Engaging Mobility in the Oil and Gas Sector
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To open a dialogue about the impact of rapid mobile adoption in the energy industry, Booz Allen Hamilton, Bitzer Mobile, and Microsoft hosted an Oil and Gas Mobility Summit in March 2013. This Houston conference gathered IT leaders from different segments of the energy sector and focused on building a common understanding of the impact of consumerization of IT on the oil and gas industry. Leaders from Chevron, Halliburton, the hosts, and other industry players discussed their experiences in implementing mobility, corporate policies, and security tactics. The discussions focused on helping attendees learn from these experiences through sharing various approaches to developing mobile strategies, and managing the risks from empowering a mobile workforce.

About the Summit

The Oil and Gas Mobility Summit was developed to help attendees:

• Understand mobile challenges and solutions in the areas of access control, policy enforcement, security of confidential data on users’ devices, and other mobility issues

• Map out corporate policies and security tactics that organizations must adopt to ensure they can mitigate risk while empowering a mobile workforce

• Learn how peers are managing mobile technology by risk outcomes to accommodate corporate-owned devices and “bring your own device” (BYOD) strategies for specific oil and gas segment of business

Following an introduction to the impacts of consumerization and the need for a mobile strategy, Chevron Oronite’s Chief Information Officer (CIO), David Seals, told a dynamic audience of IT professionals in the oil and gas industry about the journey Chevron made to embrace mobility. Streaming video from mobile to mobile is one example of a real-time application that is changing oil companies’ operations. Workers doing maintenance on a remote pipeline no longer make multiple trips for input from senior engineers. By sharing video via mobile devices, David stated that “fewer people now have to be on the road, making fewer trips, which obviously improves safety.”

Recommendations for Oil and Gas Enterprise Mobility

A panel of thought leaders from Booz Allen Hamilton, Bitzer Mobile, and Microsoft, discussed current trends in mobile, social, and cloud; the best practices for mobile applications; impact on employees’ productivity and satisfaction; and security challenges. The panelists concluded that organizations need to embrace IT consumerization but keep an eye on security and find ways to create value for the enterprise. Business value is the real key to success in mobility. As an example, geospatial information systems, which allow companies to use location information in real time, might use
employee locations for tracking and improving safety before and after events. “Once you start thinking about using mobile applications for safety, the possibilities are endless,” said Bitzer Mobile’s Chief Executive Naeem Zafar.

Security models vary, but many in the oil and gas sector implement mobile security policies that call for strong authentication, the ability to remotely wipe and lock devices, or detect jail-broken and rooted phones. Despite the emphasis on security, companies struggle to gauge the risks of mobile applications. “Everything we saw on a PC is going to hit us again in mobile, whether it is virus or worms,” said Booz Allen Hamilton’s senior mobility expert Todd Inskeep. “It’s just taking a little longer, but it is happening and it will come rapidly.”

Few organizations test their mobile applications, or commercially available mobile applications before deployment. Yet more employees are accessing corporate information from personal devices, highlighting organizations’ need for strategy, policy, and technical security controls. Tools for testing conventional programs don’t always translate into testing mobile applications. As a result, some companies allow internal enterprise mobility management teams to design a layer of security that sits on top of applications. “That may be the way going forward,” said Bitzer Mobile’s Vice President of Product Development Andy Smith. “Let the developers focus on cool apps while IT works on a security layer that can go on top of those apps.” Mobile Device Management and Mobile Application Management technologies are entering their second generation and the maturity shows. Capability, usefulness, and integration with existing corporate infrastructure have been significantly improved.

Jeff Johnson, Microsoft’s enterprise strategist, emphasized the importance of having an access strategy to mitigate security risks. A successful access strategy is based on user profiles (who you are), how much you trust the device (managed vs. unmanaged), and where you are (internet vs. intranet). "With device proliferation, it’s not good enough to enable access to data to devices, you also have to prevent access to some data from unmanaged devices," Jeff commented. Through classifying data by its business impact, enterprises will have a much better understanding of data risk and the beginnings of a security access policy from which to build a comprehensive access strategy.

Today’s organization often has its employees dispersed, and is increasingly relying on remote access to information, which Booz Allen Principal Walton Smith pointed out is disrupting collaboration. Within enterprises, stand-alone systems do not provide for open collaboration, search does not work across the ecosystem, and there are too many one-stop-shops. Walton recommended that companies should focus on their people, and not the systems, to integrate information for employees and deliver a solution that is as intuitive as e-mail by securing the boundaries and allowing for the free flow of information within. Walton concluded his presentation, “The right information to the right people at the right time will drive your organization forward.”

Mobile applications allow managers to significantly streamline and accelerate approval processes.
In the second panel discussion, IT executives from Chevron, Halliburton, and a third oil and gas company shared ideas on how to tackle mobile challenges and take advantage of mobility in the digital oil field. They also discussed how teams are benefiting from mobility and working to meet expectations of a new generation of tech-savvy employees. The final panel provided an open question and answer session to all participants.

**Wrapping Up Mobility, a Game Changer for Oil and Gas Companies**

Panelists agreed that benefits from adopting mobility include allowing employees to make decisions from the field, facilitating performance, safety, and increasing productivity. Mobile applications allow managers to significantly streamline and accelerate approval processes. Instead of a variety of applications running a series of workflows, many firms are using a single application to approve travel expenses, account payables, performance reviews, among others tasks, greatly improving managers’ productivity. Mobility in business-to-business activities enables mobile ordering from retailers, mobile access to transaction data, and alert notifications via text. And mobility for consumers includes offering gas stations new applications such as payment at the pump, payment within the convenience store, brand offerings, and loyalty programs.

Energy firms are gathering new data generated in remote locations and transforming it into intelligent analytics for upstream and downstream value chains inside and outside the enterprise. Increased business value is all around. Companies reported using mobile technologies to streamline administration processes and capture the experience of retiring workers.

Shifts in the workforce and technological developments “will continue to play out and create more pressure on organizations to build applications that are more data-centric and less device-centric,” Inskeep added. Mobility is expected to play a huge role in efforts to capture the knowledge and expertise of a rapidly aging workforce that is expected to retire in coming years. User experience isn’t solely about challenges; it also creates opportunities for differentiation.

1 The company declined to be named outside the Summit.
About the Authors

**Michael Farber** is an Executive Vice President at Booz Allen Hamilton. He specializes in identifying and leveraging advanced and emerging technologies—including cloud, social, and network collaboration—and mobile computing and communications to drive enterprise innovation, control technology-related capital and operating expenses, gain market share, and increase shareholder value.

**Michael Gomez** is a Vice President at Booz Allen Hamilton with a 20+-year record of achievement in leadership and business management in the energy, technology, and consulting industries. He has worked extensively with energy senior executives crafting business strategies as well as designing and delivering business processes and information technology capabilities to drive strategic differentiation and bottom line value along with identifying and mitigating cybersecurity threats. These initiatives enhanced market growth, improved productivity, reduced costs, increased cybersecurity posture and enhanced employee/stakeholder satisfaction.

**Todd Inskeep** is a Senior Associate at Booz Allen Hamilton and provides clients with Cybersecurity Assessments for measuring, managing investment of, and enabling improved cybersecurity programs. His expertise extends to e-commerce, mobile, and social spaces, and he is a recognized thought leader in secure radio and desktop systems, security architecture, and more. Todd has multiple patents and was an Executive-in-Residence at the MIT Media Lab’s Center for Future Banking.

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