Reducing Costs and Improving Business Efficiency with Enterprise Content Management

Oracle WebCenter Content Customers in Action
Oracle WebCenter Content is recognized year after year as one of the leading Enterprise Content Management (ECM) solutions available today. Content management is a broad term that incorporates a variety of technologies that can significantly affect your business. Simply put, content management encompasses the strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to all aspects of your business and organizational processes. How any organization manages content has a direct impact on business efficiency, employee productivity, IT infrastructure complexity, and certainly, the bottom line.

While there are many benefits that come with managing content properly and efficiently across the organization, the true measure of success is demonstrated in real-life business scenarios. With that in mind, we’ve compiled this collection of Oracle WebCenter Content customers to showcase the specific benefits that each of them have realized. Each of these customers is using Oracle WebCenter technology to make content easier to locate for end users and simplify business processes that rely on content such as forms, faxes, images or other documents. Oracle WebCenter Content helps you reduce and eliminate information silos that hamper efficiency and streamlines business operations while reducing operational costs.

Take a look at these various customer case studies and see for yourself how Oracle WebCenter Content can make a real difference. We think you will gain insights into how you can do the same within your organization.
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“Electronic document management is an indispensable way to improve project information flow between our global engineering subsidiaries, construction sites, and external companies in remote locations. Oracle WebCenter Content enabled us to establish a dynamic business information management system that can quickly deliver the latest design information to the relevant project execution offices and show a project’s progress, based on the status of various documents.”

Toshio Hayashi, Deputy General Manager—IT Management and Control Unit, Toyo Engineering Corporation.

Toyo Engineering Corporation Provides 24/7, Worldwide Access for Project Personnel through Cloud-based Project Document Management System

Toyo Engineering Corporation (Toyo) was established in 1961 after the company separated from the engineering and maintenance section of Toyo Kaatsu (now known as Mitsui Chemicals). Since then, Toyo has worked on thousands of plant engineering projects in more than 50 countries, and it is a globally recognized leader in its field.

Toyo rebuilt its project document management system to improve collaboration and communication between globally dispersed subsidiaries, external companies, and project teams. As a result, it anticipates it will save US$2.4 million (200 million yen) per year on printing, copying, and delivery expenses and expects to significantly reduce e-mail volume.

IMPROVING COMMUNICATION AND COLLABORATION

Toyo offers a wide range of technical services for the energy, oil refinement, chemical, pharmaceutical, and food industries. Its services include facility and equipment management, plant construction, system construction, master planning, and maintenance.

Toyo needed to improve collaboration between global subsidiaries, external companies, and staff in remote locations. It also wanted to enhance communication between project management teams, and engineering, procurement, construction, and other business process units, so each department had timely access to the latest design, engineering, and project information.

ORACLE CUSTOMER:
Toyo Engineering Corporation
Tokyo, Japan
www.toyo-eng.co.jp/en

INDUSTRY:
Engineering and Construction

EMPLOYEES:
3,956

ANNUAL REVENUE:
$1 to $5 Billion

ORACLE PRODUCTS AND SERVICES:
• Oracle WebCenter Content
In 2010, Toyo rebuilt its project document management system, using cloud services provided by Oracle Partner NS Solutions, based on Oracle WebCenter Content.

“Electronic document management is an indispensable way to improve project information flow between our global engineering subsidiaries, construction sites, and external companies in remote locations,” said Toshio Hayashi, deputy general manager—IT management and control unit, Toyo Engineering Corporation. “Oracle WebCenter Content enabled us to establish a dynamic business information management system that can quickly deliver the latest design information to relevant execution offices and show a project’s progress, based on the status of various documents.”

LARGER PROJECTS INSPIRED INNOVATIVE DOCUMENT MANAGEMENT SYSTEM

The foundation of Toyo’s business operations is Global Toyo, a global network organization that covers 17 countries. Global Toyo includes subsidiaries in China, India, Korea, and Malaysia that cooperate in engineering, procurement, and construction processes for Toyo’s projects. Branch offices in Europe, the U.S., and the Middle East also work with local engineering companies to coordinate the needs of clients.

In 2009, Toyo began improving its document management system as part of a management plan to further enhance the company’s ability to execute projects globally. The plan was motivated by complications due to an increase in the scale of Toyo’s projects and the number of project participants from global subsidiaries and external companies. Toyo was winning bids for bigger projects that required a larger number of documents, such as process and instrument diagrams, engineering drawings, and calculation sheets. The projects also required more communication documents, all of which were stored as paper copies.

It is crucial to Toyo’s project management team to deliver project information quickly and accurately. As the company grew, it became harder for project management teams to manage official correspondence containing information about design and construction materials, for example. Project structures and communications among the many subsidiaries within Global Toyo also became increasingly complicated. This led to an increase in the number of e-mails sent by project staff.

“We faced increasingly complex communications and greater volumes of documents caused by more intricate project structures,” said Hayashi. “E-mail is an effective way of delivering information between individual users, but the increase in communications led to project staff receiving an unmanageable flood of mail.”
TOYO ENGINEERING CORPORATION CONTINUED

RISSING E-MAIL VOLUME HINDERS PROJECT MANAGEMENT PROCESSES
Toyo initially developed a Letter Management System (LMS) using IBM Lotus Notes to improve the company's information flow and reduce the number of e-mails sent between staff. The LMS worked like a bulletin board system containing official project correspondence, such as engineering instructions and financial transactions. The correspondence was prepared in the LMS and shared between members of the project.

However, the LMS wasn’t available to clients and project personnel outside of Toyo, so Toyo's staff had to resort to further e-mails. Project managers received up to 400 e-mails per day, which disrupted their project management work.

"E-mail is a person-to-person communication, whereas we needed to manage our engineering projects organization to organization," added Michio Nagasawa, business process IT team leader, IT management and control unit, Toyo Engineering Corporation. "Our official project document management system had to be a shared model to prevent documents from being duplicated and scattered in different locations. We needed to store information in a single, well-managed repository."

In addition, Toyo was transferring its global project management from its Japanese headquarters to its local subsidiaries. It was therefore important to share knowledge about productive techniques and ideas from Japan with global subsidiaries and affiliated companies to advance their independence.

The company also wanted to move to a new policy that required staff to regard an electronic document as equally valid as a hard copy signed by hand.

CLOUD PLATFORM ENABLES 24X7 ACCESS
In February 2011, Toyo launched a new project document management system called SHOKA, which means ‘bookshelf’ in Japanese.

Based on Oracle WebCenter Content with a workflow function in a cloud environment, Toyo established a flexible, scalable, and highly durable document management system that allows global project personnel to use it 24 hours a day, 365 days a year.

"The strength of SHOKA is that it can be accessed from anywhere through a secure internet connection, whether you are working in Japan or overseas," said Shuntaro Saito, project IT group, IT management and control unit, Toyo Engineering Corporation. "This enables remote users to continue their project work exactly as if they were at head office."

SHOKA has also increased clients' satisfaction by providing increased data security. According to Saito, some clients expressly ask to use SHOKA to manage their documents as they appreciate the higher security of the cloud environment during a project involving a variety of staff.
CLOUD-BASED DOCUMENT REPOSITORY TO SIGNIFICANTLY REDUCE E-MAIL VOLUME

Toyo’s ultimate goal is to automate all its project information and store it in SHOKA’s cloud-based document repository.

At present, SHOKA covers about 50% of all project information, including official project deliverables, some work-in-progress documents, and files transferred to and from vendors. Once the system includes the new Oracle-based LMS, it will contain 100% of Toyo’s project information.

SHOKA will also support a more flexible communication style, reduce e-mails significantly, and ensure managers can focus on making more timely decisions about engineering and construction projects.

