



NAVELINK

Developer forum

27-04-2023

[Navelink.org](https://navelink.org)

Agenda

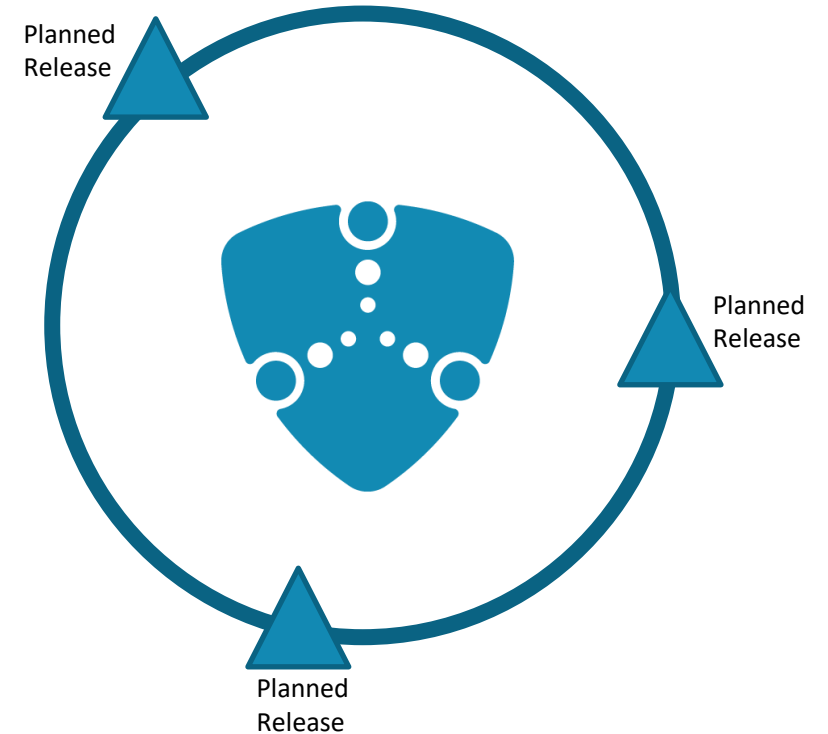
- 1) Navelink Platform status & update
- 2) Navelink Roadmap (Head of concept Navelink)
- 3) Service development discussions & information
 - a) Forum service developers (Each developer)
 - b) Forum security and interoperability (Each developer)
 - c) Ongoing work within the STM-community (Trello) (Each developer)
- 4) Overview of Navelink usage
- 5) Q&A
 - a) New questions (All)
- 6) Discussion: Navelink + REST + MMS + VDES
- 7) GetPublicKey
- 8) Closing remarks

1) Navelink Platform status & update

- Since the last meeting:
 - There has been DDoS attacks at our external DNS supplier
- Future
 - MIR version 1.2.0 currently in Test
 - *When released we will post dates for implementation to DEV, TEST ect.*
 - Get Public key –
 - Needs in general?
 - Needs for VDES (ongoing)?
 - Needs for MMS?

Received questions

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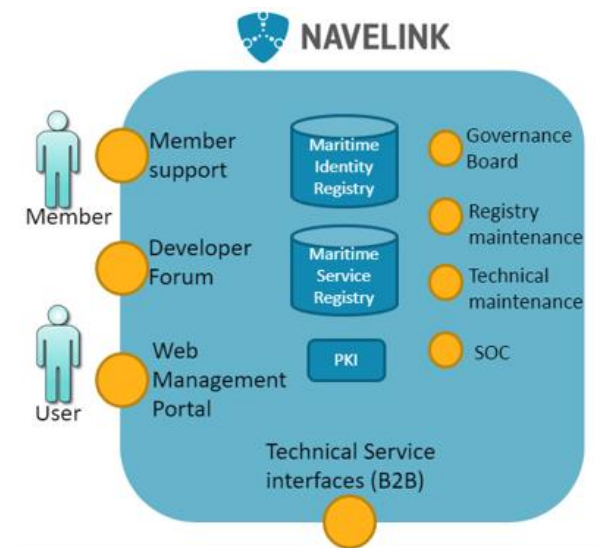


