Application Note

Librestream Onsight Mobile Collaboration Use Cases in Oil & Gas

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By Paul Lazor, Sales & Marketing Director

Extronics Ltd, Meridian House, Roe Street, Congleton, Cheshire, CW12 1PG, Tel +44 (0)1260 292651, Fax +44 (0)1260 297280 | www.extronics.com

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Today's Global Companies in all sectors of industry are challenged by vast distances and time that typically separate site workers from the experts who may be located on different continents. The high cost of utilising the necessary expertise to resolve or address problems can be many thousands of pounds and extremely time consuming in respect of logistics and the securement of specific work permits as well as being potentially dangerous.

Whilst all employees are important to an organisation specialists within organisations carry a high price tag both in their location of work and especially when they become mobile travelling to different parts of the world to address problems.

Librestream's "Onsight Mobile Collaboration system," provides an immediate solution with the ability to stream live video, engage in discussions, share images and onscreen drawing to enable experts and remote physical workers to collaborate in real time.

Onsight provides a full visual collaboration solution that is certified for operation in offshore and onshore facilities, pipelines and terminals, and refineries. The Onsight 2000Ex mobile device was specifically designed for these environments with Zone 2, Class 1, Division 2 certifications.

There are a wide variety of applications where Onsight has shown positive results within the Oil & Gas industry such as:

- Corrosion Inspection
- Safety Audits
- Capital Project Monitoring
- IT/ Communication Infrastructure Troubleshooting
- Inventory Management and Asset Tracking
- Equipment Maintenance, Repair or Overhaul Start Up and Commissioning Services

Within these applications, Oil & Gas companies have seen improvements in production uptime, problem resolution speed, travel costs, and overall communication levels.

The benefits of employing "Onsight" as an operational tool can be vey easily quantified with respect to the major reduction in costs and the increased efficiency in resolving remote problems. The cascading effects of its implementation in exploration and production are dramatic.

Librestream started discussions with oil & gas companies and service companies in 2007 shortly after launching its first Onsight Mobile Video Collaboration system. These organisations expressed serious interest in Librestream's technology due to the many applications they could see for the system and the very high ROI benefits which could be achieved from its use.

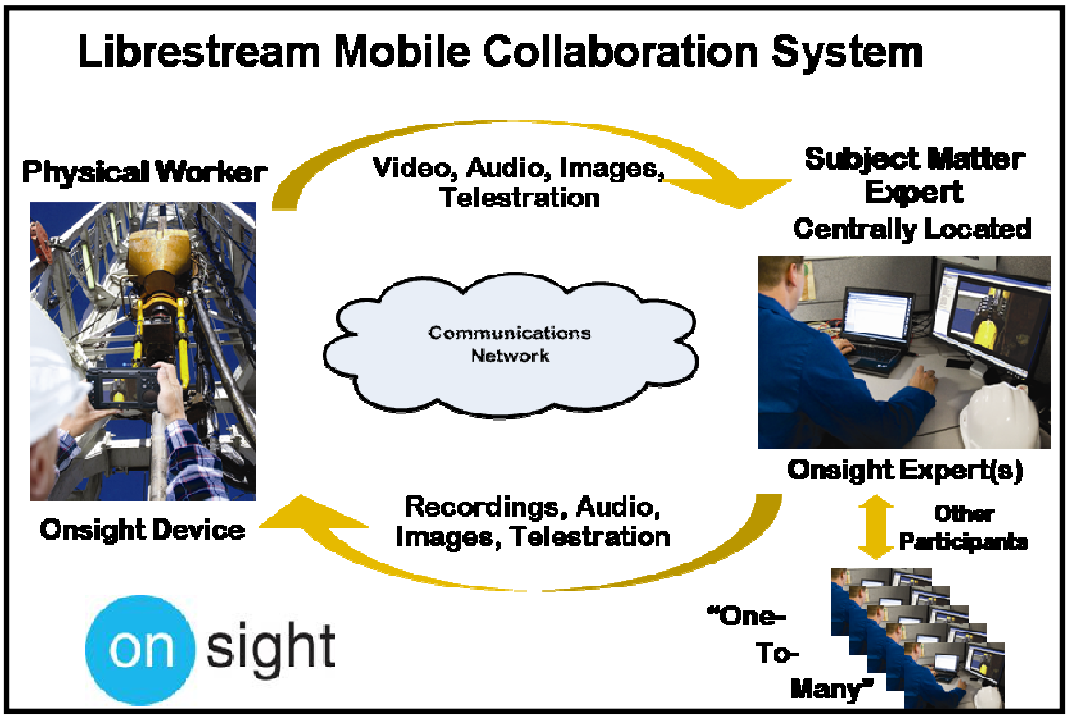
Since the launch of Librestream's Ex certified Onsight Mobile Collaboration system in 2009 Librestream has worked on pilots and early deployments with major oil & gas companies in the US and Europe and adoption of the system has now begun. It rapidly became apparent that Cisco's product portfolio was a critical component to the full solution – **from wireless product infrastructure to WebEx and Unified Communication products.**

