasons in the framework agreement and its technical and administrative annexes. Inconsistent data/information in various places lead to data anomalies and/or a future problem between the parties. If minimising redundancies is to prevail, an agreement will need to be divided into several parts and relationships between them needs to be described. The objective of such a document structure is to separate information or data so that additions, deletions and modifications can be made in one part only and is propagated through the entire agreement via defined relationships. For example, detailed contact information for an individual person appears in an administrative annex and other parts of the agreement only contain a link, e.g., using a function description, to the contacts table.

The pros and cons require careful consideration. Information can easily be accessed, managed, and updated and data anomalies will be reduced. The agreement may quickly become very complex. For larger organisations with multiple points of contact such a table or annex may become very comprehensive and hence changes very frequently.

Two common formats based on a similar concept are presented in this document.

- TSA/SLA
- Technical Memorandum of Cooperation (TMC)

Authorisation/signature

Any Technical Cooperation Agreement (e.g. TSA or MOC) and its technical and administrative annexes should always be signed and dated by the parties involved. Signing an agreement is an official indication that the involved parties have a shared interest in achieving a given goal and may make a successful outcome more likely.

Representatives who can sign an agreement for an ANSP are those who have been given the authority to represent their organisation. These can either be parties who have the actual authority to sign agreements on behalf of their organisation, or parties who have been given the apparent authority to do so. Establishing who has the proper authority to sign agreements on behalf of an ANSP is an important issue to resolve, as confusion related to this issue can contribute to many disputes.

Therefore, ANSPs should carefully consider who should be authorised to sign technical cooperation agreements and its annexes. If in doubt, a written agreement should be reviewed and approved by the senior management.

To ease the execution of an agreement, ANSP may decide to authorize/sign the main agreement and its annexes at different levels of the organizational hierarchy. See figure “General agreement structure”. It is good practice that Technical Cooperation Agreements which provide a more stable framework are signed by Senior Management or Functional Executives like Technical Directors. Detailed administrative and technical annexes or SLAs are signed by the accountable managers.

When the agreement is structured such that certain information is spread over different parts of the agreement, then it should be ensured that the main body of the agreement together with all invoked administrative and technical annexes are all authorized/signed at the same time.

Termination

In general, a technical cooperation agreement is valid until further notice, but can be terminated by either party at any given time. The notice period of an ongoing agreement may not be unreasonably long, usually an acceptable notice period is 6 to 12 months. In some cases, such as surveillance data exchange agreements or common procurement and operation of infrastructure, a longer notice period may be required to allow for the establishment of a data or service sources.

The agreement should give the details of what qualifies as a reason for termination of a TCA or any part thereof. It should also state what actions need to take place for one of the parties to terminate the agreement. Each party is entitled to terminate any technical annex/SLA by submitting a written notice to the other party to terminate the agreement or parts thereof.

The TSA/MOC remains in force as long as at least one technical annex/SLA is valid.

Security

The current threat and risk environment demands that aviation security remains among the highest priorities for all aviation stakeholders including ANSPs. Successful collaboration between ANSPs dependent on the effectiveness of each other’s security systems to provide a common and acceptably secure environment. Each party shall make all necessary measures to protect its own as well as its partner’s environment against any security threat and must

consider aviation security aspects as appropriate including inter alia protected critical information, security checks, secure infrastructure and declaration of security events.

Each party shall take all necessary measures to detect any threat, breach or cyber security attack against its own environment and inform the other partners as quickly as possible.

Confidential information like IP addresses shall be disclosed strictly based on need-to-know principle, the transmission of this information must be ensured by sufficiently protected means.

In relation to the agreed ATM/CNS data exchange and provided services, each party should notify another one in case of detected data corruption, security incident or weakness.

Regarding physical protection, parties should allow duly authorised personnel access to facilities, information, and meetings, as required for the proper execution of the agreement, under due supervision.

Data protection

When making data available to other parties, it is important to let users know in advance under what conditions they are allowed to access and use the data. Terms and conditions depend on the nature of the data. Recipient of data shall declare who will be using data (e.g. en-route centre only) and for what purpose.

Open data can be freely accessed and used. For restricted data specific access and/or use conditions should be detailed.. TCA is an effective way to communicate such permissions.

