

WP9.4

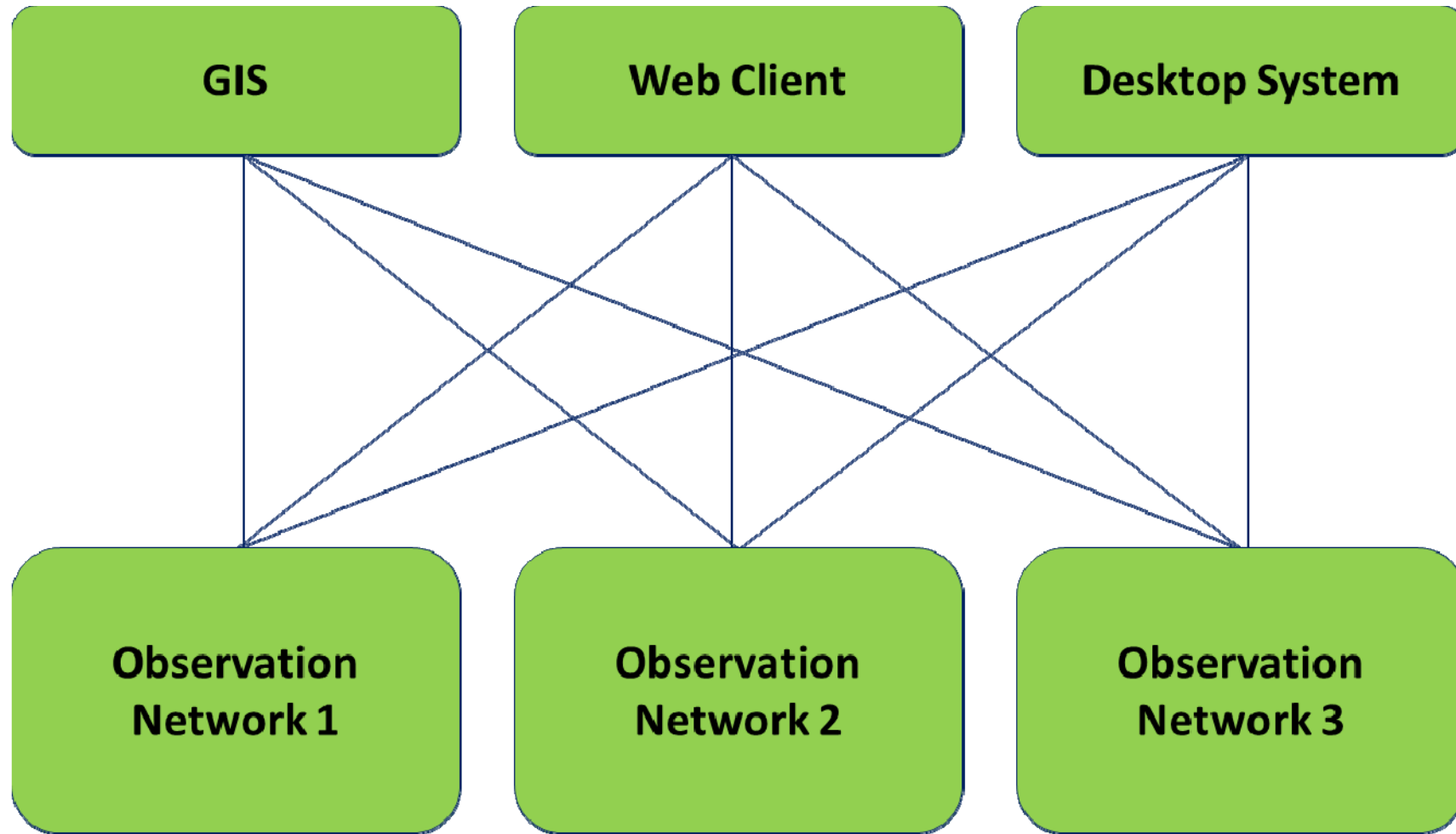
Developing integrated online services for ingesting autonomous observatory data

