

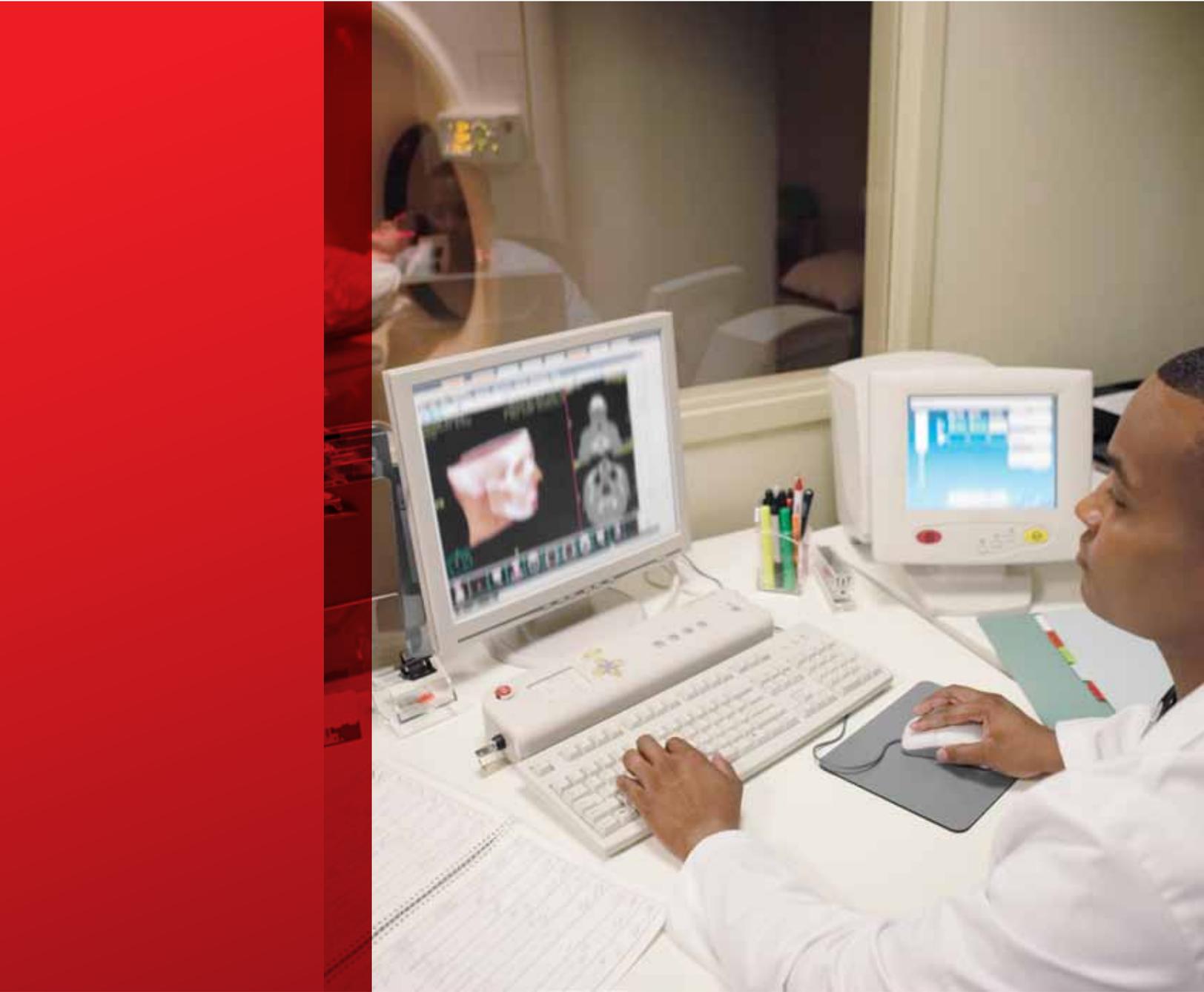
Hardware and Software  
En i e e



## Oracle Healthcare Solutions

Improving Patient Care and Outcomes While  
Maximizing Efficiency and Containing Costs

Oracle Healthcare  
Connect. Collaborate. Care.



Healthcare providers and payers are confronting the hard reality that the current pace of cost escalation is not sustainable. In response to this challenge, Oracle delivers powerful solutions that address critical areas in the healthcare industry.

In nearly every developed economy, healthcare costs are rising faster than GDP and reimbursement payments are reduced or uncertain. However, the demand for patient engagement, business and clinical analytics, enhanced resource utilization, and infrastructure development has never been greater. The industry is responding with new healthcare IT systems that support the delivery of high-quality care and improved patient satisfaction, as well as enable streamlined workflow processes, data integration across the enterprise, and secure information exchange. These systems address a variety of factors and challenges, including U.S. government mandates for implementing meaningful use of electronic health records (EHR), improving patient information access, and delivering accountable care.

