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Ways High-Speed Document Access Drives Productivity in the Energy Industry





Introduction

Workers in the energy industry need to access and collaborate on a wide range of documents, from permits and invoices to large and unwieldy PDFs and CAD files. At the same time, those workers are often required to operate remotely, whether that means a site office on the other side of the world from the company headquarters, or a drillship anchored in the Gulf of Mexico.

Accessing the highly detailed PDFs or CAD files necessary for energy workers to do their job can be taxing enough when using high-powered hardware and an ultra-fast corporate network.

When operating with potentially limited equipment and restricted bandwidth on remote or offshore sites, more frequently, the result is process bottlenecks and climbing IT costs.

On top of this, industry regulations and data compliance requirements such as GDPR are becoming increasingly stringent. This means that maintaining the security and integrity of corporate information accessed through those same documents is more critical than ever.

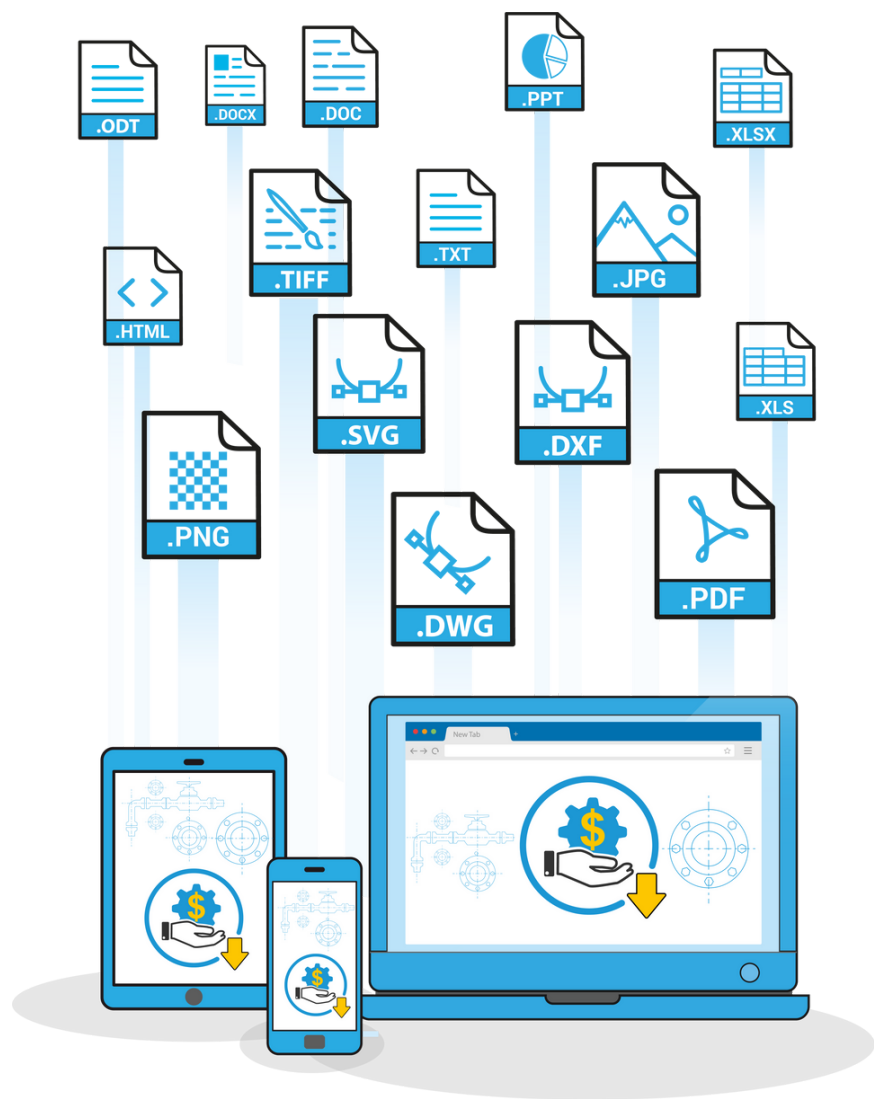
This eBook explores the impact of poor information management in the energy sector, and looks at how a high-speed document viewer solution can address those challenges by empowering energy workers to effectively collaborate from remote locations.