2) Navelink Roadmap



- Support new Service Specifications and Designs
- Increase VDES support
- Add GetPublicKey
- Add MMS support
- Increase SECOM Compliance
- Add SECOM Hotel
- Add SecretKeyExchange
- Add MRR usage
- Add Service Ledger support

- Enable subscription on Navelink technical notes
- Enhance functionality to host payload formats
- Add support for Service Payment



3) Service development discussions & information

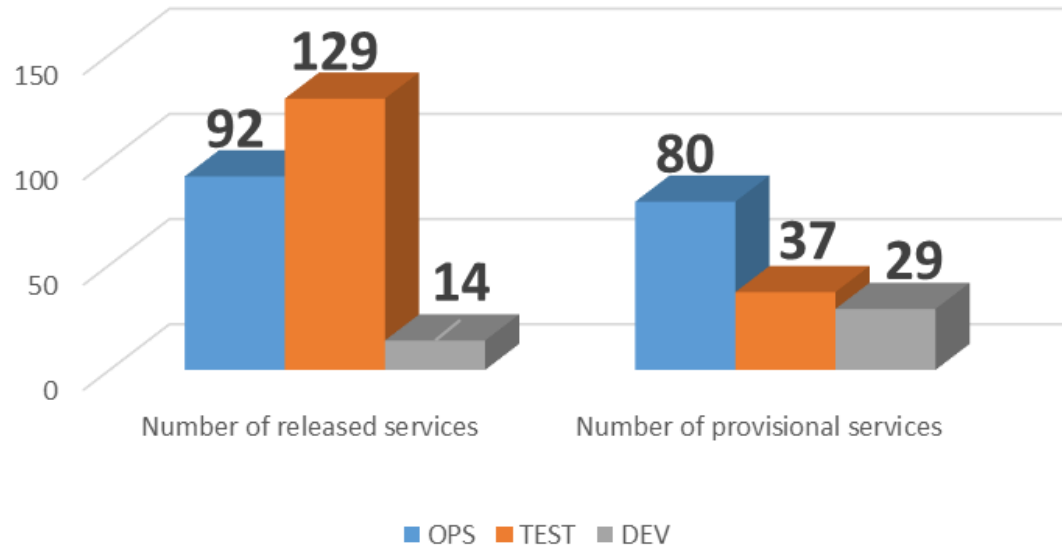
- Forum service developers
 - Common discussions
- Forum Security and interoperability
 - Common discussions
- Ongoing work within the STM-community (Trello)
 - Trello check
 - Common standardization work: S-124, S-421, SECOM, General STM news



