

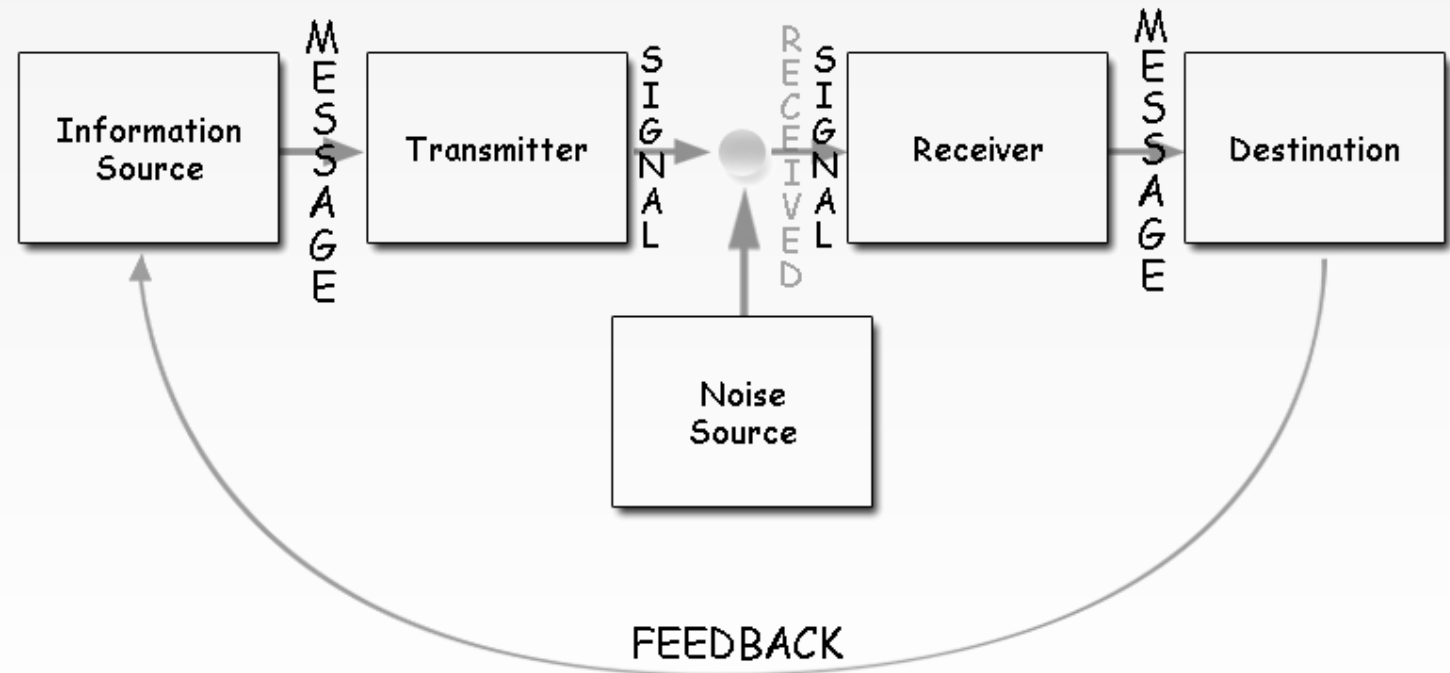
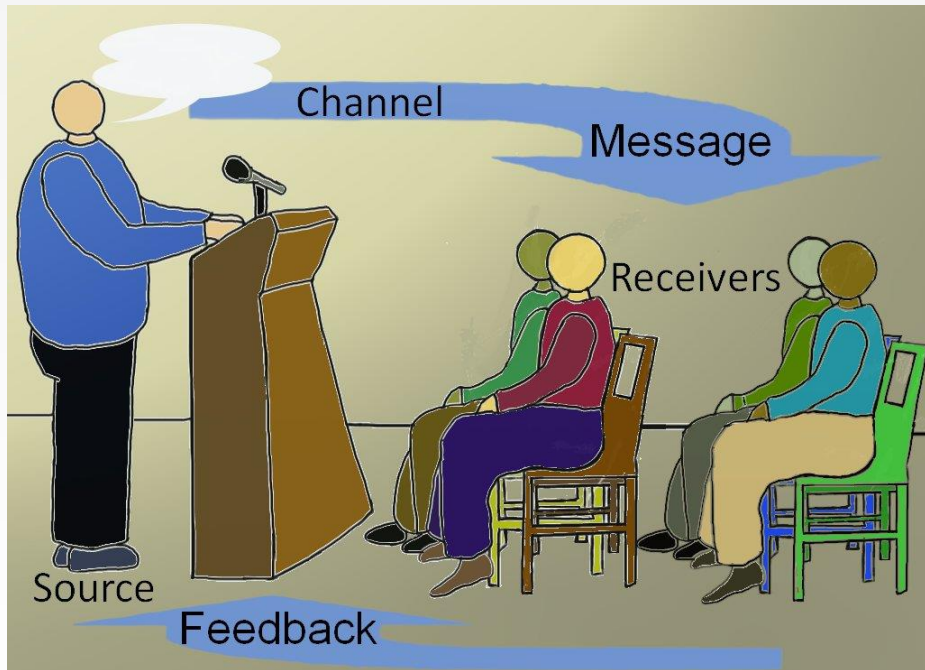


Maritime Messaging Service (MMS)

: The Value Transporter of the Maritime Connectivity Platform

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“Shannon and Weaver Model of Communication”



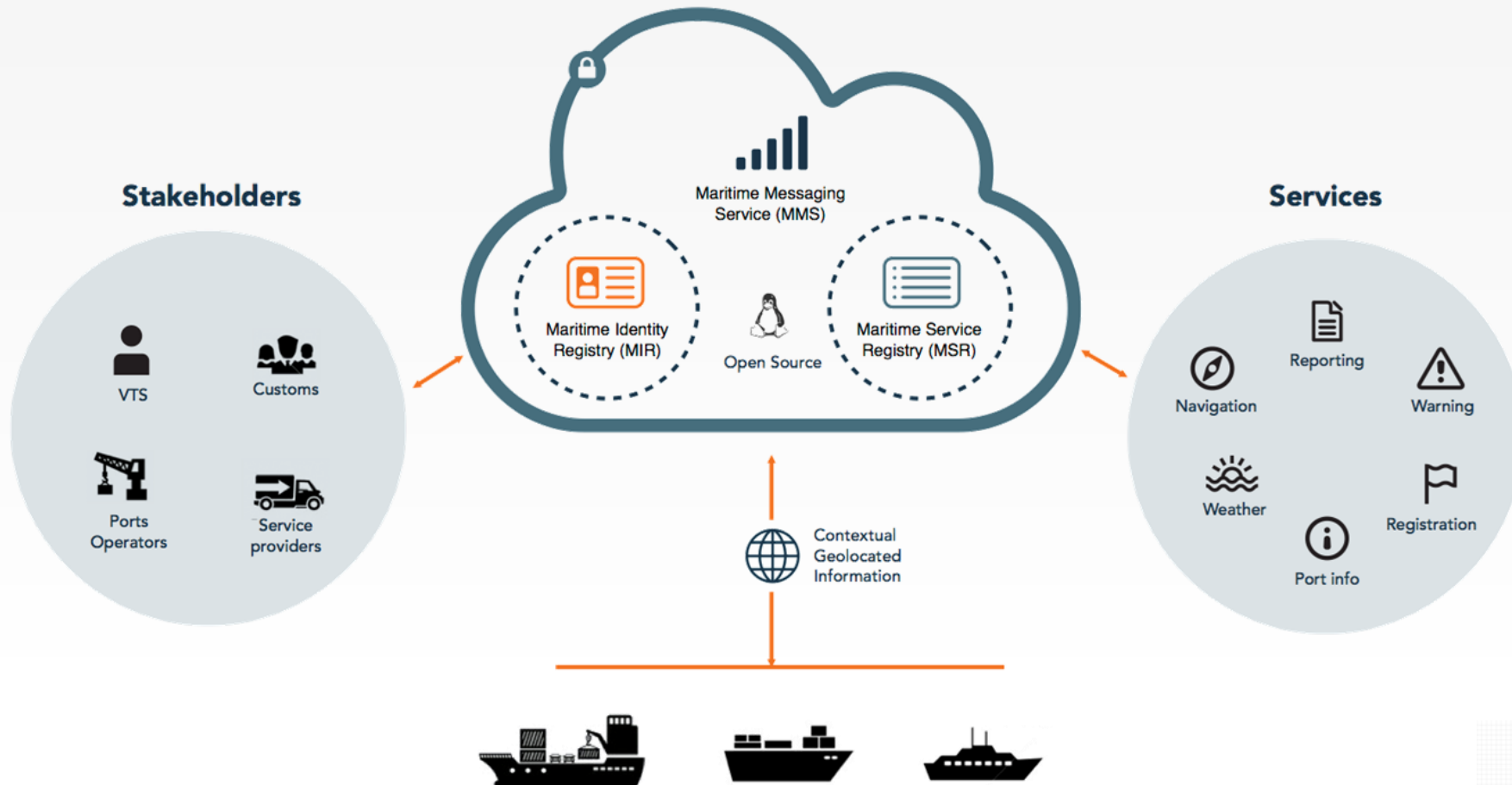
”MCP (formerly known as the Maritime Cloud) is **a communication framework** enabling efficient, secure, reliable and seamless electronic information exchange between all authorized maritime stakeholders across available communication systems”



