

Moving into the cloud

Alan Smith, Principal Consultant, RPS Energy

Agenda

- What is the cloud?
- What is already in the cloud?
- What will move into the cloud?
- Conclusions



**How sweet to be a cloud
Floating in the blue!
Every little cloud
Always sings aloud.**

**How sweet to be a cloud
Floating in the Blue!
It makes him very proud
To be a little cloud.**

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Cloud Computing

- Which companies represented here use cloud computing?
- Which companies represented here offer cloud computing services?
- Who, as an individual, uses cloud computing?

Definition (Wikipedia)

- **Cloud computing** refers to the on-demand provision of computational resources (data, software) via a [computer network](#), rather than from a local computer. Users or clients can submit a task, such as [word processing](#), to the service provider, without actually possessing the software or hardware. The consumer's computer may contain very little software or data (perhaps a minimal [operating system](#) and [web browser](#) only), serving as little more than a display terminal connected to the Internet. Since the cloud is the underlying delivery mechanism, cloud based applications and services may support any type of software application or service in use today.

Definition (NIST)

Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

Definition (Wikipedia)

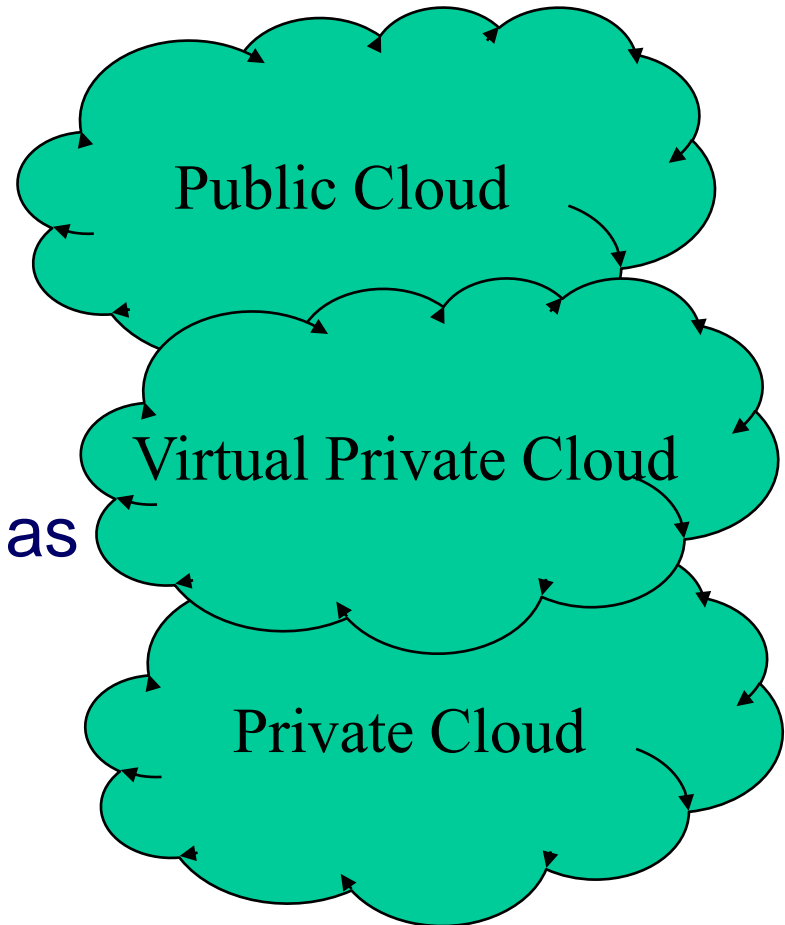


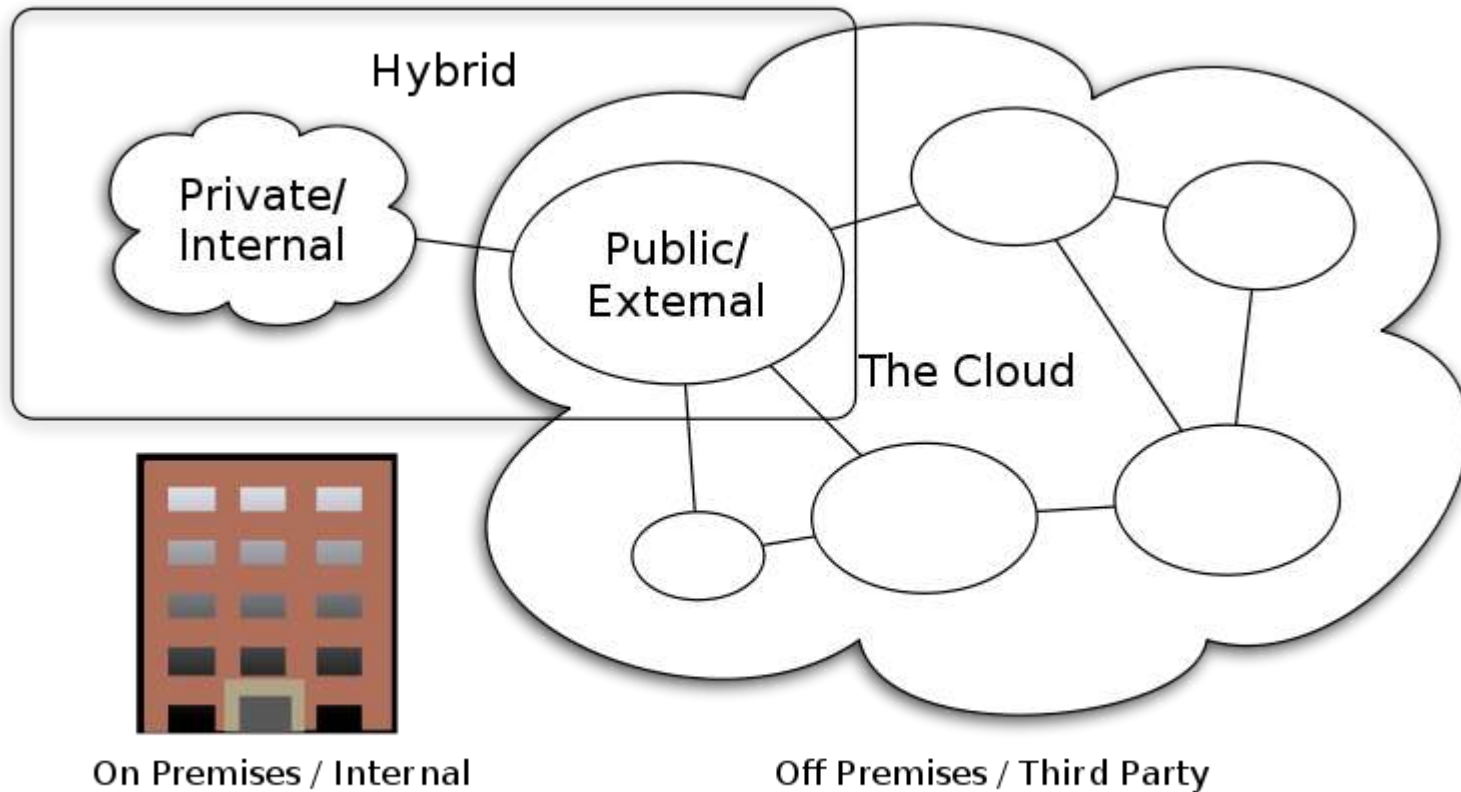
Cloud Computing

Having secure access to all your applications and data from any network device

Cloud computing - definitions / types

- Infrastructure as a Service
- Storage as a Service
- Database as a Service
- Information as a Service
- Process as a Service
- Application as a Service
- Management / Governance as a Service
- Testing as ...
- Platform
- Integration
- Security





Cloud Computing Types

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Cloud

- “For digital natives, the cloud is as natural to computing as the keyboard. The cloud is Facebook, Zynga and Gmail. To an older generation, the cloud is WikiLeaks and data breaches.
- For managers trying to weigh up whether this is a fad or here to stay, where you stand may just be a function of your age.”

