



A Wireless World, Subsea

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Asking the Question

Why do we do it like that?



Considering Alternatives



Work-based Project:

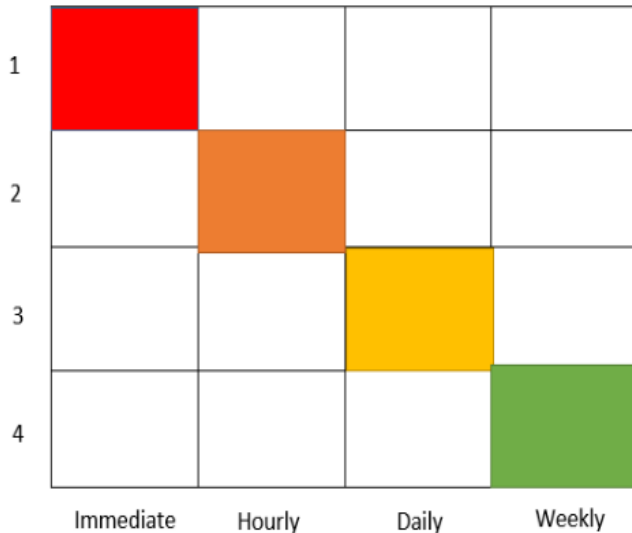
- Evaluation of existing production control system
- Identify criticality of the information
- Current reliability of wireless communication systems

Methods of Communication

- Acoustic
- Optical, Laser or LED
- AUV Data collection
- ELF or VLF (one-way)



Critical Information



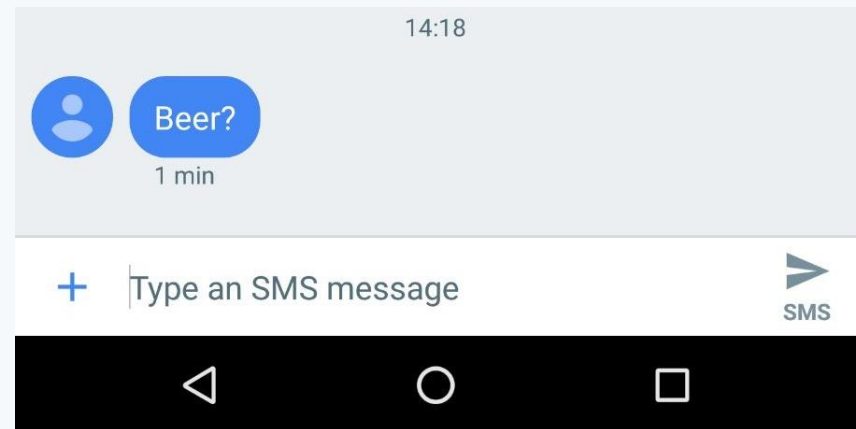
- Set data priority levels
- Realistic in the amount of information required and how often
- Real time or just parameter changes



Localised Processing

- Can we compress the critical information so this bandwidth is feasible?

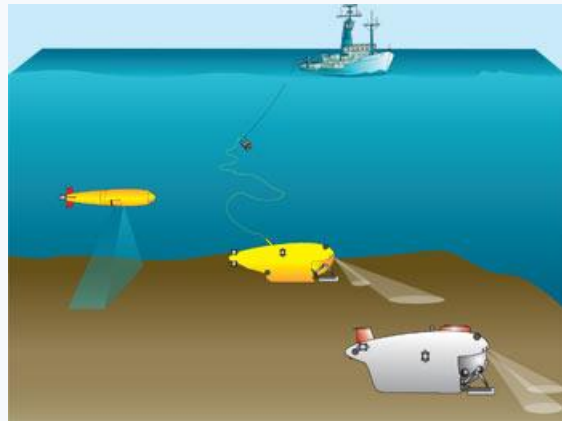
- 300 bps
- 450 words / minute
- 7.5 words per second



- Can we allow the well control system to make its own decisions?

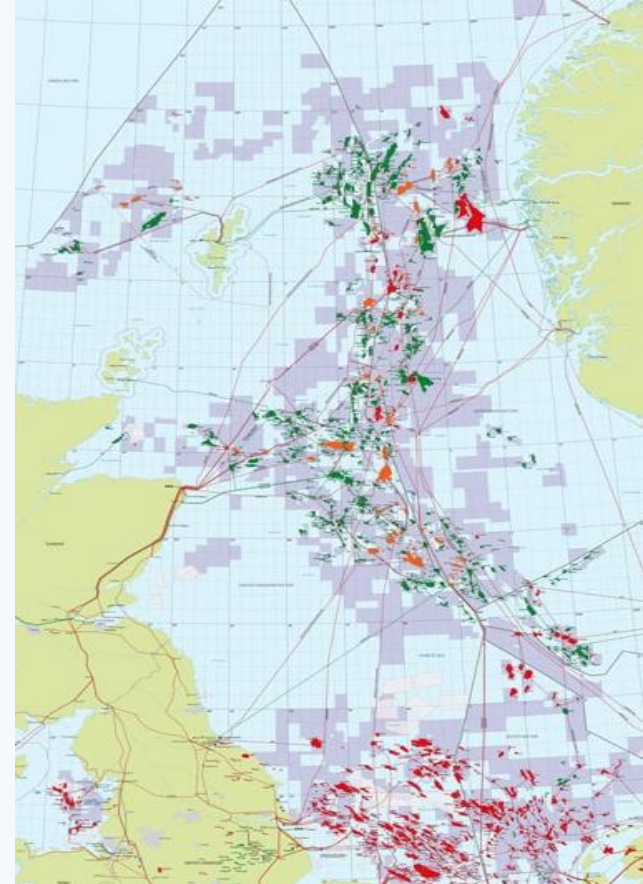
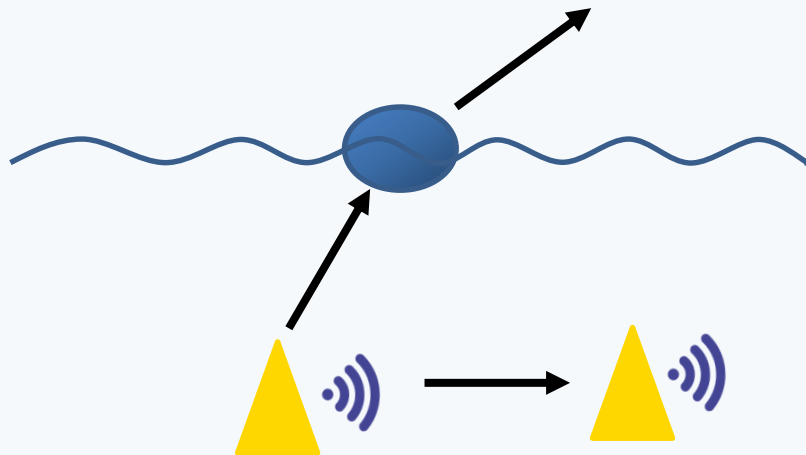
Big Data Transfer

- AUV Data Pick Up
- USB Submarines



Gaps

- Information Security
- Bandwidth
- Improvement in Optical and Sound to reduce drop out
- Water to air transfer



Thank you