Communication vs. Connectivity



The Fairway to Maritime Services MARITIME CONNECTIVITY PLATFORM



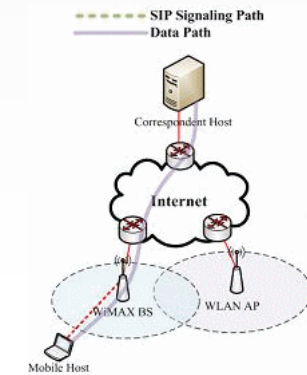


□ Barriers against connectivity at sea (in terms of technology & business)

- Expensive bandwidth
- Many chances of unfruitful service access: polling from server > push to user
- Communication link changes during service subscription
- Use of different communication links between ship and ship/shore
- Reluctance to share ship's location with others: highly sensitive business asset
- Cast-and-forget communication model: broadcast

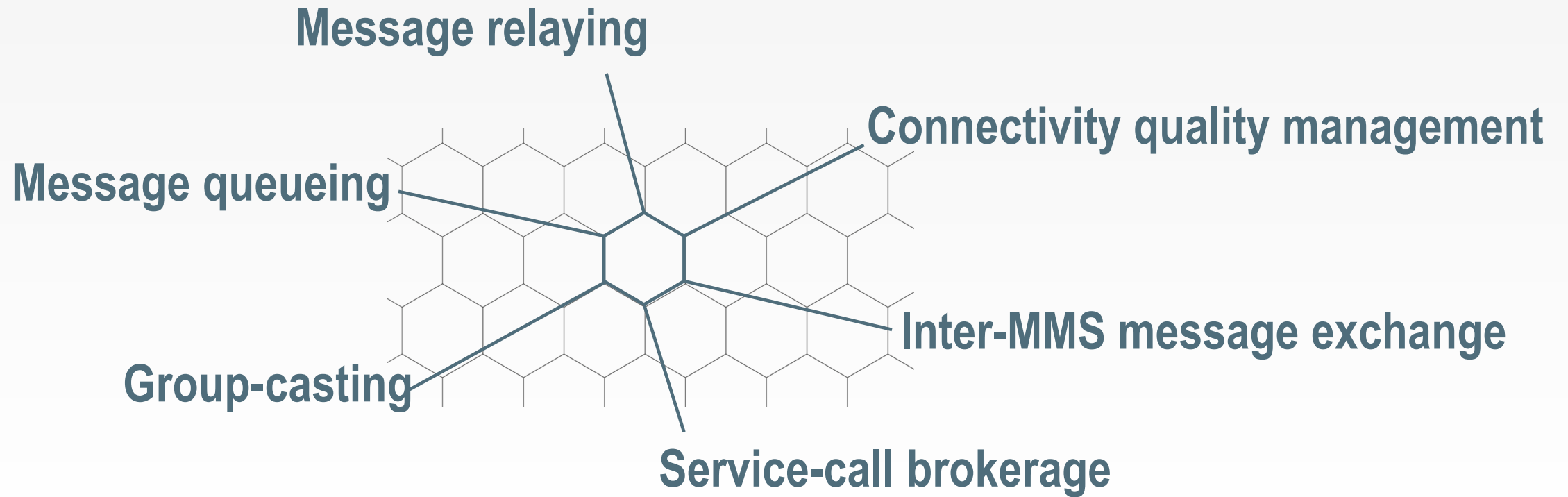


**Say it
forget it
write it
regret it**



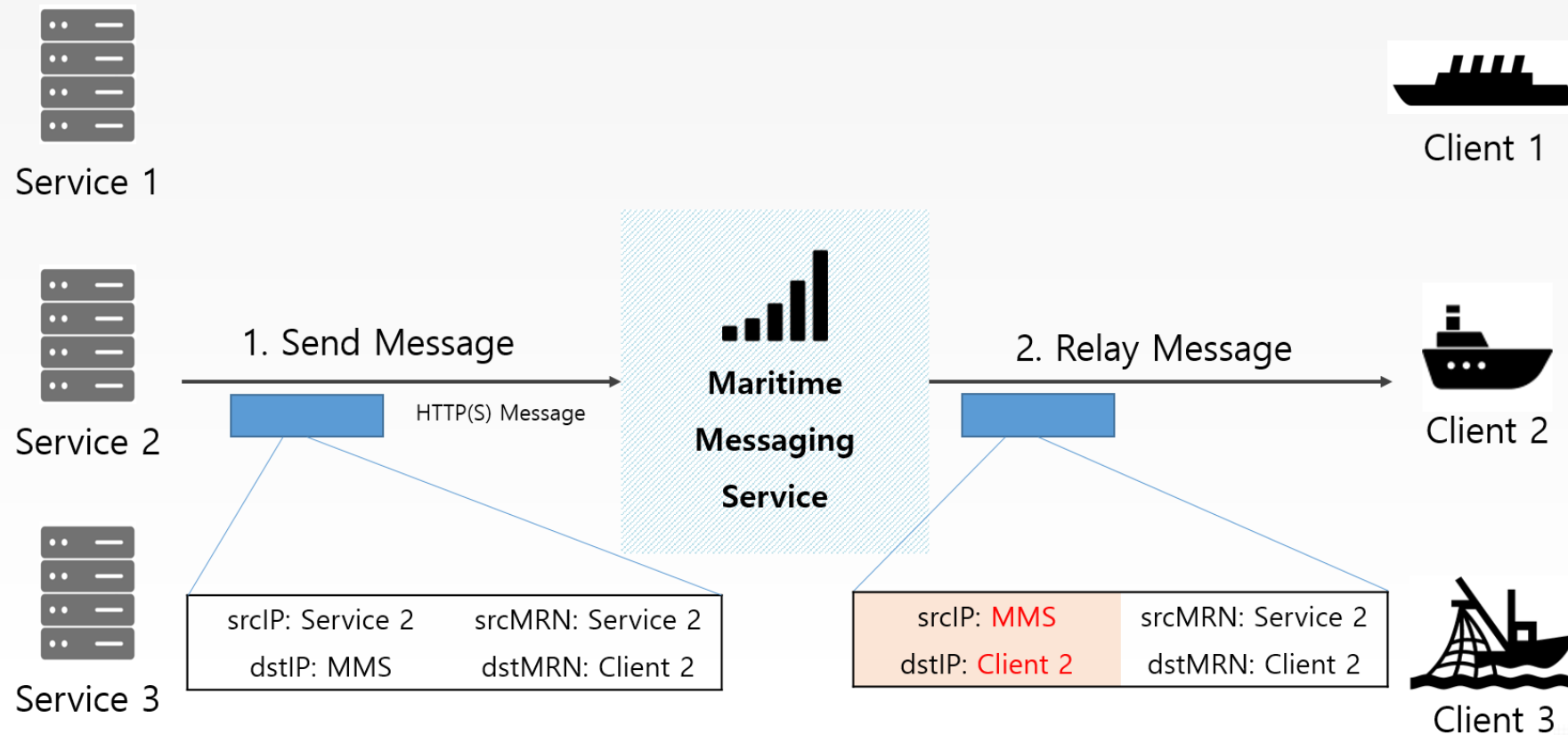


- ☐ **Distributed and federated operation of MMS instances**
- ☐ **Network-agnostic information delivery**
- ☐ **Securing confidentiality of user-generated information**
- ☐ **Easy provision and use of location-based service at sea**
- ☐ **Reflection of communication link usage for connectivity at sea**
- ☐ **System design based on up-to-date market standards**
- ☐ **Incorporation of widely used & proven open source components**
- ☐ **Vigilance in quality-of-service (QoS) management**



