Input paper: [[1]](#footnote-1) DTEC3-5.2.3.6

Input paper for the following Committee(s): Purpose of paper:

**□** ARM **□** ENG **□** PAP **□** Input

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Agenda item [[2]](#footnote-2) 5.2

Technical Domain / Task Number 2 6.3.4

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VDES Authentication Guideline: Progress Update

# Summary

## Purpose of the document

This document provides an update on the development of the Guideline on VDES Authentication Techniques. It also aims to promote awareness of the new collaborative workflow using GitHub and encourage active participation in the drafting process.

## Related documents

IALA Recommendation 1007 [1]

IALA Recommendation 1017 [2]

IALA Guideline 1117 [3]

IALA Guideline 1158 [4]

Draft Guideline on VDES Authentication Techniques - DTEC3-5.2.3.6.1

# Background

Under the guidance of GRAD, the research arm of the General Lighthouse Authorities of the UK and Ireland, DTEC Working Group 3 (WG3) is developing a new IALA Guideline on VDES Authentication Techniques. This guideline will provide the maritime community with essential information on implementing cryptographic authentication techniques to ensure the integrity and authenticity of VDES communications.

# Discussion

## Collaborative approach

To facilitate efficient collaboration and version control, the guideline is being developed on GitHub. GitHub offers a central repository for the draft document, reference materials and other relevant resources, as well as a convenient platform for discussion and feedback.

To gain access to the repository, committee members are invited to send their *GitHub username* to [jan.safar@gla‑rad.org](mailto:jan.safar@gla-rad.org).

We encourage active participation in the drafting process by submitting your input through 'pull requests' on GitHub. These requests are reviewed and processed during official DTEC WG3 meetings. Following each meeting, a new draft version of the guideline incorporating accepted changes is automatically generated and made available in the repository for further review.

## Document structure

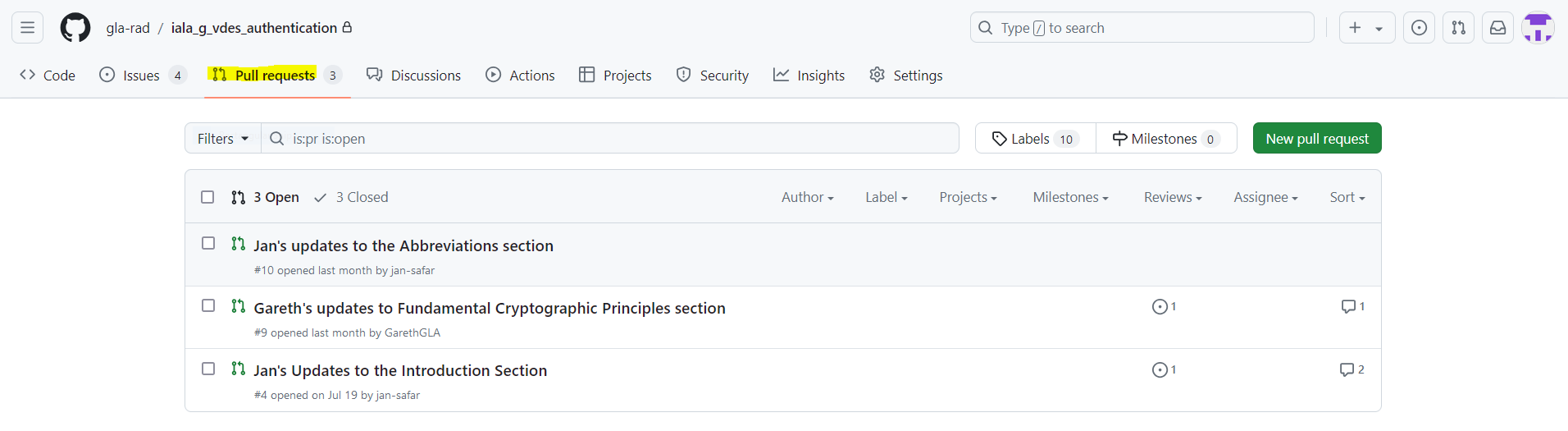
The proposed structure for the VDES Authentication Guideline was finalised during IALA DTEC2. An initial draft outlining this structure and incorporating preliminary content ideas is available as an attachment to this paper.

## Draft content

Since DTEC2, the following sections of the guideline have been drafted:

* Introduction
* VDES Overview
* Fundamental Concepts of Cryptographic Authentication

The proposed content for these sections can be found in the 'Pull requests' section of the GitHub repository, as illustrated in Figure 1.



1. GitHub repository for the VDES Authentication Guideline.

Committee members are encouraged to review this content and provide their feedback via GitHub. Upon review and approval by WG3, the new content will be incorporated into the next draft version of the guideline.

# References

[1] International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), ‘VHF Data Exchange System (VDES) for Shore Infrastructure’, St-Germain-en-Laye, France, Recommendation 1007 Ed. 1.1, Jun. 2017. Accessed: Feb. 23, 2024. [Online]. Available: https://www.iala-aism.org/product/r1007/

[2] International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), ‘Resilient Position Navigation and Timing (PNT)’, St-Germain-en-Laye, France, Recommendation R1017 Ed. 1.1, Dec. 2018. Accessed: Feb. 23, 2024. [Online]. Available: https://www.iala-aism.org/product/r1017/

[3] International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), ‘VHF Data Exchange System (VDES) Overview’, Guideline 1117 Ed. 3, Dec. 2022. Accessed: Aug. 29, 2023. [Online]. Available: https://www.iala-aism.org/product/g1117/

[4] International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), ‘VDES R-Mode’, St-Germain-en-Laye, France, Guideline 1158 Ed. 1.1, Dec. 2020. [Online]. Available: https://www.iala-aism.org/product/g1158-vdes-r-mode/

# Action requested of the Committee

Committee members are invited to review the VDES Authentication Guideline draft and provide feedback on GitHub. To obtain access to the repository, send your GitHub username to [jan.safar@gla-rad.org](mailto:jan.safar@gla-rad.org).

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)