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**Agenda item** …………………………………

**Technical domain/ Task number** …………………………………

**Author(s)/Submitter(s)** China MSA

Proposal on Supplementing the Content of the New Guideline for VDES Service and Infrastructure

# Summary

At DTEC1, it was proposed that a new guideline for VDES service and infrastructure should be formulated to integrate the contents of the Recommendation R0124 and R1007. NSONESOFT drafted an initial index on the proposed contents of the guideline at DTEC3, and the members were requested to assist its drafting. This document put forward the overall architecture of VDES service center for the new guideline for further consideration at DTEC4.

## Purpose of the document

Based on the discussions and outcomes of DTEC3, this document aims to put forward suggestions on the overall architecture of VDES service center for the new guideline, so as to promote the subsequent revision process.

## Related documents

[1] ITU-R M.2092-1, *Technical characteristics for a VHF data exchange system in the VHF maritime mobile band, February 2022*

[2] IALA G1117, *VHF Data Exchange System (VDES) Overview, December 2022*

[3] IALA R1007, *The VHF Data Exchange System (VDES) for Shore Infrastructure, June 2017*

[4] IALA R0124 Ed2.2, *The AIS Service, December 2012*

# Background

The DTEC 1 meeting proposed the release of a new guideline on VDES services and infrastructure after DTEC 7 in 2026. The proposed guideline will integrate the content of IALA R0124 "AIS Service" and R1007 " The VHF Data Exchange System for Shore-Based Infrastructure." Based on previous research and trials, as well as the discussions at the DTEC 3 meeting, China Maritime Safety Administration has developed an overall architecture for the VDES Service Center as a contribution to the proposed guideline, for further review at DTEC 4.

# Discussion

This document supplements the content of Chapter 4 for the new Guideline on VDES Service and Infrastructure, providing the overall architecture of VDES data center services as follows:

4.4 VDES Service Center

4.4.1 ASM SERVICE

ASM service is divided into the following four categorizes according to its data flow characteristics (refer to Figure 1):

a) ASM Service Category 1: Initiated by an external ASM mobile station, where data is transmitted from the external ASM mobile station to the corresponding ASM service;

b) ASM Service Category 2: Initiated by requesting shore-based technical service to the external ASM mobile station upon request;

c) ASM Service Category 3: Initiated by requesting shore-based technical service. They provide data to external mobile stations with ASM function for the configuration of external mobile stations´ behaviour on the VDL.

d) ASM Service Category 4: Initiated by the requesting shore-based technical service. They provide integrity information as the basis for the data already available at the ASM service.



*ASM Service*

4.4.2 VDE SERVICE

VDE Service is divided into the following three categories according to its service characteristics (refer to Figure 2):

a) VDE service Category 1: A shore-based service, initiated either by an external mobile station with VDE functionality or by a shore-based technical service, that enables interaction between mobile stations or between mobile stations and shore-based services;

b) VDE service Category 2: A shore-based service that configures external mobile stations´ behaviour of the external VDE mobile station on the VDL;

c) VDE service: Category 3: A shore-based service that provides AIS VDL, data, and protocol monitoring information upon request.



*VDE Service*

# references

[1] ITU-R M.2092-1, *Technical characteristics for a VHF data exchange system in the VHF maritime mobile band, February 2022*

[2] IALA G1117, *VHF Data Exchange System (VDES) Overview, December 2022*

[3] IALA R1007, *The VHF Data Exchange System (VDES) for Shore Infrastructure, June 2017*

[4] IALA R0124 Ed2.2, *The AIS Service, December 2012*

# Action requested of the Committee

The Committee is requested to consider the proposal in this document, and take actions as appropriate.