Poor Information Management in the Energy Sector

Information is the lifeblood of the energy sector, and if it is poorly managed the impacts can be significant. Oil and gas firms must handle a growing number of documents on a daily basis, including project plans, personnel records, invoices, compliance documentation, leasing agreements, inspection records, and much more. Not to mention, as one of the world's most highly-regulated sectors, these organizations require immaculate business operations that comply with evolving requirements.

The industry is under increasing pressure to maximize the value of information, which requires effectively managing enterprise content of all forms across global sites and disparate agencies. Conversely, poor information management can seriously impact business success for energy and oil companies. According to the ARC Advisory Group, poor information management can cut annual revenue for energy organizations by up to 1.5 percent.





Decreased Productivity

Oil refineries and processing plants are required to maintain a number of different software solutions to ensure everyday operations — most of which are disconnected and poorly integrated. When sharing and collaborating across multiple systems and document formats, users are traditionally required to download the file and open it in its native application. This is a time-consuming process, especially if workers are operating remotely, and represents a business process bottleneck.

Increased IT Costs

Not to mention, energy workers are often collaborating on large, complex files, such as lengthy contract PDFs or CAD files. Downloading these files requires significant bandwidth and storage space — both of which add to overall IT costs.

Workers then need to open these large, multi-page documents and complex technical drawing files in their native applications. This not only implies lengthy load times, but it can also contribute to a hefty bill in IT consumption over time across an organization as workers need to be issued with expensive equipment.

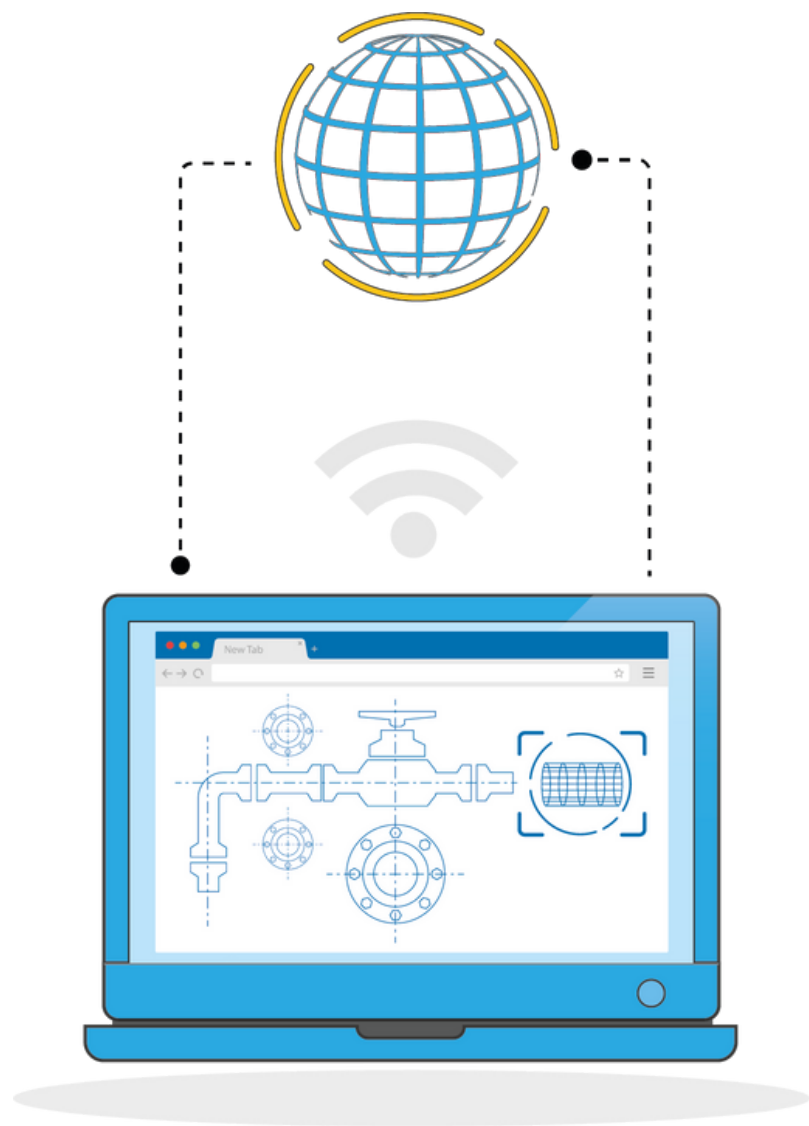
Security Vulnerabilities

Information is incredibly valuable in the energy industry. Production forecasts, survey data and financial data are all key company secrets that can cause real harm if they are exposed – accidentally or otherwise.

