Developer forum

22-06-2023

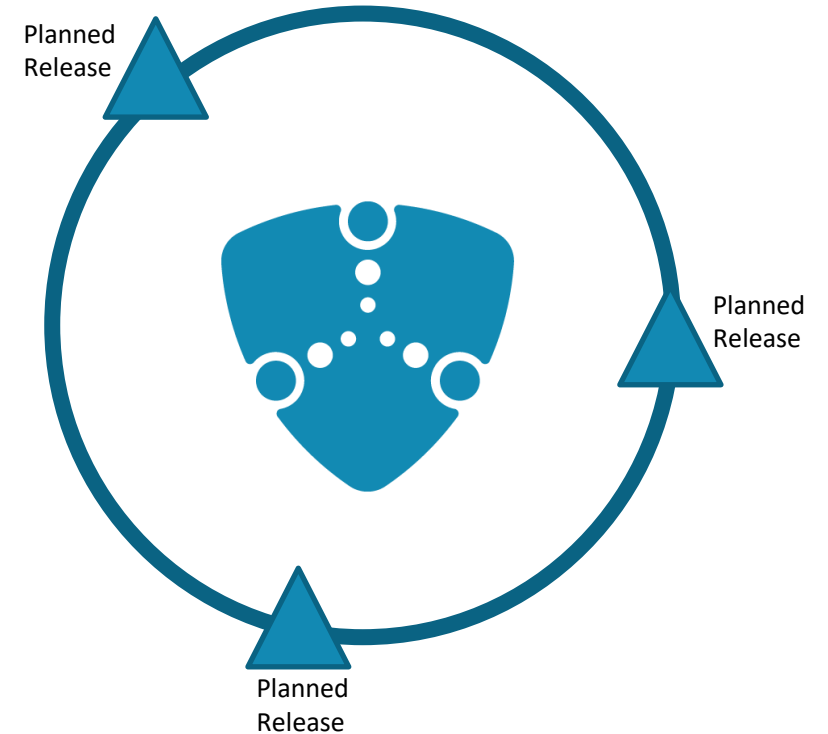Navelink.org

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) G1128 schema follow-up

7) Navelink HOW-Tos

8) GetPublicKey

9) Discussion: Navelink + REST + MMS + VDES

10) Closing remarks

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1) Navelink Platform status & update

- Since the last meeting:
  - MIR version 1.2.1 implemented in DEV and TEST
    - Stricter validation of input and URLs
    - Release notes can be found at Navelink.org

- Future
  - MIR version 1.2.1 implementation to PROD
    - Feedback?
   - Planned date for implementation: Monday 26/06 at 10:00 o'clock

Received questions

-

Planned
Release

Planned
Release

Planned
Release

2) Navelink Roadmap

1-2 years

- 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

2-5 years

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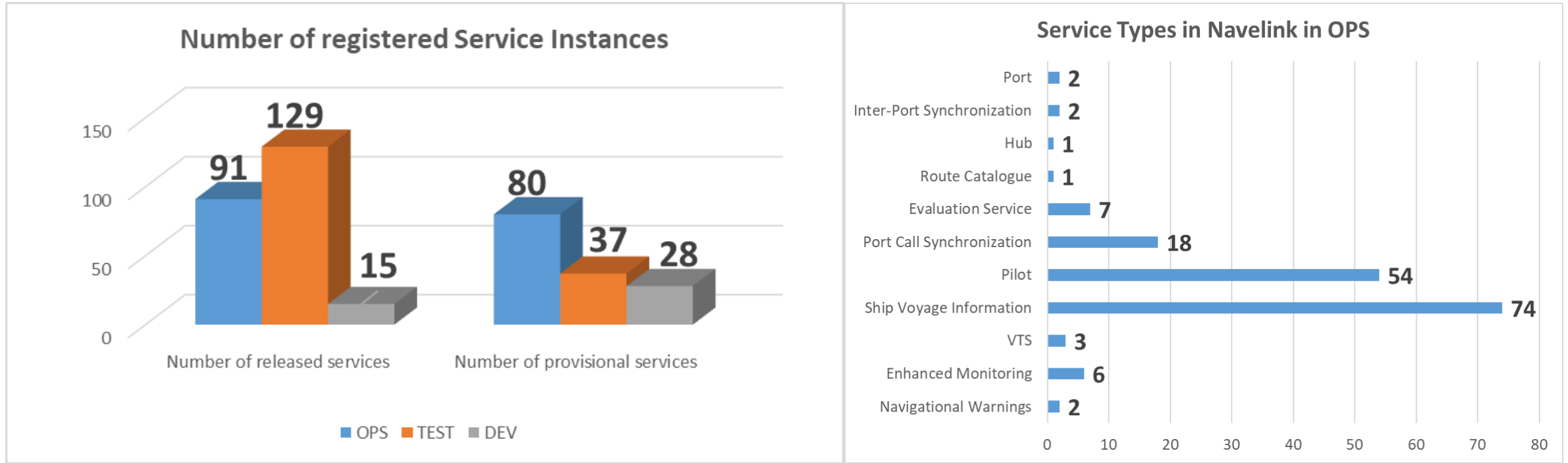- Add support for Service Payment

