OOC Oil & Gas Blockchain Consortium

May 2, 2019
First 15 minutes
• Introductions
• Blockchain – what is it and why pursue it?
• Consortium Overview
• OOC Consortium vs. Forum
• Consortium Structure

Remaining 30 minutes
• Q&A Discussion Session
Your Panelists...wear many hats

• Roger Bhalla
  • Consortium – Chair, Supply Chain Committee & Alternate Board Member
  • PIDX – Board Member
  • ConocoPhillips – Manager, Supply Chain Systems & Technology

• James Thompson
  • Consortium – Member of Truck Ticketing Project
  • PIDX – Chair, Business Process Workgroup
  • ConocoPhillips – Process Consultant, Supply Chain
Blockchain Consortium Summary

Advancing 4 Projects

- **Truck Ticketing**
  - Digitized truck ticketing on water hauling from wellsite to disposal site

- **AFE Balloting**
  - Digitize the ballot sharing and approval process

- **JIB Exchange**
  - Integrated joint interest billing receipt and payment process

- **Seismic Data Management**
  - Automated digital rights ownership for seismic data

**Membership**

- ConocoPhillips
- Chevron
- ExxonMobil
- Equinor
- Hess
- Marathon Oil
- Noble Energy
- Pioneer
- Repsol
- Shell

*Others expressing interest are in queue*

**Benefits**

- Single data source of the truth
- Automating tasks for efficiency and accelerated visibility
- Immutable records for compliance assurance

- Digitization of processes allows for greater analytical capability
- Reduction in disputes/errors
- Increased Reliability

**Timeline**

- **Feb 18**: First U.S. Oil & Gas Blockchain Forum meeting for operators
- **Nov 18**: Signed OOC Oil & Gas Blockchain Consortium agreement
- **Feb 19**: Established Use Case Project Teams and Technical Committees
- **By YE 19**: Progress 4 identified use cases to pilots
- **By YE 20**: Commence pilots and explore other use cases
- **By YE 21**: Drive E&P blockchain standards setting

**Projects**

- **Digitize the ballot sharing and approval process**
- **Automated digital rights ownership for seismic data**
- **Advancing 4 Projects**
- **Commence pilots and explore other use cases**
- **Drive E&P blockchain standards setting**

Others expressing interest are in queue.
<table>
<thead>
<tr>
<th><strong>Formation</strong></th>
<th>February 2018</th>
<th>January 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Membership</strong></td>
<td>Open to participants in oil and gas ecosystem</td>
<td>Tiered membership with BOD approval</td>
</tr>
<tr>
<td><strong>Funding</strong></td>
<td>None</td>
<td>Annual fees for members</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td>Learn and network</td>
<td>Progress process and data standards with use case POCs of blockchain technology</td>
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<tr>
<td><strong>Meeting schedule</strong></td>
<td>Bi-monthly luncheons, Ad-hoc training courses</td>
<td>Quarterly BoD meetings, TBD for project work groups</td>
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<tr>
<td><strong>Meeting costs</strong></td>
<td>Nominal luncheon attendee costs</td>
<td>None</td>
</tr>
<tr>
<td><strong>Meeting locations</strong></td>
<td>Hosted at neutral site</td>
<td>Hosted at member locations</td>
</tr>
<tr>
<td><strong>Administration</strong></td>
<td>Energy Conference Network</td>
<td>Consortium staff</td>
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Blockchain Consortium Organizational Layout

**Core Member**
A company designated as an Operator in oil and gas exploration/production.
Definition of an Operator is a company that has active leases.

**Associate Member**
Any person, firm, or corporation who, although not an Operator, is engaged in oil and gas exploration/production activity as a drilling contractor, service company, supplier, or other capacity.

The diagram illustrates the organizational structure of the Oil & Gas Blockchain Consortium, including the roles and responsibilities of various members and their respective committees.
How are Members Involved

PROJECTS

• Each Core Project is led by a Project Champion
• The Project Champion may determine some sub-team lead roles among all those member resources to further coordinate efforts at the Process or related-IT level
• Each member company participating in the Project will be expected to supply some resources to the effort. Expected to be a minimum:
  • Process Owner
  • Process SME
  • IT SME

TECHNICAL COMMITTEES

• Each Technical Committee is led by a Chair and Vice-Chair
• Each committees has been established to advise, coordinate and gain competencies in blockchain technology and its application
• A committee has the capacity to create sub-committees or spin off committees with BoD approval
• The following Technical Committees have been established:
  • IT
  • Legal
  • Procurement
  • Policy/Regulatory
  • Consortium Operations
  • External Affairs
Panel Discussion – Audience Q&A

What to you want to know about....

• Technology lessons learned
• Forming a consortium
• Executing projects through a consortium
• Process and standards alignment across participants
• Challenges faced
• Organizational cultural differences/similarities
• Etc.