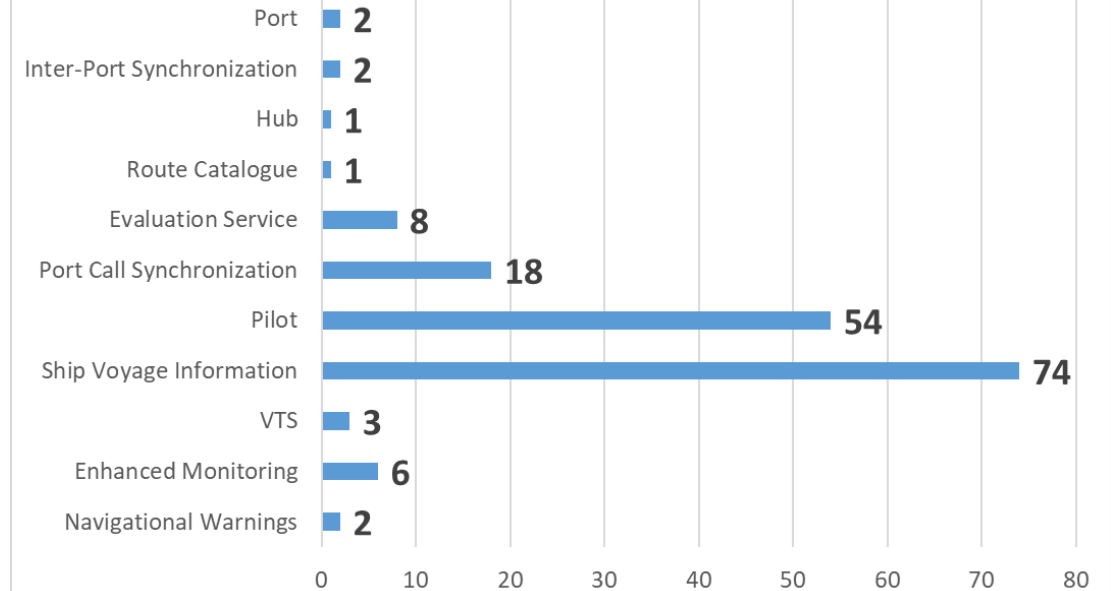
4) Overview on Navelink usage

2023-04-27

Number of registered Service Instances



Service Types in Navelink in OPS



Events since last Dev Forum:

Added services in TEST

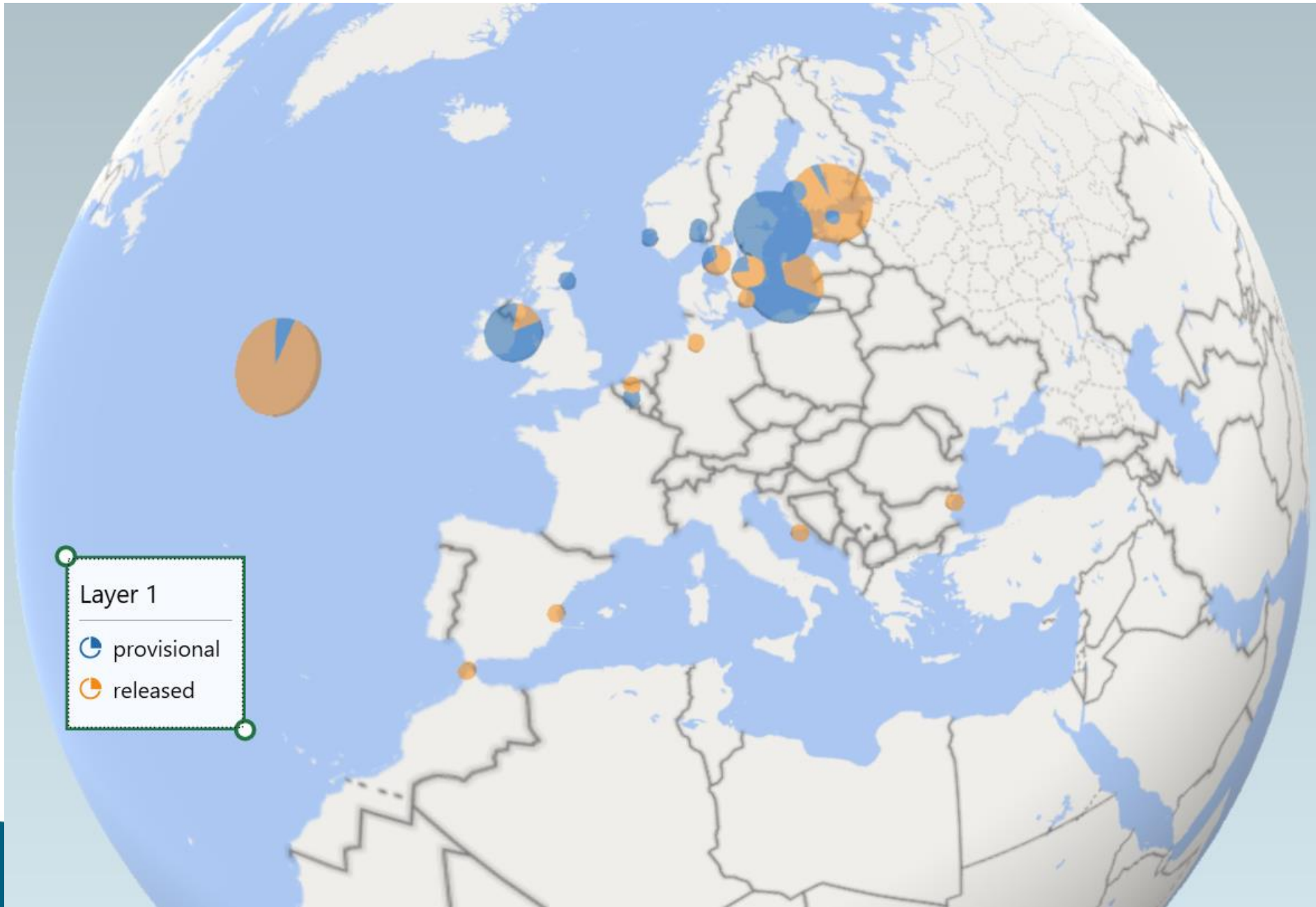
Navelink Operational environment Service Registrations