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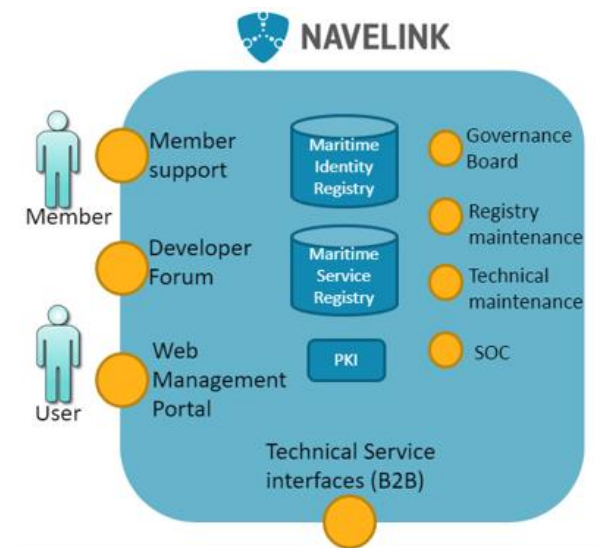
3) Service development discussions & information

- Forum service developers
  - Common discussions

- Forum Security and interoperability
  - Common discussions

- Ongoing work within the STM-community
  - Common standardization work: S-124, S-421, SECOM, General STM news

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4) Overview on Navelink usage

2023-05-24

Number of registered Service Instances

- Number of released services: OPS 91, TEST 129, DEV 15
- Number of provisional services: OPS 80, TEST 37, DEV 28