Poor information management plays a major role in leaving this vital information vulnerable to attackers. Without proper management, data can be stored in areas of the network that aren't properly secured, or downloaded and distributed by employees without the proper authorization.

To combat these issues, energy companies need a solution that enables real-time collaboration for on-site workers while automating the protection of sensitive data.





A Streaming Solution

The answer to these issues may well come in a form we've all become familiar with over the past few years – content streaming.

Just as Netflix and Spotify can provide users with access to television and music at the touch of a button, a high-speed document viewer can provide workers with the files they need to do their job. No matter the size or format of the document, the user can easily view, edit and search without the need for a high-bandwidth connection or powerful hardware.

The viewer can also be designed to accommodate security features that ensure that corporate secrets are kept safe and compliance issues are headed off before becoming a problem.

Four Key Benefits

Fast & Easy Access

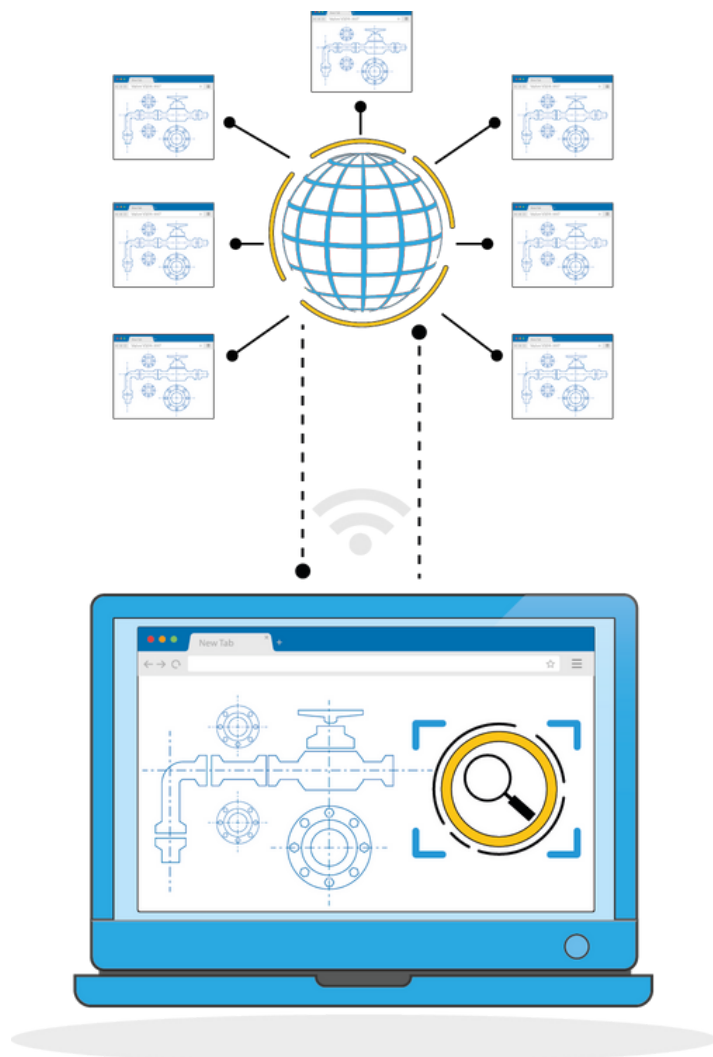
To keep energy operations running smoothly, workers need to have fast, reliable access to a wide range of documents. Geologists might need to access detailed, high-resolution maps and project plans for example, while engineers might need to study a part's technical schematics and inspection records.

Traditionally, the only way for these workers to access their documents would be to download them and view them on whatever equipment they have on hand. Even though the bandwidth available on-site has increased over recent years, these downloads can still take a considerable amount of time and rely on the worker's equipment being able to easily render the document.

A web-based document viewer solution with streaming technology can help to tackle both these issues. By streaming content to a user's device in milliseconds rather than minutes, workers can quickly and easily access complex files that they may otherwise have challenges viewing.