In nearly all cases data exchanged between ANSPs fall under the category of restricted data. Their exchange and use is limited to the provision of air navigation services and may include training, technical demonstrations, system evaluation and test purposes. The use of the infrastructure and ground sites should be limited to support the provision of operational tasks (e.g. CNS, ATM, AIS, MET, FDP, RDP...).

When processing personal data, the rules of the General Data Protection Regulation (GDPR) must be observed. The GDPR provides also the possibility for States to develop and implement their national data protection rules. When signing an agreement between the ANSPs from different States, the national laws of all States concerned and the GDPR rules must be complied with.

Any personal data should be processed solely for the purposes of the performance, management and monitoring of this agreement. The parties should adopt appropriate technical and organisational measures necessary to preserve confidentiality and limit access to this data. In specific cases it may be desirable to specify the right to use the data after termination of the agreement.

The partners should note that technical cooperation agreements as well as any associated report may need to be provided to their National Supervisory Authority, if requested to do so.

Confidentiality

The parties may agree on details on how to preserve the confidentiality of any information, notwithstanding of its form, disclosed in relation to the implementation of such agreement.

Points of contact

Their main role as Point of Contact is to liaise with the other party and serve as the coordinator or focal point of information dealing with activities addressed by the TCA and/or its annexes. Typically, either an individual person and/or a department/office/section/function are nominated as Point of Contact. Some organisations prefer to nominate individual persons, whereas others prefer the use of organisational or functional references as point of contact. There are pros and cons for both approaches.

Many ANSPs expect interaction with the signing partner to be instant and they want immediate resolution of their concerns. Correct contact information is therefore of the utmost importance for the development, maintenance, and execution of an agreement. Outdated or incorrect contact information may result, for example in the event of a planned service interruption, to a loss of service without receiving any pre-notification. Furthermore, much longer response times to resolve any problem may need to be expected. It is recommended to distinguish between instant communication and/or reaction, an intervention in order to allow earliest possible use of a service and complete resolution of a problem. This may be arranged through different levels (e.g. first, second and third) of communication between the partners.

Individual vs functional addresses

Some ANSPs prefer agreements which make use of organisational or functional addresses to better guarantee the service continuity as detailed in main part of the agreement and/or its administrative and technical annexes. In such cases a dedicated administrative annex is used with contact details sorted by subject areas services. A contact annex should be easy to use by the teams involved in the subject areas.

Update contact information

Names and contact details such as telephone numbers, email addresses etc. are subject to frequent changes and may therefore contradict the concept of a TCA as a stable document. For this kind of information, a dedicated annex may be more appropriate.

It is the signing party's responsibility to keep its contact details up to date. Any amendment to the contact details should be done by authorized personnel using clearly defined information channels. When deemed necessary each party may update its contact details without approval of the other party.

Authorization

Only a contact point listed in the agreement, should provide or receive any information or instructions. In addition, only a recipient or customer duly declared in the corresponding annex is entitled to request anything. The caller must therefore identify himself/herself clearly so that the receiver can clearly authenticate the caller and be sure that their communication is duly authorized.

Performance Management

To support a proper execution of the agreement, it is recommended that signing ANSP agrees on a consistent approach, methodology and tools to monitor, evaluate and reconcile the delivery of services or data covered by the agreement.

Define expected performance

In a first step the service or data exchange must be clearly described, and this description must include the expected performance values and indicators, detailing quality, availability, level of service as agreed. It is recommended to use, to the extent possible, simple performance indicators. If no such performance indicator can be determined, then the usefulness of such service or data exchange need to be questioned.

When defining the performance criteria of a service or data exchange the use of standards or guidance material stemming from ICAO, Eurocontrol or Eurocae, if available, is recommended. If no such material is available, then the signing parties need to agree on what performance of the service or data exchange is expected.

When suitable performance values and indicators, stemming ICAO, Eurocontrol, Eurocae or other appropriate specifications have been identified, the signing parties should consider referring to those specifications instead of duplicating them in the agreement or its annexes. This would help to keep information more consistent and minimize discrepancy between performance specifications used in the agreement and international documents. The NewPENS contract is a good example, since it contains specific performance indicators which may be simply cited in the agreement. On the other side, changes to cited international specifications must be followed more closely by the signing parties since any amendments may have a direct impact on the evaluation of the service or data exchange performance.