CONSOLIDATED SYSTEM IMPROVES OPERATIONAL EFFICIENCY

SHOKA makes it easier for project personnel to search for documents from each department, subsidiary, and external company involved in a project. Users can now instantly access the latest design information and see the current status of construction schedules and project progress. This will improve project execution efficiency.

“Based on Oracle WebCenter Content with revision management and search functions, we have established a work culture with a positive attitude towards digital documents,” said Nagasawa. “We developed new document management procedures to standardize document folder structures, electronic file naming rules, and document authorization methods. If these procedures differ between each project, it is hard for project members to find the relevant documents, so the standard procedures help us share relevant information more efficiently.

“We will also soon see even greater achievements from sharing information from a consolidated central database,” he added.

EXPECTED TO SAVE AN ESTIMATED US$2.4 MILLION PER YEAR

In addition to quick and accurate document delivery, Toyo anticipates it will save at least US$2.4 million (200 million yen) per year on printing, copying, and delivery expenses.

To ensure these savings, Hayashi said he will work to reduce in-house storage capacity and e-mails during project execution.

“Oracle WebCenter middleware is highly valued,” he said. “It is the engine of our new project document management system. Our goal now is to achieve full-scale system operation, including innovating our business processes and continually investing in IT.”
CHALLENGES

• Reduce e-mail volumes from up to 400 per day for each project manager
• Simplify communication between globally dispersed project personnel caused by increases in project sizes
• Enhance communication between project management teams and engineering, procurement, construction, and other business process units
• Deliver the latest design data to relevant departments in a timely manner
• Share and deliver knowledge about productive techniques and ideas from Japan with global subsidiaries and external companies
• Adopt a shared document management model to prevent project documents from being duplicated and scattered in different locations
• View and understand a project’s progress through the status of documents
• Change business processes to ensure electronic documents are regarded as valid as hard copies

SOLUTIONS

• Enabled project personnel from global subsidiaries and external companies to use a cloud-based project document management system 24 hours a day, 365 days a year
• Expected to save an anticipated US$2.4 million (200 million yen) per year on printing, copying, and delivery expenses
• Improved project efficiency by establishing a centralized document management system for staff to instantly search for project or design documents rather than sending e-mails
• Expected to significantly reduce e-mail volume by enabling managers to focus on making more timely decisions about engineering and construction projects
• Enhanced user satisfaction by providing staff with access to documents from remote locations as if they were at head office
• Increased clients’ satisfaction by ensuring high security for project data
• Established a work culture with a positive attitude towards digital documents
• Shared project information with project personnel more efficiently by standardizing project document folder structures, electronic file naming rules, and document authorization methods
WHY ORACLE

Based on a recommendation from NS Solutions Corporation, Toyo opted for the highly durable, enterprise-class Oracle WebCenter Content instead of a general purpose document management package.

“We wanted to build a flexible, scalable, and durable system that is available globally, 24 hours a day, 365 days a year,” said Nagasawa. “We realized that a generic package operated on our own servers would not satisfy these requirements.”

IMPLEMENTATION PROCESS

Toyo and NS Solutions began working together on the project document management system in October 2009. The companies investigated whether to adopt a new system or continue using Toyo’s legacy, third-party document management systems.

In April 2010, Toyo and NS Solutions built the system’s foundation and developed basic functions. Between October 2010 and January 2011, they tested the new system and worked on operational stability.

The new project document management system went live globally in February 2011.

ADVICE FROM TOYO ENGINEERING CORPORATION

• It’s not enough when developing a new project document management system to simply extend a file server system where files are only stored and transferred, not managed and controlled. The key to success is to establish a flexible and scalable system, with serious consideration about how various stakeholders can manage documents globally.

• A document management system is a valuable repository of information that is a source of competitiveness, so extensive efforts should be made to establish the best one.
Organization of American States Quickly Processes Thousands of Human Rights Petitions Using Enterprise Content Management Solution

The Organization of American States (OAS) is the world’s oldest regional organization, dating back to the First International Conference of American States, held in Washington, D.C., October 1889 to April 1890. It brings together all 35 independent states of the Americas and is the primary political, judicial, and social government forum in the Western Hemisphere.

OAS works to achieve peace and justice among member states, promote their solidarity, strengthen collaboration, and defend state sovereignty, territorial integrity, and independence. Five main pillars—democracy, human rights, security, internal development, and interAmerican cooperation—form the foundation of its work.

An important part of OAS’ mission focuses on human rights advocacy, which is carried out via the Inter-American Commission on Human Rights (IACHR). The commission receives more than 1,500 petitions every year and handle, at any given time, a docket of more than 8,000 cases. These complex cases often involve boxes of documentation, which IACHR routed manually throughout the organization, making it difficult to determine the status of a petition, presenting security risks, and slowing processing for a growing number of cases.

In 2010, OAS deployed Oracle WebCenter Content for IACHR to automate and expedite petition and case processing. Since that time, it has improved processing efficiency, extended visibility into petition status, and increased security around critical documents. After achieving a significant return on investment in the early stages of deployment, OAS began plans to extend the implementation to enable petitioners and other stakeholders to track cases and access critical documentation online.

“We needed to efficiently capture, secure, and distribute digital and paper-based documents throughout the lifecycle of thousands of human rights cases, and only Oracle WebCenter Content could meet our complex workflow requirements. We’ve turned petition documents into intellectual assets, improved collaboration and security, and achieved an impressive return on investment.”

Juan José Goldschein, Chief Information Officer, Organization of American States.

ORACLE CUSTOMER:
Organization of American States
Washington, D.C.
www.oas.org

INDUSTRY:
Public Sector

ANNUAL REVENUE:
US $100 Million to $500 Million

EMPLOYEES:
501 to 1,999

ORACLE PRODUCTS AND SERVICES:
• Oracle WebCenter Content
• Oracle University
CHALLENGES

• Manage more efficiently large volumes of documentation associated with the thousands of human rights cases that IACHR handles annually for individuals in OAS-member states
• Accelerate petition processing
• Improve visibility into case status so that IACHR can provide on-demand updates to petitioners and other stakeholders
• Reduce security risks associated with routing paper-based petition files for internal review
• Complete the implementation within two years to meet funding requirements

SOLUTIONS

• Deployed Oracle WebCenter Content to help IACHR automate and accelerate processing petitions and cases related to potential human rights violations in the Americas
• Gained the ability to efficiently and securely manage 1,500 new human rights petitions each year as well as 8,000 ongoing petitions—many containing a significant amount of unstructured data
• Improved efficiency in receiving, managing, and routing case files—which can range from a single page to boxes of information received from petitioners, the 35 member states, and nongovernmental organizations
• Replaced IACHR’s paper-based environment with digitized documents and automated workflows, improving traceability and visibility, as well as accelerating petition processes
• Accommodated a very complex environment that encompasses more than 17 custom workflows in four languages—Spanish, English, Portuguese, and French—and more than 100 workflow security rules based on geography, stakeholder conflict of interest and more
• Provided IACHR with a secure digital information system for sensitive human rights case information, ultimately improving reliability and information sharing across the organization
• Improved ability to quickly provide information on petition status to authorized representatives, as well as petitioners, who might have to travel hours to reach a phone to contact IACHR for an update
• Increased IACHR data storage capacity by 206%, from 30,260 to 62,208 documents, in the first four months of operation, and captured more than 150,000 documents by December 2011
• Prepared plans to expand implementation to enable petitioners and other authorized parties to gain online access to case information, with the goal of a faster and almost paperless system that helps protect more than 700 million people across the 35 member states

• Implemented the extensive system in two years, meeting the requirements for a grant that funded the initiative