For example, the document viewer can display an AutoCAD file on a laptop that doesn't have the software pre-installed on it. So long as the worker can access a web browser, they can view whatever files are needed to get the job done.





Centralization of Information

If permits, maps, manuals, and contracts are scattered across cloud servers, locked in silos on legacy systems, or physically stored at head offices, it's virtually impossible for workers to quickly access and share them. It is no secret that this can slow down important projects and strain an organization's IT systems; CMSWire reports that employees can spend over 30% of their day looking for information due to fragmented information management.

Adopting a single, web-based solution that sits on top of existing systems helps standardize access to content from any hardware, in any format. By providing a single view of all business and Enterprise Content Management (ECM) systems to users, a powerful document viewer can enable oil and gas workers to access and share information no matter where they're operating or what documents they need easily and securely.

Simplified Security & Compliance

The energy industry is an increasingly common target for cyber-attackers, and organizations deal with a huge amount of sensitive data that needs to be proactively secured. Even a relatively small and remote operation might handle several confidential company documents, such as plant maps, production forecasts and survey data, as well as personally identifiable information (PII) about their contractors and employees.

If these documents are streamed using a web-based document viewer, rather than downloaded and opened in their native applications, they can be accurately rendered without transmitting the original file to the user. This removes many of the security risks associated with users downloading and saving sensitive files and allows for greater document traceability. This ensures complete visibility into which pages have been read, downloaded, printed, and sent to another user.

On top of this, the solution can be configured to automatically redact PII based on the specific user or document, cutting down on the possibility of accidental compliance breaches.

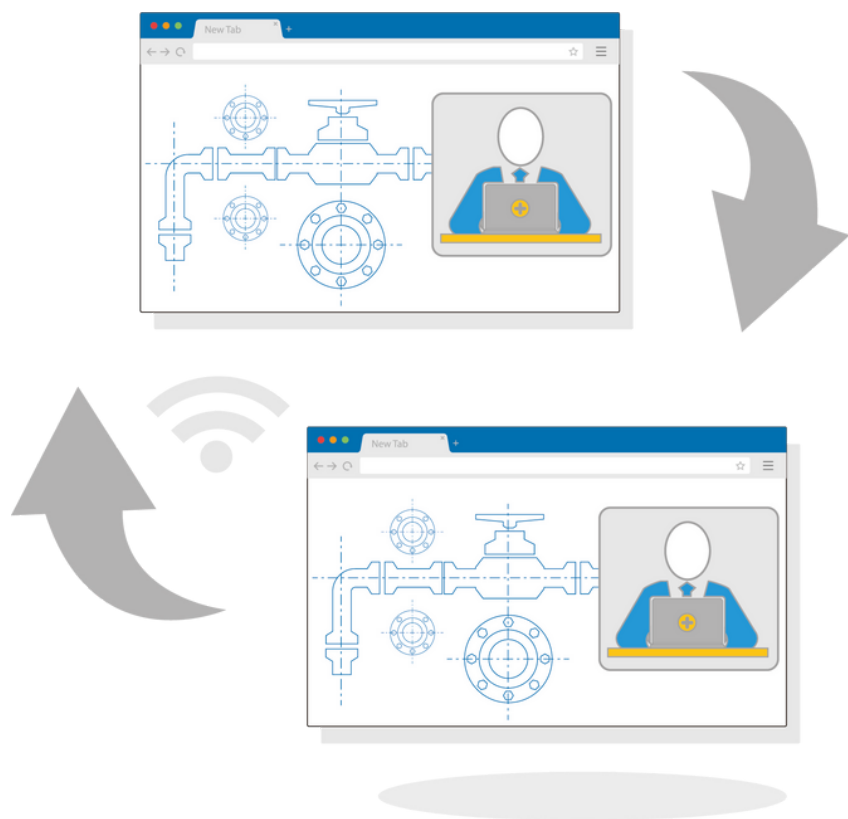




Smooth Collaboration Across Sites

Web-based document viewers make it easy for workers to effectively collaborate on documents in real-time from any device, anywhere in the world. It removes the need for individual users to download the document, add annotations and alterations and then re-upload it to the server – all while hoping that nobody else has weighed in with their own changes in the meantime.