Measure performance

Monitoring methods and tools

The performance monitoring can be a real-time/online process or an off-line process, depending on the technics, on the criticality, or other technical or organisational constraints. It is very important to define on the service accessibility point(s²) where the performance and other quality parameters should be measured (or as close to that point as possible).

There can be a mix between real-time monitoring of simple parameters and offline monitoring of very accurate parameters, for example, in the radar domain, real-time monitoring of the output of an MSSR versus off-line SASS-C-monitoring of the detection capability in the entire control volume. To avoid major discrepancies in measurement results between the two parties, it is important to agree upfront on common measurement references, standards, tools and methods.

For networks, one could consider on the one hand (in real time) the latency time and on the other hand of the monitoring period the overall evolution of figures like the traffic load or the convergence time after failure.

The assessment of the performance could be costly, and a trade-off between the need and the cost could be useful. As an example, in the NAV domain, the cost of the flight inspection (which is a legal requirement) are born by the ANSP operating the facility, while the facility may also be used by aircraft operating in airspace served by another ANSP?

² In case of network interconnection there may be two.

Formatting of results

The results should be made available to the other party in a workable form, preferably jointly agreed upon beforehand.

Users group (one user group for each annex)

The above results should constitute the input data for a joint working group responsible for discussing them, validating them, drawing the consequences and defining the means of action, corrective and preventive measures.

The group from the two ANSPs and responsible for an area should meet periodically to discuss technical aspects, to improve its cohesion and to decide on corrective actions.

Maintenance actions for each service

Degradation of services, maintenance activities, security breaches which could lead to service/data interruption should be notified as quickly as possible.

Advance notice regarding preventive maintenance shall be sent as soon as possible, and should be tailored as much as possible to mutual constraints. Such notice shall be followed up shortly before the action by a phone call or any other contact between the teams in charge, as a kind reminder.

The return to an acceptable level of performance shall also be reported to each user as soon as possible.

All times disseminated in the agreement shall reference to UTC as a time standard (e.g., maintenance).

Quality management

To integrate the agreement into the Quality Management System of each signing party, a periodic verification of the effectiveness of the technical annexes should be foreseen. Corrective measures, the impact on the quality of the service provided and necessary updates the annexes could be addressed under this section.

Costs and expenses

Addressing costs and expenses in connection with the execution of the agreement and in relation to the fulfilment of obligations under the agreement is a sensitive issue and requires careful consideration by the signing parties. Financial aspects may be addressed as part of the TCA, or separately through a commercial contract. It should be recalled that technical cooperation agreements should focus on service or data exchange and its performance monitoring. Complicated financial provisions may overload such an agreement and thus distract from its main purpose.

In general, each party to the agreement is solely responsible for all costs and expenses in connection with the execution of the agreement and in relation to the fulfilment of its duties and obligations.

In case the signing parties agree on a more in-depth consideration of costs and expenses, then this should be done for each service or data exchange individually. A service provided on the basis of a reciprocal relationship, such as OLDI, should follow the general principle, whereby each party is responsible for covering its own costs. However, in case of one party provides data to the other party (e.g. SUR data), both partners may agree to compensate costs associated with the provision of services or data. Cost compensation may include concepts of “non-profit”, “fair pricing” of common investment. Prevailing practice today is to provide services or data on “as-is basis” without any guarantee of service quality or availability.

It is the ANSP’s responsibility to do “a make-or-buy decision” and choose between providing a service or data in-house or purchasing it from an external supplier. In-house service provision includes buying technology and its subsequent long-term operation and maintenance. Purchase a quality ensured service from an external source may lead to a reduction of redundant technical infrastructure. The concept of ADSP may serve as an example.

Editor’s note: Relation with third parties and data provision beyond signing ANSPs require further consideration to better understand any implications and consequences.

TCA/TSA/SLA updates and amendments

Procedure for amendments of the agreement and its annexes as well as the types of changes that require one should be specified. Since the agreement involves several different parties, often from different States and with different languages, the rules on efficiently managing and organising the agreement should be set out clearly. Proper management of the agreement is needed to efficiently achieve the expected results and exploit them.