• Worked with Oracle University to effectively train users on the Oracle WebCenter Content platform

• Received international recognition for the implementation, including being named a 2011 Computerworld Honors Program Laureate in recognition of the IT project’s potential to support positive social change, and the Association for Information and Image Management (AIIM) 2011 Carl E. Nelson Best Practices Award in the midsize organization category

WHY ORACLE

“We worked with Gartner to define 150 different selection criteria and analyzed all available content management solutions. Oracle WebCenter Content rose above the competition because of its built-in and sophisticated workflow, service-oriented architecture, core service robustness, and data reliability. We have a very complex workflow, with more than 100 security rules governing our processes. Only Oracle could handle that complexity,” said Juan José Goldschtein, chief information officer, Organization of American States.
Portugal’s Institute of Financing for Agriculture and Fisheries Streamlines Documentation Management

As part of the Ministry of Agriculture, Rural Development, and Fisheries, the mission of the Institute of Financing for Agriculture and Fisheries (IFAP) is to provide access, process payments, and oversee the application of European Union (EU) and domestic funds distribution to individuals and companies engaged in the agriculture, rural development, and fisheries industries.

CHALLENGES

• Establish electronic processing of EU funds invested in agriculture and fisheries
• Review internal processes and classify all documentation
• Implement an IT infrastructure that supports document management to gain efficiency and speed
• Improve relations between government agencies and the public
• Comply with International Organization for Standardization (ISO) requirements for information management and security systems regarding access to stored documents

SOLUTIONS

• Achieved a complete solution for managing the entire document content lifecycle through the use of Oracle WebCenter Content and Oracle Webcenter Capture
• Replaced IFAP’s use of paper with digital formats, accelerating internal processes and ensuring compliance with ISO requirements
• Increased number of documents included and managed in the document system, called iDOC, to a total of 490,847, of which 103,298 are internally generated, 113,824 are digitized correspondence, and 264,870 are forms that have been digitized or received via the institute’s Web site
• Improved relationships with the public by accelerating payments electronically to individuals and organizations engaged in agriculture and fisheries, which is much easier, faster, and secure than paper-based payments
• Improved productivity through the use of digital formats and citizens’ ID cards as digital signatures
Texas A&M University System Improves Managing More Than US$800 Million in Research Funds with Centralized Research Information System

Texas A&M University System is one of the largest higher education systems in the United States, with a statewide network of 11 universities, seven state agencies, and a comprehensive health science center. The mission of Texas A&M University System is to provide education, conduct research, commercialize technology, offer training, and deliver services for the people of Texas and beyond through its network. Texas A&M University System members educate more than 120,000 students and reach another 22 million people through service each year. With more than 28,000 faculty and staff, the A&M System has a physical presence in 250 of the state’s 254 counties and a programmatic presence across the entire state. In 2011, externally funded research expenditures exceeded US$800 million to help drive the state’s economy.

CHALLENGES

• Help researchers better manage research programs through a secure, centralized, and integrated system, based on a reliable and scalable infrastructure
• Support researcher collaboration and communication by providing access to data in real-time, reducing time spent on research administration
• Support executive decision-making by generating cumulative reports on research activities, quickly and easily
• Enable researchers across 11 universities, seven state agencies, and a health science center to secure external funding and more easily comply with research regulations

“In the competitive research world, time is of the essence. Oracle enables our researchers to quickly and easily engage with each other to find expertise in similar areas, secure grants, and focus their time on conducting research, not administrative tasks.”

Sreeja Sreekumaran, Technical Lead, Texas A&M University System.
SOLUTIONS

- Built, with the out-of-the-box functionality of Oracle WebCenter Portal, Oracle WebCenter Content, and Oracle Application Development Framework, an integrated and centralized research management system (which it called Maestro), to reduce the time 10,000 users across the university system spent on administrative tasks.

- Improved researcher productivity by 30%, thanks to an integrated activity stream to track research contract and proposal requirements, providing project status updates in real-time and streamlining communications between universities, agencies, and research centers.

- Created a system with an intuitive user interface, based on Oracle Application Development Framework and Oracle WebCenter Portal, requiring minimal user training and increasing employee satisfaction by 30%.

- Consolidated inventory, sponsor, and organizational information and supported real-time data updates to better track research information and improve report generation speed to enhance university decision-making.

- Leveraged built-in search capabilities to support seamless access to research data, compliance documents, and grant information from within the application.

- Used Oracle WebCenter Content to develop a system with more than 400 pages, custom dashboards for executives, and personalization tools for administrators and researchers—centralizing the tool across different departments.

- Secured and managed more than US$700 million in research funding by providing researchers with tools and information to streamline grant writing and better manage budgets.

- Achieved granular security functionality for research and grant-writing data by customizing each user’s access, thanks to Oracle Application Development Framework’s out-of-the-box security functionality.

- Created reusable system components with Oracle Application Development Framework to enhance the speed at which the university system can roll out new system functionality and security.

WHY ORACLE

“We selected Oracle because its industry-standard technology and out-of-the-box functionality provided us with the means to securely consolidate information across our many locations and improve processes for our staff, so they could focus more on their research and spend less time on administrative tasks—a huge benefit for a large university system,” said Leonarda Horvat, director of Maestro, Texas A&M University System.
“Based on customer surveys and discussions, we knew we had to upgrade our back-end architecture to improve Web navigation and make it easier for users to find the information they need. Oracle provided us with the necessary platform functionality to develop the business-driven interface we needed.”

Wayne Roberts, Director, Information Technology, Canadian Partnership Against Cancer.

The Canadian Partnership Against Cancer Improves Online Access to More Health Information Resources with Knowledge Management Platform

Bringing together cancer experts, government representatives, and patient and survivor groups in a coordinated, highly collaborative approach to cancer control, the Canadian Partnership Against Cancer (the Partnership) is a uniquely Canadian response to a global health challenge. Funded by the federal government, the partnership implemented Canada’s first national cancer control strategy, using a focused approach to help prevent cancer, enhance the quality of life of those affected by cancer, lessen the likelihood of dying from cancer, and increase the efficiency of cancer control in Canada.

The organization had been using Oracle products to support its portal (cancerview.ca) since 2009, and over time it recognized a need to upgrade and reorganize its back-end systems to support its growing online community.

In January 2012, the Partnership launched a redesigned version of cancerview.ca to better showcase cancer control efforts underway across the country, enrich the user experience, and enable people to more easily find information. These enhancements included streamlining the site’s navigation, reorganizing content, and applying search engine optimization best practices to help Canadians with a professional or personal interest in cancer to gain quick access to quality tools and resources.
Further, as the organization is small and isn’t IT focused, it wanted improved content publishing functions that enable business users and content creators to easily update and add to the information available on the Web site. The partnership used Oracle WebCenter and Oracle Identity Management to streamline back-end processes, enhance basic search functionality, and make it easy for those who aren’t expert IT users to add and update content and communities. With Oracle, the partnership can provide professionals and patients with a balanced and broad range of online cancer content, including high-value cancer information from partners and improved interactivity.