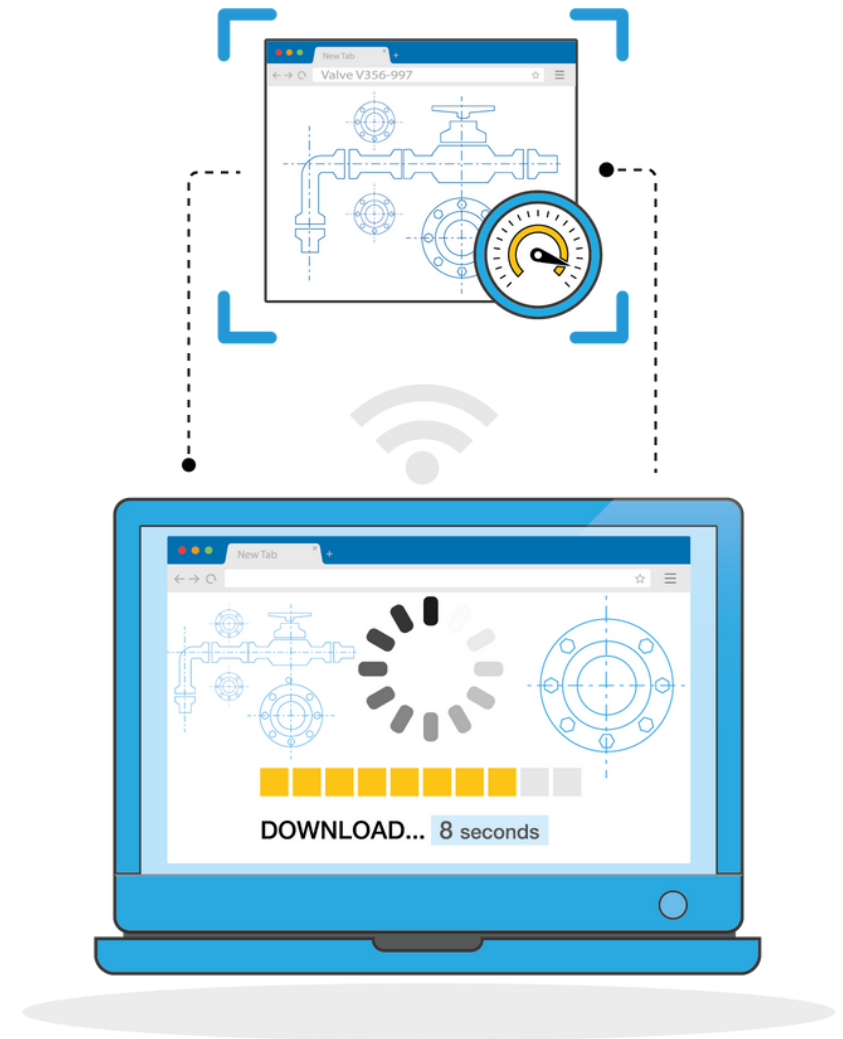
Instead, workers can open the document on any piece of hardware and annotate, collaborate and comment in real-time. This can prove invaluable where the document in question is a large, complex file such as a technical drawing or a high-resolution map that could take extensive time to download and then upload again.

