Technology and Application for Your Utility’s Future

Oracle and Utilities

Around the world, utilities are under pressure. Citizens demand energy and water that don’t undermine environmental quality. Financial stakeholders look for operational efficiency at a time when aging workforces and infrastructures need replacement. Regulators seek action on Smart Grid and Smart Metering initiatives that add intelligence to infrastructure. Customers seek choice and convenience—but without additional costs.

Pressures like these are forcing today’s utilities to re-examine every aspect of their business, from supply to consumption. And no utility can address these challenges alone.

Oracle has positioned itself as utilities’ software partner of choice in the quest to respond positively to these pressures. To do so, Oracle brings together a worldwide team of utility experts, software applications that address mission-critical needs, a rock-solid suite of corporate operational software, high performance servers and storage, and world-leading middleware and technology. The result: flexible, innovative solutions that increase efficiency, improve stakeholder satisfaction, future-proof your organization—and help your organization transform into a next-generation utility.
The Oracle Difference

End-to-End Solutions
Oracle provides utilities with the world’s most complete set of software choices. We help you address emerging customer needs, speed delivery of utility-specific services, increase corporate administration efficiency, and turn business data into business intelligence. Underpinning all these applications is Oracle’s world-renowned middleware and technology.

Choice
Oracle helps utilities address immediate problems while building toward a more cohesive, efficient IT future. You can begin with one best-of-breed solution that addresses a specific pain point. Or you can implement several pre-integrated applications that ease the development and administration of cross-departmental business processes. You may also standardize on the complete Oracle applications and technology footprint to focus accountability and significantly reduce the resources you must spend on vendor relations.
Configuration, Not Customization

Customizing vendors’ off-the-shelf software is expensive, time-consuming, and uncertain. And once the customizations are in place, you have made it far more difficult and costly—or impossible—to upgrade the software as new market and regulatory requirements emerge.

Yet no two utilities operate identically.

Oracle solves this problem by letting you adapt software to your needs through configuration. During implementation, you make a series of choices that tailor operations to your precise requirements. And Oracle preserves those choices throughout multiple updates and upgrades. You get the cost advantages of off-the-shelf products with the operational efficiencies inherent in software that works the way you need it to work.

Integration

By basing all applications on an increasingly robust set of IT industry standards, Oracle makes it easy to integrate applications from any vendor. Your staff does not need to learn proprietary, potentially obscure languages or cope with complex and one-off procedures. Integrating Oracle applications with existing legacy or other non-Oracle packages is a straightforward process that helps make for faster implementations and smoother operations.

When you choose multiple Oracle applications, you receive, in a growing number of cases, pre-packaged integrations that ease the integration process even further.

As you implement and use a variety of Oracle applications over time, you will gradually migrate toward Oracle’s Applications Integration Architecture (AIA). This single platform for Oracle’s productized and standardized integrations reduces the time and cost of application integration, dramatically eases upgrading and testing, and in general, helps lower total cost of ownership for the complete set of Oracle applications and technology.

Innovation

The speed of market change in the utilities industry puts a premium on technological innovation.

Because Oracle addresses database, middleware, and applications in a cohesive whole, our development teams quickly spot innovations in one part of the “solution stack” that can deliver benefits in others. Even before a technology innovation, for instance, is ready for general release, Oracle applications and middleware developers are updating their software so that it takes full advantage of the technology change.

The same applies to innovations in applications or middleware, which quickly spread to all parts of the Oracle Utilities offerings.

The result: New technology delivered quickly and seamlessly to serve your unique needs.

Partners

Oracle’s outstanding set of integration and technology partners supplement our products and services with vision and commitment that ensures you receive the very best that the software industry can offer, exactly when and where you need it.
Oracle Applications for Customers and Billing

Oracle offers the utilities industry a complete set of applications and technologies to handle the entire customer lifecycle and related business processes.

**Customer Care and Billing**

Oracle Utilities Customer Care and Billing is a complete billing and customer care application for utilities serving residential, commercial, and industrial customers. It addresses both customer and financial data management while handling receivables functions like payment processing, “budget” and multi-party billing, and credit and collections. It incorporates such customer relationship features as order entry, contract management, and affinity programs. Its ability to show a 360-degree view of the customer provides a firm foundation for the contact center.

