

# Addressing the oil and gas industry's operations and maintenance challenges

With Engineering Drawing and  
Document Management Software

A Redeye White Paper for Oil and Gas Industry Management



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## Introduction

Upstream oil and gas companies face tremendous business pressures which has prompted a wide scale restructuring across the industry. Mergers continue as operators seek to consolidate operations and increase efficiencies. Beyond mergers, further actions have been taken to shed costs from reducing capex to reducing operations and maintenance costs. Many of these cost reduction efforts have involved reducing people, forcing those remaining to operate and maintain assets with fewer resources and often times without the full knowledge of personnel who have left. Those that remain are also concerned about stability.

According to a workforce survey by the University of Houston, about 53% of oil and gas workers highlight job security as a concern. The industry has to operate and maintain assets more efficiently with a workforce that has been through significant change. Executives and managers need to ensure that in this environment safety is not compromised. And operators are challenged to operate effectively while continuing to seek further cost reductions.







"Employees spend an average of over 30 minutes searching for drawings with over 30% never actually finding the drawing they need."

## Safety in oil and gas

The oil and gas industry has to continue making workforce safety improvements. According to the BLM, the fatality rate is seven times higher than in other industries. While oil and gas companies remain focused on making their operations safer, the pandemic has forced them to reduce on-site staffing and in-person training. With more workers working from home and independently monitoring assets, it has become more challenging to use traditional personnel training and monitoring methods.

Furthermore, as workers take on additional responsibilities of operating newly acquired assets or take over the assets of former colleagues, the increased responsibility without the resident knowledge adds to the potential safety risk. These risks can be alleviated by adopting technologies that equip workers with the information they need before they go to make repairs and modifications. Workers will be safer if they have accurate and up-to-date information on the facilities they are operating and maintaining.





## Reducing frustration and anxiety

According to Deloitte, over 107,000 people or 7% of the U.S.A. oil and gas industry workforce were laid off in the second quarter of 2020 alone. In Texas, the oil and gas industry has fewer than half the people employed than it did in late 2014. This dramatic loss of people creates a difficult environment for those who remain. The number of wells producing in the United States has only declined 5% in this period. Consequently, the workload to operate and manage wells has gone up dramatically.

Furthermore, infrastructure has become older and more complex. The workforce is busier, more stressed and clearly anxious about the potential for further reductions in force. To equip workers with the information they need, especially on assets that are “new” to them, they should be given proper tools.

Front-line workers can be very frustrated when unable to access necessary information in a timely manner. Often, they end up wasting valuable time searching for the latest information. This information is difficult to find because it might have come over with an acquisition or when those who were familiar with a specific part of the infrastructure are no longer with the company. Teams can benefit from a digital solution that equips them with the right information instantly in the field. An EDMS solution provides your team the ability to instantly access the latest engineering and operations drawings, documents and manuals, with the ability to record modifications, take notes, attach field observations and pictures, and link other information to a specific part or piece of equipment.

“The Oil and Gas Industry in Texas has lost over half of its workers since late 2014 putting a strain on the remaining workforce.”



“Laying a foundation that yields value right away and serves as a critical building block to propel further value down the road will help set your organization up for digital transformation success.”

## Retention and upcoming wave of retirements

According to the BLM, the median age in the oil and gas industry is 44 years old which is considerably older than other industrial sectors. While a number of experienced, older employees might postpone retirement due to the severe downturn in the sector and financial impact on their retirement finances, this postponement might be short-lived.

Oil and gas companies need to capture the knowledge of these workers. This knowledge is critical. The challenges associated with replacing the technical and institutional knowledge of these professionals will be significant. An EDMS solution will help your organization capture the myriad of information of your most experienced workers.

## Continued consolidation

Despite an improvement in oil prices, consolidation continues at a fairly rapid clip. In the last few months, notable transactions have been announced like ConocoPhillip's acquisition of Concho Resources and Southwestern Energy's acquisition of Montage Resources.