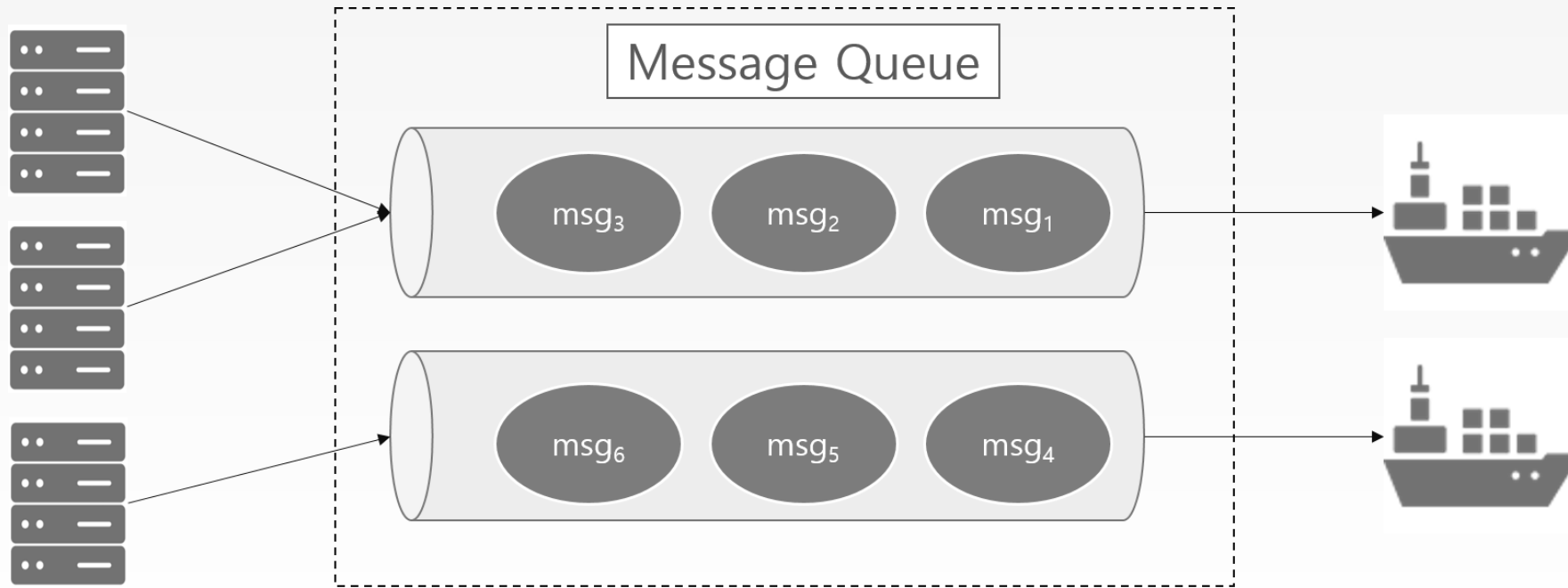


□ Message relaying (between MMS and service provider & consumer)



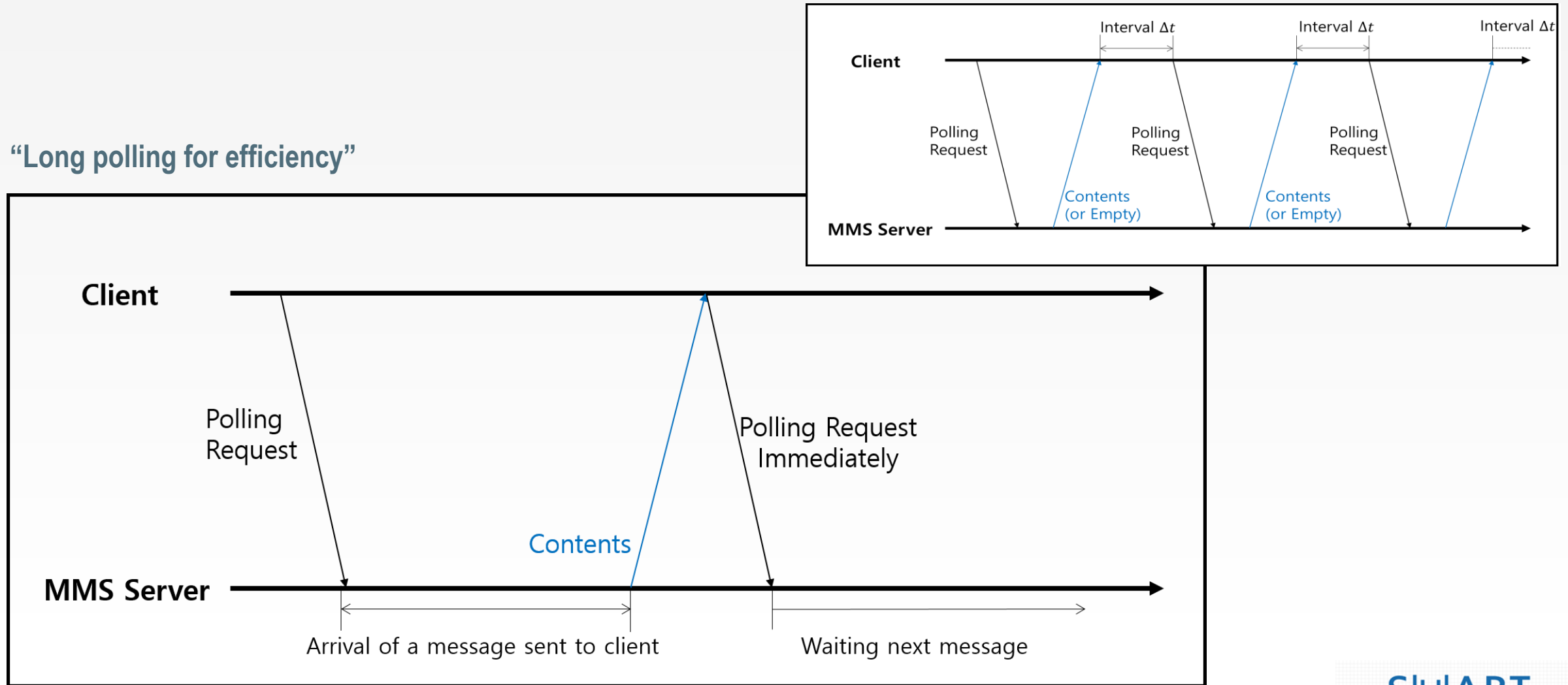


□ Message queueing



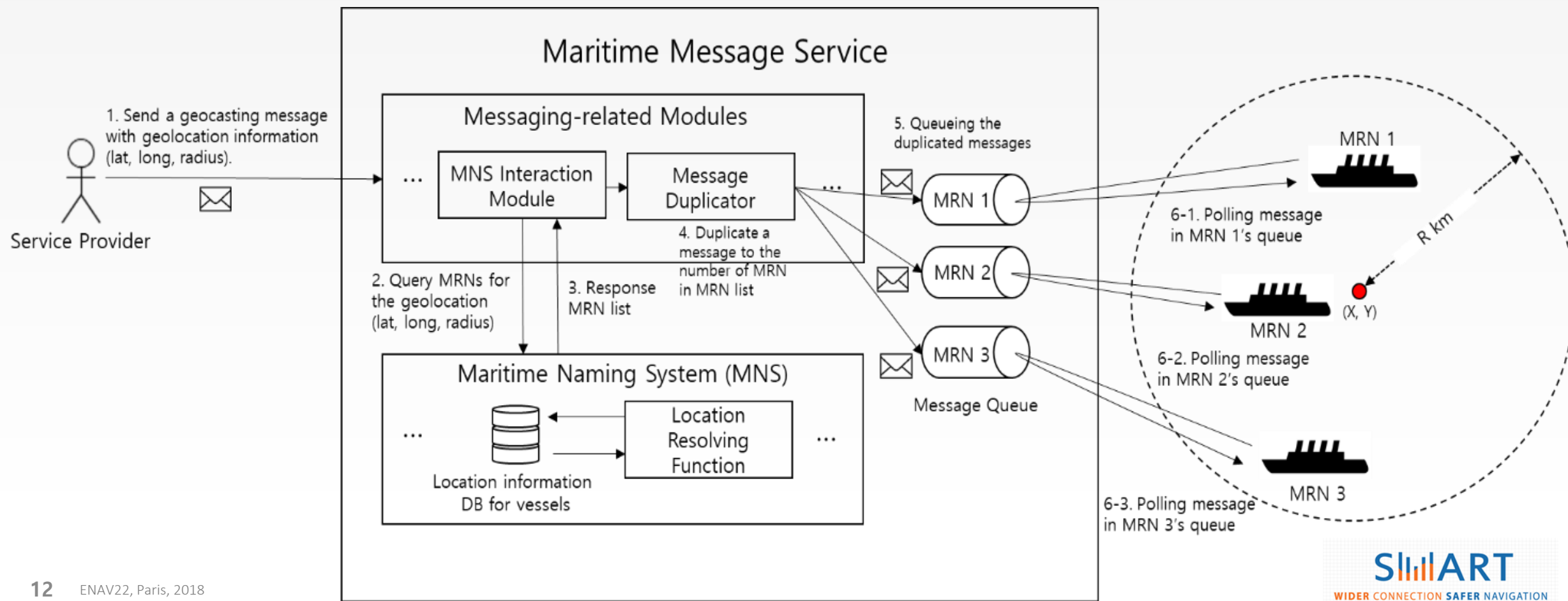


“Long polling for efficiency”