Various editions of Oracle Utilities Customer Care and Billing work in specific market models. You can choose an edition based on market structure—competitive or regulated. You can choose an edition that addresses service type—water, electricity, gas, or a combination. Oracle Utilities Customer Care and Billing editions also address the needs of integrated, distribution, retail, cooperative, and publicly owned utilities.

**Customer Relationship Management**

Oracle Siebel Customer Relationship Management meets the complex customer and marketing needs of competitive retailers. It addresses sales, service, self-service, marketing, customer order management, value management, customer master, and partner relationships. It can also supplement legacy or incomplete billing systems that do not include CRM capability.

Utilities using Oracle’s E-Business Suite, PeopleSoft, or J.D. Edwards enterprise applications have additional suite-specific customer relationship management options. These include complete suite-specific CRM packages as well as modules like Oracle Service Contracts and Oracle Teleservice.

**Billing**

Oracle Utilities Billing Component is another way to supplement an insufficient legacy billing application that cannot be changed. It performs the complex billing required by many Smart Metering programs that involve interval metering.

**Customer Self-Service**

Oracle Utilities Customer Self-Service helps utilities give customers the web-based options they demand for paying bills, analyzing consumption, and reducing costs. It helps utilities provide the information customers need, when they need it, in languages and formats tailored to their specific personal or corporate situations.

Oracle E-Business Suite customers may also address some of this functionality through modules like Oracle iSupport.

**Quotation Management**

Oracle Utilities Quotation Management helps utilities create, calculate, and process the pricing structures needed by specific groups of customers. It helps meet the needs of large industrial customers involved in complex demand response or multiple-supplier programs.
Rate Management
Oracle Utilities Rate Management speeds the accuracy, timeliness, and competitive response of pricing design and analysis. It ensures that you have a complete and accurate assessment of the implications and long-term effects of quotes you provide to customers.

Oracle Applications for Mission-Critical Utility Operations

Meter Data Management
Oracle Utilities Meter Data Management decouples the handling of meter data from other mission-critical utility operations. As utilities increasingly move toward interval billing, Oracle Utilities Meter Data Management permits all applications to receive the metering information they need in the format that fits their unique requirements. Utilities without very large volumes of metering data can choose to handle all metering and billing functions within Oracle Utilities Customer Care and Billing.

Field Service
Oracle Utilities Mobile Workforce Management ensures that field crews reach the sites of scheduled appointments and emergencies on time, via the best route, with the right skills and equipment to get the job done. Utilities can also address field service via modules within various Oracle corporate administration suites. If they need only to schedule customer appointments, they may also choose Oracle Siebel Field Service.

Work and Asset Management
Oracle Utilities Work and Asset Management addresses maintenance and repair, construction work management, and replacement in addition to supply chain functionality. Utilities may also address asset needs with modules from Oracle E-Business Suite such as eAM.

Project Portfolio Management
Oracle Primavera project portfolio management applications can be leveraged to gain operational efficiencies across the enterprise to effectively manage their entire project portfolio. The solution allows you to deliver projects across generation, transmission and distribution, and new clean-energy ventures. Oracle Primavera helps you successfully execute capital expansion and maintenance projects, optimize an aging but highly skilled workforce, improve resource planning and utilization. Finally, Oracle Primavera helps manage and monitor budget allocations against key performance indicators (KPI's), and helps predict and mitigate the impact of weather, competition, and government regulation.

Network Management System (for both Outage and Distribution Management)
Oracle Utilities Network Management Systems is a comprehensive, integrated suite of real-time outage and distribution management applications. It works with your existing SCADA, GIS, and similar systems to accelerate network restoration, improve operational efficiency and system reliability, and better manage distribution assets.