Service Specifications: 1 (Voyage Information Service v2.2)

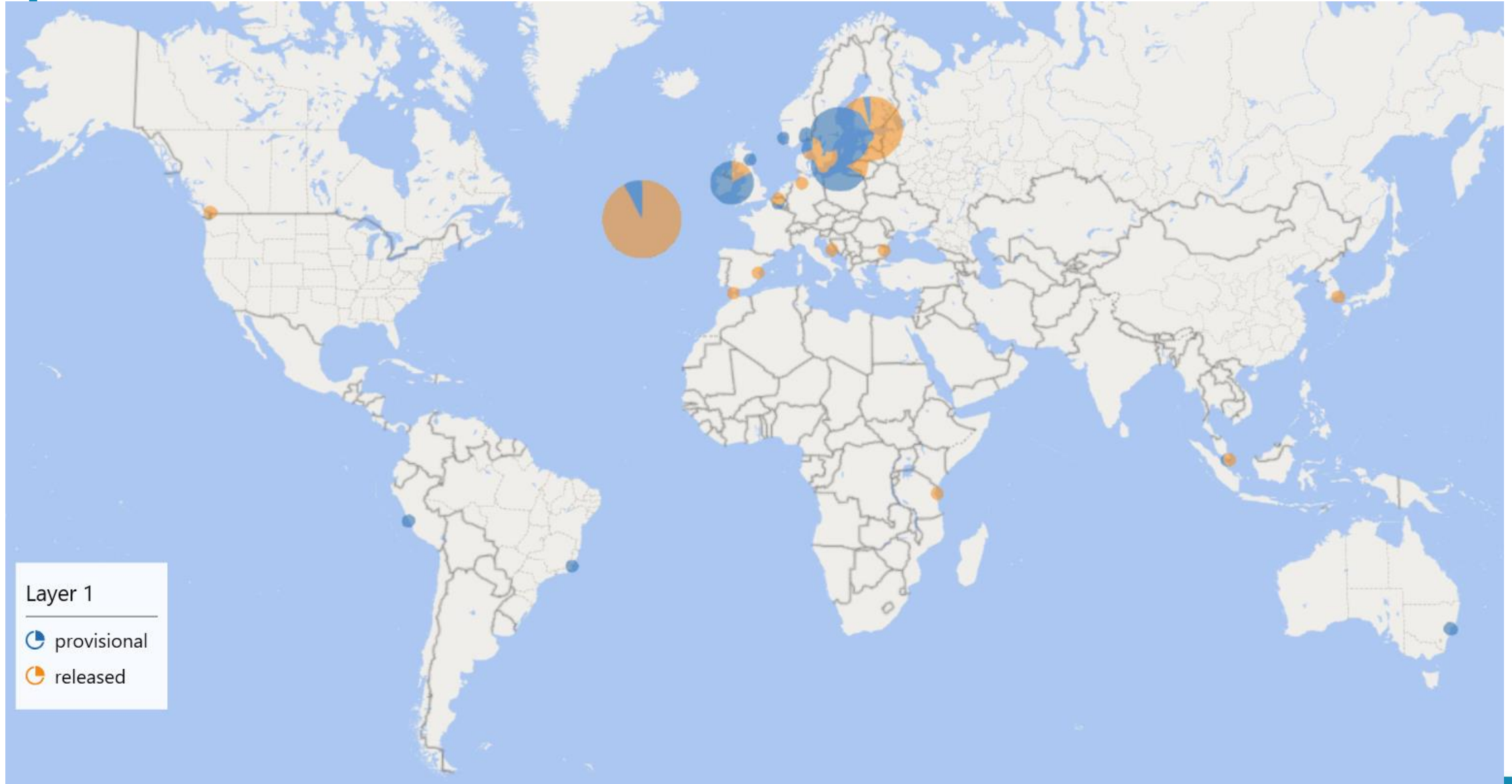
Service Technical Design: 1 (Voyage Information Service Design v2.2)