CHALLENGES

• Improve overall Web site navigation structure, so users can easily search more than 800 pages of content on cancer prevention, treatment, and palliative care
• Streamline back-end Web systems to better manage the organization’s 200-plus online health-related communities that represent more than 2,000 cancer control professionals, using the tool to exchange information across jurisdictions and organizations
• Create a more user-friendly interface that supports multiple languages and provides separate entry points for healthcare professionals and for patients and families
• Provide business users with a streamlined publishing process to more easily add, review, and approve new content

SOLUTIONS

• Increased customer and healthcare partner satisfaction with online self-service tools, providing an interactive, modern user experience built on Oracle WebCenter Content and Oracle WebCenter Portal
• Increased accessibility of pan-Canadian cancer control information for partners, government agencies, and other stakeholders by creating different entry points for professionals and for patients with Oracle Identity Management
• Enabled the more than 200 health-focused communities integrated within the site to quickly create and customize collaborative communities to support local work and connect with other groups
• Improved search integration, so the site’s growing community—including hospitals, universities, public health units, patients, and families—can easily search for information and services in English and French to support care
• Reduced support costs by enabling business users to create collaborative groups and independently maintain content
• Minimized IT backlog by allowing users to turn on new functionality, as they need it, to support more sophisticated online communities, including social capabilities, like blogs, wikis, and discussion forums
• Experienced an upward trend in users accessing the site’s online tools and resources to make more informed decisions to decrease cancer risk

WHY ORACLE
When the Partnership decided to implement a knowledge management platform to support its work, it knew it needed a well-integrated enterprise system that met its long list of business requirements.

“The Oracle WebCenter platform functionality aligned very well with our business requirements,” said Wayne Roberts, director, information technology, Canadian Partnership Against Cancer. “We are a small organization with limited resources, so we needed a robust system that was sophisticated enough to provide us the tools we needed, but was simple enough that our business users and partners could easily manage the platform. Oracle has provided that and more.”

ORACLE PARTNER:
Oracle Partner Apps Systems has deep expertise with Oracle Fusion Middleware technologies. The company engaged with the partnership in the spring of 2011, starting with a proof of concept pilot. In July 2011, the companies started the redesign. Apps Systems and its consultative expertise, throughout the implementation process, ensured the upgrade to the new content management platform was executed smoothly. The new site launched in early 2012.

“Apps Systems is a valued partner, working with us from start to finish and helping us to update our Web site to more effectively serve our internal and external users,” Roberts said.
Schneider National Implements Next-Generation IT Infrastructure

Schneider National, Inc., a leading provider of truckload, logistics, and intermodal services, serves more than two-thirds of the FORTUNE 500 companies. Its customers rely on Schneider National’s transportation and logistics solutions to transport their products reliably, cost-effectively, and safely.

Schneider’s growth and leadership in the trucking industry was powered by a strong information technology organization that custom developed and maintained the core applications enabling Schneider’s operations. As was typical with most IT organizations over the last two decades, applications were developed in the best available technology platforms leading to a very diverse set of applications running on a variety of technology stacks (hardware, operating systems, and middleware). Schneider’s applications and data environments had also grown complex. Maintaining and evolving the applications and the application to application integrations was expensive and time-consuming, data was siloed and several important business processes remained labor intensive.

The quote-to-cash process involved multiple order entry systems, multiple transportation rating engines, several sources of customer information, multiple repositories for enterprise data and hundreds of reports. Despite the wealth of data being collected, Schneider did not have a “single version of the truth” and an integrated automated quote-to-cash process, both key to driving competitive advantage in the highly competitive trucking industry. Schneider realized that it had to rationalize, simplify, modernize its enterprise IT applications and infrastructure. It had to transition to an IT environment that was modular, flexible, expandable, and scalable, an IT architecture that could support the company’s long-term strategic growth.

ENHANCING THE WEB EXPERIENCE FOR DRIVERS, CUSTOMERS AND SERVICE PROVIDERS

Schneider’s portals for drivers, service providers, and customers were very static, expensive to maintain, and needed IT involvement to update most content. The business wanted a more dynamic and less IT-centric solution that would allow it to modify portals and content quickly and easily, improve collaboration with users, and achieve integrated solution across various types of content, applications, and collaboration services. Schneider used Oracle WebCenter Portal and WebCenter Content to achieve these goals across its driver, customer, and service provider portals.

The driver solution relies heavily on core Oracle WebCenter Portal services, such as announcements, discussions, events, and documents, to communicate and collaborate with drivers. Forms and polls created in Oracle WebCenter Content and embedded within Oracle WebCenter Portal pages are also important parts of the solution.
Schneider has different types of drivers. Each driver type has a separate group space that is maintained by a business leader, who makes changes and updates the content without IT involvement.

Drivers can quickly view online training and check their pay statements using the new solution, which has single sign-on integration to Oracle E-Business Suite, Oracle Learning Management, and ADP payroll services. In addition, Schneider embedded Oracle Business Intelligence dashboards in Oracle WebCenter Portal pages, allowing drivers to see their pay trends and other analytical information without having to sign in multiple times. Schneider’s more than 12,000 drivers can access the portal from their in-cab Qualcomm device as well as from any internet browser.

The company’s customer and service provider portals are also built on Oracle Fusion Middleware and development components. Customers and service providers register for access through Schneider’s main Web site, www.schneider.com. The Web site has an Oracle Application Development Framework application that walks them through the registration process and submits a request to Schneider’s onboarding team via a service-oriented architecture (SOA) workflow. The solution provisions customers and service providers for their appropriate roles and sends them an e-mail with their user identification and password. At that point, they can log into the system quickly and easily.

Once logged in, customers and service providers see a custom home page specific to their roles. The page contains Oracle WebCenter Content material, as well as views into Oracle WebCenter Portal documents, announcements, and events. Schneider can change and modify these pages as needed. It also has Oracle ADF applications embedded into the portal that bring together content, reports, and services to support order tracking and rate quotes.

**PERSONALIZING PORTALS AND SECURING ACCESS TO APPLICATIONS**

Driving the personalized Web experience for employees, partners, and customers and ensuring secure access to the content on the driver, customer, and service provider portals is Oracle’s Identity and Access Management suite, part of Oracle’s Fusion Middleware platform.

Managing secure access to enterprise applications and data has become particularly difficult for all enterprises with the growth in the number of applications, the number of data repositories and the growth in the number and types of users (customers, employees, and partners) needing access to applications and data.

Prior to the Quest program, Schneider managed access provisioning with a home grown application. This application was very resource intensive, needing significant involvement from IT to manage provisioning. It had reached its limits and could no longer provide the level of security and compliance Schneider needed. The on-boarding process at Schneider also relied on manual requests and manual provisioning. Ensuring that each user had the
right level of access required multiple iterations and adjustments. There was no central repository for user profiles, so it was difficult for Schneider to map user access to applications.

Oracle’s Identity and Access Management suite (Oracle Identity Manager, Oracle Role Manager, and Oracle Access Manager) and Oracle WebCenter have helped Schneider transform provisioning, personalize the user experience, and ensure compliance with financial regulations and IT security policy at Schneider. User profiles are stored in the E-Business Suite Human Resources Management system (HRMS). This data is sent by Oracle Identity Manager to Oracle Role Manager which enables business users to define user access to various applications. Oracle Identity Manager uses the role and role grant information provided by Oracle Role Manager to provision access to various applications, automates IT processes, and enforces security and compliance requirements.

Oracle Identity Manager monitors updates to E-Business Suite’s HRMS and appropriately provisions users in Siebel CRM, Oracle Transportation Management, and other enterprise applications. Out-of-the-box integration of the various components in the Identity and Access Management suite helped Schneider save on development costs and reduced the time needed to implement the solution.

STREAMLINING STORAGE AND ACCESS TO CONTENT

Content management is a huge challenge for all enterprises, big and small, because of the VOLUME, VARIETY, and VELOCITY of content enterprises need to manage today. The Schneider architecture team considered the following architectural tenets as they identified the tools and finalized the content management architecture. The architectural tenets included: (a) facilitating dynamic updates to internal and external portals, (b) providing business users the ability to manage, update content directly through Oracle WebCenter, and (c) adopting a single platform to store and manage documents, and digital content across internal and external portals.