Supply
Oracle Utilities Portfolio Management links the retail sales and wholesale procurement books; it permits assessment of exposure for price/load forecasts. Oracle Utilities Load Analysis collects, manages, analyzes, and stores large volumes of energy data. Oracle Utilities Load Profiling and Settlement executes settlement, forecasting, data aggregation, profiling, and financial market settlements.
Visual Applications

Visual Apps for Oracle Utilities combines the power of Oracle’s AutoVue Enterprise Visualization solutions with Oracle Utilities Work and Asset Management and Mobile Workforce Management solutions. Visual Apps for Oracle Utilities add a visual dimension to asset and workforce management processes, allowing asset teams and service technicians to access, view, digitally annotate and collaborate on asset information and case-related documents (schematics, blueprints, 3D models, etc.) directly from within their Oracle Utilities Work and Asset Management or Oracle Utilities Mobile Workforce Management environment. Greater visibility and enhanced collaboration help increase workflow efficiency, improving service performance, enhancing customer satisfaction and reducing operating expenses.

Business Intelligence

Oracle Utilities Business Intelligence is a complete business intelligence solution, built for Oracle Utilities applications, and designed with extensibility in mind. It provides pre-built technical business processes for Oracle Utilities solutions such as: Customer Care and Billing, Network Management System, Work and Asset Management and Mobile Workforce Management, enabling utilities to perform separate or combined analytic reporting for those specific utilities applications. Additionally, the user interface works with the pre-built data warehouse to show configurable KPIs through various graphical metaphors or tabular reports.

Oracle Applications for Smart Grid and Smart Metering

Smart Grid

Oracle's smart grid software is a solution set uniquely positioned to provide utilities with the end-to-end applications to help solve their technology needs for the roll-out of Smart Grid. The role of operational applications starts with distribution management features of Oracle Utilities Network Management System (which includes Outage Management and Distribution Management capabilities) and world-class Oracle Fusion Middleware to handle complex event processing, batch operations, streamlining of business processes, alignment of business applications, exponential data growth, and visualization for embedded spatial capabilities. In addition, the interaction with the utility customer is changing and is supported by applications including Oracle Utilities Customer Care and Billing, Oracle Utilities Meter Data Management and Oracle Utilities Advanced Outage Analytics. Our Smart Grid Gateway is the link to these mission-critical systems and the equipment that powers them.

Smart Metering

Oracle’s smart metering software is a solution set that offers customers new ways to conserve energy, potentially reducing their bills and their carbon footprint. Oracle Utilities Meter Data Management can serve as the foundation for a Smart Metering initiative. It integrates with multiple advanced metering solutions and acts as a central data repository. It provides validated, ‘clean’ data for downstream systems such as billing, customer care, network management, and more. Oracle Utilities Meter Data Management feeds processed and formatted data to a variety of Oracle Utilities applications that support Smart Metering, including: Portfolio Management, Load Analysis, Load Profiling and Settlement, Customer Care and Billing, Quotations Management, Mobile Workforce Management, Asset Management, Outage Management, and Distribution Management.
Oracle Applications for Corporate Administration

To stay ahead of changing market dynamics, utility companies must produce and deliver innovation cost-effectively and safely. They must also cope with evolving regulatory landscapes and emerging public priorities.

Oracle’s administrative solutions for utilities eliminate inefficiencies from back office operations. They help you reduce costs, ensure customer satisfaction, and maximize asset reliability.

Oracle offers three comprehensive suites of integrated business applications:

- E-Business Suite
- PeopleSoft
- J.D. Edwards

Each addresses such key administrative functions as supply chain planning and management, procurement, financial management, human resource management, facilities management, and many more. And each has demonstrated its ability to help utilities of all sizes and business models improve performance and exceed stakeholder expectations.

Oracle Middleware

Oracle Fusion Middleware is a pre-integrated portfolio of customer-proven software that enables your organization to:

- Increase the capacity for growth and change.
- Improve insight into business operations.
- Mitigate risk and drive compliance.
- Connect with customers, partners, and workers.

Among the middleware choices most important to utilities are:

Business Integration

Oracle seamlessly integrates your applications, processes, information and business partners. These integration packages help reduce the time and cost to deploy and upgrade applications. They speed the path to more efficient business operations, consistent and accurate information, and greater business insight.