Service Instances: 172

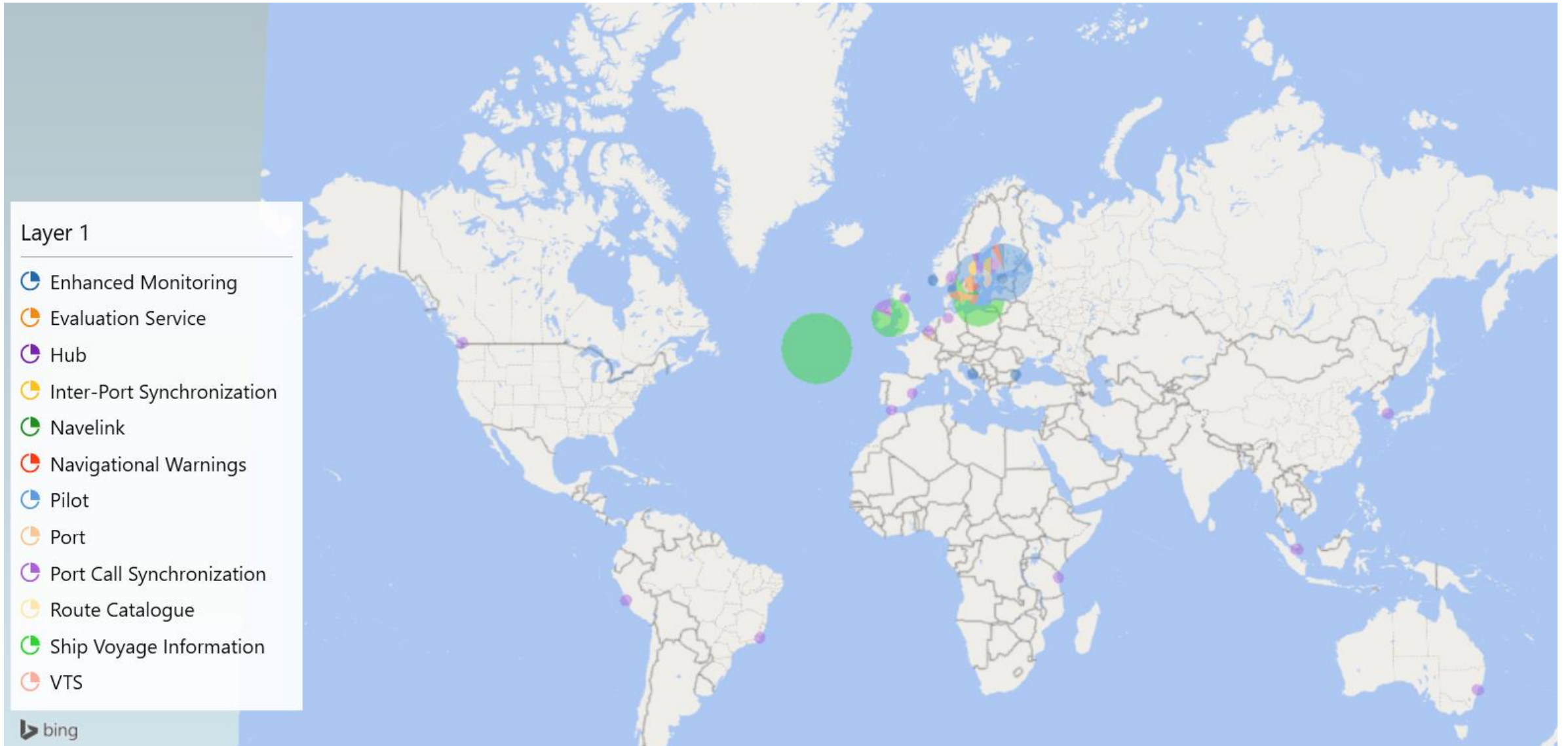
Geographical representation in Europa for services in Navelink