Oracle’s WebCenter suite supported all of these architectural tenets and was Schneider’s choice for digital content and document management. Enterprise Content Management, part of the WebCenter provides a centralized enterprise platform for storing, indexing, and retrieving documents. Content for internal portals such as newsletters, and training materials and content for external websites, such as Schneider.com are stored in Oracle WebCenter Content. Shipment and driver documents that are digitized using tools such as Oracle Forms Recognition, and Oracle Document Capture are also stored in Oracle WebCenter Content. Adopting a single repository to manage content and empowering business users to manage content has allowed Schneider to keep its portals dynamic and fresh with the latest content, streamline management of driver and shipment documents, and improve productivity.
ArRiyadh Development Authority (ADA) is responsible for the socioeconomic, cultural, and environmental development of Riyadh, Saudi Arabia’s capital city. It devises plans and procedures to improve the standard of services and facilities provided for Riyadh’s residents.

Situated in the middle of the Arabian Peninsula, Riyadh is the largest city in Saudi Arabia and the urban center of a region with a population of nearly 7 million citizens. The city is divided into 15 municipal districts, all managed by Riyadh Municipality, which is led by the mayor of Riyadh and ADA.

ADA is committed to ensuring that it digitally records, stores, and manages all data and documents relating to urban renewal, construction projects, long-term city development, and other core and associated activities. Today, using Oracle Universal Content Management and Oracle WebCenter Portal, ADA maintains each electronic transaction and paper-based record in a central management solution. This process ensures total transparency and easy collaboration between departments and other development authorities, making ADA more accountable and making operational practices more intuitive and simple. ADA worked with Oracle Partner Advanced Operation Technology on the implementation.

“Since deploying Oracle Universal Content Management and Oracle WebCenter Suite, we have seen rapid improvements in our ability to manage data and documents effortlessly and ensure the smooth daily operations of urban planning. At the same time, we have empowered each department to manage and report on projects with a high level of transparency.”

Majed Al Sultan, Applications Development Manager, ArRiyadh Development Authority.

ArRiyadh Development Authority Centralizes Expansive Volume of Enterprise Data to Facilitate Better and More Transparent Urban Planning and Development

ORACLE CUSTOMER:
ArRiyadh Development Authority
Riyadh, Saudi Arabia
www.ada.gov.sa

INDUSTRY:
Public Sector

EMPLOYEES:
700

ORACLE PRODUCTS
AND SERVICES:
• Oracle Universal Content Management
• Oracle WebCenter Portal
• Oracle Information Rights Management
• Oracle BPEL Process Manager
• Oracle Secure Enterprise Search
• AutoVue VueLink Integration
CHALLENGES

• Create a centralized enterprise content management system to serve as a complete repository of digitized data and documents for urban planning and development, making data transparent and accessible to authorized departments across ADA and facilitating standardized business process management
• Ensure varying levels of data security and access, complying with existing internal practices and Saudi Arabian government regulatory requirements while establishing an integrated approach to capturing, storing, managing, and maintaining documents
• Increase transparency and efficiency in planning and scheduling of all urban projects to improve organizational productivity and enable senior management to view up-to-date project status information
• Reduce error rates of manual data management processes
• Enable transparent, secure, and centralized control of more than 25 terabytes of urban development data, including multimedia, drawings, and reports, currently expanding by 20% each year

SOLUTIONS

• Deployed Oracle Universal Content Management to provide ADA with a unified repository to house unstructured content accessible to users in recognizable formats and within the context of ADA’s familiar applications and working practices
• Ensured end-to-end content lifecycle management of all ADA data and digital documents from creation to archive
• Deployed Oracle WebCenter Portal to deliver a single source of truth for all city and regional projects, streamlining business processes and ensuring rapid access to information
• Enabled ADA to maintain consistent policies and services regarding system and content back-up and recovery, document retention, security, and system maintenance
• Appointed local Oracle Partner Advanced Operations Technology to facilitate a smooth rollout of all Oracle technology to more than 400 end users across the ADA enterprise
• Provided tailored training workshops, seminars, and business user-specific Oracle product training through Advanced Operations Technology
• Implemented digital signature technology, improving consistency and audit-ability while ensuring compliance with ADA’s existing business policies and government regulations, ultimately safe-guarding content as well as ADA’s reputation
• Initiated digitization of a backlog of physical paper files in various sizes to ultimately create an online, widely accessible archive managed through a central repository
• Supported digital asset management (DAM) by handling a photography and video library that includes more than 300,000 high-resolution images and more than 1,000 high-definition videos, each of the latter averaging at least 200 gigabytes per file.

• Ensured secure digital storage of all documents with central access via a Web portal, rather than having documents spread across an unidentifiable and inherently less secure array of user desktops and filing cabinets.

• Enabled development teams to quickly identify web site content for arriyadh.com and ada.gov.sa in the central repository and publish it seamlessly using sophisticated content management tools, instead of searching for unstructured data on personal desktops and in paper documents.

WHY ORACLE

ADA chose Oracle after a thorough supplier selection process, which began by using Gartner reports to identify the top content management suppliers (Oracle, Documentum, FileNet, OpenText, and SharePoint). The authority then went through a four-phase process that included a detailed functional analysis comparison between the various vendors’ products and used a weighted-point system to evaluate the products based on ADA’s current and future needs.

In phase one, ADA requested the technical and financial proposals from all the vendors. In phase two, ADA evaluated each technical proposal to confirm its conformance to ADA requirements stated in the request for proposals (RFP), and based on the evaluation ADA shortlisted for vendors. Then, in phase three, ADA opened the financial proposal from the shortlisted vendors. Finally, in phase four, ADA evaluated the financial proposals to identify the vendor with the best proposition. Ultimately, Oracle Universal Content Management, Oracle WebCenter Portal, and Oracle partner Advanced Operations Technology came out on top.

ORACLE PARTNER:

Advanced Operations Technology is a trusted regional Oracle Partner and a one-stop-shop IT services company offering IT consulting, IT infrastructure management, IT security solutions, enterprise application solutions, system integration, as well as outsourcing to help regional companies harness IT to drive operational cost efficiency as well as business growth.

Before starting implementation, Advanced Operations Technology performed a comprehensive analysis of ArRiyadh Development Authority’s requirements. During deployment, it customized the Oracle solution to fit these needs precisely.

The Oracle implementation represents a significant culture change for ADA, and it’s important that employees understand the new system. To help facilitate this, and ensure the move to the new system is as painless as possible, Advanced Operations Technology is providing training services for key employees.
Pickles Auctions Processes up to 100,000 Web Transactions per Day, Achieves 99% Availability with Loosely-Coupled, Middleware Architecture

Pickles Auctions is Australia's largest independent auctioneer. The family-run company manages 22 branches across the country and sells more than 250,000 lots each year, including motor vehicles, industrial goods, salvaged vehicles, household merchandise, computer equipment, and more. It sells on behalf of the Australian Government, state governments, insurance companies, fleet and lease companies, local councils, and the general public. Pickles Auctions has grown rapidly in the past 10 years and, in 2011, signed a deal with one of Australia's largest vehicle manufacturers to sell cars to 250 dealers on its behalf.

Pickles Auctions needed to improve the stability and reliability of its main auction Website. The company implemented Oracle BPEL Process Manager and Oracle WebCenter Content, running on Oracle WebLogic Suite, to provide powerful, scalable, and highly available support. BPEL Process Manager also supports the new online marketplace, Pickles Plus. In addition, Pickles Auctions deployed Oracle CRM On Demand, Enterprise Edition to support a growing volume of customer records.