SeaDataCloud - Kick-Off Meeting - Riga (Latvia), 1st December 2016

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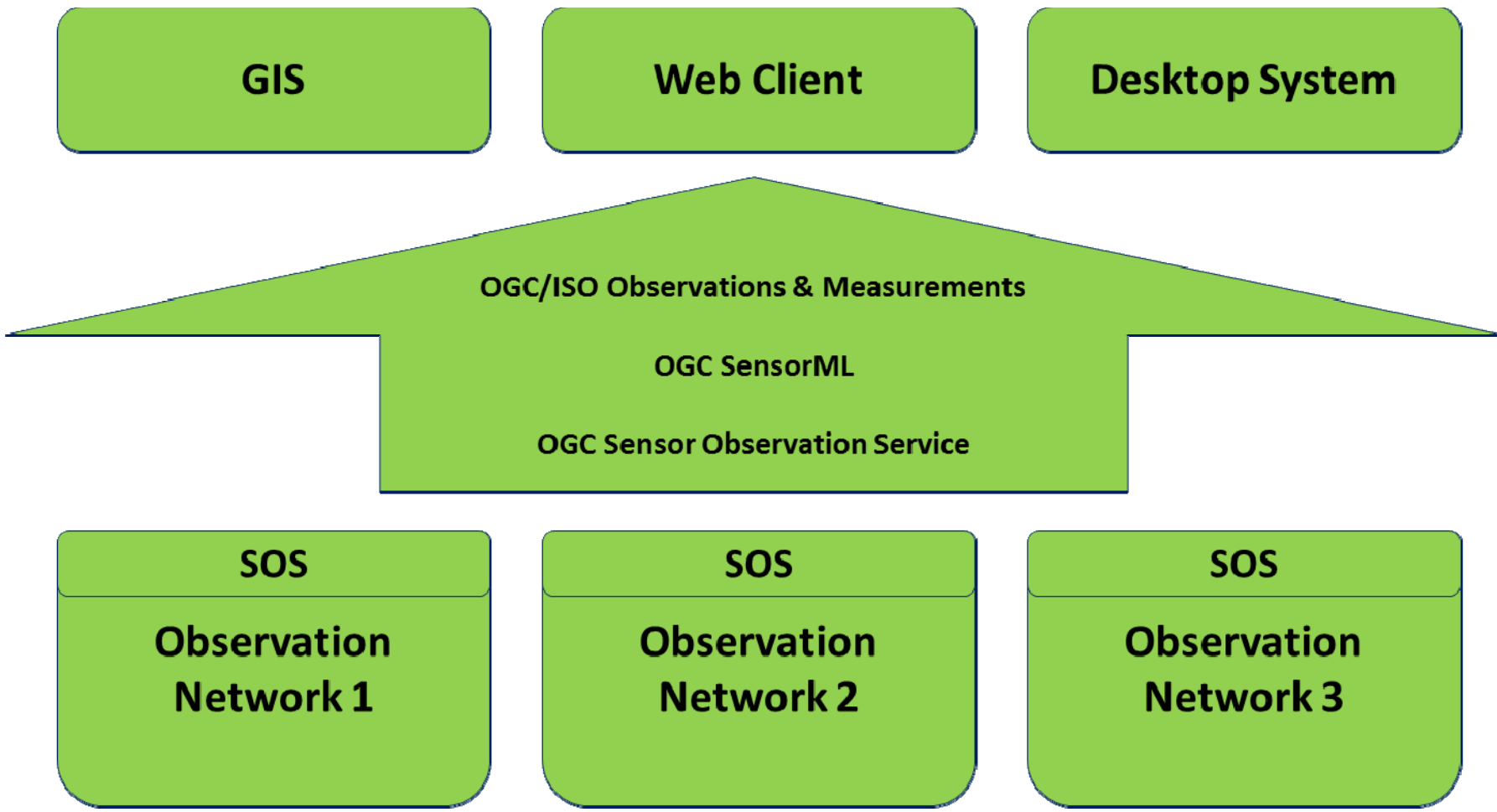
- Autonomous in-situ observatories are now widely used
- Managing data from these observatories is often complex
 - Multiple sensors
 - Different data transmission systems
 - Need for a data centre to receive, to decode and to check the measured data
- SeaDataCloud will provide services to facilitate the daily data management work
- Services will be based on the “Sensor Web Enablement” (SWE) family of standards developed by the OGC

What is Sensor Web?



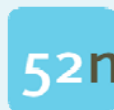
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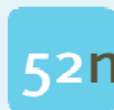
- Web-based graphical interface for describing observatories (platforms and sensors)
 - Based on SensorML 2.0 Profile for Marine Sensors and W3C Semantic Sensor Network ontology
 - Will rely on SeaDataNet vocabulary service
 - User friendly design
 - Link (transmission systems) to the ingestion service
 - Generate the corresponding SensorML metadata which will be recorded in a sensor and system registry
 - Feed into the EDIOS Directory
 - Metadata will also be made accessible through technical services (OGC/SOS, SPARQL).

WP9.4.2



- Facilitate the linking of sensor platforms to the SeaDataCloud infrastructure
- Definition of a transactional Web service interface based on the OGC O&M and SOS standards
- Allows the registration of operational sensor platforms and uploading of observation data
- Core elements
 - The development of a server component able to handle incoming data streams and to add them into a data repository
 - Definition of feedback to data providers as results of the data stream ingestion process (e.g. detected errors or data transfer issues)

Next Steps



- Requirements analysis
- Document capabilities of existing solutions
 - SensorML editors
 - SOS servers
 - Upload tools for SOS servers
- Determine gaps to requirements
- Start with the implementation

Thank you very much for your attention!

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