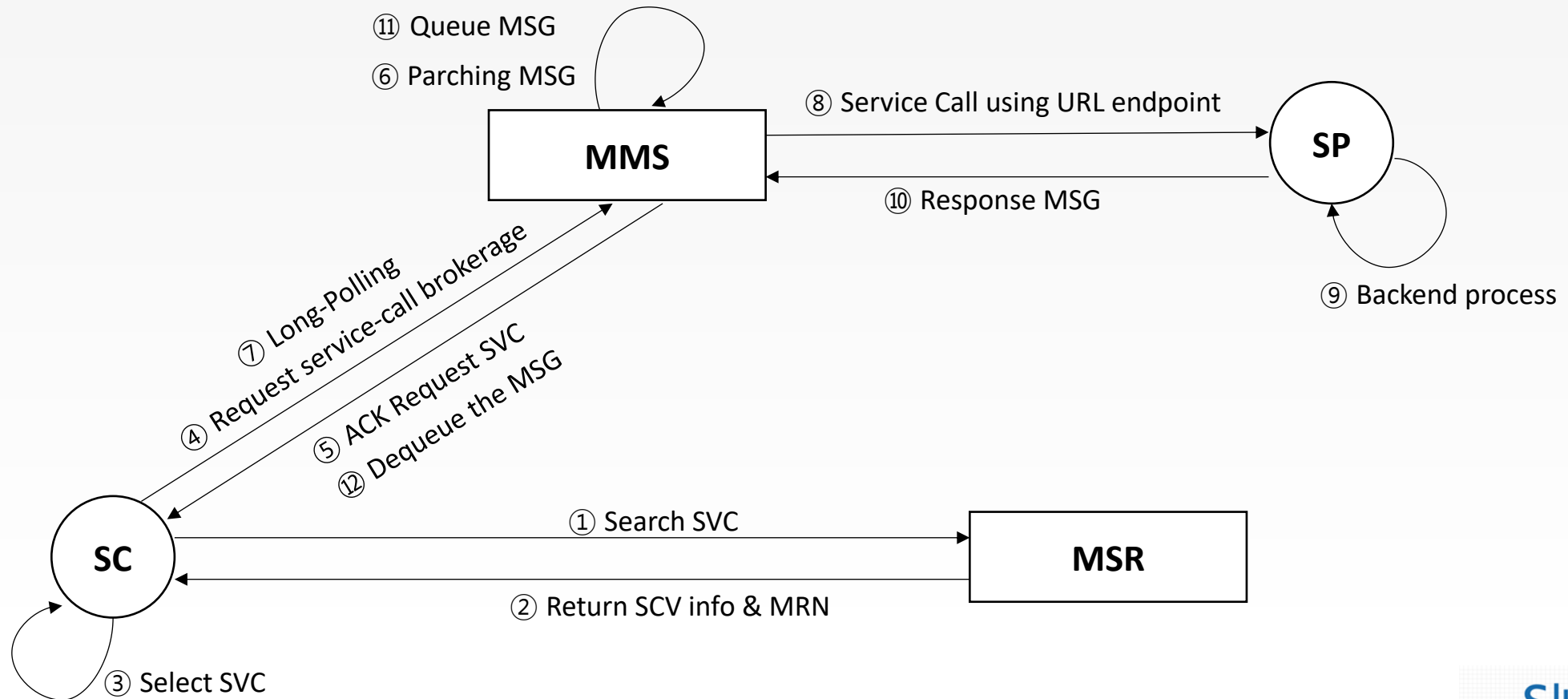


□ Group-casting



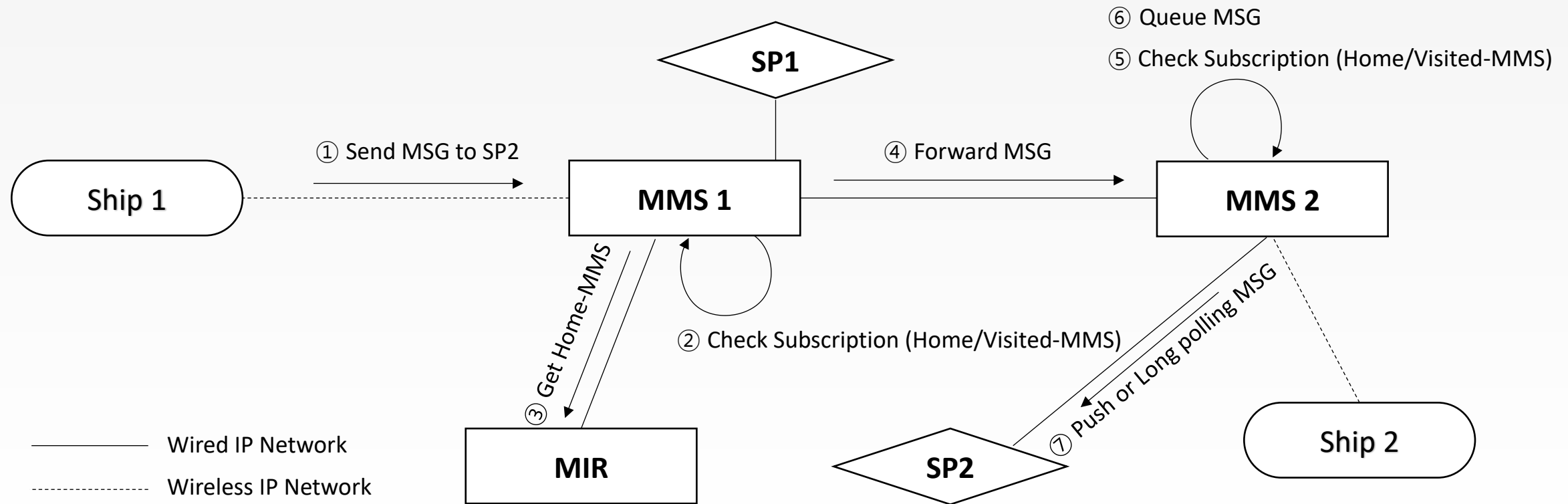


□ Service-call brokerage (API-gateway)