Oracle BPEL Process Manager integrates Pickles Auctions' legacy system with its main Website. By decoupling the legacy IT system from the main Website, Oracle BPEL Process Manager ensures 99% availability for the site, and easily supports up to 100,000 auction-related transactions per day. The loosely coupled architecture enables IT staff members to maintain and develop back-end systems without affecting the performance and availability of the main site, and to flow updated product information to the Website immediately. Oracle WebCenter Content enables marketing staff to easily manage and update content for the main Website themselves.

“We chose Oracle Fusion Middleware over other products because its best practice, open standards better met our long-term needs. The highly available middleware architecture and infrastructure ensures we can provide customers with a fast, reliable Website, and we update product, marketing, and sales information immediately, rather than waiting overnight.”

Harry McKenzie, Chief Information Officer, Pickles Auctions.
GROWING ONLINE BUSINESS DEMANDS POWERFUL, RELIABLE IT INFRASTRUCTURE

Pickles Auctions runs online and onsite auctions, and also offers products at a fixed price. The company operates two Websites. The main Website enables customers to register for onsite auctions and view lot descriptions, as well as take part in auctions without attending in person. It also holds the online auctions. The new PicklesPlus Website is an online marketplace for auctions and fixed-price clearance goods. It allows customers to buy a variety of consumer products in online auctions or at a Buy Now price.

As business grew, the main Website became increasingly unstable and unreliable. The site was intrinsically linked to the legacy auction system, which stored information about all the company’s stock. This caused further reliability problems, since if the IT system went down, the Website went down with it.

“We needed rock-solid middleware products that would help manage and support 200 million Website hits, 350,000 unique visitors, and around 1.4 TB of auction-related data every month,” said Harry McKenzie, chief information officer, Pickles Auctions. “We also needed to ensure the Website was scalable and reliable, to avoid a significant loss in revenue.”

STREAMLINED INTEGRATION ENSURES UP-TO-DATE AUCTION INFORMATION

Pickles Auctions has implemented Oracle BPEL Process Manager and Oracle WebCenter Content, running on a clustered Oracle WebLogic Suite. Oracle BPEL Process Manager mediates between the company’s legacy IT system and its main Website.

By pushing real-time updates about auctions and products from the legacy system to the main Website, Oracle BPEL Process Manager ensures product and auction information on the main Website is accurate, easily accessible, and always up to date.

“Information about all of our auction stock is entered into the legacy system and then propagated across to the main Website, using Oracle BPEL Process Manager,” said McKenzie. “Bids are taken from the Website, and customers can register to form a relationship with us or to attend an auction. All of this information is then transported back to the legacy system.

BPEL Process Manager also integrates between the online auction site, Pickles Plus, the company’s finance system, and third-party vendors.
“We also use Oracle BPEL Process Manager to interface with third-party vendors including motor vehicle manufacturers and lease companies,” added McKenzie. “This streamlines hundreds of transactions involving auction stock throughout the day. Oracle BPEL Process Manager standardized the way we communicate with vendors and increased our business efficiency, which has improved relationships with customers, stock suppliers, and third-party vendors.”

By using a loosely coupled, standards-based integration approach, Pickles Auctions also has the flexibility and agility to adapt to business changes, such as integration with new systems or new vendors.

**DECOUPLING WEBSITE FROM LEGACY SYSTEM PROVIDES 99% AVAILABILITY**

By decoupling the main Website from the legacy IT system, the main Website is no longer encumbered by any issues in the legacy system. This has enabled Pickles Auctions to achieve 99% availability for the site.

“Separating the Website and the legacy system means the Website remains available even if the legacy system goes down,” said McKenzie. “We’ve only had two periods of unscheduled downtime in 18 months—neither of which were the fault of the Oracle infrastructure—compared to the site being unreliable in the past.”

Pickles Auctions can now easily process up to 100,000 auction-related transactions per day through Oracle BPEL Process Manager. Supported by the services-based middleware architecture and infrastructure, the main Website maintains the performance and reliability required to support up to 7,000 requests per minute during peak periods (such as before a highly anticipated auction), far more than would have been possible in the past.

The company can now maintain and develop the back-end system independently without affecting the performance or availability of the main Website.

“This is a major benefit, as it means we can focus on improving the supporting system without worrying about the Website and affecting a customer’s ability to view auction information,” said McKenzie.

The clustered Oracle WebLogic Suite environment supports high availability and reliability through a robust platform for Oracle BPEL Process Manager and Oracle WebCenter Content. It also provides the scalability and reliability to meet the increase in Website transactions as the company grows. The recent upgrade to the clustered WebLogic Suite environment was part of a hardware upgrade, which improved overall system performance, stability, and availability.
EASIER CONTENT MANAGEMENT
In the past, Pickles Auctions used a shareware product called InfoGlue as its content management system.

“It was very difficult to publish content using InfoGlue, especially during peak times when traffic would cause the main Website to slow down and occasionally fail, which was not ideal for our auction business,” said McKenzie. “We also relied on the IT team to publish content, which distracted them from core technical duties.”

The company now uses Oracle WebCenter Content to manage marketing campaigns and sales information. The productivity of marketing staff has improved, as they can now easily manage around 300 pages of data on a regular basis themselves, rather than relying on the IT department.

“In the past, marketing changes had to be completed overnight rather than during business hours, so the process didn’t affect the Website’s stability,” said McKenzie. “This meant it could take up to 12 hours for new marketing data to appear on the Website. By using Oracle WebCenter Content to put marketing staff in control of content management, changes made to auction and marketing data are reflected immediately, and we can ensure our customers are well informed.

“We’ve had no issues since we implemented Oracle WebCenter Content,” added McKenzie. “It’s a very good product.”

IMPROVED CUSTOMER RELATIONSHIP MANAGEMENT
In 2011, after signing a contract with one of Australia’s largest vehicle manufacturers to sell cars to their dealer network, Pickles Auctions realized it needed to replace inefficient manual customer relationship management (CRM) processes. Previously, the company was using spreadsheets to record customer and dealer information. It needed a consolidated CRM system to meet its contractual obligations.

To support the growing number of customers, the company implemented Oracle CRM On Demand, Enterprise Edition. The system is used by 20 users across five departments and supports more than 10,000 customer records.

“Our staff members are finding it easier and more efficient to manage customer information now that we have an integrated CRM system,” said McKenzie. “Data is more accurate and up to date.

“The implementation was very successful—we had Oracle CRM On Demand, Enterprise Edition up and running in about a week,” he added. “The whole system has exceeded our expectations. Oracle CRM On Demand, Enterprise Edition has proved to be a very cost-effective, mature, and robust CRM solution.”
CHALLENGES

• Supported digital asset management (DAM) by handling a photography and video library that includes more than 300,000 high-resolution images and more than 1,000 high-definition videos, each of the latter averaging at least 200 gigabytes per file
• Ensured secure digital storage of all documents with central access via a Web portal, rather than having documents spread across an unidentifiable and inherently less secure array of user desktops and filing cabinets
• Enabled development teams to quickly identify website content for arriyadh.com and ada.gov.sa in the central repository and publish it seamlessly using sophisticated content management tools, instead of searching for unstructured data on personal desktops and in paper documents

SOLUTIONS

• Achieved 99% availability for the main Website by loosely coupling it with the legacy system through Oracle BPEL Process Manager, supporting up to 100,000 auction-related transactions per day
• Ensured customers are well informed by updating sales and marketing data on the Website immediately by using Oracle WebCenter Content, instead of taking 12 hours to upload overnight
• Enabled 20 users in five departments to maintain more than 10,000 customer records
• Improved marketing staff productivity by enabling easily updating 300 pages of auction data, rather than relying on the IT department
• Enhanced relationships with suppliers and third-party vendors by using standards-based integration to ensure stock and product data is always accurate
• Protected revenue and enhanced market competitiveness by improving the Website’s reliability, availability, and stability
• Reduced the number of customer complaints by ensuring easy registration and product and price information access before each auction
• Gained flexibility and agility to adapt to business changes, such as by integrating with new systems or new vendors
• Improved system availability, reliability, stability, and performance by migrating Oracle WebLogic Suite into a clustered environment, which will also support anticipated business growth in the future
• Managed customer information more efficiently by replacing manual CRM processes with a consolidated online system
WHY ORACLE
Pickles Auctions considered products from several IT vendors, but chose Oracle Fusion Middleware because its best practice, open standards better met the company’s long-term needs.

