PennWell®

Improving Operational Excellence with Enterprise Asset Information Management

OpenText, SAP and Microsoft Best Practices Help Maximize Utility Asset Management and Performance

Abstract

In this collaborative paper, OpenText, Microsoft and PennEnergy look at key utility industry challenges and trends related to enterprise asset information management. The paper considers the types of solutions needed to address these issues as well as the specific solutions OpenText and Microsoft bring to the table. It also highlights a particular, successful solution implemented by water and wastewater utility Anglian Water.

Achieving Operational Excellence Means Aligning Information Management With Business Programs

The utilities industry is an asset- and infrastructure-intensive industry that generates substantial ongoing costs in new projects, asset maintenance and the vast range of resources both these activities require. Managing projects and assets is complex in utilities as activities span multiple business functions, such as engineering, materials management, operations, maintenance and customer relationship management. It's also harder to collaborate effectively and quickly share access to a common store of critical documents and asset information.

According to 2012 APQC data, unplanned downtime/outages for the best-run assets are seven times lower than traditional assets while annual service and maintenance costs are six times lower.

The situation is exacerbated when you consider the tremendous growth in data related to asset management. Companies today generate 30 percent to 50 percent more data each year, making it especially challenging to align information with business and management processes. This is particularly true for companies that rely on purpose-built platforms and solutions that cannot integrate or interact with other business-critical software.

From an industry perspective, information silos hamper accurate and timely regulatory reporting and interfere with the ability to maintain effective compliance. Outdated or non-accessible work instructions or safety procedures make it harder to adhere to HSE (Health, Safety and Environmental) standards. Ineffective information flows can also lead to higher maintenance costs, unplanned asset downtime and declining customer satisfaction.

From an Enterprise Resource Planning (ERP) and Enterprise Asset Management (EAM) perspective, process inefficiencies (such as duplication, rework or manual re-keying) waste time and money, while an inability to organize unstructured information (such as contracts, engineering drawings, emails, maintenance procedures, etc.) prevent streamlined work processes. With capital projects generating hundreds of thousands of documents, utilities are also at risk of data overload, and often subject to rising physical storage costs.

For companies looking to improve management of structured and unstructured data and achieve consistent integration between ERP and EAM systems, an ECM-based asset information management strategy can help break down organizational silos and enable better collaboration across the extended enterprise—including external maintenance contractors.

"By tying the integrated collaboration experience to business processes, disparate channels evolve from separate applications into a single user experience, one not only easier to use but also better at retaining exchanged information."[1]

1 Accenture. "Accenture Technology Vision 2013: Every Business Is a Digital Business."Accessed at http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-Technology-Vision-2013.pdf on March 7, 2013

Microsoft, SAP and OpenText—an Integrated Platform for Business Transformation

Utilities are faced with a large workforce getting close to retirement, as well as increasing demands from regulators to deliver information. As such, managing structured and unstructured data to improve accuracy and safety for new employees and the community is essential. Implementing an integrated ECM-based solution across the enterprise will provide teams with the increased productivity and accuracy to meet this challenge.

Such a solution should provide a complete enterprise information management (EIM) strategy, from data capture through document archiving of structured and unstructured data, and should include the following core features:

- Document & records management (versioning, retention, archiving, rendering)
- Workflow management
- Collaboration capabilities
- Web content management
- Business process modelling
- Online forms
- Scanning & indexing
- Rich media management
- Publishing
- Document/data input/output

Improving productivity is one of the key benefits utilities can realize with an enterprise information management (EIM) strategy for EAM. SharePoint has evolved from a simple collaboration and intranet application into an application platform for the extended enterprise, giving utilities easy access when they need to review information or act on core workplace tasks—whether on the desktop or on a mobile device. OpenText delivers interoperability with both the Microsoft enterprise platform and SAP core applications and processes. By integrating content directly to SharePoint, utilities are able to extend their applications' core capabilities even further.

The collaborative relationship between OpenText and Microsoft has yielded a number of specific solutions and capabilities that target particular utilities issues:

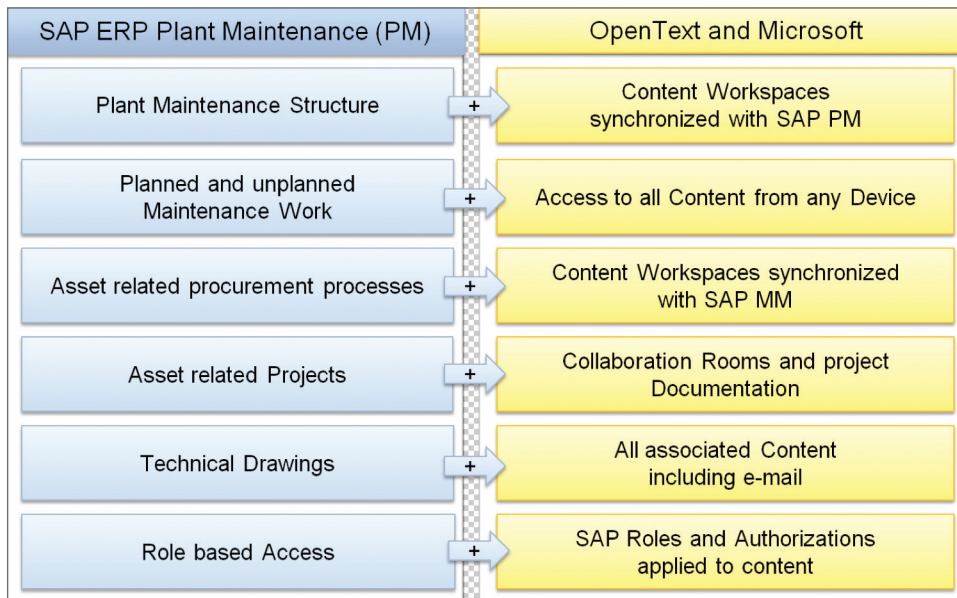## Regulatory compliance and information governance

- OpenText Application Governance & Archiving for Microsoft SharePoint provides enterprise-wide governance for SharePoint sites and documents.

- OpenText Email Management for Microsoft Exchange combines foundational email archiving with advanced records management capabilities.

- OpenText Archiving for SAP Solutions lets you create, access, manage and securely archive all SAP content, including outgoing invoices, orders, delivery notes, quality certificates, HR documents and archived data.

Process improvement and operational excellence

- Interoperable with Windows Azure storage, SharePoint, SQL Server and more, OpenText Extended ECM (xECM) for SAP help you orchestrate, optimize and gain visibility into critical business process and customer-facing operations in your SAP-based ERP and EAM systems

- OpenText Solutions for the Microsoft ecosystem help you achieve operational efficiency, control risk, enhance compliance and increase ROI across the entire utilities value chain, through to wholesale and retail operations.

OpenText xECM Suite even integrates seamlessly with SAP EAM (to manage plants and linear assets), as well as with the standard SAP ERP. SAP data is made available using dynamic context, meaning it's supplied based on the document selected in the integrated business function. For example, if you select a materials document, you will see all the SAP data relevant to materials in the SharePoint interface. With all these applications integrated, the OpenText ECM Suite provides a truly comprehensive solution, effectively linking an organization's existing CRM, EAM, Material Management and ECM systems.

Extension of SAP ERP

SAP ERP Plant Maintenance (PM)		OpenText and Microsoft
Plant Maintenance Structure	+	Content Workspaces synchronized with SAP PM
Planned and unplanned Maintenance Work	+	Access to all Content from any Device
Asset related procurement processes	+	Content Workspaces synchronized with SAP MM
Asset related Projects	+	Collaboration Rooms and project Documentation
Technical Drawings	+	All associated Content including e-mail
Role based Access	+	SAP Roles and Authorizations applied to content

Benefits of an Integrated OpenText-Microsoft ECM Solution Benefits of an Integrated OpenText-Microsoft ECM Solution

"Improving operational efficiency" was the number one concern of recent respondents to the OpenText-PennEnergy utilities survey, with 85.3% saying it was of "moderate to high concern."

Adopting an integrated EIM solution delivers a range of specific benefits, including:

- **Integration** with business processes in SAP Enterprise Asset Management and Microsoft SharePoint
- **Built-in workflows** to enhance the visibility, consistency and quality of maintenance activities
- **Integrated version management,** access control and audit trails for effective revision control of documents and procedures
- **Review and annotation tools** to streamline field markup of technical drawings and documentation
- **Efficient transmission of documentation packages** between contractors and vendors
- **Alignment** of employee, role and information
- **Improved operational efficiencies**
- **Improved customer service**
- Enhanced **safety and compliance**

77% of respondents to the OpenText – PennEnergy utilities industry survey counted compliance as their second biggest concern when it came to capital projects and/or asset management.

Case Study—Anglian Water Implements an Integrated Knowledge Management Solution

Anglian Water supplies water and wastewater services to more than six million domestic and business customers in the east of England.

Business challenge

Like most companies, Anglian Water found itself challenged by the rapid growth of structured and unstructured data from both internal and external sources. Its aging intranet was not up to the data management task, and its stand-alone file storage system made it difficult to find information quickly and easily and align it with relevant business functions. Anglian was dealing with:

- A document storage system with 40% duplication, 10 million documents and no search capability
- An intranet with over 39,000 pages, no common look and feel, much duplication and old content
- Employees who each spent approximately one hour per week searching to locate necessary information
- Diminished resources to support other strategic projects

To address these issues, Anglian wanted a sustainable platform enabling a more efficient, process-aligned organization; an engaging, reliable and scalable intranet communications and collaboration tool; an innovative information control workflow engine; and a portal to a full-function document and records management platform.