By Philip Delves Broughton, Financial Times,
December 6 2010 22:55

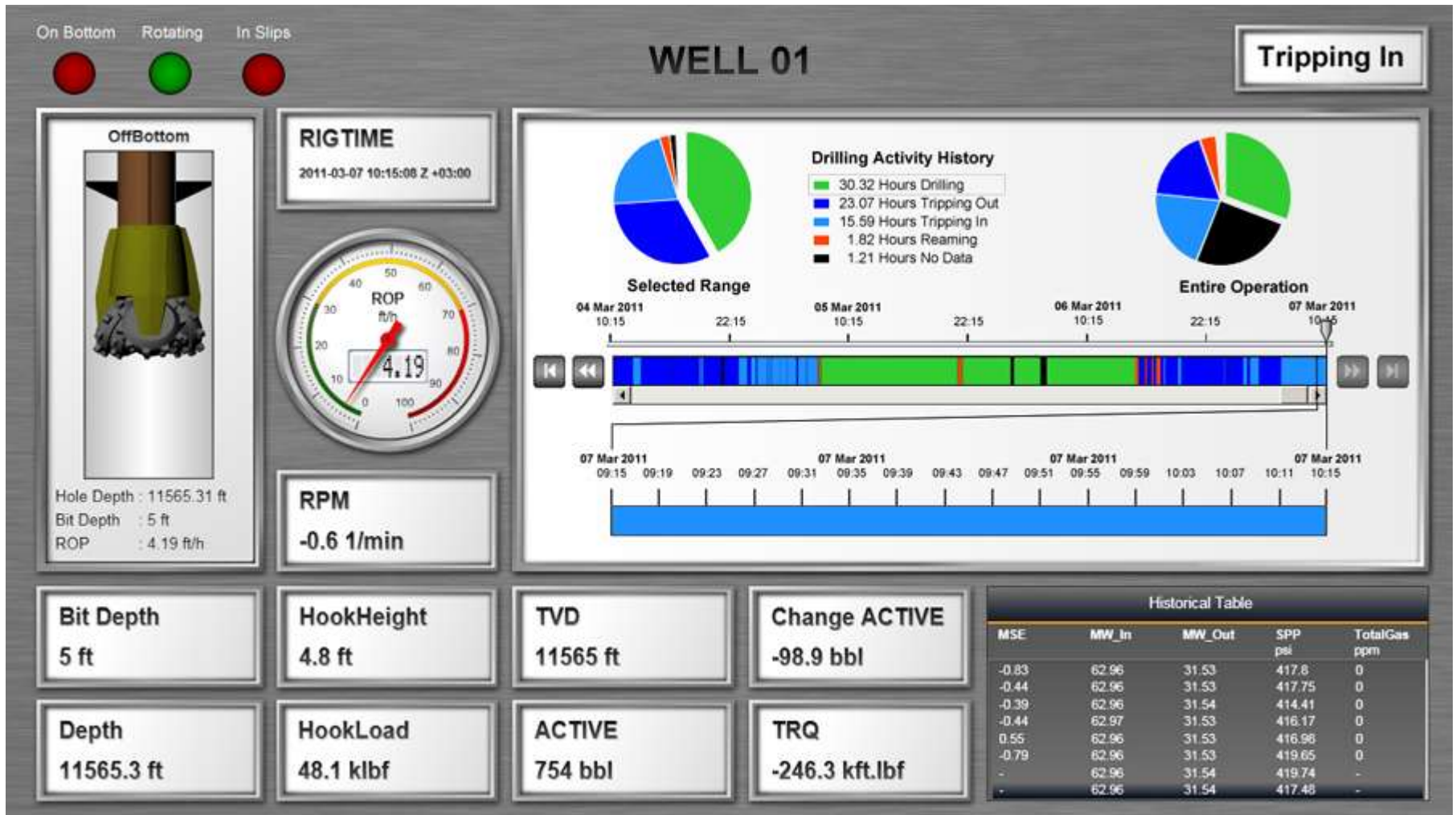