Legend: OPS, TEST, DEV

Service Types in Navelink in OPS

- Port: 2
- Inter-Port Synchronization: 2
- Hub: 1
- Route Catalogue: 1
- Evaluation Service: 7
- Port Call Synchronization: 18
- Pilot: 54
- Ship Voyage Information: 74
- VTS: 3
- Enhanced Monitoring: 6
- Navigational Warnings: 2
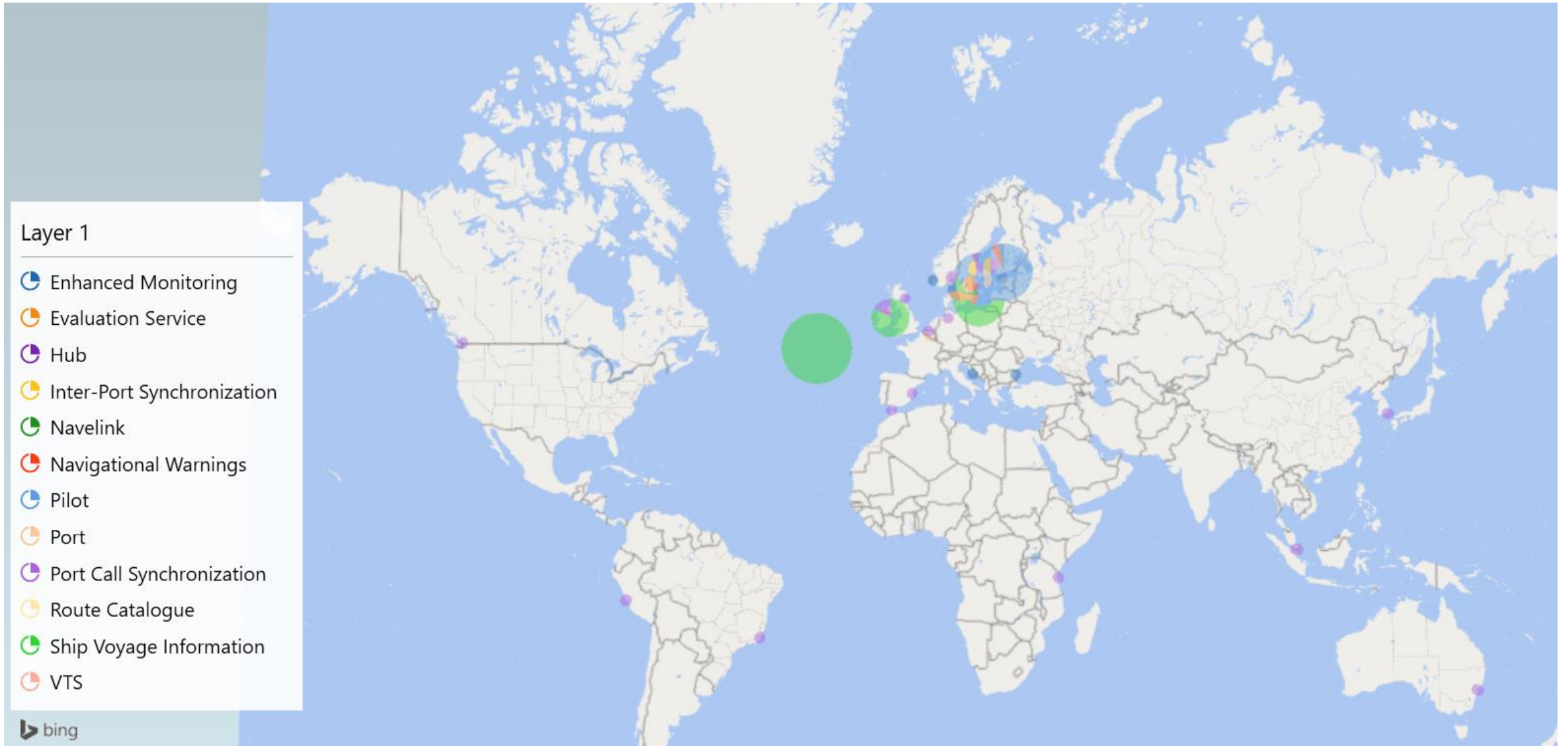
Events since last Dev Forum:

Minor updates

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: 171

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Operational environment

Layer 1

- ◒ Enhanced Monitoring
- ◒ Evaluation Service
- ◒ Hub
- ◒ Inter-Port Synchronization
- ◒ Navelink
- ◒ Navigational Warnings
- ◒ Pilot
- ◒ Port
- ◒ Port Call Synchronization
- ◒ Route Catalogue
- ◒ Ship Voyage Information
- ◒ VTS

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5) Q&A

- Any Questions? The floor is open.

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6) Follow-up on G1128 change och schema

- Return in JSON from GET and SEARCH Service Instance

Get Instance returns

📄
GetInstance_G1128.txt

📄
SearchInstance_G1128.txt

7) Navelink HOW-TOs - Error handling based on HTTP Response Code

- HTTP Code and X-Params

- Where do I find the documentation? Swagger Editor   FAQ – Navelink

- What is according to de-facto RFC and what is specific for MCP/Navelink?

- Examples of HTTP Code response, X-Params and message given

MIR
- HTTP 200 OK
- HTTP 201
- HTTP 400 Bad Request
- HTTP 403
- HTTP 404
- HTTP 500

MSR
- HTTP 200 OK
- HTTP 201
- HTTP 400 Bad Request
- HTTP 401
- HTTP 403
- HTTP 404 Not Found
- HTTP 500 Internal Server Error

Service Instances

According to Service Technical Design

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MIR Error messages

HTTP/1.1 403
{"timestamp":1687415688221,"status":403,"error":"Forbidden","path":"/x509/api/org/urn:mrn:mcp:org:navelink-test:adveto/service/urn:mrn:mcp:service:navelink-test:adveto:instance:vis:imo9129263/1.0.0/certificate/44250497650308461037071622950389322358270763591"}