Solution

With OpenText xECM Suite and Application Governance & Archiving for Microsoft SharePoint as the glue connecting Anglian's SAP processes with its Microsoft SharePoint intranet, the organization now has the integrated knowledge management platform it was looking for. Featuring fully integrated information management and workflows for EAM, CRM and Material Management, it was the first SharePoint integration project of its kind in Europe.

Anglian redesigned, rebuilt and repopulated a critical, live intranet and document management system. The transformation affected 100% of the company as well as external maintenance contractors and partners, totalling 4,500 users. Now the organization's Intranet and document management system is the key channel for most business processes, including quality management, regulatory compliance, financial management, call scripting and asset/customer/supplier/employee information.

Anglian significantly decreased the effort involved in asset information management while increasing the amount of managed content in the organization.
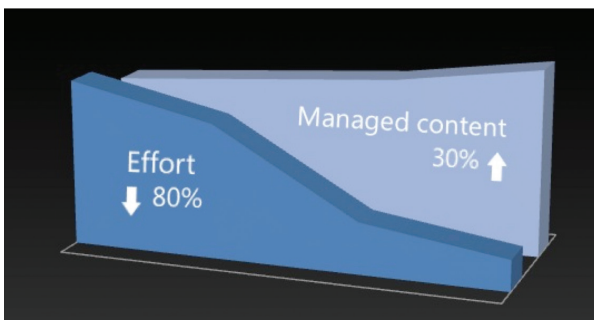
Anglian Water is saving 4,500 hours of work time for its employees per week through improved maintenance and material management processes.

Result

Anglian accomplished the full integration of its OpenText ECM solution with Microsoft SharePoint, along with the preparation and migration of huge volumes of critical corporate information and documents, in an eight-month window. The new systems were delivered to all 4,000 employees and 500 business partners while maintaining 24/7 service, and its new collaborative platform is a success with users.

Anglian has been able to:

- Improve access and remove information silos (e.g., by linking customer relationship management to work orders)
- Implement corporate retention, archive and disposal policies and corporate naming standards in support of compliance
- Align information management with business programs and processes
- Effect significant behavioural and cultural change within the organization, resulting from more resource-efficient information management
- Enhance regulatory risk management by having a single point of truth for document history, versioning and audit trails
- Implement a solution that integrates with and expands its existing Microsoft Server OS and SharePoint intranet as well as its SAP ERP

A Continuing Trend Toward ECM-based Enterprise Asset Information Management Solutions

In a recent OpenText–PennEnergy utilities industry survey, 68% of respondents had either already implemented or were planning to implement a carefully chosen ECM suite offering that can be customized on-site.
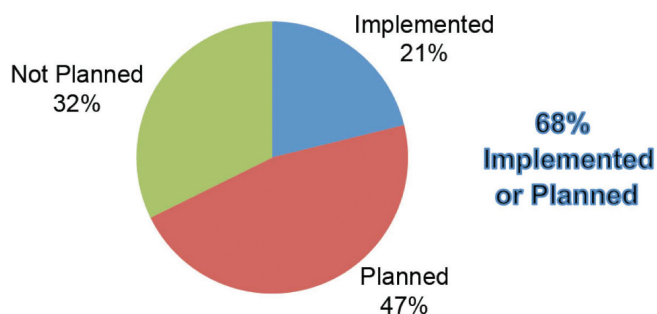
Anglian Water is just one of many utilities companies embracing EIM as a way to manage structured and unstructured data and enable and integrate ERP and EAM processes across the enterprise. According to our recent survey research, reducing costs (60.4% of respondents), improving decisions by achieving an enterprise-wide single point of truth (53.6%) and reducing regulatory risk (51.5%) stand as the leading potential motivators to make the transition. Indeed, the ability to execute an EIM strategy to maximize ROI across multiple platforms while reducing resource spend and providing better long-term scalability are advantages that infrastructure-heavy industries like utilities can definitely leverage to drive future success.

OPENTEXT

About OpenText

OpenText is the world's largest independent provider of Enterprise Information Management (EIM) software. The company's solutions manage information of all types for business, compliance and industry requirements in the world's largest companies, government agencies and professional service firms. OpenText supports approximately 46,000 customers and millions of users in 114 countries and 12 languages. For more information about OpenText, visit www.opentext.com.

About Microsoft WW Power & Utilities Group

The Microsoft Worldwide Power and Utilities Group offers platform and partner solutions that empower utilities to thrive in today's market-driven environment by optimizing their business operations in customer care, generation, trading and risk management, transmission and distribution, regulatory compliance and enterprise services. For more information, contact your local Microsoft sales representative or visit www.microsoft.com/utilities.

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