



# Aiimi Energy Solutions

Off-Shore Document Access



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# Aiimi Energy Solutions

## Offshore Document Access

### OVERVIEW

Since 2008 there has been an expansion of the Oil and Gas industry within the North Sea, especially on the UK Continental Shelf (UKCS), this was after almost 10 years of gradual decline. Since peak production was achieved in 1999, the decline in known reserves from then until around 2008 saw some level of either neglect, or at least a lack of desire to spend money, in the industry as a whole and certainly in non-core systems. However, since 2008 there has been an increase in activity in exploration and extraction, driven by the 3 fold+ increase in the price of oil and gas which in turn led to the renewed economic viability of exploration and extraction from previously non-viable areas. This has led to newly formed companies and joint ventures from established Energy companies, and existing exploration and downstream production companies, all commissioning new production platforms and associated facilities. In addition to the increasing demand from UK offshore oil and gas, there has been an explosion in interest in green and renewable energy and extensive construction and development of wind farms, tidal generators and carbon capture facilities. This activity has led to the renewed interest in services and software to support all of these new projects. This has seen both the implementation of completely new solutions utilising modern technology, as well as the replacement of legacy systems that were no longer fit for purpose. Another factor that has driven the willingness for companies to look at implementing CDMS applications and intelligent certification and verification systems, is the legal position and associated monetary penalties and reputational damage of not complying with regulations. This is relevant to the construction, operation, servicing and inspection of facilities and defending actions against findings, as seen in the Deep Water Horizon disaster in the Gulf.

Developed in response to a fluid environment in E&P to aid a number of our client's subsidiary and start-up organisations to manage new North Sea projects, Aiimi's CDMS solution provides controlled document receipt, collaborative review, transmission, storage, audit and permission controlled access, and is specifically designed for the energy market. It has the ability to rapidly ingest information from acquired companies, contractors and partners, process that information and distribute to on and off-shore audiences.

Aiimi's systems support the requirements for controlled document management in the energy sector and help to maintain document assets in compliance with best practice and regulatory requirements, such as those mandated by the HSE in the UK and equivalent bodies across the globe.

### INTRODUCTION TO AIIMI

Aiimi specialises in Enterprise Information Management. We offer a complete range of business and technology solutions drawing on our highly skilled consulting practice. Over the last eight years the business has delivered innovative enterprise information management solutions across a range of regulated industries including Energy, Utilities and regulatory bodies.

Aiimi has expertise across all aspects of an information management solution from strategy through analysis and design to implementation and service management. Our business comprises strategic consulting, business transformation and technical implementation capability as well as managed services through our hosting and "software as a service" solutions. We are passionate about technology, are focused on long-term relationships and always strive to deliver value and sustainable, future-proved solutions.

Powering Business Dynamics



# Aiimi Energy Solutions

## Offshore Document Access

Our Enterprise Content Management practice covers a wide range of disciplines including: Enterprise Document and Records Management, Business Process Management & Re-engineering, Scanning and Image Capture, Intelligent Character Recognition (ICR) & Optical Character Recognition (OCR), E-mail Management, Search and Collaboration.

Our range of services include, evaluation of strategy for information and records management, legal and regulatory compliance, information audit, and business process review. Our services combine appropriate collaboration, content management and workflow technologies into an integrated solution that captures ideas, experiences, and knowledge, and manages the complete lifecycle of electronic content from creation to archive and eventual deletion.

Aiimi are now the largest OpenText Content Server practice in the UK and we have established strategic partnerships with industry leading software vendors including:

- OpenText
- Microsoft
- Microstrategy
- SAP
- Claranet

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### INTRODUCTION TO OFF-SHORE DOCUMENT ACCESS SOLUTIONS

When working in an off-shore environment, the reliability of communications links to land based and other off-shore technology resources can be problematic, typically with low bandwidth availability and intermittent connection. Despite this, access to up to date information from off-shore locations is critical for the safe operation of platforms and other assets. It is always preferable to manage information centrally allowing access from multiple locations and collaborating with third party contractors and partners on this information, but the right versions of information should be available at all times in the respective off-shore location.

Aiimi has developed a comprehensive set of solutions to address the requirements of the energy sector, in particular with regard to off-shore access to documentation including drawings, health and safety guidelines, operating procedures and maintenance information. The following areas have been considered and addressed:

#### OFF-LINE ACCESS

In many cases, critical information needs to be accessed at times where a connection to central content management solution is not available. In circumstances such as this, the operators of an installation still require access to documents, ideally without having to print those documents and maintain paper records. Paper records can become out of synch with the current electronic versions of the documents unless time consuming and possibly error prone processes are implemented to prevent this. Aiimi's solutions use our ECM Everywhere technology to allow subscription to content of interest, which is then downloaded to devices, be they mobile (phone, tablet or laptop) or desktop based. The off-line device is synchronised to the central document store whenever a connection is available and this happens without user intervention. Read Only copies of this information are maintained locally on the facility in one or more devices, with specific devices or individuals having access to the most relevant information depending upon their role. The solution supports Android, iOS and Windows operating systems, so is largely device agnostic. CAD viewing software is typically available on the Windows platform, but also for Apple devices. Our off-line access solutions work out of the box with OpenText's content management solutions, and can be tailored to work with Microsoft SharePoint and other solutions.