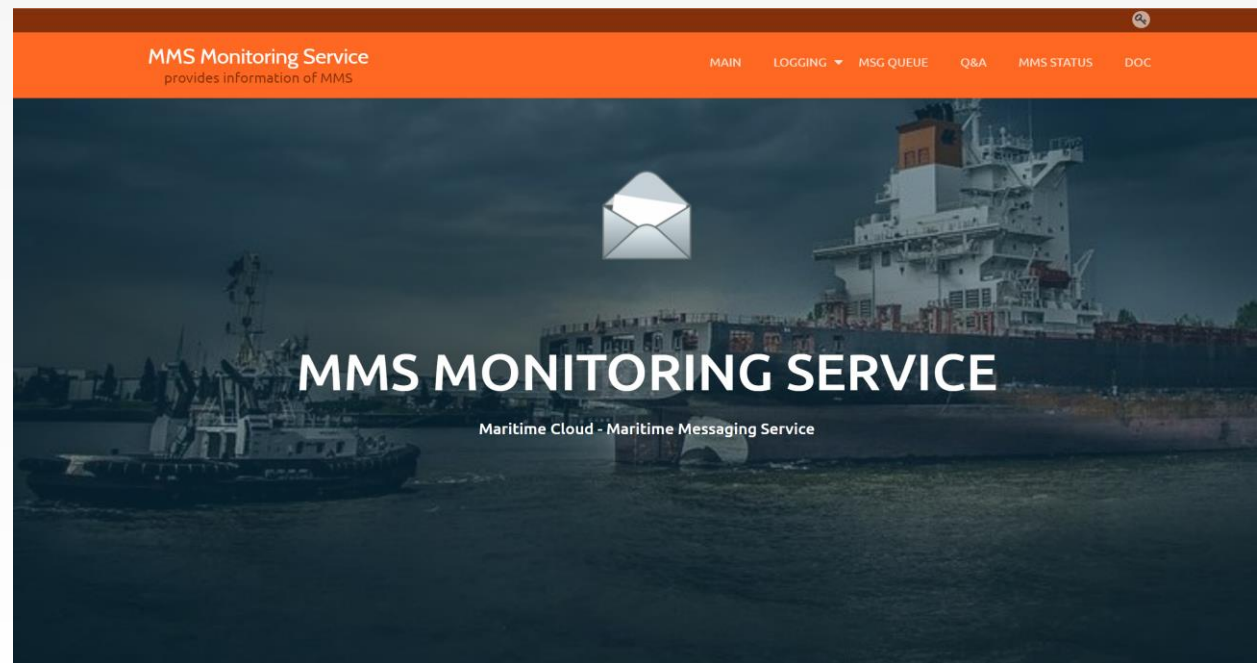


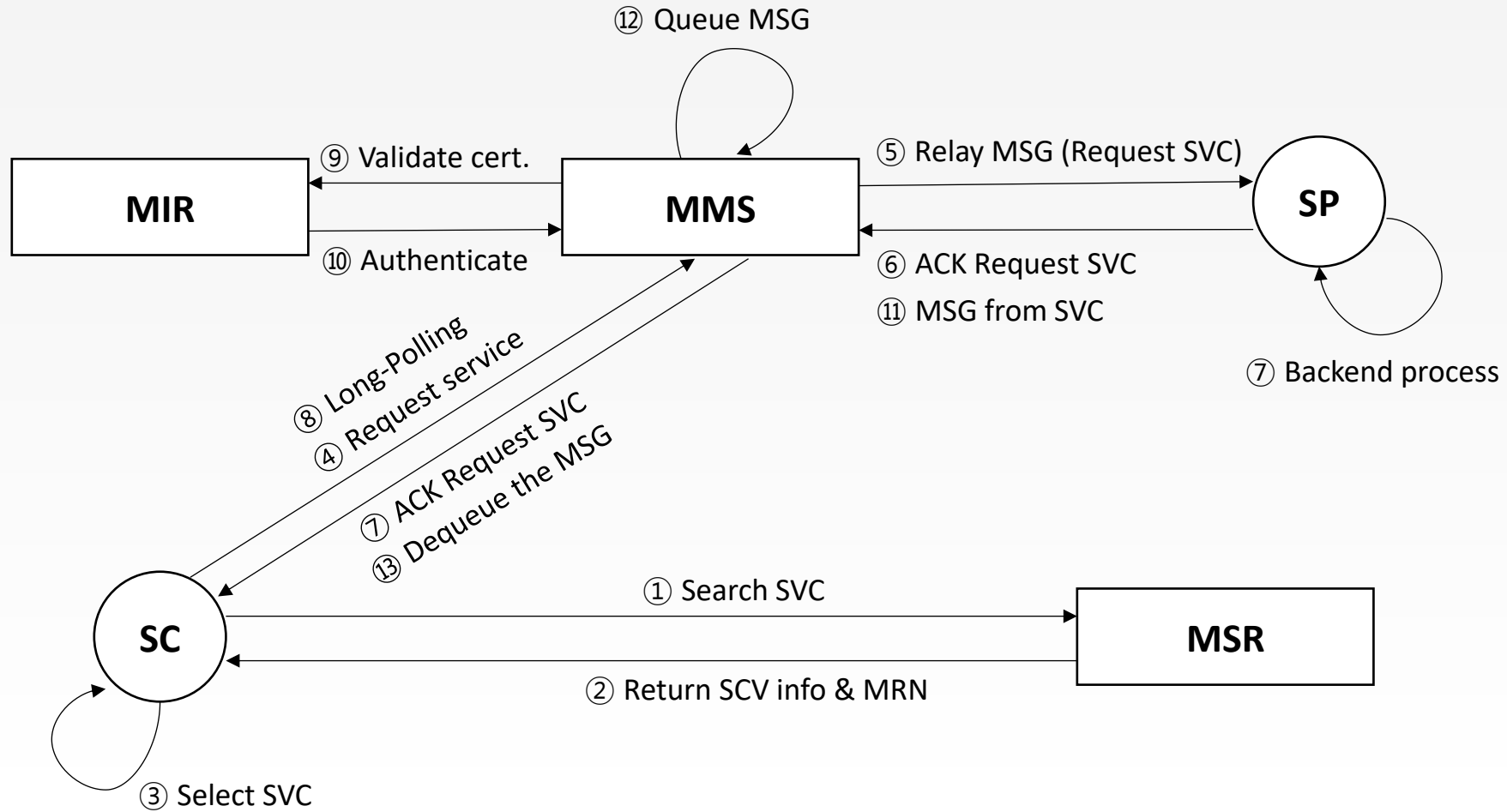
□ Inter-MMS message exchange (for MMS federation)