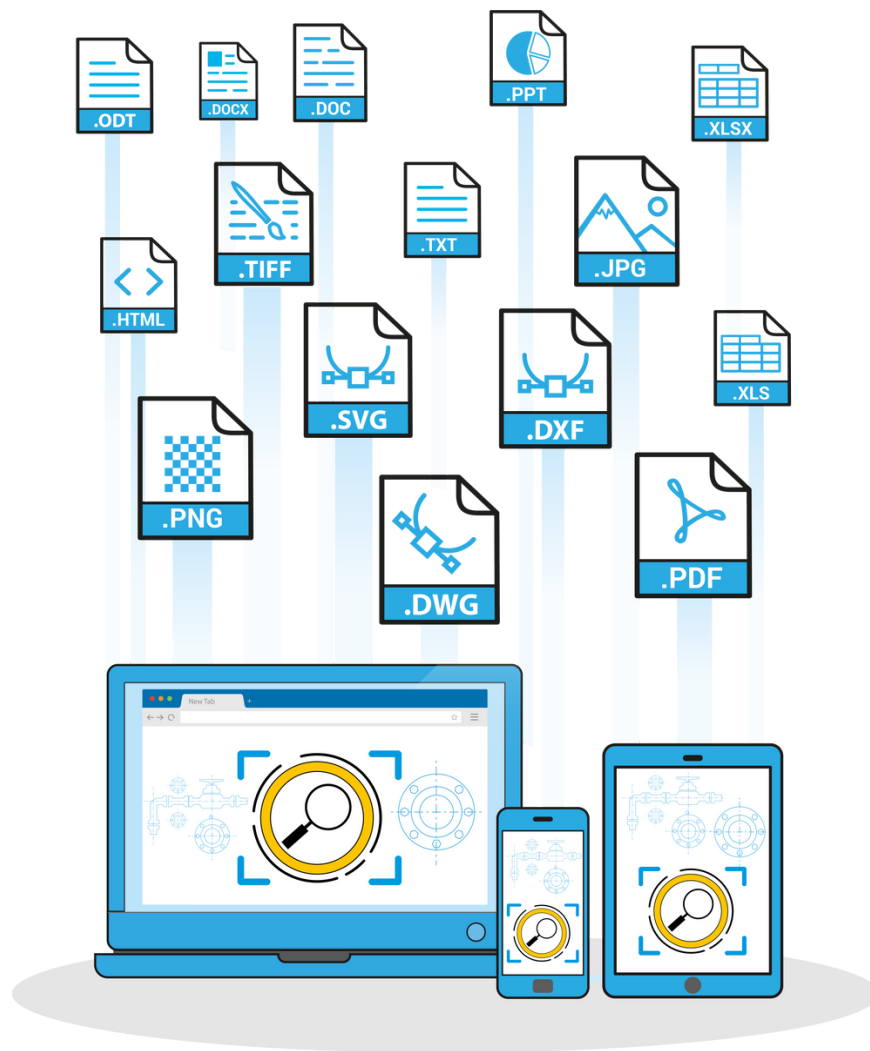


Fuelling High-Speed Information Flow With Content Streaming

With advanced content streaming technology, workers using a web-based document viewer can access any information they need in milliseconds, significantly reducing expensive bandwidth consumption and eliminating lengthy data downloads.

This solution doesn't just boost productivity either. The viewer is designed using simple but efficient HTML5 technology and is entirely web-based. This means it can be accessed through a standard browser, offering a low-maintenance way to reduce hardware requirements, eliminate the need for costly and bloated desktop software, and significantly reduce overall IT costs.





How Does it Work?

ARender document viewer displays content using modern streaming technology. Rather than downloading the document to be opened in its native application, ARender analyzes the document, extracts the data, and renders the information to the user as an image.

This process is almost instantaneous, displaying documents with less than 250 milliseconds of delay. Once open, the user can read, annotate, and collaborate on files — and on any device.

Because images are being sent to the user's device, rather than the original files themselves, it can open more than 300 different file types. This means users can access and collaborate on complex documents, such as technical drawings and CAD files, using a relatively low-powered laptop or tablet.

Using this same mechanism, ARender content viewer technology automatically redacts sensitive information or confidential elements of the document based on individual user permissions. Because the original document is never downloaded to the user's device, it makes it impossible to share the file without authorization.