What is Mobile Collaboration?

The video conferencing and TelePresence industry is primarily focused on applications within the four walls of board rooms, meeting rooms, and executive and management offices. To address the needs of the millions of "physical world" workers who spend most of their work time outside these locations, Librestream has designed and manufactured a robust and reliable complementary ***mobile*** video conferencing solution for use throughout the enterprise.

Librestream's Mobile Video Collaboration System, called **Onsight**™, provides a communications solution for applications that cross a wide variety of industries and government. Onsight connects engineering teams, manufacturing suppliers, repair technicians or health care workers who are in the field to remote experts within their own organisation, supply chain or customer sites using video, 2-way audio, 2-way telestration, snapshots and recordings. As a result, Onsight enables organisations to bring the problem to the expert as opposed to the other way around and they can do this virtually from any location in the world.

The net result is that Onsight customers can now benefit by undertaking tasks and investigations they have never been able to do before. Decisions can be taken faster based upon readily available detailed information, project delivery can be optimised, service, repair and overhaul operations can be managed more effectively in a fraction of the traditional time and cost. These results provide a real and unmatched return on investment based on improved revenue, enhanced customer satisfaction and significant real savings.



Mobile Collaboration Use Cases in Oil & Gas

To date many applications have been found for Onsight within the oil & gas industry and as the visibility of Onsight increases in large organisations within the Oil and Gas fraternity the number of applications will increase very quickly. Below are examples of some applications being discussed, piloted or implemented to date.

Offshore Platforms - Maintenance Repair & Overhaul

The experience and problem solving capability of remote experts is continually needed in the operation and maintenance of systems and equipment located on offshore platforms. With the use of Onsight, remote experts can be quickly accessed and brought into situations on a live (or recorded content) video collaboration call to address and assist in solving issues immediately.

Prior to a solution like Onsight, problems would be described to experts via emails, telephone calls or still pictures. When those existing methods didn't work, experts were often required to travel to the offshore platform to see the problem first hand. The loss of production, high travel costs and time delays are typical drivers to implement mobile collaboration on offshore drilling and production platforms.

The ROI of using Onsight to engage experts to maintain, repair and overhaul equipment at the offshore location via Onsight is substantial and the system can often pay for itself in one use. Consider travel costs alone which typically can be the smallest benefit of putting the Librestream Onsight system into use. The costs of bringing an expert to the offshore structure is commonly quoted at £15,000 per trip, which can escalate given the lack of available sleeping facilities and the need for multiple trips. Approvals, visas and logistics to get experts offshore in a foreign country can also result in lost production at levels which can exceed £7,500,000 per day. Both oil & gas companies and service companies see the use of the Onsight Mobile Collaboration system as a powerful case for its application and are eager to deploy. **Insufficient network infrastructure is the key issue impeding the adoption of Onsight in these locations. Extronics ongoing program of developing such necessary infrastructure with enterprise class technology from companies such as Cisco, Motorola etc.. is able to overcome that challenge for customers.**

Repair Depots – Maintenance, Repair and Overhaul

Onsight has been used by oil rig service providers to maintain, repair and inspect equipment that has been returned to technical repair depots. Technicians at these facilities use Onsight to collaborate with two primary audiences – internal subject matter experts and customers.

From the repair depot, technicians can show their oil & gas customers the equipment problem and better explain the cause of unexpected costs. The ability to collaborate live with customers has provided a higher level of service with better overall communication.

For repair and inspection work, technicians at the repair depot also need to visually collaborate with other subject matter experts at times to diagnose or resolve issues. Using Onsight, they have been able to accelerate repairs, reduce warranty costs and reduce travel costs.