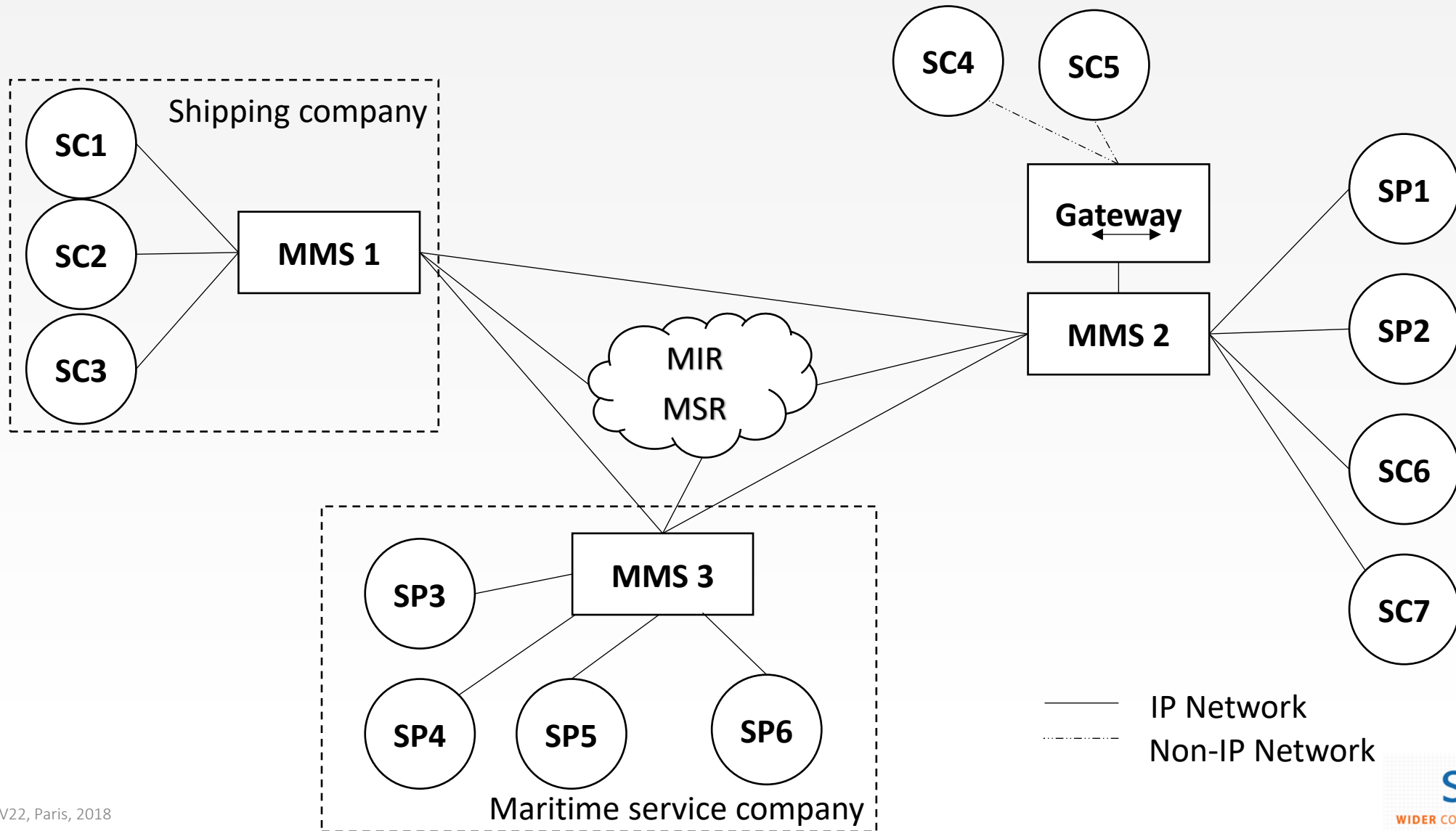


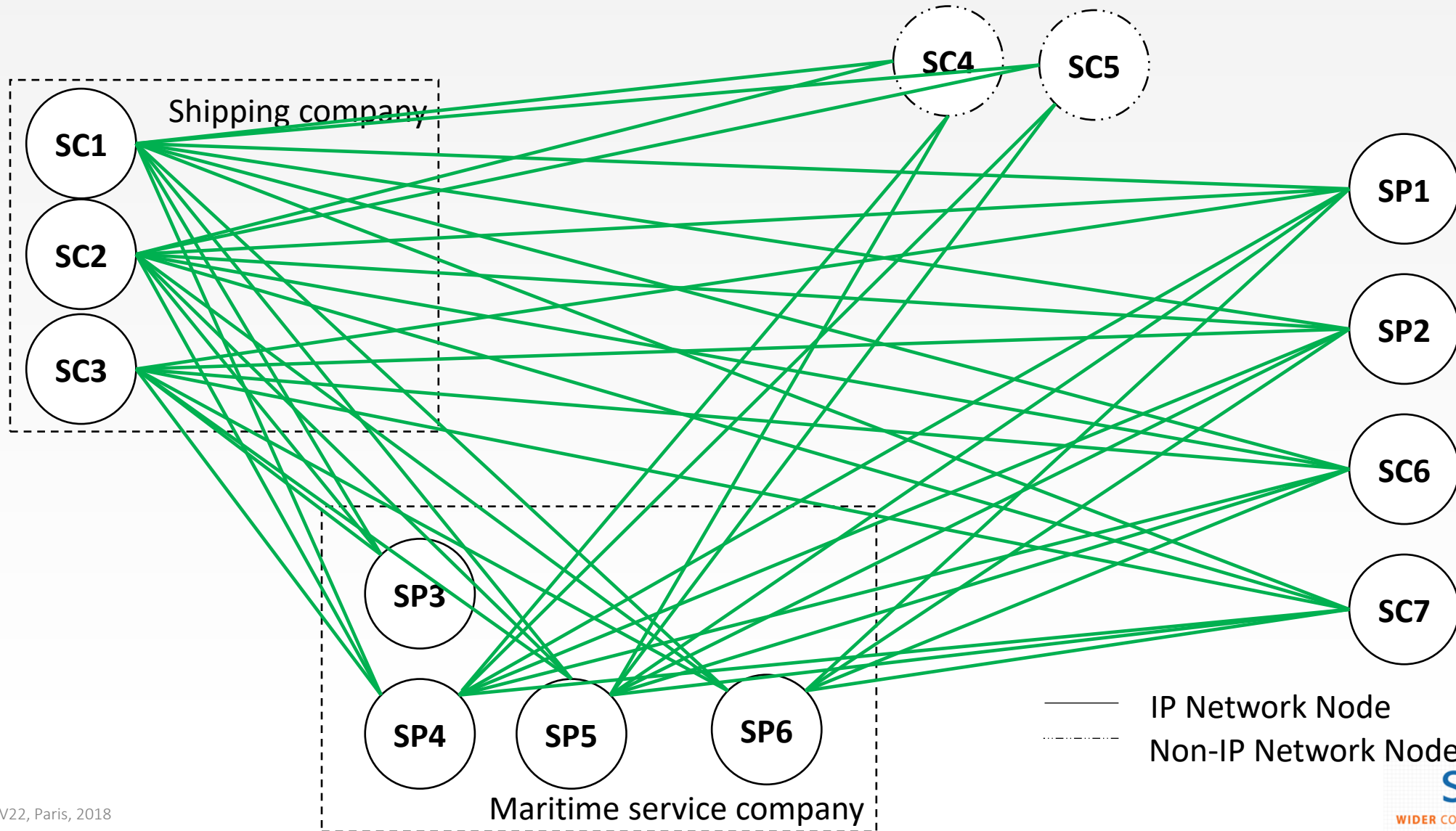


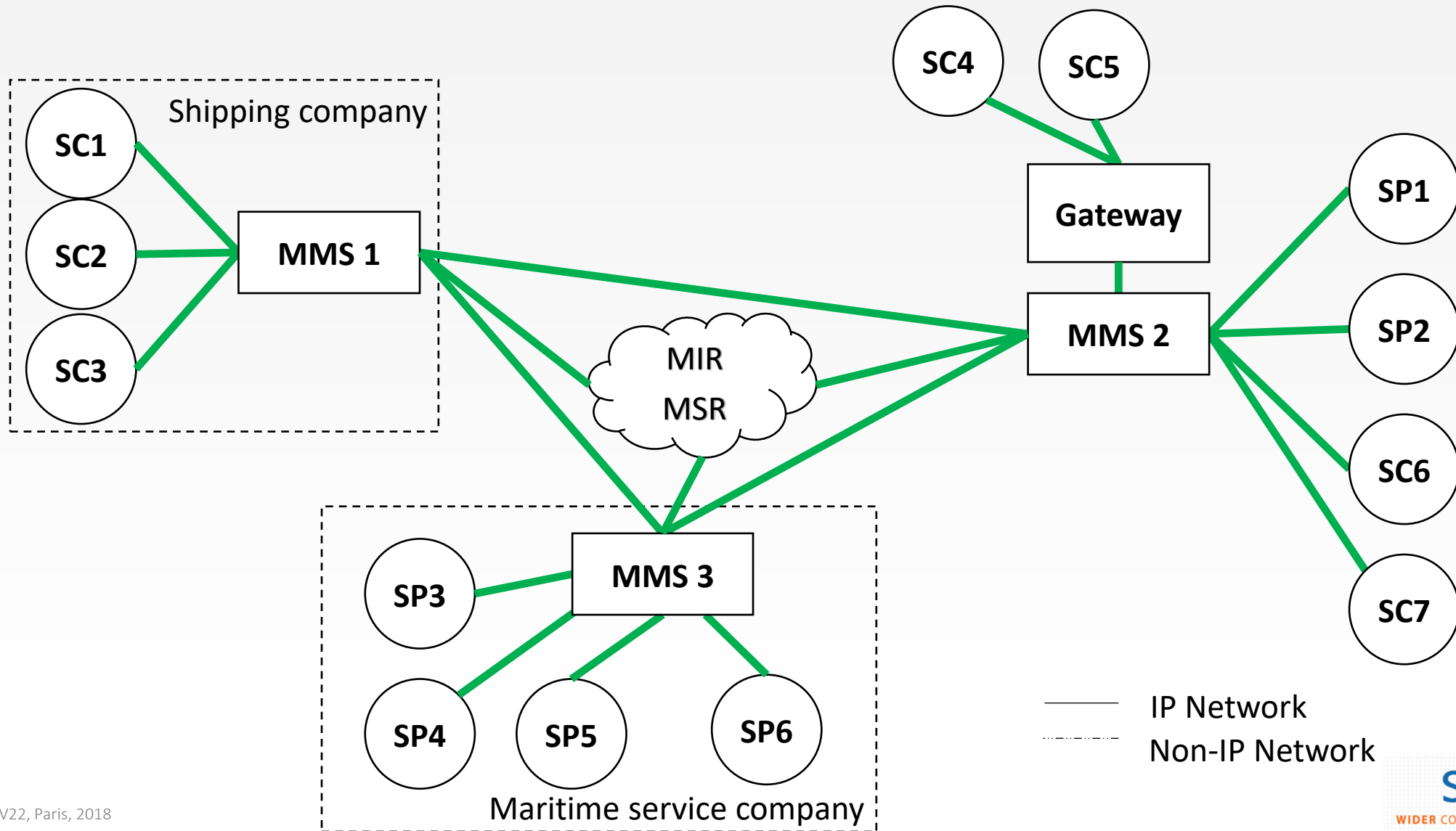
□ Connectivity quality management