“We wanted a robust, highly available infrastructure to improve system reliability, stability, and performance,” said McKenzie. “We could see that by significantly improving the integration between our legacy auction system and the main Website, the Oracle middleware products would fully support our requirements.”

ORACLE PARTNER:
Pickles Auctions engaged Oracle Specialized Partner Intelligent Pathways to help with the Oracle WebLogic Suite clustering. The company also worked with Oracle Specialized Partner Rubicon Red to address a specific integration requirement using Oracle BPEL Process Manager.

“Both partners were very good,” said McKenzie. “They met all our needs and were always responsive and helpful.”
Mortenson Construction helps large project teams collaborate and share information—on and off the construction site

Standing beneath the fluid lines and sinuous curves of the Walt Disney Concert Hall in downtown Los Angeles, California, most visitors see a structural anomaly that seems to defy the laws of gravity. Clad in soaring panes of stainless steel and buttressed by sheared Italian limestone, it’s hard to tell if Frank Gehry’s original vision was of an unfolding flower or a billowing sail. The curvaceous walls of the structure appear to have been cut loose from their moorings, with no solid lines or linear coordinates to anchor them—a design that was deemed unbuildable when experts first pondered Gehry’s iconic design more than 20 years ago.

Derek Cunz, vice president and general manager of the National Projects Group at Mortenson Construction, was one of the believers. Along with a bold team of architects, craftspeople, and engineers—and with the help of advanced hardware and software technology—Mortenson helped turn Gehry’s flamboyant design into a tangible reality, setting in motion a series of technical breakthroughs that have propelled the entire construction industry forward.

As the construction manager and general contractor for the project, Mortenson worked with researchers at Stanford University to pioneer a 4-D computer-aided design (CAD) environment that combines 3-D models with advanced planning tools that helped the project team visualize the construction of the building and lay out the optimal sequence of events in the design and construction process.
"We knew that all of the traditional tools and processes used to plan, communicate, and understand project sequencing would need to be re-engineered and challenged," recalls Cunz, who lived in Los Angeles for five years while managing the US$270 million, 300,000-square-foot project. "The most successful construction projects have the entire team working toward a common goal that everyone understands and believes in."

Since completing the Walt Disney Concert Hall in 2003, Mortenson has undertaken dozens of other large and complex projects including the Union Depot in St. Paul, Minnesota; the Mercedes-Benz Arena in Shanghai, China; the Denver Art Museum in Denver, Colorado; and the Pegula Ice Arena, currently under construction at Penn State University in University Park, Pennsylvania.

Each project brings new advancements to the field of construction and design. Many of these techniques are now just a click away in an online collaboration tool called ProjectConnect that helps automate many of Mortenson's large projects.

Built with Oracle WebCenter Portal and Oracle WebCenter Content and using Oracle project management and enterprise resource planning (ERP) solutions, ProjectConnect is a comprehensive source of project information for everybody involved in the construction cycle—from owners and designers to construction supervisors and trade partners. It pulls information from multiple sources (meeting minutes, schedules, project controls, financial reports, safety documents, quality information, and progress images) and makes the information available to authorized users in a consistent way.

As team members refine the plans, order materials, or create shop drawings in preparation for their work, they automatically receive the most-current information from the portal. "That's what drives these projects and enforces accuracy," adds Cunz. "If someone grabs a schedule that is one rendition old, they might order the wrong material or line up their crews at the wrong time. ProjectConnect helps avoid these type of issues."

INTO THE MATRIX

Mortenson's philosophy of infusing advanced design techniques into a shared workspace has fueled a series of advancements. Some of the most unique innovations are evident today in the design and construction of the Pegula Ice Arena, where the project team can display the design in Penn State's Applied Research Lab (ARL) Synthetic Environment Applications Laboratory (SEA Lab). This room-size workspace displays 3-D graphics on the walls and ceiling to give viewers the illusion that they are walking around the arena.

The most successful construction projects have the entire team working toward a common goal that everyone understands and believes in.
In this case, the construction team solicited three levels of feedback from stakeholders: first from the architects; then from the hockey coaches; and finally from the facilities managers, who will one day maintain the completed arena. Insights gleaned during sessions in the SEA Lab are quickly uploaded to ProjectConnect so that the entire team can absorb the feedback and make necessary changes.

With the push of a button, all pertinent information from the project is made available to the project team, from the 3-D model to safety training material. One of the buttons launches users directly into Oracle’s Primavera Unifier project management application, designed to manage all the workflow-based activities that occur during the construction process. Mortenson also uses Oracle E-Business Suite for procurement, budgeting, and project accounting. The company utilizes Primavera P6 for project planning and scheduling.

“Oracle WebCenter is the hub for all of the content we need for each project team,” says Frank Sarno, director of project controls at Mortenson Construction. “If a software application works within our model, we don’t try to recreate it within ProjectConnect. We simply create links to the application from ProjectConnect. Oracle WebCenter is an open portal environment that lets us include links to almost any cloud-based application. That’s why ProjectConnect is so great for collaboration and sharing.”

This advanced clearinghouse of information lets users access engineering documents, correspondence, change orders, plans, reports, and other documents. They can also track project milestones, financial forecasts, and performance metrics. Pointing people to a single, continually updated repository of information reduces potential errors.

ProjectConnect also helps with routine construction tasks such as minimizing rework and fast-tracking change orders. Its foundation in Oracle WebCenter makes it easy for Mortenson to manage dozens of simultaneous projects without compromising the integrity of sensitive information. A flexible security architecture controls access to simultaneous projects based on each user’s role in the design and construction cycle. (See sidebar, “Secure Communication in Cyberspace.”)

Most importantly, the ProjectConnect portal streamlines interactions with clients to minimize surprises and keep everybody on the same page. Especially for unique construction projects, this level of knowledgeable interaction helps eliminate the chaos and confusion that often accompanies projects of this magnitude.

“Many business owners don’t know what to expect during the construction process,” says Sarno. “ProjectConnect helps them monitor the progress of construction and make good decisions. Through the duration of the construction project, thousands of documents of various types are created and need to be accessed by the customer and project team. ProjectConnect takes files that used to be distributed by e-mail and puts them in one place for a very positive customer experience.”
SET ADRIFT

Just as amorphous walls of the Walt Disney Concert Hall seem to float effortlessly in space, ProjectConnect has acquired a mobile interface that enables designers, construction managers, and craftspeople to tap into information from any location—whether it’s while reviewing plans in a coffee shop or working on the 16th floor of a high-rise building.

Neal Katorosz, initiative manager at Mortenson Construction, describes the evolution of this unique environment. “We have used electronic information for many years, but until recently a lot of it was stuck in the construction trailer,” says Katorosz. “As our project teams became more diverse, we had to figure out a way to take information that was generated inside of the construction trailer and disperse it to people throughout the site, as well as to trade partners. ProjectConnect lets us channel lots of information through the portal in a consistent way.”

