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*50 Years of Growth, Innovation and Leadership*

Collaboration and Productivity in the Oil and Gas Industry  
Overcoming Yesterday's Challenges with Today's Visual Collaboration Solutions

A Frost & Sullivan  
White Paper

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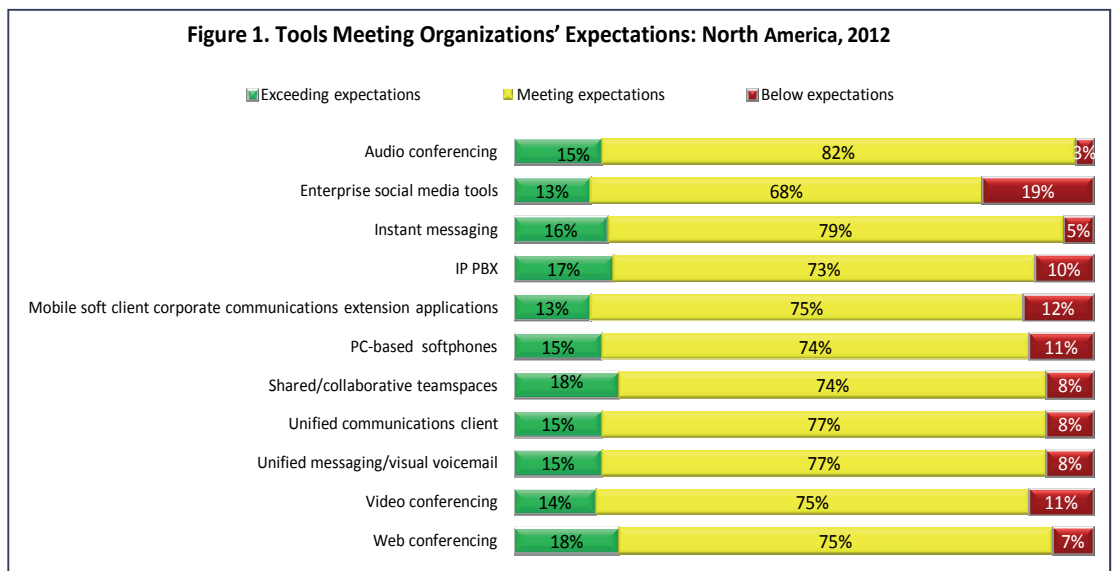
## INTRODUCTION

Globalization places significant pressure on an organization’s ability to respond quickly to changes in the marketplace. It affects everything from access to resources, sales opportunities, supply chain management, and the partner ecosystem. At the same time, today’s workforce is increasingly distributed, mobile, and virtual—creating a challenge that cannot be addressed with yesterday’s technology. New ways of working and sharing information are required to become more agile in today’s highly competitive and fast-changing business environment.

New communications and collaboration tools can have particular benefit for the oil and gas industry, which is not only global, but increasingly affected by regulatory, economic and resource pressures. For example, high-definition (HD) audio and video calls and rich content sharing can improve the speed and accuracy of site exploration and remote troubleshooting; strengthen efforts to recruit top talent; enhance ongoing training for remotely deployed workers; increase the ability to meet environmental compliance measures, and more. This article will detail how collaboration applications can reduce travel-related costs for oil and gas companies, help company leaders remain in close contact with distributed employees, shrink cycle times, improve decision making, and positively impact the bottom line.

## COLLABORATION CHALLENGES IN THE OIL AND GAS INDUSTRY

In a 2012 Frost & Sullivan survey of 263 North American enterprise decision makers, 89% of respondents reported that their video conferencing use had met or exceeded expectations. (Please see Figure 1.)



Source: Frost & Sullivan analysis

Across all industries, the universal adoption drivers for enterprise collaboration solutions are: to reduce the costs associated with travel, improve productivity, speed decision making, and enhance responsiveness to changing market conditions.

These drivers certainly hold true for companies in the oil and gas industry, which are uniquely challenged in several areas:

- Oil and gas companies comprise diverse sets of users, workgroups and locations: carpeted offices, labs and design facilities, mobile field offices, rugged and remote offshore land-production, and processing sites. A lack of access to consistent communications capabilities means interactions often default to the lowest common denominator—usually simple phone calls or emails—which obstruct the real-time sharing of critical, complex and contextual details needed for well-timed and truly informed decisions.
- As sites evolve from exploration through production, requirements change for raw materials, land rights, specialized equipment and employee skill sets; and involvement from different company departments, efficient transport, and other resources must be managed closely. These shifting requirements can significantly impact business continuity, productivity and profitability.
- Regulatory, environmental, weather/climate, economic and political concerns require constant monitoring; and information about new events must be shared quickly and accurately. Project leaders and other decision makers need to stay abreast of local, regional and global events in order to effectively plan ahead and respond in a timely manner.
- The inability to accurately share complex information across internal business units, as well as with customers, partners and regulatory authorities, is a common pain point in this industry. Using inadequate technology to convey specific, important details to appropriate groups inside and outside the company—including governing bodies and supply chain and outsourcing partners—leads to errors that can result in fines and expensive delays.