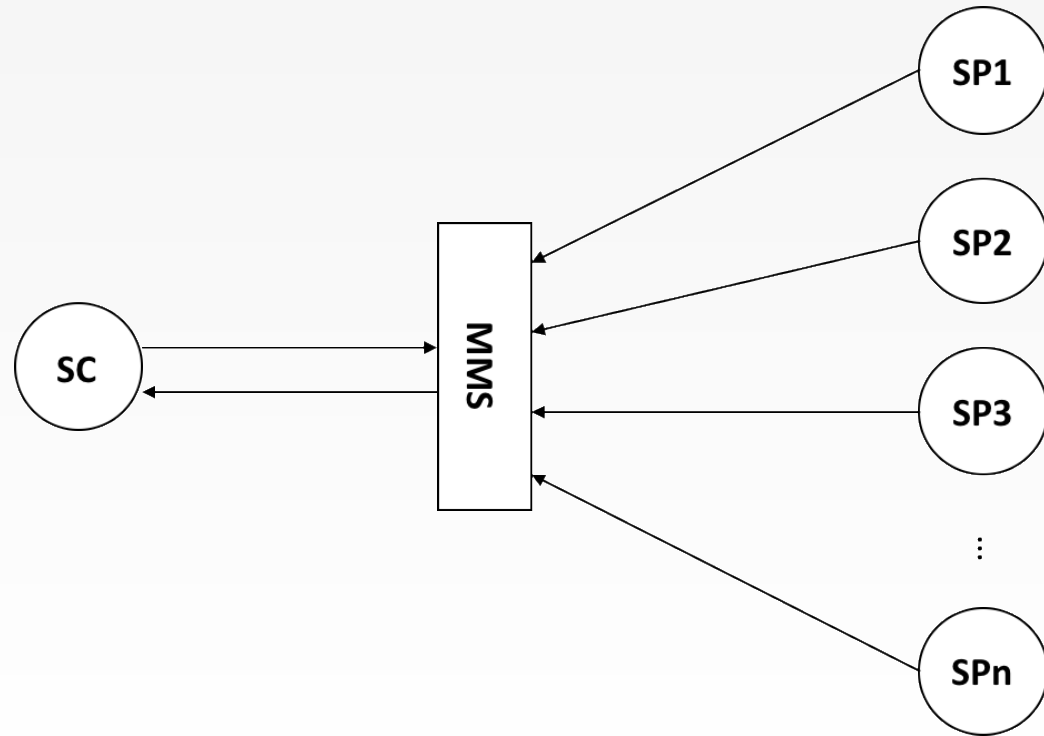




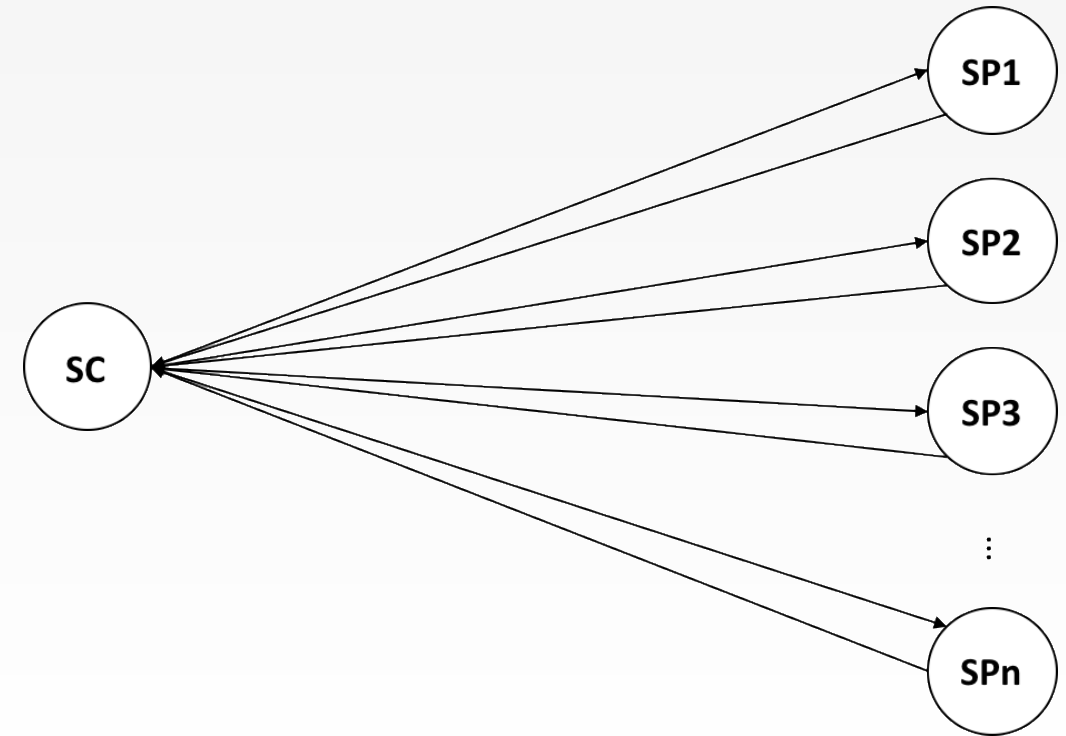




□ E-Navigation service subscription



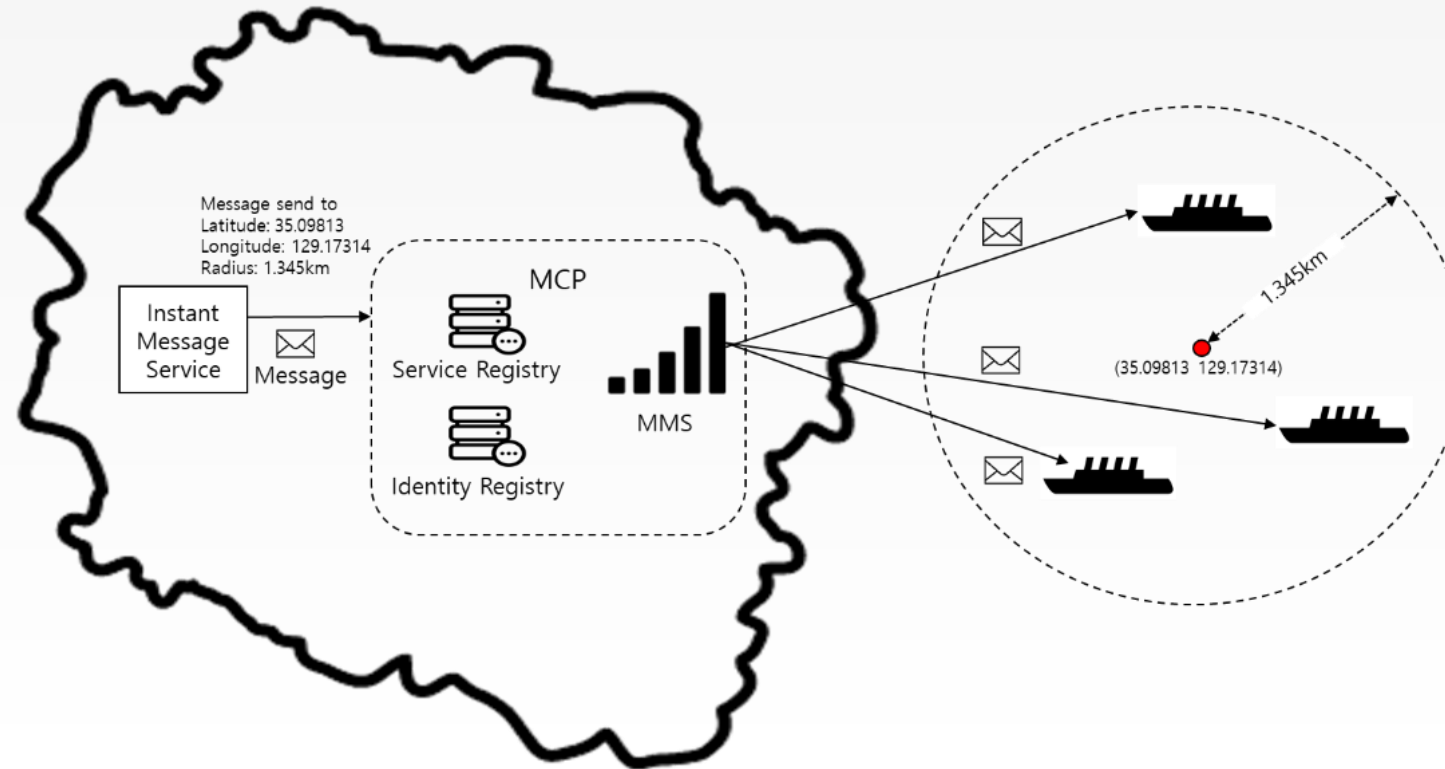
“with MMS”



“without MMS”