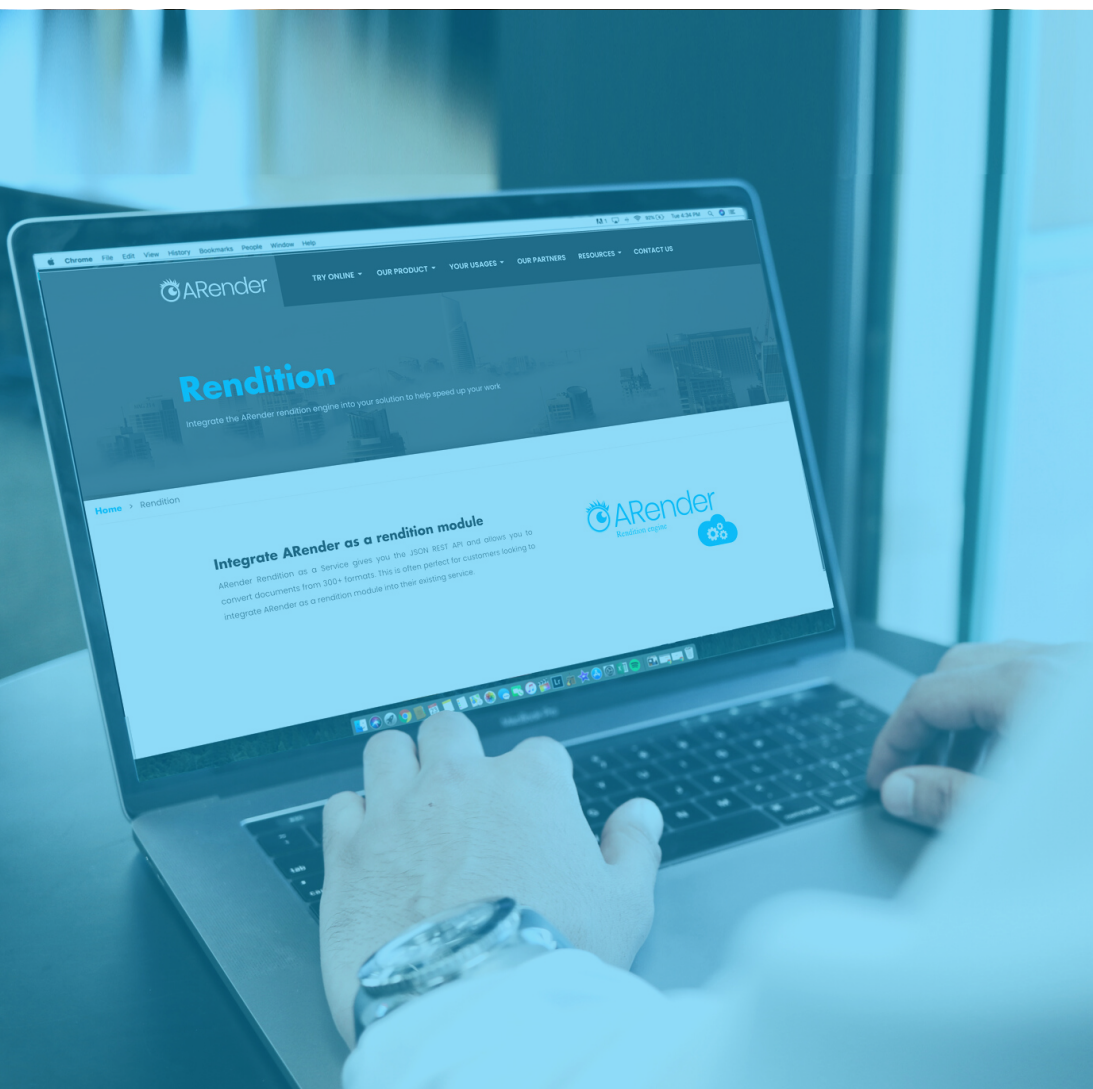
Conclusion

While it may be the enormous drilling platforms and extraction tools that capture the public perception of the energy industry, those pieces of equipment would not be able to operate without careful planning and collaboration across a range of disparate sites. If a project is going to run successfully, the workers supporting it need immediate, secure access to a range of complex and large-sized document formats.

Adopting a high-speed content viewer solution allows organizations to overcome many of the challenges that stand in the way of providing these documents – such as the limited bandwidth and equipment found at many remote sites. As well as this, a switch to a content viewer can deliver substantial additional benefits, such as standardized access to ECM content and improved collaboration.

When applied correctly, intelligent, high-speed streaming technology can help energy organizations save millions of dollars a year on bandwidth consumption while improving worker productivity, all while embedding the necessary security features to maintain ongoing regulatory compliance.





About ARender

ARender has more than 20 years of experience as an ECM solution integrator covering the entire document lifecycle, and since 2010 as a leading software vendor providing innovative, cloud-native, content viewing solutions.

ARender is trusted by organizations globally to deliver any of their documents and content quickly and securely to their users. ARender streams content, meaning that any size or type of file can be viewed from any device in milliseconds, and enhanced transformations such as redaction, watermarking, and device-specific rendering can be delivered seamlessly. Users can also collaborate on content of any type, dynamically annotating videos, documents, and more.

With offices in New York, Philadelphia, and Paris, ARender's vision is to put content at the center of all business user activity and provide organizations struggling with existing legacy content systems a cost-effective and low-risk way of delivering existing content through new channels and devices.

For more information visit
www.arender.io/solutions/aec-oil-gas