The environment is ripe for further consolidation as the industry continues to seek scale-based cost reductions. This results in rapid re-structuring, risk of loss of knowledge through departures or files that get lost in the shuffle, and a renewed sense of workforce anxiety.

The need to operate assets safely and efficiently is paramount but challenged by teams operating and maintaining unfamiliar assets. An acquisition is simplified by having the engineering drawings and related documents centrally located with the most up-to-date information easily accessible and searchable. This capability is increasingly becoming a necessity during mergers. Further, an EDMS platform allows for rapid ingestion of new information and is highly scalable.





## Talent attraction and retention

While it may seem strange to worry about attracting new talent when the industry has gone through a dramatic cutback, it is never too early to prepare. It is inevitable that the industry will need to attract new talent whether it is to close a specific skill gap or to renew the workforce. The industry needs to appeal to Millennials. The combination of COVID-19 and the work style of Millennials means that the trend towards remote and flexible work will continue.

The younger generation prefers flexible working hours, work from home options, and modern, mobile-friendly digital solutions. These trends are becoming deeply rooted into the fabric of the new workforce and are accelerated by the COVID-19 situation. One of the challenges of this new work approach is that there will be fewer team meetings for training and face-to-face collaboration. Collaboration needs to be enabled by technology that fosters knowledge sharing and easy access. A solution that provides engineering drawings and documents to your workers on-demand is critical. This EDMS solution will allow your team to work remotely whenever conditions necessitate, giving your team easy access to accurate drawings from anywhere at anytime.

## Pressure for continuous cost reductions

According to the EIA, production declines are steepening. With fewer new wells coming online, the decline rates have accelerated. With many operators looking at cost performance as a unit of production, this decline means that they will be

pressured to find increasing ways to operate more efficiently. This is where digital solutions, including an EDMS solution, can enable continued cost efficiency. Providing the correct information at all times reduces wasted time. Further, this information enables efficient workforce management and focuses on critical maintenance to keep assets performing well with lower costs.



## Solid digital foundation

The world of digital is daunting with so many different claims and potential solutions available. This can create confusion and often results in the adoption of inconsistent point solutions. In order to avoid the confusion, it is important to start with a digital roadmap that has a solid foundation. Laying a foundation that yields value right away and serves as a critical building block to propel further value down the road will help set your organization up for digital transformation success.



## EDMS solution

An Engineering Drawing and Document Management System (EDMS) is a software solution that gives your organization access to critical infrastructure information and access to the latest engineering drawings. Engineering drawings include all figures and related information that reflect the status of the physical infrastructure, including as-builts, modifications, field observations, and documents. Some oil and gas operators attempt to use other enterprise software solutions, like SharePoint, GIS or Project Management tools to serve this purpose, but they are not fit-for-purpose solutions, and these operators often experience lost time, costs, and significant staff frustration.

## EDMS as the foundation

A proven EDMS solution helps organizations lay a solid foundation for digital transformation success. An EDMS solution takes your digital and hard copy drawings and assimilates them into a robust, cohesive digital foundation for your company. With this key foundation in place, you can layer additional digital infrastructure like workflow optimization. EDMS is a digital building block that enables organizations to be more productive and efficient, preserve legacy knowledge, and attract and retain new talent. Further, employees will be safer as they will be more cognizant of the risks associated with the facilities they are operating and maintaining.

There are important features for EDMS solutions that will prove to be extremely valuable to an organization's digital transformation. Evaluating the unique features of each EDMS solution can help determine the best option for each organization's unique needs and challenges as they decide on a solution to help lay a successful digital foundation.

“EDMS is a digital building block that enables organizations to be more productive and efficient, preserve legacy knowledge, and attract and retain new talent.”

