Centralizing G&G applications in the datacenter

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Solutions Architect
About ISN Solutions

- Founded in 1999
- Enterprise class IT solutions
- Specialist in upstream oil and gas sector
- Work with top UK independents
From start-up to exploration and production

- Satellite and terrestrial drilling communications
- Oil and gas IT project management
- Solution design, implementation, support
- Infrastructure consultancy
- Remote office setups
- Outsourcing services
Todays Agenda

• IT challenges related to g&g apps
• Why remote access
• Which applications
• How to achieve remote access
• Key components
• How the solution can be used
• Use study
• Next steps...
• Summary
Problems IT faces with Geoscience applications

- Dispersion of data
- Exposure of sensitive data and intellectual property
- Expensive infrastructure deployed to distant locations
- System administration and difficulty in backup
- Increased travelling between sites
Why Remote Access

- Centralize data and infrastructure
- Uniformity in architecture
- Reduce storage costs
- Increase data security
- Reduce system administration
- Simplify backup and restore
- Provide mobility
Which Geoscience Applications

• Well known geoscience applications
• Used by the vast majority of Oil & Gas companies
• Fundamental to oil and gas companies
• All phases of project lifecycle
• Intellectual property of an oil and gas company
How to Achieve Remote Access

- Utilise Citrix XenDesktop
- Move graphics processing to the data centre
- Tune network and components, provide connectivity
- Stream virtual desktop to a thick / thin client
Key Components

- Citrix XenDesktop
- Hosts
- Receivers
- Citrix Infrastructure
- Branch Repeaters
- Windows 7
Solution Requirements

User Experience Testing

<table>
<thead>
<tr>
<th>Bandwidth per session</th>
<th>0-25</th>
<th>25-50</th>
<th>50-75</th>
<th>75-100</th>
<th>100-150</th>
<th>150-250</th>
<th>250+</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-8 Mbps</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Orange</td>
</tr>
<tr>
<td>4-6 Mbps</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Orange</td>
</tr>
<tr>
<td>2-4 Mbps</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Orange</td>
</tr>
<tr>
<td>1-2 Mbps</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Green</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Orange</td>
</tr>
</tbody>
</table>

Latency (ms)
# Solution Requirements

## Display and Bandwidth Levels

<table>
<thead>
<tr>
<th>Setup</th>
<th>Bandwidth Levels</th>
<th>Latency Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High performance setup</strong></td>
<td>4-6 Mbps</td>
<td>Latency &lt; 100ms</td>
</tr>
<tr>
<td>Two Full HD monitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Standard performance setup</strong></td>
<td>2-4 Mbps</td>
<td>Latency &lt; 150ms</td>
</tr>
<tr>
<td>One Full HD monitor</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Review only setup</strong></td>
<td>1-2 Mbps</td>
<td>Latency &lt; 200ms</td>
</tr>
<tr>
<td>One monitor / Laptop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Confronting the challenges

- Dispersion of data
- Exposure of sensitive data and intellectual property
- Expensive infrastructure in various locations
- System administration and difficulty in backup
- Increased travelling between sites
How this Solution Can Be Used

• Help Geographically dispersed geoscientists
• Review projects p2p or with management
• Work from different locations or at home
• Ability to work whilst travelling
Use Case

- Leading UK independent
- Geoscience data in Stavanger
- Geologists based in London
- Internet VPN connectivity

Benefits:
- Offloading data connections
- Ability to share data
- Geologists did not have to travel
- Will be used to provision second London office.
What will be the next steps

- See a live demo at ISN
- Workshop to understand your specific needs
- Proof of concept in your environment
Summary

• Designed for Geoscience applications
• Several benefits and cost savings
• Based on Citrix XenDesktop
• Can be used for many scenarios
• Key components and requirements
• Use study proves usability
• Next steps…
Thank you
Any Questions?

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