It may be assumed that after signing a TCA, the relevant agreements will be valid for longer period and will need to be updated from time to time. The TCA structure itself (hierarchy divided into the main document, its administrative and technical annexes/SLA for each individual services) simplifies the update process. If responsibility is properly delegated in the parties, accountable managers should be responsible for updating individual services, modifying “their” SLAs as needed. Changes within the individual documents are visible through the change control log. One of the annexes (List of active SLAs) serves to give senior management the necessary overview of the current status of the SLAs. Changes in the main document are not common, but it is also recommended to address them by replacing the original documents with clear identification of changes, which helps transparency and clarity for understanding.

Some ANSPs already have 10+ years of experience with TSA / SLAs. After initial improvement of some details of the agreements, the documents are mostly stabilized, and further changes become rare.

Notice periods for termination of the agreement are addressed above.

Each ANSP should be ISO 9001 certified and is therefore required to comply with the associated document verification procedures. Hence the signing parties shall adjust their internal and mutual processes to enable a promptly updating the agreement and its annexes to continuously reflect the reality.

Liability

The parties may agree under what circumstances they can be held liable for damage while an action under this agreement is being carried out or as a consequence of such action. Provisions addressing liability towards third parties may also need to be considered.

Ethics

If deemed necessary, the agreement may address compliance with Ethics of the parties, intended as those “guide of principles designed to help professionals conduct business honestly and with integrity. A code of ethics document may outline the mission and values of the business or organization, how professionals are supposed to approach problems, the ethical principles based on the organization's core values, and the standards to which the professional is held. A code of ethics, also referred to as an "ethical code," may encompass areas such as business ethics, a code of professional practice, and an employee code of conduct.”

Force Majeure

A Party will not be liable to the other for any delay in or failure to perform its obligations as a result of any cause beyond its reasonable control. The Party so affected shall as soon as practicable: (a) notify the other Party of such fact and of the period of its continuance and consequences which are expected; and (b) take all reasonable action to minimize the consequences of the relevant events and to resume due performance of the obligations excused as soon as practicable.

Agreement language

When signing parties agree to use more than one agreement language, then it should be specified what language version should prevail in case of discrepancies. To ease execution, it is recommended to use English as the agreement language. When signing parties agree to use English and their respective national language, then in case of discrepancies the English language should prevail.

Applicable law and dispute settlement

In a technical cooperation agreement information may be included regarding the law(s) applicable to the agreement and the place of jurisdiction. For agreements between ANSPs, this may include European Union law supplemented as appropriate by national law of the parties involved.

As a general principle, the parties shall do everything possible to settle any dispute arising between them during the implementation of this agreement. In the event of failure to reach an agreement, methods may be included for resolving disputes (in court, via arbitration or via mediation).

Definitions

Defining specific terms in a ‘definitions’ section helps to avoid misunderstandings about the extent of a particular right or obligation.

Regulatory provisions

Some EU Regulations relevant for ATM/ANS providers explicitly require concluding an agreement. Dependent on the required content, the relevant terms can be subject to either

TSA or SLA. In most cases, the given headlines in this document represent such requirements, e.g. “quality of service”, “monitoring criteria”, “performance”, “liability and assurance”, “security policy”. It is recommended to indicate in the agreement the source of that legal requirement (implementing rule or AMC) by noting a reference. This also eases to show compliance to the regulatory requirement towards any auditor.

Annex 1 contains a non-exhaustive list of EU legal provisions that require agreements between ATM/ANS providers.

4. Sample agreement structure

In following sections 2 sample agreements are provide which follow the basic principles are detailed above. Main elements of the agreements and its administrative and technical annexes include, inter alia:

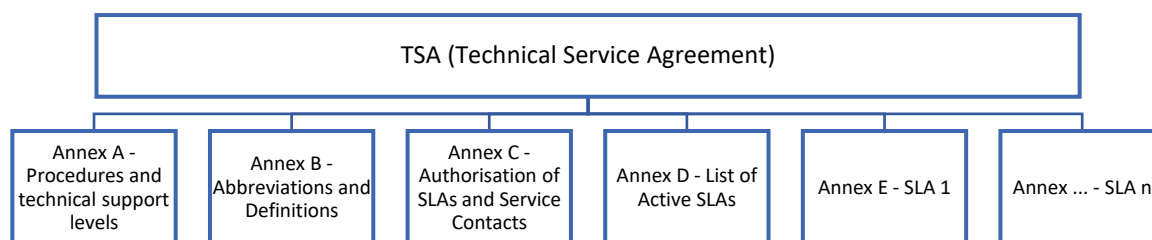
- Preamble
- Parties, including the information who represents each partner in the context of this technical agreement.
- Purpose and scope of the technical cooperation agreement. In this part, a list of services which are part of the Technical Agreement should be identified.
- Technical agreement structure (describing the concept of the document, annexes and configuration control as well as approvals), focal points for management of the main part and its annexes
- Communication, coordination and escalation principles- short/general, at the package level
- Change management principles - short/general, at the package level
- Quality and performance monitoring – short/general, at the package level
- Maintaining technical agreement and annexes, definition who signes what, how to update agreements, etc.
- Legal rules, including conditions and limitations, resolution of disagreement, liability arrangements, statements where the cost/fees are defined (normally, fees and costs should be defined somewhere else), force majeure, place of jurisdiction and applicable laws,
- Entry into force, Termination of the Agreement
- List of active technical annexes/SLAs and people who are authorised to sign (matrix)
- List of Acronyms and Definitions
- Technical annexes/SLAs as separate annexes (per service)