#### LOW BANDWIDTH ON-LINE ACCESS

Where access from off-shore installations is consistent, but slow, centralised content management solutions can work, but speed of access can be painfully slow. In these circumstances, two distinct techniques can be employed to make the solution more workable. Caching servers can be employed to cache relevant documentation on the local installation which then in turn serve content to users directly rather than re-directing the user over a slow connection to a central server. The caching server also confirms with the central server that the user is being presented with the most up to date copy of the document. Caching can either be carried out on demand as site staff request documents for the first time, or Aiimi can implement rules based pre-caching that ensures all the documentation relevant to the installation are pre-cached ready for user access. In addition to the software platform, Aiimi has worked successfully with hardware vendors and client IT teams to implement technology to compress and reduce network traffic using hardware such as Riverbed or BigIP to reduce network bandwidth requirements by as much as 75%.

### TRANSMITTAL PROCESS

Transmittal and / or review processes can sometimes involve staff or contractors located at remote locations. During a review, the recipient must receive the notification to participate, react within a specific time frame and also be able to access the content that is to be reviewed. On-Line access to transmittal or review information can be problematic, so Aiimi offers fully e-mail enabled solutions for this functionality that can enable asynchronous access to information about the transmittal or review and to the documents or other content. E-Mail has a key advantage in that the recipient is not directly involved in the transmission or receipt of information and can fire and forget any responses. The process of downloading from or uploading information back to a central repository is taken care of in the background. In practice, a user will receive an e-mail with task information in the body of the e-mail and documents as attachments to the e-mail. The content can be reviewed and any comments e-mailed back. When the e-mail is received by the central system, the comments are automatically extracted from the e-mail and added to the transmittal or review package. Voting actions can also be incorporated so that an acceptance or rejection of content can be included in the body of the e-mail response.

### MANAGED FILE TRANSFER

When asset information is updated due to changes or upgrades, or when a new asset is commissioned, or transferred to new operators, there is a requirement to make available the corpus of information regarding the asset, typically in one large delivery. The process of managing the delivery of a large amount of information securely, over low bandwidth links and possibly to individuals outside the organisation can present particular challenges principally because of the volume of content. Cloud based document storage platforms only go some way to addressing this, particularly as they don't help automate that delivery or compress the information in transit and often don't answer security concerns for the information. Aiimi offers Managed File Transfer (MFT) solutions as a standalone answer to ad-hoc transmission of document packs as well as integrated into our other Energy solutions as a way of transmitting documents with outbound transmittals.

MFT helps avoid burning DVD's and CD's, USB Keys, insecure FTP, and even couriers for large file delivery, reduces transmission time (up to 30 times faster than FTP) and importantly for remote locations, provides a delivery receipt that confirms the information has been received intact. Where very large packages of information are being sent, MFT avoids the 2GB constraint of other transmission protocols and also caches the information to the most appropriate and nearest access point within your organisation to ensure that the shortest route from your remote facility to the data is provided.

The solution also supports "Dispatch Folders", which are pre-configured with a target destination, drag and drop files into a Windows Folder and MFT will automatically send them. Use Dispatch Folders for email exchanges as well as Server based transfers.

MFT has a flexible deployment model and is available both on premises, in the cloud, or a hybrid of both.

### THIRD PARTY OFF-SHORE

If your organisation is part of a joint venture with other parties, and the operators on the remote facility are not part of your own organisation, but you need the operating staff to be involved in your processes, you need a low overhead IT solution that works across network boundaries and does not rely on third parties logging on periodically to check for new documentation or tasks. Aiimi's Tempo solution allows background synchronisation of project or asset documentation on-demand to individuals or groups both within and outside your organisation. Operating in a similar manner to existing cloud based solutions such as DropBox or Box, the solution is designed to be extremely simple to learn and use, with a minimal IT overhead both in terms of adoption and also installation and support. Document Controllers create sharing folders, choose recipients and then check out or copy documents into those folders. The system transfers the documents to the remote recipients in the background and notifies the recipient as soon as the documentation is available for use. Notifications arrive by e-mail and also by popup notifications on the client device (Windows PC or Laptop, iPad or Android tablet). Any actions taken on the documentation are governed by security policies and audited by the system. Version control is also supported in case third party interaction is required. If versions are created remotely, these can be synchronised back to the central site or document management solution by a document controller or other reviewer.

### DATA OWNERSHIP AND PROTECTION

Throughout this document, we have made mention of cloud based solutions and some of the competitors in this space. One of the key considerations that any organisation adopting a cloud platform for document or other content storage should consider is the ownership and control of that data. At Aiimi, we take the ownership and propriety of our client's data very seriously. We for instance will never disclose this information to third parties for marketing or other purposes unless required to do so by law. We will also store the information in jurisdictions agreed with you as a client. Typically, this is the UK, but could be other jurisdictions if so requested by you. All of our systems offer data encryption on disk if required, whether these be hosted or on-premises implementations.

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## Offshore Document Access

### CONTACT INFORMATION

For more information, or to discuss any information in this document, please contact us.

Matt Eustace  
Account Executive  
+44 7919 330081  
[meustace@aiimi.com](mailto:meustace@aiimi.com)

Aiimi  
31 – 35 Kirby Street  
Farringdon  
London  
EC1N 8TE  
+44 (0) 207 397 5355

[www.aiimi.com](http://www.aiimi.com)

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