WITSML, PRODML and National Data Repositories could together deliver real benefits

Stewart Robinson Director of IT and Data services UK Department of Energy and Climate Change (and board member Energistics)

Finding Petroleum 2011







Fiber Optic Networks

Production Flow Monitors & Controls

Intelligent Completions Real-time
Operation
Centers

Massive Data Farms

Computing Clusters

Real-tim

On-site or On-demand

143

Decision Centers

LWD MWD SWD

4D Seismic

# Centralized monitoring of drilling operations



# But are the oil industry really collaborating ?



## Here are some examples...







#### WITSML Special Interest Group Members





# CDA – UK's NDR



# Why were / are they successful?

- Common goals
- No competitive advantage
- Trust amongst participants
- In some instances because of Government !

# What stops us collaborating more?

- User perception of security
- User perception of quality of data
- Timeliness of data
- Standards
  Culture
  Money



**Remote Sites** Asset A Asset B Application A Houston SAMS Total . Flow Excel SAMS Asset C • Asset D Application B 1. Excel SAMS **JSAMS** • User Asset E Application C Asset F **Total Flow** . Telvent Total Flow Application D Asset G Asset G Neles • Wonder Total Ware Flow



CT CONTRACT



• Personal view

**Governments want** 

your money, but they can help collaboration.

# **NIRVANA**



All the data I want available

when I want it

in a form I can use

and correct





# Linking a Regulatory Body to an NDR Well numbering !!



#### Extend for : Seismic Surveys, Licensing, etc etc

Sharing requires a common language Standards for Basic well data (meta data) Seismic survey names Seismic line names Cataloguing

# A possible future – The DECC vision

- Portal software used elsewhere
- Cooperation between governments
- Easier to agree standards

# **UK OIL PORTAL**

# as Open Source [ www.foxopen.org ]

## What is Open source?

#### **Effectively <u>FREE</u> software**

#### Is there a catch?

# .... but who has heard of

- Apache
- Linux
- Red Hat
- Tomcat
- GoogleEarth / Street map

#### **Commodities are free but**

- You need services to make them work
- Ideally you need a community to work in

#### **Bottom line is IT WORKS**

Will Open Source techniques work in the oil industry?

For Geophysics, Reservoir Simulation etc
 NO

 For meta data, data exchange, reference data, regulatory reporting

YES – LET'S TRY – BUT HOW?



#### In the beginning there was .....







 $N_{---}$  7.1.1

# NDR meetings

- 1. London
- 2. Norway
- 3. Canada
- 4. Norway
- 5. USA
- 6. Holland
- 7. Columbia
- 8. South Africa
- 9. India
- 10. Brazil
- 11. Malaysia (2012)



# Why have NDR meetings ?

- Meet other people doing same work
- Share ideas, learn
- Cooperate standards

#### Have we met these early ideals?

- Still only minimal cooperation
- No Focus for these meetings, which makes running them difficult.

But

- We have got to know each other
- More countries are attending and building their NDRs

# What can we do next?





# So what is proposed

- Set up E-Regulatory SIG via Energistics
- Energistics host a facilitation environment
- It can all happen on the web
- Communities form for specific projects
- Standards can emerge from parts of WITSML, PRODML etc
- [Energistics will "own" anything built]
- Anything deployed will be freely available
- Whole exercise completely open

# What has happened

- E-Regulatory SIG embryonic
- UK Oil Portal offered freely
- Technology that built this **FOXOPEN** is now Open Source
- Huge desire for data exchange standards
- Trying to encourage cooperation amongst Regulatory Bodies

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