Operational environment



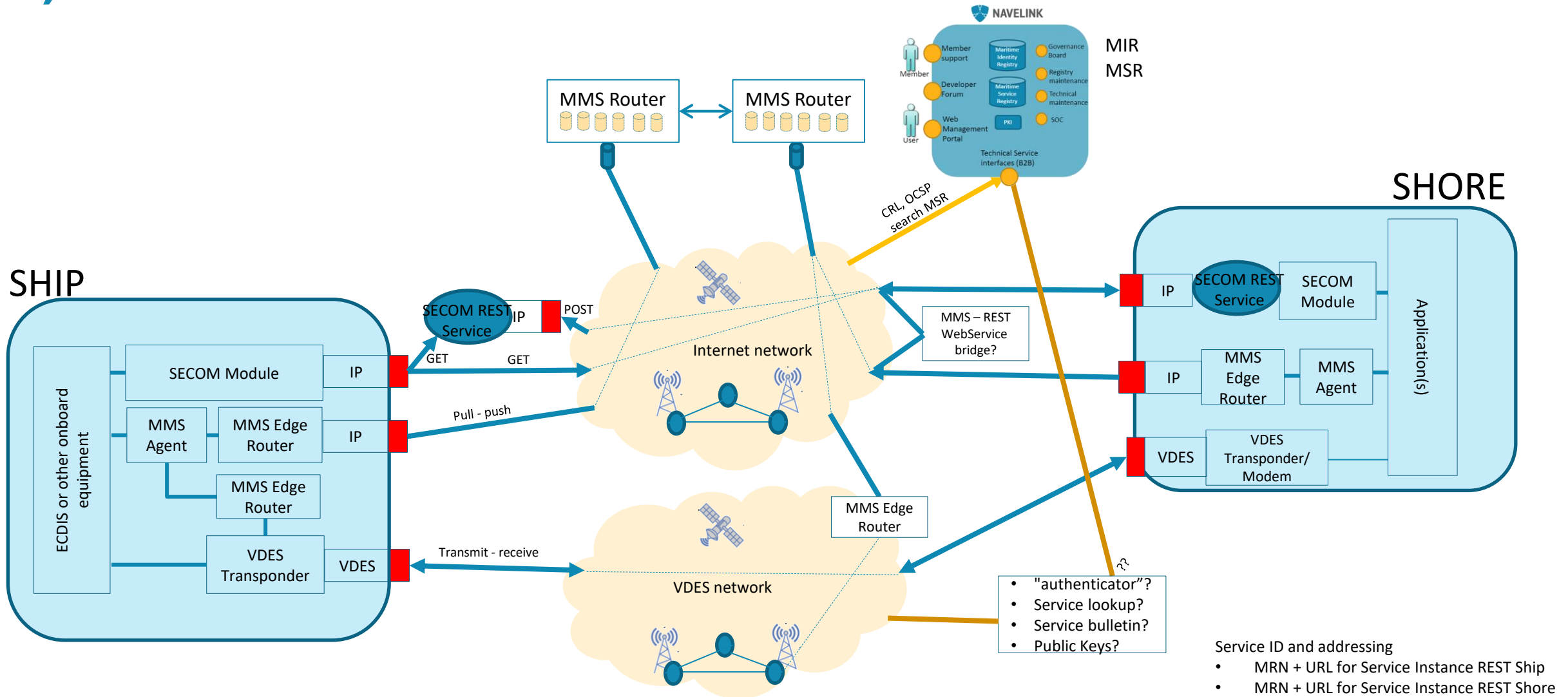
Operational environment



5) Q&A

- Any Questions? The floor is open.