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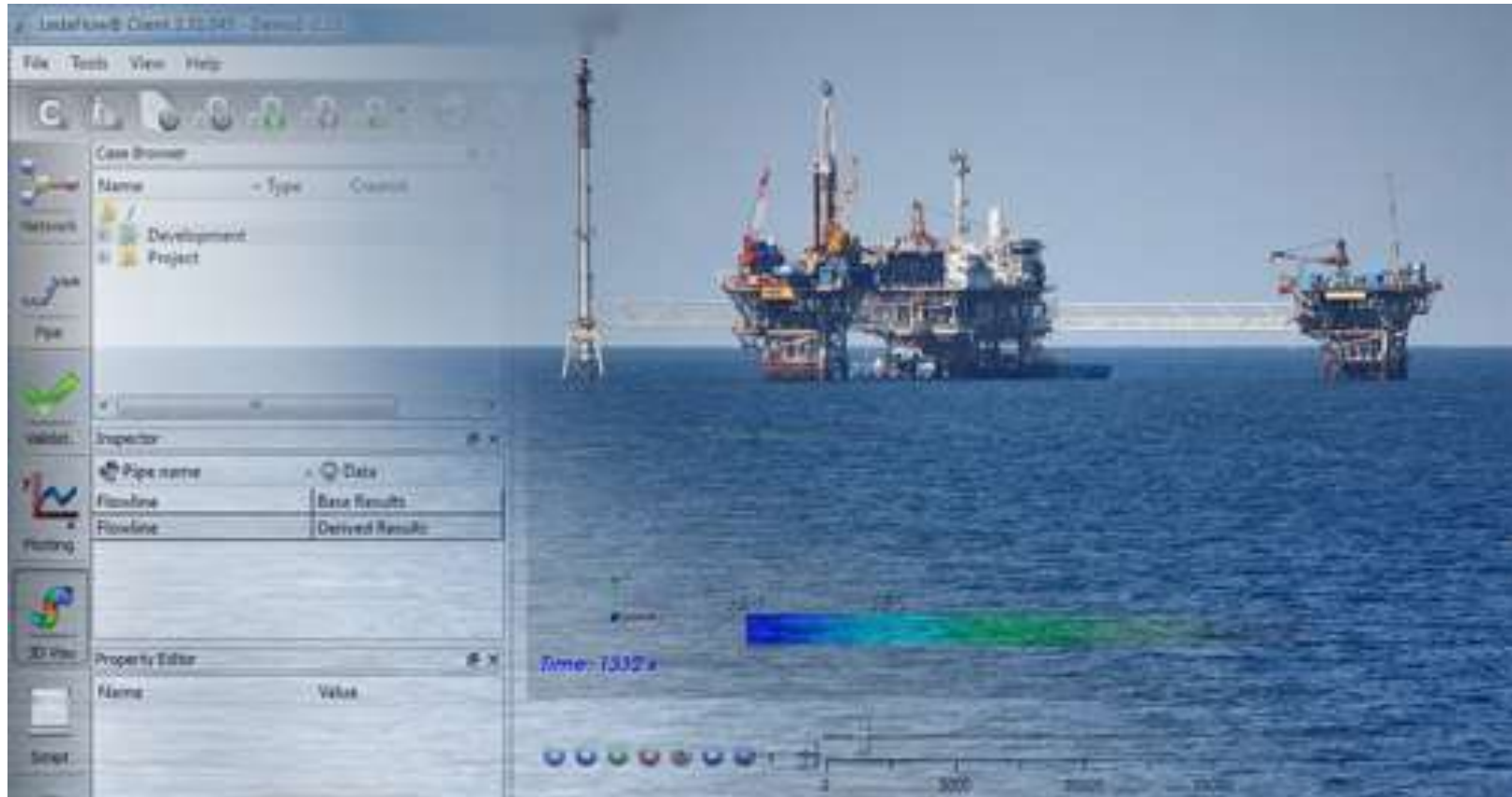
Examples of Cloud Computing