5. Sample 1 – TSA/SLA agreement

The TSA is implemented through technical SLAs (TSA Annexes), each of them dedicated to a specific subject area (e.g. shared use of services and/or facilities, exchange of data) containing at least a description of the tasks to be performed, including duration and, if applicable, workload foreseen. If a greater level of detail is deemed necessary, SLAs can be developed through specific appendices regarding technical and operational conditions inherent to the systems and equipment to which the SLAs refers.

Additional information may be included in dedicated annexes and describe for example procedures related to operations, maintenance and execution of changes, definitions and abbreviations, or a list of the active SLAs and information on their authorisation.

The following diagram illustrates the relationship of the various components of a technical service agreement.



Outline of the main document - Technical Service Agreement (TSA)

PREAMBLE

1 AGREEMENT PARTIES

2 PURPOSE AND SCOPE OF THE TECHNICAL SERVICES AGREEMENT

3 TECHNICAL AGREEMENT STRUCTURE

4 CO-OPERATION PRINCIPLES AND OBLIGATIONS

5 QUALITY AND PERFORMANCE MONITORING

6 TECHNICAL ESCALATION PROCESS

7 CHANGE OF THE SERVICE

8 TSA AND SLA MAINTENANCE

9 LEGAL RULES

10 AGREEMENT PERIOD

11 FORCE MAJEURE

12 PLACE OF JURISDICTION AND APPLICABLE LAWS

13 AGREEMENT AUTHORISATION

Annex A – Procedures and levels of technical support

Annex B – Abbreviations and Definitions

Annex C – Authorisation of SLAs and Service Contacts

Annex D – List of Active SLAs

Annex E etc – Individual SLAs for each service

Outline of a technical annex - Service Level Agreement (SLA)

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<i>2</i>	<i>OBJECTIVE</i>
<i>3</i>	<i>SCOPE AND FORMAT OF SURVEILLANCE DATA</i>
<i>4</i>	<i>PERIOD OF VALIDITY</i>
<i>4.1</i>	<i>ENTRY INTO FORCE</i>
<i>4.2</i>	<i>TERMINATION OF THE AGREEMENT</i>
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<i>6</i>	<i>ARCHITECTURE AND DELIVERY POINTS</i>
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9 CHANGE OF THE SERVICE

10 CONTACT INFORMATION

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10.2 SECOND LEVEL OF SUPPORT (H8)