In these use cases, it is very helpful to know which experts are available to assist and it is also useful to bring customers in on an adhoc basis.

Drilling

A major oil & gas company has initiated plans to use Librestream's Onsight system at several of its drilling sites to help identify issues and more quickly solve problems, coordinate with suppliers and bring in remote experts when needed. With drilling costs that can reach three quarters of a million pounds per day, Onsight is considered a critical tool for this operation based on the value it will provide.

Borescope Connectivity

The Onsight Device has the capability to attach a variety of S-Video capable video scopes such as borescopes. When set up in this manner the video from the borescope is transmitted to the far end Onsight Expert user allowing them to see the internals of equipment or hard to reach locations. This new capability leverages the investment of oil & gas companies in borescope equipment which can commonly cost £30k to £50k per scope.

Production Fields

Corrosion teams, capital projects and remote network and telecom support have all been identified as high value mobile collaboration applications between company and contractor personnel in the field and experts who may reside around the world. Collaboration with external equipment suppliers has also been raised as an application area of interest for the use of Onsight. The ability to have a live video collaboration call between a field location to experts at a supplier or an engineering contractor would enable issues to be understood and corresponding problems resolved quickly. To traverse corporate firewalls on the supplier side, this can be achieved with the supplier running Onsight Expert through a VPN tunnel or ad hoc via the ability to start a WebEx call from within Onsight Expert application.

Ships

Oil & gas companies have expressed interest in Librestream's Onsight system for use in their fleets of ships. Leveraging experts who can assist in maintenance, repair and operation issues but who are not on board is a major application area for Onsight with strong application benefits.

Supply Chain

Supply chain use cases for Onsight come up in several industries such as manufacturing, construction and large project management situations. These applications have also surfaced in the oil & gas industry for onshore and offshore circumstances. Often drilling and production operations receive the wrong parts which causes additional shipping and handling costs, expensive interruption of operation or production, and possible safety issues. Visual verification of the exact parts required, especially for locations that are difficult to reach, prior to shipment is one example where Onsight can deliver value. Again, the ability to quickly bring suppliers into a live video collaboration session via the ability to immediately launch a WebEx session from within Onsight drives added value.

Construction

Initial construction or ongoing capital projects have several possible application areas for supplier coordination, inspection, and leveraging of remote experts to understand issues and resolve problems. If network bandwidth to these locations is limited Onsight can be configured and managed to operate in a low resolution video mode combined with full resolution picture sharing. Both the Onsight Device ("camera") operator and Onsight Expert user have the ability to use screen annotation ("telestration") and the Onsight Expert is able to remotely control the Onsight Device. **Again, insufficient network infrastructure can often be the key issue impeding the adoption of the Onsight system in these locations and this is an area where Extronics can assist in network infrastructure design and deployment.**

Refineries

Librestream is being utilised in a pilot application at a refinery in Texas s which is costing the refinery about £750k per day in terms of lost production. During the turnaround the refinery turnaround team will be working with off-site suppliers at a number of remote locations. Blower train, casings, turbine blades, valves, etc. are all maintained at different off-site locations. One of the refinery personnel using the Onsight Device will be able to collaborate from the off -site locations back to personnel at the refinery location using Onsight Expert. **If they need to bring in additional experts on an ad-hoc basis, WebEx can be launched from within Onsight Expert.** At this particular refinery they have had 5 turnarounds planned this year involving 7 of the 33 units. Average uptime for the refinery is a key operating metric and drives a very large ROI for the use of Onsight.

Integration with the Cisco UC platform

This integration is of significant value to an oil company's user community when they deploy Onsight systems in significant quantity. In early 2010, Librestream will be integrating Cisco contacts and presence into its Onsight Devices and Onsight Expert software. Consider the use case example where a field worker needs to consult with any one of 10 hydraulics experts worldwide within a major oil & gas company. With this integration, the device operator would know by looking at the directory on their Onsight Device which expert is on-line and available to take a call. He will end up getting help faster, and with the power of many use cases, this could add up to a lot of pounds saved in avoidable downtime. Librestream feels that integration with the UC Contacts and Presence system will add significant value for its customers. The Cisco UC team shares this vision and are working with Librestream to make this a reality.