- Google apps
 - Email, calendar etc
- Amazon Elastic Compute Cloud
 - Flexible CPU & storage
- Salesforce.com
 - Software and data management service
- ProjectPlace
 - Document sharing & control
- Banking
- Payroll

Petrolink - PetroVault



Production monitoring



Running geoscience in the cloud



Sensible solutions – Delivered by specialists

Santos sponsors Open Source software for better reservoir visualization (DEJ, April 2011)

- “Whether in a regional office, at home or in an airport lounge, users can reconnect to the same high-performance 3D graphics session that had been running at their regular desk.”
- Quote from Santos CIO
 - “It has got to the stage now where users are asking for their workstations to be removed as working in the cloud is faster, even in the office.”

CDA / Deal & Diskos (and others)

- Access to data in a shared environment
- Managed by CDA / NDP
- Service provided by 3rd party
- Used by majority of operators

- Seismic trace data (post stack)
- Well log data
- Well report
- Production (in Norway)

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What will move into the cloud

- Almost everything
- We are already there!
 - In some cases
- Still to come
 - CDA / Diskos offering real time access to seismic & well data
- Issues
 - Trust
 - Security
 - Loss of access to cloud

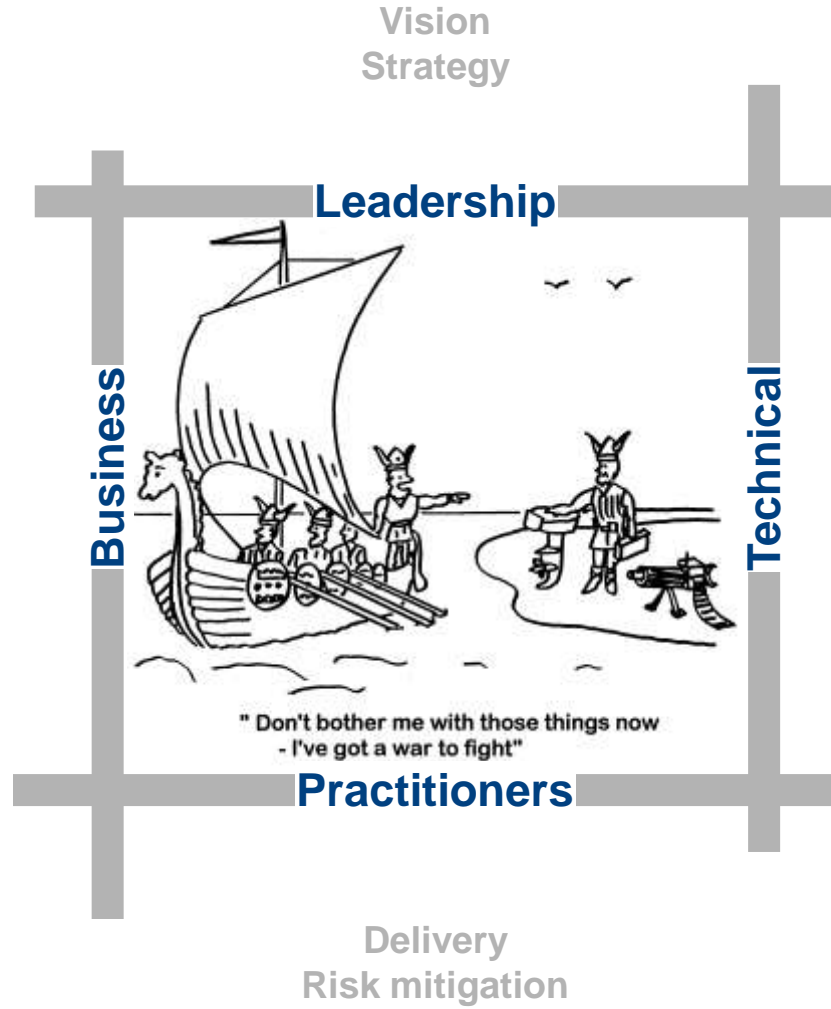
Conclusions

- We will see a change in the way we do computing
 - It will be gradual, not a big bang
 - The “Cloud” will take over as the next generation move into the working environment and wonder why business is stuck in the dark ages
- Perhaps the time realising the value of data and information has arrived

Organisational Closure

Business leadership driving performance. Digital oilfield could look like cost and risk

New business development struggles to fully leverage the digital oilfield technology, it is too unknown

