



Welcome to the conference

Dr Julian Pickering
Director, Digital Oilfield Solutions Ltd

Finding Petroleum : IT Infrastructure for the Digital Oilfield
Aberdeen Marriott Hotel, Thursday 7 June 2012

Legacy problems – many of these are still haunting the industry today



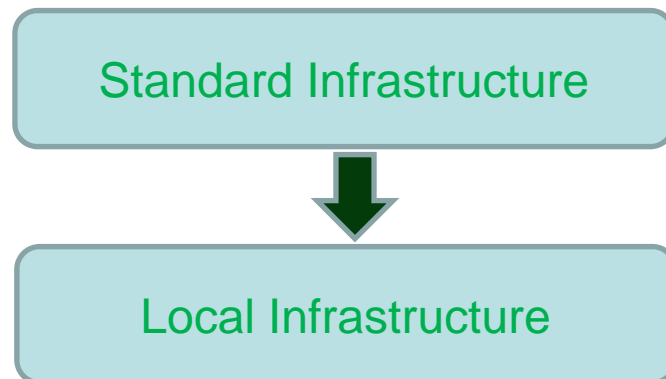
- Most oil and gas companies have a plethora of different real-time architectures across their operations. Engineering costs have been high.
- Architectures have been designed frequently according to local practices or dictated by vendor preferences – difficult and costly to maintain.
- Solutions have not been scalable and there has been limited use of standardisation.
- It has been very difficult for the operator to know how secure his data is.



What are the key elements of a well designed standard infrastructure?



- It is the basis of design for all deployments and is fully scalable.
- The design is based on corporate knowledge and integrates with the corporate network.
- It has a trusted security model.
- It uses industry standard communications.
- It facilitates collaboration centres.
- It integrates with the work processes.
- It can be adapted to suit local requirements.



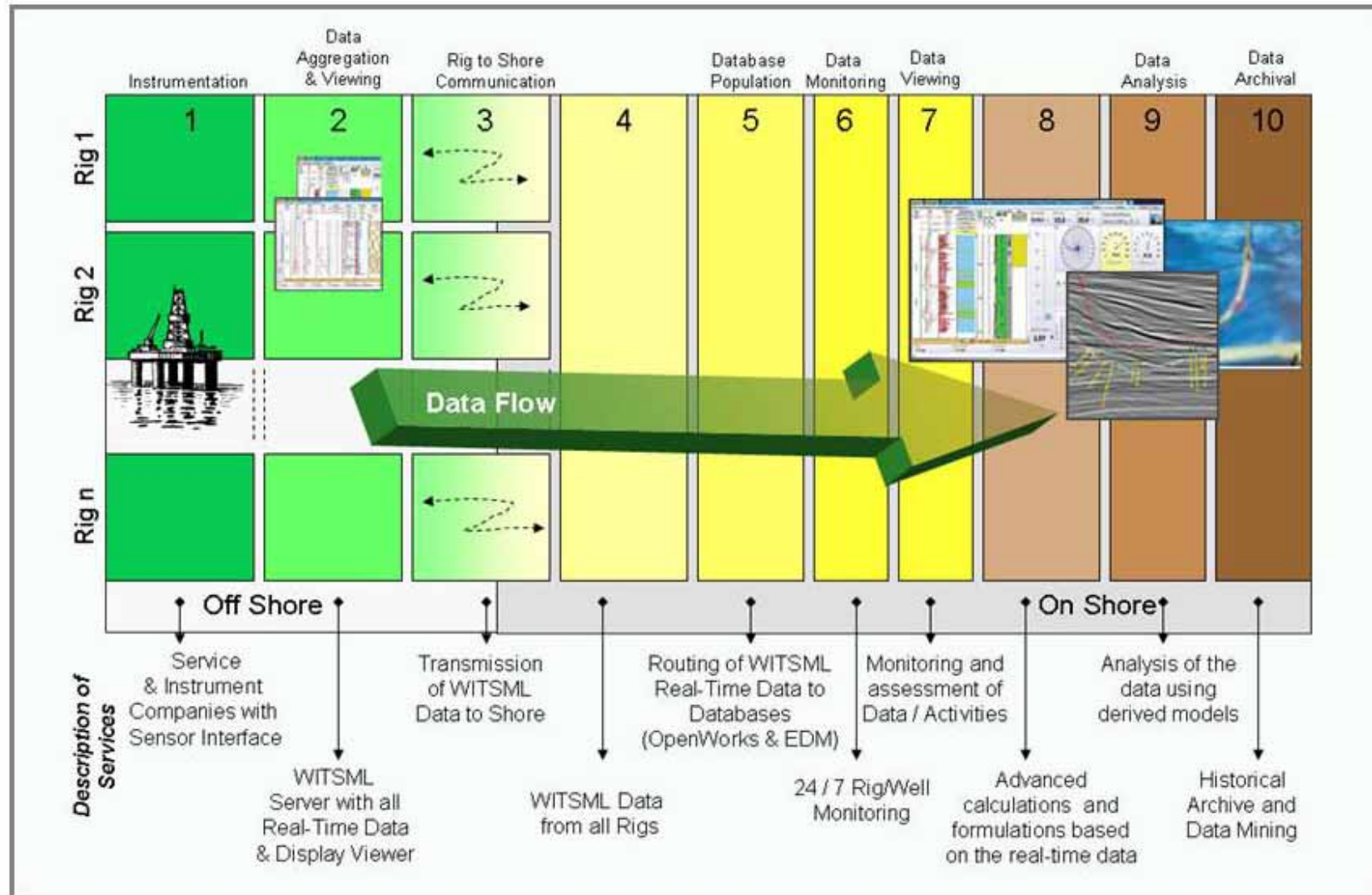
Factors affecting the local infrastructure design



The detailed design of a Digital Oilfield infrastructure will depend on the operational requirements.

- Location – onshore/offshore/degree of remoteness
- Scale of drilling campaign – single exploration well to multi-rig production wells
- Complexity of drilling operation
- Confidentiality of data
- Requirements for integration with existing corporate network
- Third party data access (eg. service company, JV partner, government regulator)

A multi-layered infrastructure model for real-time drilling data services



Conclusions



- A standard infrastructure should be part of a Digital Oilfield strategy.
- The standard infrastructure should be the basis of design for local infrastructures.
- A standard infrastructure offers many benefits to the operator company:
 - Deployments are much quicker.
 - The company benefits from bulk discounts.
 - Service companies understand the requirements.
 - Data quality and security are enhanced.
 - Maintenance and training are more efficient.

I wish you a very enjoyable conference.