

10 – TECHNICAL ACTIVITIES

10.6 – Product specifications and technical services

10.6.2 – Committee work on Technical Services

Note by the Secretariat

1. INTRODUCTION

Throughout their recent sessions, the ARM, ENG, VTS, and DTEC Committees continued coordinated efforts to advance the development of standardized Technical Services.

This work, involving the creation of Service Specifications, Service Designs, and Service Instance documents, is critical to achieving interoperable, digital maritime services under the S-100 framework. The activities demonstrate a growing maturity in IALA's digital service delivery approach, particularly in AtoN and VTS domains.

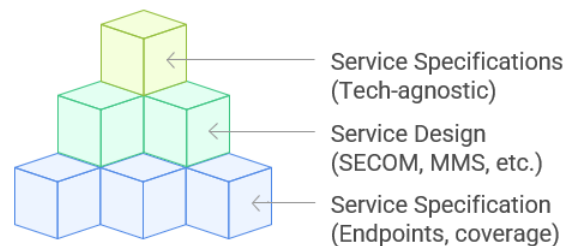


Figure 1 Architecture of the Technical Service documents

2. SUMMARY OF THE COMMITTEE WORKS

The following table provides a detailed summary of each committee's active TS development work:

Service Specification	IALA Committee	Referenced Data Models	Completion Date	Service Design	Service Design Completion Date
Marine Aids to Navigation (AtoN) Technical Service Specification for the provision of AtoN information	ARM, DTEC	S-125	Edition 1.0.0: ARM18 Edition 2.0.0: (depending on S-125)	SECOM based	Edition 1.0.0: ARM19
Marine Aids to Navigation (AtoN) Technical Service Specification for the provision of enhanced AtoN information	ARM, DTEC	S-201		SECOM based	
Voyage information service	VTS, DTEC	S-421, ...			
Route exchange service	VTS, DTEC	S-421, ...	Edition 1.0.0: VTS 57	Route exchange Ed1.0.0: VTS 57	
S-200 based ASM provision	DTEC	S-230			
Slot management service	VTS, DTEC				
Traffic clearance service	VTS, DTEC	S-212, S-421	Edition 1.5.0: VTS 57	SECOM based	Edition 1.2.0: VTS 57
Anchorage assignment service	VTS, DTEC				

3. ARM

The ARM Committee initiated the development of Technical Service Specifications for the provision of AtoN information, aligned with the Maritime Service 2 AtoN Information description.

This work defines the structure, performance requirements, and expected behavior of AtoN data services intended for ship-to-shore and shore-to-ship communication within the S-100 framework. Additionally, ARM contributed to the broader understanding of service concepts by preparing a draft Maritime Service Description, identifying user requirements, information exchanges, and operational scenarios.

4. VTS

The VTS Committee achieved major progress in developing digital VTS services. Specifically, VTS57 completed:

- A Service Specification Version 1.5 and Service Design Version 1.2 for the VTS Traffic Clearance Service, detailing functional and technical requirements for granting ship traffic clearances.
- A Service Specification Version 1.0 and Service Design Version 1.0 for the Route Exchange Service, enabling digital exchange of planned routes between ships and VTS centers.

These services are key components of the future S-212 Product Specification and ensure interoperability with digital route formats such as S-421.

The VTS Committee's work also included close coordination with other groups to harmonize service-related terminology and technical assumptions.

5. DTEC

The DTEC Committee provided essential technical foundations for service development:

- Revised G1128 Edition 1.7 (Specification of e-Navigation Technical Services), which includes:
 - Updated Service Specification Template: to define the logical and functional structure of services.
 - Updated Service Design Template: providing a blueprint for how services are technically implemented.
 - Updated Service Instance Description Template: detailing deployed instances of services.
- Developed a new draft Guideline on the Maritime Service Registry Technical Specification, defining the technical rules for service registration, discovery, and management in a digital maritime environment.
- Supported technical validation and harmonization activities for VTS-related and AtoN-related service designs, ensuring alignment with S-100 and S-200 principles.

6. ENG

The ENG Committee did not directly produce service specifications or designs during ENG20. However, it contributed to discussions concerning the future development of Positioning, Navigation, and Timing (PNT) related S-200 product specifications, which will eventually require associated service specifications and designs to ensure delivery of resilient navigation services.

7. CONCLUSION

The ARM, VTS, and DTEC Committees made significant advances in the development of Technical Services by producing detailed Service Specifications, Service Designs, and templates necessary for future implementation.

This work marks a transition from high-level conceptual models to tangible technical deliverables that will underpin digital maritime services.

The updated G1128 and the newly developed Service Designs set a robust framework for IALA's future contributions to S-100-based operational services, ensuring global harmonization and interoperability.

Continued close cooperation between the Committees will be essential for completing validation processes and supporting early operational deployments over the coming years.

8. THE COUNCIL IS REQUESTED TO

NOTE the information provided in this document.