Most construction companies place trailers on the job site so that architects, construction managers, subcontractors, and workers can review specifications and resolve problems as they arise. But what about the welding team on the sixth floor of a new stadium? Do they have to make their way down to the trailer to consult the management team if an issue arises?

To solve this dilemma, Mortenson created the Field Box—a small office in a steel container that can be moved throughout the site by crane. The Field Box is still commonly used onsite for many projects. However, with the advent of mobile devices and the availability of 4G wireless technology, Mortenson has extended its functionality to mobile devices. Authorized users can see the latest plans and specs in real time by accessing ProjectConnect on a standard tablet or smartphone.

“The evolution from the trailer to the Field Box to any internet-accessible device became much more viable once we started using Oracle WebCenter,” says Sarno. “Oracle WebCenter applications work on any device. They aren’t tied to any operating system or mobile platform. As long as you have a data connection on the job site, you will have the latest information at your fingertips.”

That’s an important differentiator in an industry where project teams are increasingly becoming more geographically dispersed. Design partners, trade partners, and customers can be spread all over the world, but ProjectConnect is available anywhere that there is a data connection. It has been used on more than 80 projects to date. Each engagement gives Mortenson new ideas for improving the system.

Furthering its connectivity, Mortenson is now creating a new intranet site to make it easier to find and display content. The new intranet site will use Oracle WebCenter Portal and Oracle WebCenter Content, similar to ProjectConnect. They also plan to use Oracle Secure Enterprise Search to link content from other repositories.
“There are lots of tools out there for sharing information, collaborating on files, managing projects, and enforcing quality control,” concludes Cunz. “ProjectConnect coordinates all of these things. We don’t have to re-create all of these best-in-class solutions, because we have developed a common front door to all of them. That’s the difference that this technology provides for us and our customers.”

SECURE COMMUNICATION

Mortenson Construction’s ProjectConnect portal can deliver everything from executive-level status reports to construction schedules, budgets, specifications, safety plans, and meeting minutes for everybody on a project team. Through the Spaces feature of Oracle WebCenter Portal, each construction project gets its own space. Similarly, each project gets its own folder inside of Oracle WebCenter Content. People can store and manage all content pertinent to a project, and secure it so that only members of the project can access their respective files. ProjectConnect also includes project photos, live webcams, and weather reports.

“We created a secure portal, accessible through the internet, that serves internal and external constituents,” explains Neal Katorosz, initiative manager at Mortenson Construction. “We used Oracle WebCenter Portal to develop the user interface. Under the covers is Oracle WebCenter Content, which stores all of the project documents, such as schedules, plans, specifications, and photos. It consolidates information from diverse systems so it can be centrally managed and exposed through the portal.”

Mortenson used Oracle Identity and Access Management Suite to build controls that protect sensitive information. Single sign-on provides a seamless experience for users. They log in once to the portal and the underlying content that they have permission to access. General information is available to everybody. Other documents are visible only to people with the correct clearance, an architecture commonly known as role-based security. For example, financial information isn’t shared with the community at large, but access is granted to sensitive documents based on security role.

“Oracle WebCenter Portal and Oracle WebCenter Content have become the backbone of our communication and collaboration, enabling real-time access to secure project information,” sums up Katorosz. “Everybody gets the right level of information based on their roles. They don’t need to worry about how to find the information they need. When it comes to keeping projects on track and on budget, that level of coordination and control is invaluable.”
Connecting iPads to Oracle’s WebCenter Gives Medtronic Employees Mobile Access to Critical Enterprise Content

When executives at Medtronic, the world’s largest innovator of medical technology solutions, first authorized the use of Apple iPads at a sales conference in April 2010, they weren’t sure whether the devices could be anything more than attention-grabbing novelties. But the increasing popularity of mobile computing led Medtronic management to realize the potential tablet computing has for the enterprise—if it was coupled with the right mobile applications.

“We immediately saw benefits from the iPad’s long battery life and being able to use its large screen real estate to tell our story and talk about our products and therapies,” says Jim Freeland, senior principal IT mobility analyst and Enterprise Mobility team lead at Medtronic. “But we wanted to move beyond productivity and efficiency gains to mobilize sales order fulfillment, inventory management and centralized content management delivery.”

Since 2010, Minneapolis, MN-based Medtronic has purchased nearly 13,000 iPads and created its own app store for internal use mobile applications. Working with Oracle Partner Fishbowl Solutions, also a Minneapolis based company, Medtronic IT staff has extended its Oracle WebCenter Content-based system for managing and distributing documents. This mobile content management system (mCMS) for the iPad links to Medtronic’s Oracle WebCenter-based back-end system and enables field sales staff to provide current and accurate product and therapy information to customers, with content designated by audience or topic.

Since Fishbowl Solutions has over 12 years of experience integrating and supporting Oracle WebCenter Content implementations and has achieved Oracle PartnerNetwork Specialized status in Oracle enterprise content management solutions, it was a logical choice to help Medtronic make its mCMS app for the iPad a reality.

Fishbowl Solutions partnered with an iOS interface development firm (InFuse Medical) to create the mCMS for Medtronic. Fishbowl built the application’s navigational structure and an application programming interface (API) to integrate Oracle WebCenter with Medtronic’s Apple iOS native app. Specifically, the API enabled security authentication, the downloading and synchronization of content and application of content management rules.
According to Tim Gruidl, president and founder of Fishbowl Solutions, creating the security for the mCMS was very challenging because Medtronic has a great deal of proprietary information. “They required high levels of authentication, encryption and authorization, so we implemented Fishbowl’s Advanced User Security Mapping product, which is based on Oracle WebCenter content,” he says. “Users are dynamically authorized to access certain kinds of content, depending on their business unit and regulated region they work in.”

The beauty of the new mCMS is that it can be used whether a sales representative is connected to the web or not. In addition, Medtronic is able to monitor which files are being used and who the files are being shared with so the company can keep track for reporting or metrics purposes. Besides helping the company comply with government regulations, Medtronic’s marketing departments can leverage metrics to see where to focus their energy when producing collateral and discussing use cases with reps.

“Our reps no longer have to carry around a lot of marketing and sales materials, and they’re able to leverage that collateral to operate on the fly,” Freeland says. “While the iPad has not completely replaced laptops, offering our sales representatives tools like the mCMS, is a win because as reps head out to offices and hospitals, it helps them accomplish a lot more.”

Medtronic’s management believes mobile technology will continue to improve to meet the needs of employees and customers. In fact, the mCMS is just one of over 100 mobile applications Medtronic now offers in its internal app store, which is hosted on Oracle WebCenter. For 2012, Medtronic management expects other functions such as engineering teams, IT staff, and internal talent organizations to access and manage content with mCMS. “IT has put a solution in the hands of our business units here at Medtronic to drive how we use mCMS, and people are finding creative ways to use it,” said Freeland.

“With the popularity of mobile devices like the iPad, consumers are used to having information where they want it, and when they want it,” says Freeland. “That is what our app store helps us do, cater to this idea. With mCMS, we are able to extend big internal enterprise-class systems like Oracle WebCenter, to our users on their mobile devices.”

The success of the project has encouraged Medtronic and Fishbowl Solutions to continue with their winning partnership integrating other creative business unit mobile apps with the WebCenter environment. Medtronic’s mCMS solution was also awarded Oracle’s Fusion Innovation Award and Forrester’s groundswell Award in 2011, and is a finalist for yet another award to be announced in March of 2012.
Oracle WebCenter Content helps companies realize new efficiencies and cost savings by providing a unified repository to house unstructured content, enabling content access in the proper format and within the context of business applications. To learn more about Oracle WebCenter Content, please visit oracle.com/goto/ecm.