11 SLA REPORT

11.1 REPORT FORMAT

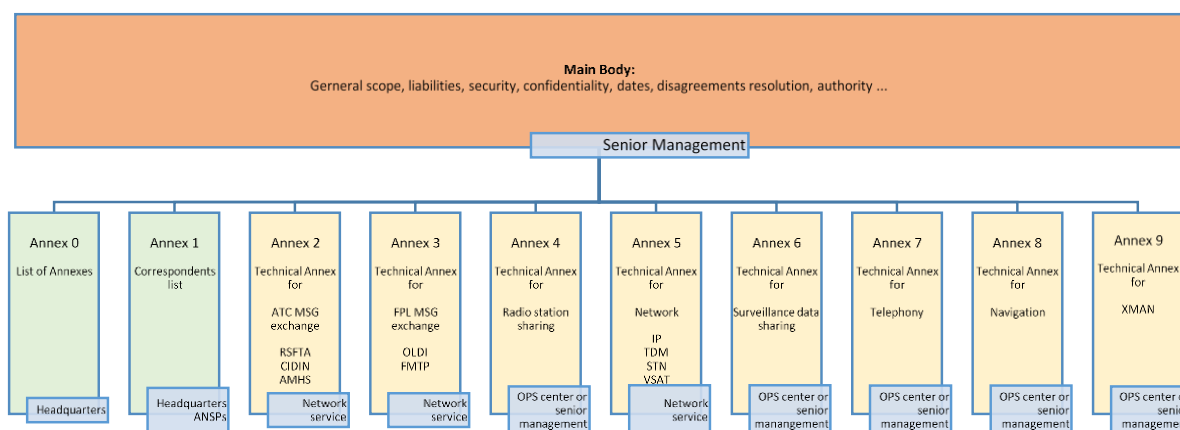
11.2 REPORT FREQUENCY

ATTACHMENT 1 TECHNICAL PARAMETERS

Samples of a Generic TSA for technical services, Generic SLAs for navigation and for surveillance services are provided in Annex 2

6. Sample 2 – Technical MoC

A Technical Memorandum of Cooperation (MoC) is based on a similar concept. The main body of the TMC is used as the framework agreement to specify general more stable terms and conditions between the signing ANSPs and then annexes on specific subject areas.



Outline of the main document – Memorandum of Cooperation (MoC)

- Article 1. Definitions*
- Article 2. Purpose of the MoC.*
- Article 3. Implementation.*
- Article 4. Scope.*
- Article 5. Financing*
- Article 6. Liability*
- Article 7. Rights and duties*
- Article 8. Confidentiality.*
- Article 9. Security*
- Article 10. Technical coordination*
- Article 11. Technical Service Escalation process*
- Article 12. Resolution of Disputes, Governing law and Place of Jurisdiction*
- Article 13. Entry into force and termination*
- Article 14. Force majeure*
- Article 15. Notification*
- Article 16. Miscellaneous*
- Article 17. Entire MOC and Amendments*

Outline of a technical annex

- 1. Objective*
- 2. Service level*
 - 2.1. ANSP 1 - Quality, availability and reporting procedures*
 - 2.2. ANSP 2 - Service level quality assessment*
- 3. Transmission to third parties*
- 4. Modifications*
- 5. Reference documents*
 - 5.1. Standards/Specifications references and applicable documents*
 - 5.2. Other documents*
- 6. Entry into force and termination.*
- 7. Signature*

Appendix 1: Technical characteristics and operating conditions

1. Objective
2. Architecture
3. Scope of the surveillance data

Appendix 2: Maintenance procedures

1. Objective
2. Maintenance procedures
 - 2.1. Equipment Monitoring
 - 2.2. Corrective Maintenance
 - 2.3. Preventive Maintenance & Modifications
3. Agreed means of communication
4. Correspondents

Appendix 3: Technical parameters

1. List of sensors
2. Coverage maps:
 - 2.1. ANSP 1 sensors
 - 2.2. ANSP 2 sensors
3. Surveillance Data providers and users

Samples of a Generic Technical Memorandum of Cooperation (TMC) and a Generic technical annex of a TMC are provided in Annex 3.

7. Drafting guidelines

In view of the large and diverse audience inside and outside ANSPs, an agreement should be drafted precisely. To avoid ambiguity, the “who, what, when, where and how” rule should be respected, with a presumption that the “why” has already been taken care when the need for an agreement was identified.

Many aspects of a TCA and its administrative and technical annexes can be standardized and generic templates, as contained in Annexes 2 and 3, have been developed that provide the basics you’ll need most of the time.

To accommodate individual needs and specific arrangements of ANSPs these templates might have to be adjusted. When preparing “real world” TCA or annexes a careful selection of subjects for inclusion is required. Some sections provided in these templates might not be applicable, while other topics not contained in this template need to be added.

It is recommended to write agreements such that the provisions set out in the TCA take precedence over those in the other parts of the annexes, in particular detailed administrative and technical annexes.

8. Annexes

- Annex 1: Non-inclusive list of EU legal provisions that require agreements between ANSPs
- Annex 2: Generic TSA for technical services, Generic SLA for navigation services, Generic SLA for surveillance services
- Annex 3: Generic Technical Memorandum of Cooperation (TMC), Generic technical annex of a TMC
- Annex 4: Services and functions

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