User Interaction

Oracle’s User Interaction middleware includes a number of market-leading products:

Oracle Portal offers a complete and integrated framework for building, deploying, and managing enterprise portals. It delivers a unified and secure point of access to all enterprise information and services. As a result, it improves business visibility and collaboration, reduces integration costs, and ensures investment protection.
Oracle WebCenter brings Web 2.0 to the enterprise through an integrated, comprehensive, standards-based platform. It allows organizations to optimize their business processes by creating an intelligent context. With WebCenter, you can integrate enterprise applications, structured and unstructured information, business intelligence, and communication.

Oracle Content Management spans the entire spectrum of unstructured content: web pages, documents, digital assets, records, images, processes, and information rights. It reduces development and administration costs while increasing individual and team productivity.

Oracle Collaboration Suite augments your existing business processes and applications with tools to seamlessly collaborate from within any application or device.

**Identity Management**

Oracle Identity Management allows enterprises to manage the end-to-end lifecycle of user identities across all enterprise resources both within and beyond the firewall. It helps utilities deploy applications faster, increase protection, and eliminate latent access privileges.

**Business Process Management**

Oracle Business Process Management is a set of open, standards-based components for modeling, executing, managing, and optimizing business process applications. Its BPEL Process Manager helps you make process improvements using existing applications. Oracle’s closed-loop engineering eliminates process gaps and gives you control over the entire business process lifecycle. As a result, you can react quickly to new business requirements and improve productivity.

**Security**

Providing prudent security to your utility processes is essential. Oracle Security Technology is unsurpassed in the industry, providing:

- Secure meters and data by enhancing AMI security and comprehensive meter data security.
- The ability to help streamline customer and employee care by implementing user, role and password management as well as enabling next-generation consumer energy portals.
- An agile architecture for compliance which helps reduce time and cost and aids in rapid adjustment to new regulations and mandates.

**Governance, Risk and Compliance**

Governance, Risk, and Compliance uses a single platform to manage both IT compliance (information protection and privacy, enterprise configuration, and change management) and financial compliance (policy and process management, enterprise control management, and integrated financial and compliance analytics).
Oracle Technology

Spatial
Oracle Spatial maximizes the use of geographic information within Oracle applications. It fosters map-based tracking of asset and customer location. It aids in understanding the geographic market penetration of a utility’s programs and spatially informs all forms of business analysis. The result is faster absorption and use of data and concepts by audiences of varying interests and analytic backgrounds.

Database
In conjunction with middleware, the Oracle 11g Database addresses such compelling infrastructure needs as:

- Security of both data and user access throughout the data collection and processing cycles. This ensures that customer data and utility operations remain confidential.
- Comprehensive business system management to ensure high operational service levels and to pro-actively identify and resolve issues.
- Data management scalability and the ability to deliver a consistent performance, even at very large data volumes.
- High availability to guarantee data collection / validation / aggregation and thereby support time-critical Smart Metering applications.
- Use of an Enterprise Service Business for rapid and cost effective integration of meter data with other systems.
- Flexibility to rapidly configure and deliver when circumstances change, helping you maintain your long-term investment in Smart Metering and in Oracle.

Servers and Storage
Oracle has broadened its utilities offerings with the acquisition of Sun, a leading provider of servers, storage, virtualization technologies, and software. Oracle’s Sun products for the energy and utilities industries are extensive and innovative. The acquisition combines best-in-class enterprise software and mission-critical computing systems, enabling Oracle to engineer and deliver an integrated system—applications to disk—where all the pieces fit and work together so that customers do not have to do the integration themselves. Utility customers can benefit as their system integration costs go down, while system performance, reliability, and security go up.

Conclusion

Today’s electric, gas, and water utilities need software applications and technology to serve as a robust springboard from which to meet the challenges of the future.

Oracle offers those solutions, whether you are looking for one application, or multiple, integrated applications.

Oracle Utilities’ solutions enable you to meet tomorrow’s customer needs while addressing the varying concerns of financial stakeholders, employees, communities, and governments. We work with you to address emerging issues and changing business conditions. We help you take advantage of new technology directions and incorporate innovation seamlessly into ongoing activity to take your utility forward.
CONTACT US
For more information about Oracle Utilities, please visit oracle.com/industries/utilities or call +1.800.275.4775 to speak to an Oracle representative.

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Visit oracle.com/corporate/contact/global.html to find the phone number for your local Oracle office.