HTTP/1.1 404
{"timestamp":1687415888017,"status":404,"error":"Not Found","message":"The organization could not be found.","path":"/x509/api/org/urn:mrn:mcp:org:navelink-test:navelink/service/urn:mrn:mcp:service:navelink-test:navelink:instance:vis:verificationservice/1.0/certificate/6383001616560343051352951193913544531668754943666"}

HTTP/1.1 400 Bad Request
```
<html>
<head><title>400 The SSL certificate error</title></head>
<body>
<center><h1>400 Bad Request</h1></center>
<center>The SSL certificate error</center>
<hr><center>nginx</center>
</body>
</html>
```

DEV certificates against TEST

HTTP/1.1 100 Continue

HTTP/1.1 409
{"timestamp":1687422358787,"status":409,"error":"Conflict","message":"The entity could not be stored in the database.","path":"/x509/api/org/urn:mrn:mcp:org:navelink-test:navelink/service"}

Entity already exists

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MSR Error messages

Example cases

- Search with incorrect parameter
    - Size=3000
    gives HTTP/1.1 400 Bad Request {"size":["Value for RecordsPerPage must be between 0 and 2000."]}

- Search with unknown parameter
_search/serviceInstance?query=mikael%3AVerification gives HTTP/1.1 200 OK []   OBS! No error

- Search with missing parameter
gives HTTP/1.1 400 Bad Request {"geometry":["The geometry field is required."]}

- Search resulting in zero hits
gives HTTP/1.1 200 OK []

- Get where the specified item is not found
gives HTTP/1.1 404 Not Found ""

- Unauthorized Registration of service
gives HTTP/1.1 100 Continue + HTTP/1.1 401 Unauthorized ""

- Registration of existing service
gives HTTP/1.1 100 Continue + HTTP/1.1 500 Internal Server Error "Duplicate entry 'urn:mrn:mcp:service:navelink-test:navelink:instance:test:auto...' for key 'instance_id'"

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X-Params

X-Total-Count: 30

X-mcsrApp-alert: mcsrApp.serviceInstance.updated

X-mcsrApp-params: 4573 `ID of the service`

HTTP/1.1 200 OK
Server: nginx
Date: Thu, 22 Jun 2023 07:37:41 GMT
Content-Type: application/json; charset=utf-8
Transfer-Encoding: chunked
Connection: keep-alive
Access-Control-Allow-Origin: *
Referrer-Policy: no-referrer
X-Content-Type-Options: nosniff
X-Frame-Options: Deny
X-XSS-Protection: 1; mode=block
Content-Security-Policy: default-src 'self';script-src 'self';style-src 'self'
https://fonts.googleapis.com;font-src 'self';block-all-mixed-content
X-Total-Count: 30
Link:
</api/_search/serviceInstance?page=0&size=200>;rel="last",</api/_search/s
erviceInstance?page=0&size=200>;rel="first"
Strict-Transport-Security: max-age=31536000

HTTP/1.1 200 OK
Server: nginx
Date: Thu, 22 Jun 2023 08:13:18 GMT
Content-Length: 0
Connection: keep-alive
Access-Control-Allow-Origin: *
Referrer-Policy: no-referrer
X-Content-Type-Options: nosniff
X-Frame-Options: Deny
X-XSS-Protection: 1; mode=block
Content-Security-Policy: default-src 'self';script-src 'self';style-src 'self'
https://fonts.googleapis.com;font-src 'self';block-all-mixed-content
X-mcsrApp-alert: mcsrApp.serviceInstance.updated
X-mcsrApp-params: 4573
Strict-Transport-Security: max-age=31536000