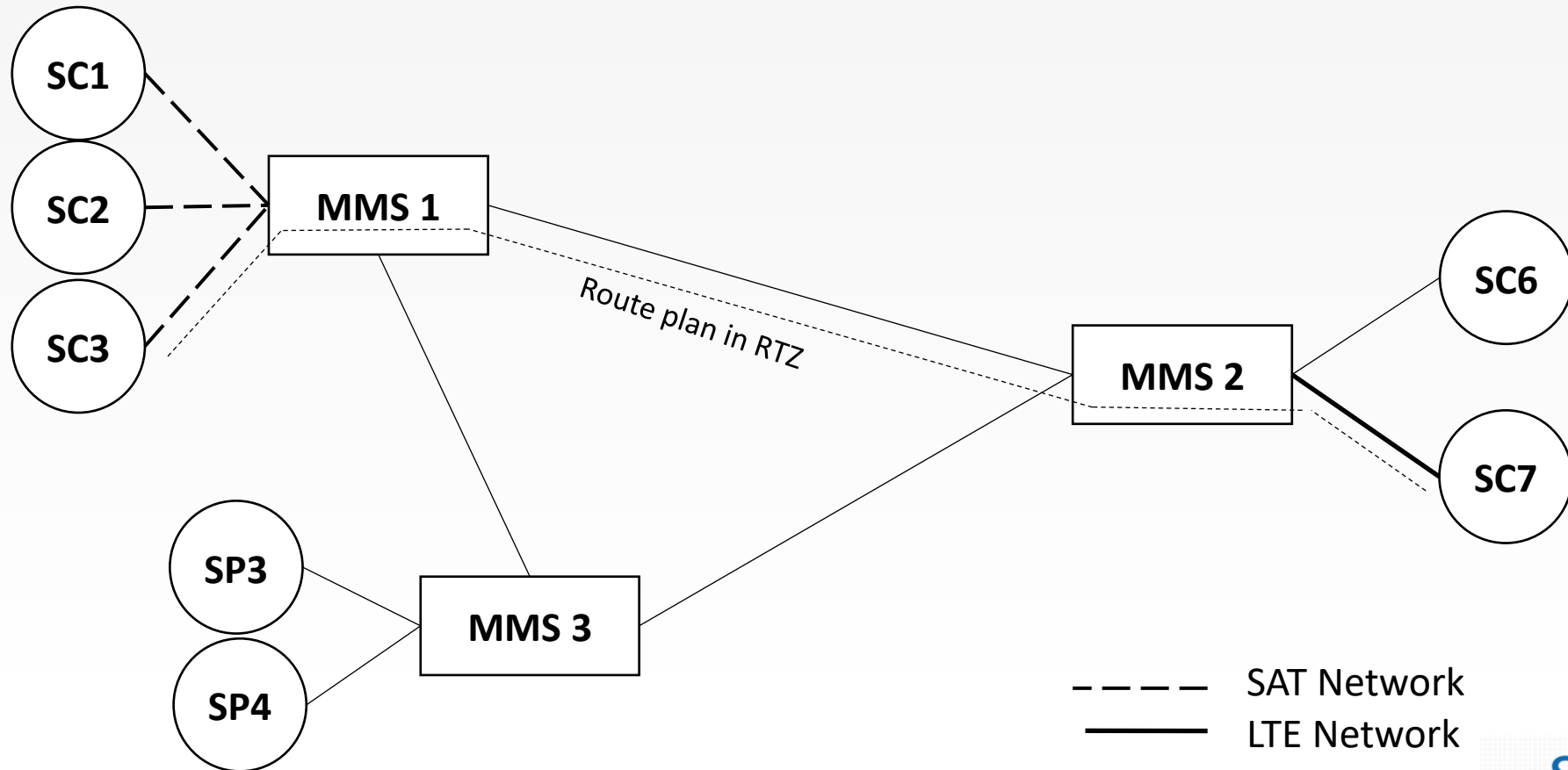


□ Geochrono-casting



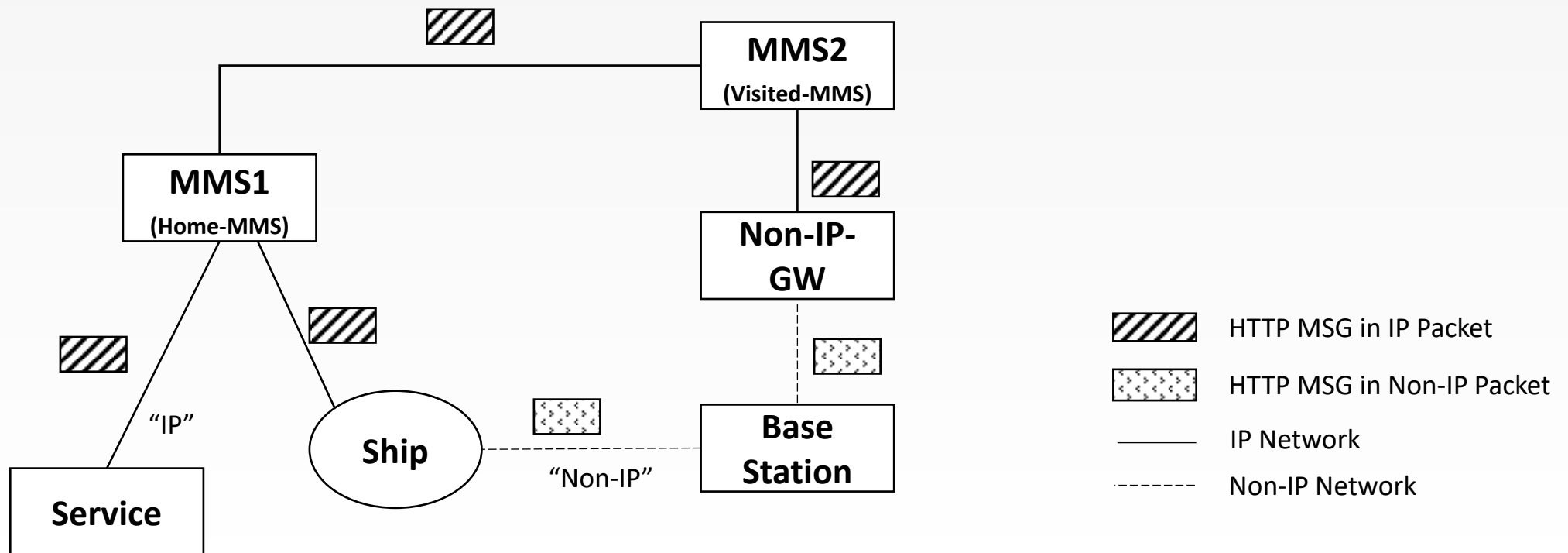


□ Network-agnostic message exchange





□ Multi-modal Seamless roaming (MMSR): vertical handover & buffering





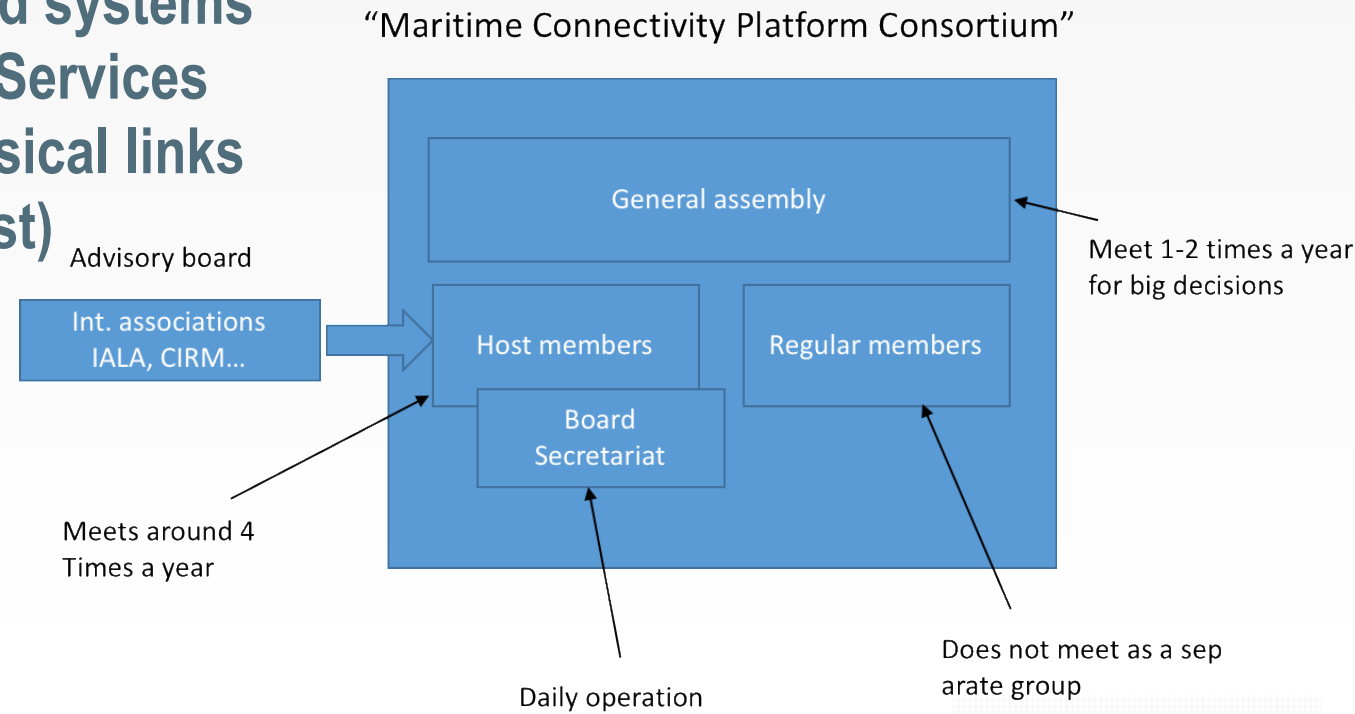
❑ Benefits of MMS: connectivity to all maritime stakeholders

- One-point secured acces to all services
- Inter-operability between services
- Full use of existing services and systems
- Easy implementation of e-Nav. Services
- Inter-connections between physical links
- Less communication load (=cost)

❑ Join the consortium!

❑ Use the MCP!!

❑ MMS is on your hands!!!





Maritime Connectivity Platform **: The Fairway to Maritime Services**

Thank you very much!

감사합니다!

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