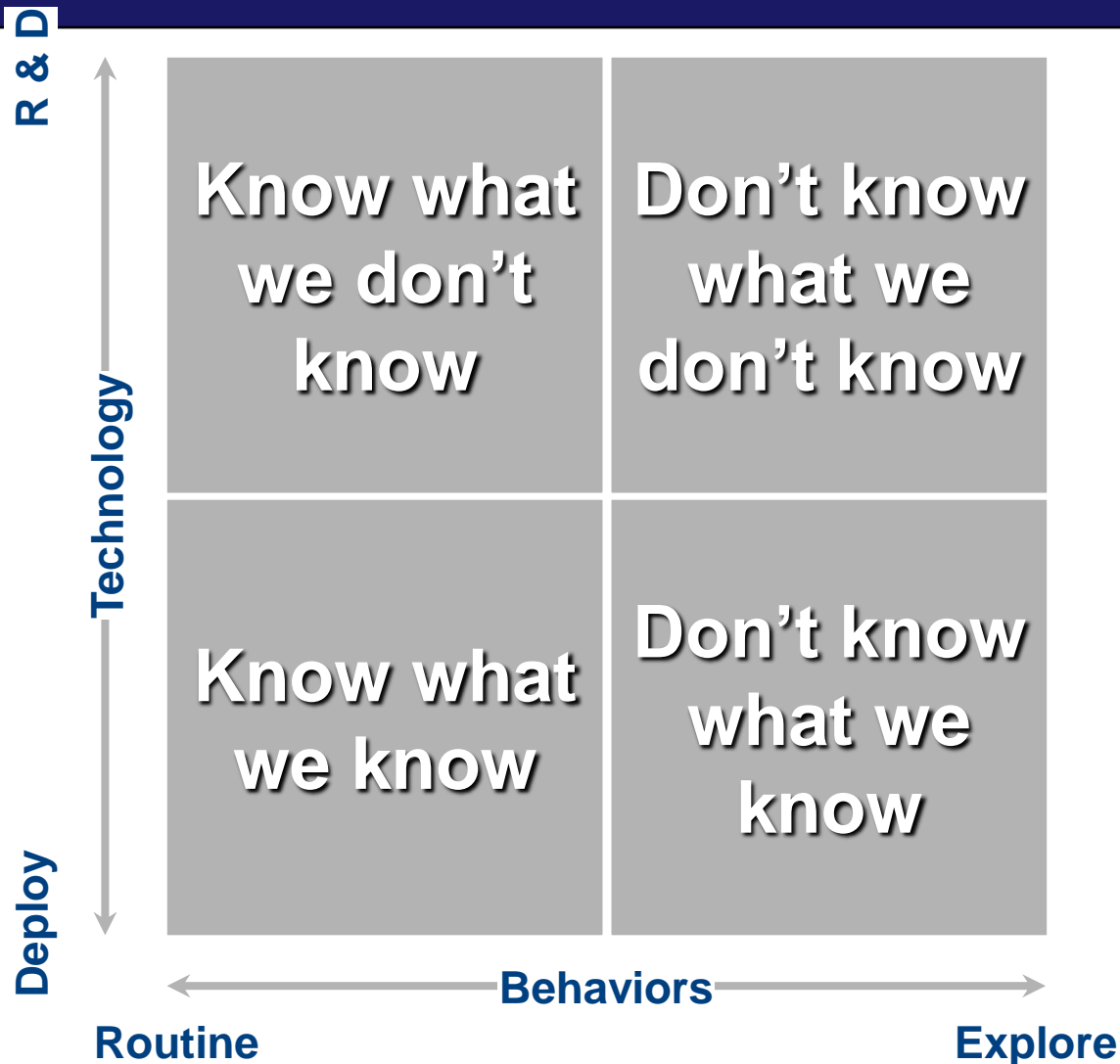


Technical leadership can see a big digital oilfield opportunity, but struggle to deploy effectively

Technical practitioners want new toolkit, but in reality are reluctant to re-train

Sensible solutions – Delivered by specialists

Deployment Characteristics



"CIOs: Be Careful What You Wish For."

- “The virtualization being implemented everywhere will give way to cloud computing, and cloud computing will unclutter technology to the point where the focus will migrate from technology to data.”
- “IT is still a facilitator of the business, but increasingly the CIO will be responsible for generating ideas by understanding the value of the data and how it can be used to boost revenue.”
- Forbes Jan 3 2011, Ed Sperling

Thank you!

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