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9) Discussion: Navelink + REST + MMS + VDES
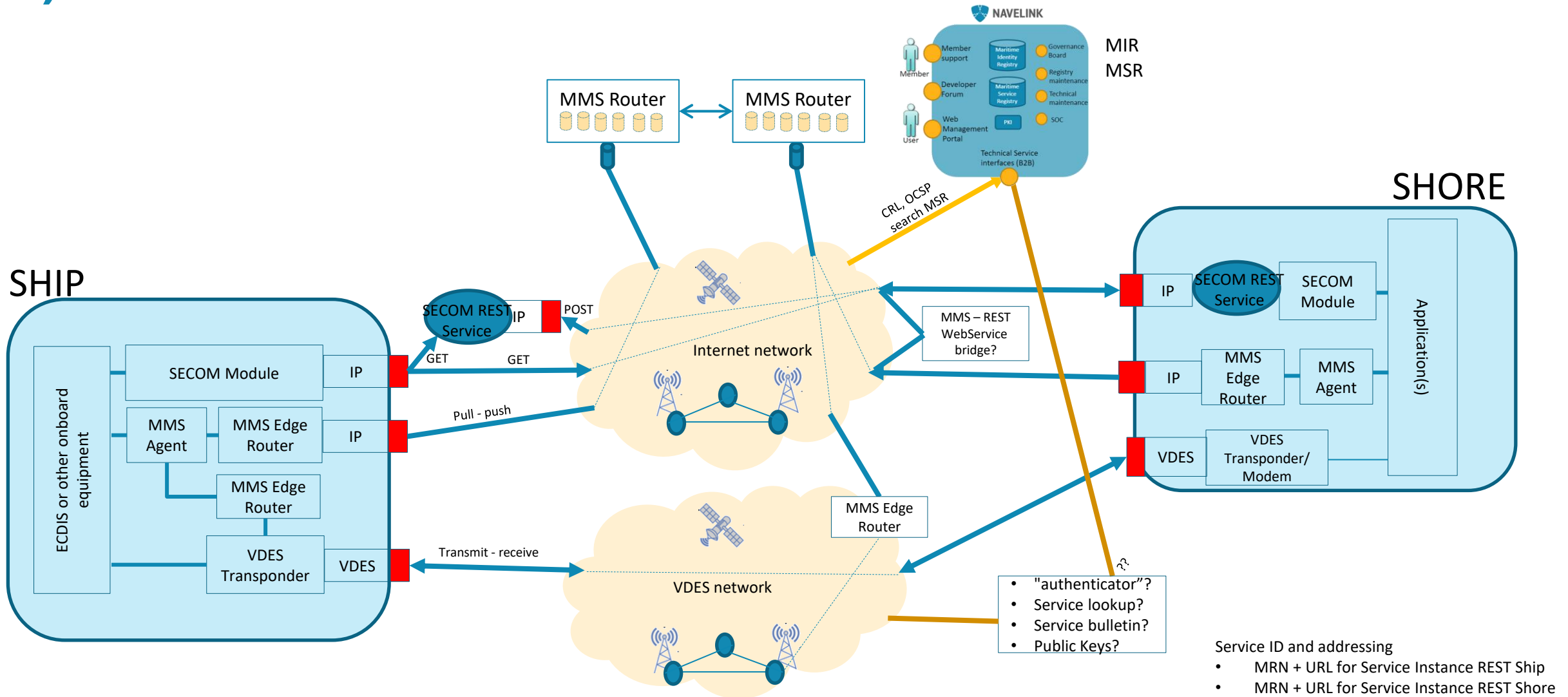
10) Closing remarks

- MIR version 1.2.1 will be implemented on PROD at 10:00 Monday 26th of June

- Pause for Summer Vacation
  - July & August

- Next Developer Forum at 28/09-2023

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Meeting notes

- GetPublicKey function is soon to be published in the TEST environment. It will be a function to get public key from other organisations services.

- Continuous work on navigational warning service specification S-124 in the Digital Incubator forum with discussions on use cases being the subject of the latest meeting.

- SECOM and MMS technical differs and the SECOM standard is being pushed forward.

- S-125 prototype service is implemented by GLA and can act as an example for other services.

- Netherlands Saab has a new logo and name Tidalis.

- G1128 you can register a service using version "early" 1.0 (which uses XML field URL) and version 1.3 (which uses XML field endpoint). The JSON response however will use 'endpointUri' regardless of version on G1128. Therefore, please look at the JSON from MSR as that will be stable.

- A presentation on Error messages that you can get and what they mean was held by Mikael (see slides 11-14)

- The SECOM-MMS bridge is discussed both onboard ship but also in the network. Final decision has not yet been reached yet regarding the design, how the bridge should work etc.
  - We need to be careful to make the integration easier for the users.

- Please send us feedback on the HOW-TO and which functions you would like us to go through!
  PowerPoint Presentation (navelink.org)

- MIR version 1.2.1 will be implemented on PROD at 10:00 Monday 26th of June

- Next meeting 2023-09-28

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