6) Discussion: Navelink + REST + MMS + VDES



- Service ID and addressing
- MRN + URL for Service Instance REST Ship
 - MRN + URL for Service Instance REST Shore
 - MRN for MMS Queue Ship
 - MRN for MMS Queue Shore
 - MRN + URL for MMS Router

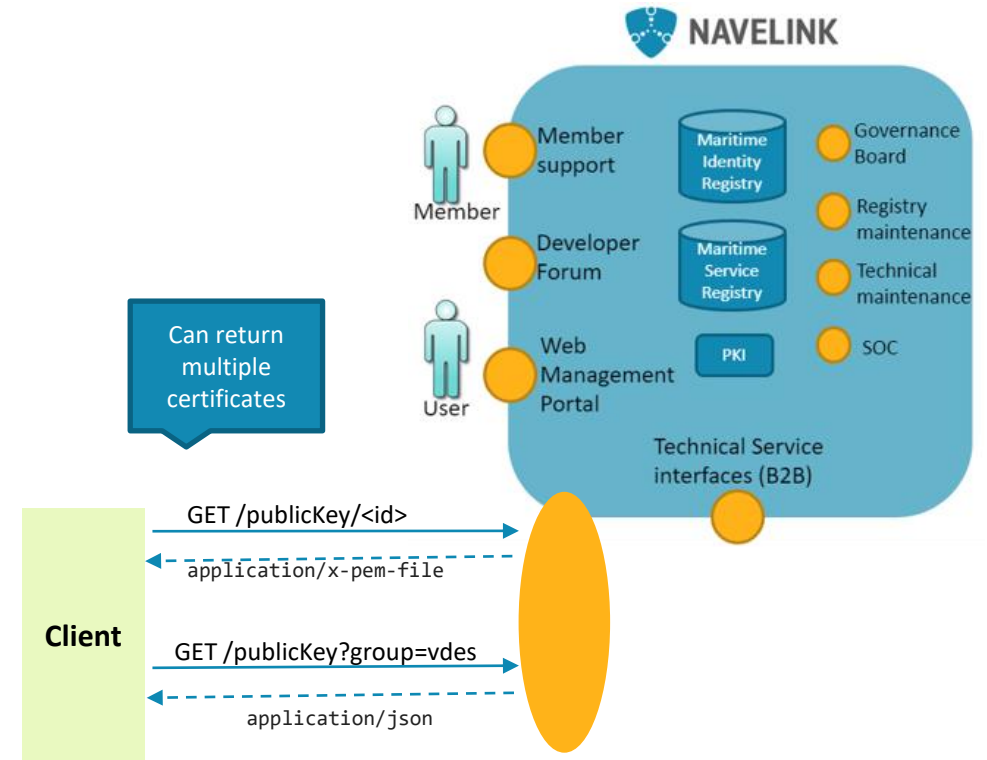
7) GetPublicKey

Use Cases and needs

- Create offline list of known public keys
 - e.g. ship will be without internet connection but may receive signed data by other communication means
- Get opposite public key to exchange secret data performing a Diffie-Hellman procedure
 - e.g. HMAC keys, other symmetric encryption keys, private keys, smaller messages

Questions

- Are the identity or identifier always known?
- Need for "Get All Public keys"?
 - "Get All Public Keys for VDES devices/group"?
 - "Get All Public Keys for Services of type VTS"?
- Are there standardised format for returning ID + PEM in a list?
 - Own JSON format?



8) Closing remarks

- Pause for Summer Vacation
 - July & August
- Next Developer Forum at 25/05-2023

Meeting notes

- Get public key will not be added by MCP right now but it will be added in Navelink for the VDES testbed.
 - Other features you can use Navelink for is SecretKeyExchange. This requires the opposite public key to execute a Diffie-Hellman procedure to encrypt e.g. a encryption key.
- The GetPublicKey is possible today within your own organizations. When making GET "/entity/MRN" from MIR you will also get all the attached certificates for that entity. The security today allows only this if you are a user/entity in the same organization.
 - So if you are a ship traveling offline you may want to build an offline list of public keys also outside your own organization, and you need to be certain that you get it from a reliable source.
- To create keys, create your own private keys locally and then send the public key as Certificate Signing Request to Navelink. This operation requires authentication and the result is a signed public key by Navelink.
- Currently we are working on making the public keys accessible also across organizations in a secure way.
 - If you have any input on this service, please contact us at info@navelink.org
- We have decided that Developer Forum will be on summer vacation in July and August, meaning that the last Developer Forum before the summer will be 22nd of June and will start again 28th September.
- Next meeting 2023-05-25



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