## **NEW SOLUTIONS FOR NEW WAYS OF WORKING**

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Customer demand and new technology innovations have empowered leading developers to break the old mold of enterprise collaboration solutions that were expensive, rigid and complex. A sustained development focus on ease of use, flexibility, interoperability, and reliability make today's advanced voice, video and data collaboration solutions more viable and valuable tools for more users and use cases across an organization. In particular, HD audio and video, more intuitive user interfaces, and better connectivity and resiliency techniques help today's visual communications tools deliver a higher-quality, more predictable and dependable experience. In addition, the availability of low-cost and easily provisioned desktop and mobile soft clients is driving use of video

conferencing, from fixed locations and on the go, for tasks in which clarity and accuracy are critical.

Using the right tool for the right job always makes a task easier, and the end result better. Today's collaboration solutions enable fixed, mobile and desktop endpoints to participate in the same real-time voice, video or data-driven call, in order to seamlessly share business-critical information across sites and organizations. These capabilities support the versatility and customization needed to address differing requirements, as well as to bridge existing communications gaps across locations, job disciplines and organizations.

The recent Frost & Sullivan survey found that 36% of respondents use video conferencing extensively at all levels of their organization. The list below highlights just a few examples of the many use cases for visual collaboration solutions in the oil and gas industry.

### Technical

- The use of mobile devices as real-time collaboration endpoints, and the ability to connect mobile and fixed devices in the same communications sessions, opens a range of new use cases. For example, **video recording and conferencing from smart phones and tablets can improve remote exploration** of new locations. Experts in the field can share rich-media content with final-decision makers, helping them quickly and easily identify, validate or eliminate sites and samples.
- Oil and gas **companies are already employing mobile devices to improve remote troubleshooting**. On-site staff are sharing and simultaneously viewing parts, machinery, and worksites with offsite experts and decision makers to readily solve problems and move processes forward.
- **Video conferencing helps companies identify inefficiencies and best practices across all sites**. It is far easier to standardize operations and procedures, and to quickly act on findings, when there is physical visibility into working conditions, equipment layout, and how tasks and processes are being performed.
- Visual information conveyed through video conferencing and content sharing **significantly improves project management by enhancing communications across multi-functional teams** at different locations, as well as with design, supply chain, logistics and other partners. A project manager can host a video conference to bring together various functional teams for regular updates, and on-the-fly, to address issues as they arise.

### Human Resources and Training

- The ability to recruit, qualify and retain top talent for specialized positions is often problematic, especially for global operations. Human resources departments

and hiring managers can conduct interviews via video conference—eliminating the need for company personnel or applicants to travel. Furthermore, face-to-face interaction can be employed for routine communications between management and remote employees to build better relationships that **aid employee retention and leadership's awareness of circumstances in the field.**

- Video conferencing, content sharing, file sharing, white-boarding and video streaming are all useful training tools, no matter where employees or instructors are located. Rich media training tools are proven to **increase attentiveness and knowledge retention compared to simple text-based materials** alone. High-value staff can earn or renew certifications and more readily engage in ongoing training for advancement and long-term loyalty. Subject matter experts and the best instructors are consistently available to reach a much wider base of employees throughout the organization; and training sessions can be recorded and played back as needed.

### Health, Safety and Regulatory

- Advancements in reliability, resolution and clarity make **video conferencing a compelling option for telemedicine.** Remotely deployed medical staff, working in the field, can easily request comprehensive assistance from more qualified off-site clinicians. Doctors can then leverage high definition video to decide on an immediate plan of action, reducing time to treatment and decreasing expenses related to rushing emergency personnel into, or workers out of, remote locations.
- Incident-response initiatives require companies to have crisis management plans in place to protect employees, the natural environment and company assets. **Lines of communication must be established and reliable.** High quality, rich-media collaboration tools enable staff at any location to connect with company decisions makers, the necessary government agencies, and first responders to decisively address issues as soon as they arise.
- Compliance leaves no margin for error. An incorrect hose, containment vessel or pressure level, or any safety infraction, can lead to operations interruptions and millions of dollars in fines from the EPA, PHMSA or other agencies. Employees throughout **an organization can look to visual communications to effectively share complex information** with company and industry experts to ensure compliance, and to prove to regulatory bodies that any concerns have been addressed.

## **CONCLUSION**

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The most prominent inhibitor of effective communications in the oil and gas industry is the traditional siloed nature of different workgroups and locations. Next-generation collaboration solutions that are standards-based, interoperable and flexible empower oil and gas companies to move past the problems caused by yesterday's proprietary technologies and outmoded ways of working. Decision makers and leaders across all functional areas should recognize that advanced video collaboration is capable of transforming their business. Video conferencing can reduce costs, accelerate decision-making, speed time to market, and often generate newer, more effective and profitable ways of doing business.

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