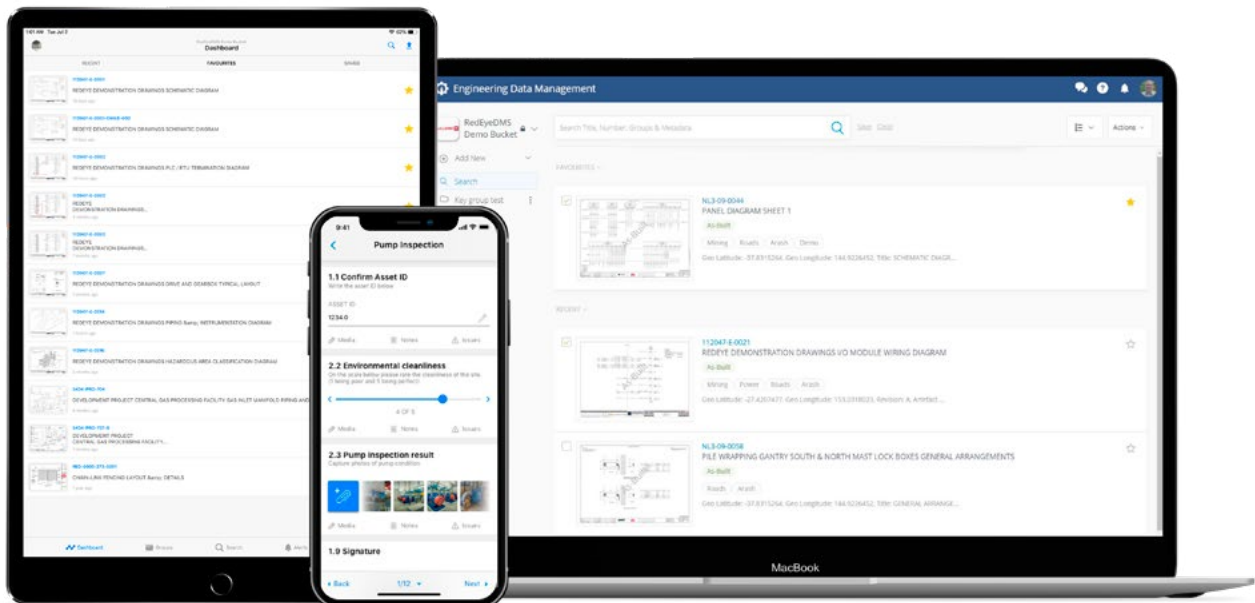




# RedEye's EDMS solution

RedEye works with organizations globally, standing shoulder-to-shoulder with our users, to understand and actively help address the challenges industries are facing. Our cloud storage and mobile design is uniquely built to provide critical infrastructure information to organizations easily and accurately, and will help the oil & gas industry successfully navigate the challenges ahead.

RedEye's EDMS solution eliminates information chaos by empowering each person in an organization, from the front-line team members in the field to their back office and functional support teams, with access to the latest and most accurate engineering drawings without barriers, anywhere at anytime. We have a simple user interface, with a powerful search feature, that facilitates quick and broad adoption, so finding the right information is fast and intuitive. This also gives organizations the ability to eliminate wasted time looking for accurate drawings and focus on restoration, repairs and growth of their infrastructure to keep the current high level of customer satisfaction.





RedEye helps capture vital legacy knowledge as workers retire, as well as attract the next generation of new talent. We invest in capturing the tribal knowledge from organizations as we transition drawings into our secure system. Our software is also flexible for different work styles and different generations. Employees can access drawings on mobile devices, or if preferred, can print copies with a QR code that links the printout to the digitally stored version. The printed copies are fully controlled and users are aware of all edits and modifications online or in print. The QR code feature is also used to group sets of drawings and documents together so that facilities information can be instantly accessed by field personnel via a simple scan of a QR code that has been affixed to the applicable facility. RedEye's mobile design gives organizations the ability to offer flexible work options to help attract new talent, as well as work successfully through challenges such as COVID-19.

Are you ready to help your organization lay a solid digital foundation? Our team would love the opportunity to discuss how RedEye's EDMS solution will add value to your organization.

**Contact us to schedule a demonstration.**

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