Oracle is unique in its ability to deliver powerful solutions to all critical areas of challenge in the healthcare industry. Oracle's wide range of integrated, industry-specific software and hardware solutions are optimized to improve operational efficiencies and deliver performance levels that are unmatched in the industry. And because Oracle systems are built on open standards, they can be deployed in the data center as individual components or as complete solutions that are integrated from applications to disk. This deployment flexibility is important in many healthcare settings, because hospitals, health systems, and related healthcare partners and contractors frequently exchange data from disparate systems beyond hospital walls.

Oracle's healthcare solutions are designed to help you elevate your level of care and your profitability. You can accelerate the adoption of more-efficient health delivery systems and increase your ROI using Oracle's secure, performance-driven platforms for the rollout of EHR and other informatics applications. The Oracle Health Management Platform Solution, Oracle Health Resources Management Solution, connected health solution, and health insurance applications and payer solutions help meet the challenges facing provider and payer organizations.

**FACT:** Texas Children's Hospital saves US\$400,000 annually through increased operational efficiency and visibility using Oracle's PeopleSoft applications.



#### **CONNECT. COLLABORATE. CARE.**

Oracle provides comprehensive, end-to-end healthcare solutions to support best practices and decrease costs. Oracle offers

- An integrated solution capable of aggregating clinical data meaningfully across disparate systems to create detailed, holistic views of the enterprise
- A complete, semantically interoperable HIE solution based on open standards
- A comprehensive talent solution—from recruitment to succession planning
- A single set of controls for enterprise access and compliance management across contracting and finance
- Secure provider collaboration with an integrated enterprise solution that supports the “Integrating the Healthcare Enterprise” initiative

## Realign Care Delivery from Reactive to Proactive

Care provided in response to an acute patient health event is often the most expensive component of healthcare delivery. Therefore, to best control costs, providers should seek to reduce the need for acute care. A shift in focus must occur from reactive medical management to a more active disease-management approach. The goal is to proactively maintain population wellness and support the self-care of patients with chronic conditions.

Current records-based systems are not designed to proactively manage long-term patient relationships or help patients navigate complex healthcare environments. The Oracle Health Management Platform Solution supports care delivery within and beyond hospital walls. It is highly scalable and based on commercial-off-the-shelf products that help you deliver patient-centric services. The solution consists of three core components.

- **Oracle's Siebel Healthcare solutions**—Multichannel patient relationship management solutions that provide a 360-degree view of patient activities to help you deliver services, from health promotion through case management of long-term conditions.
- **Oracle Policy Automation**—A protocol generator for healthcare professionals that uses natural-language-based rules to ensure patients are accurately and consistently treated at every stage of care. It also facilitates easy treatment documentation.
- **Oracle WebCenter Portal**—A comprehensive and contextually relevant content management system that gives healthcare consumers easy, multichannel access to personalized information. Oracle WebCenter Portal enables telehealth monitoring and device-to-device communications between patients and providers.

Because it is based on proven products, the Oracle Health Management Platform Solution inherits all the security, integration, reliability, and open standards that Oracle customers depend on. And because it ensures that the appropriate level of care is delivered with the most effective timing, it helps prevent the need for expensive acute services.

### **The Oracle Health Management Platform Solution in Action**

The best case scenario in managing a disease is prevention. However, when patients do develop chronic illnesses, the Oracle Health Management Platform Solution helps you deliver more cost-effective treatment. The comprehensive, flexible platform delivers benefits across the entire patient-care continuum.

**Health system relationship management**—Attract, retain, and enhance relationships with patients and other stakeholders

- Educate consumers on the benefits that are available, so they can take full advantage of their coverage and service options
- Refer consumers to providers and facilities based on cost and quality outcomes
- Offer portals and Web services that patients can use to access up-to-date, relevant content from a variety of sources, in addition to options to join online self-help groups

**Population health programs**—Develop and administer programs such as health screenings, vaccinations, and outreach campaigns for defined populations

- Identify subsets of the managed-care population by condition and offer these patients discrete programs ranging from health promotion campaigns to full disease management support
- Collate data from disparate systems and accurately match it to an individual's medical record, so an analysis baseline is established using risk algorithms

**Active long-term care**—Manage patients with long-term conditions, as well as deliver new ways to engage them in their health

- Facilitate patient outreach through services such as interactive channels and home medical devices
- Support informed choice by patients and their caregivers to enable self-care wherever possible, and fully coordinated care in their home when their condition requires it
- Implement an outbound resource to remind patients of appointments

**Care transition management**—Coordinate patient care across organizations

- Provide a personalized, single-source platform for wellness and treatment support, as well as a vehicle to connect the care team, patients, and caregivers
- Deliver fully interoperable information to facilitate collaborative care
- Refer and coordinate care from multiple medical management programs and escalate referrals as necessary

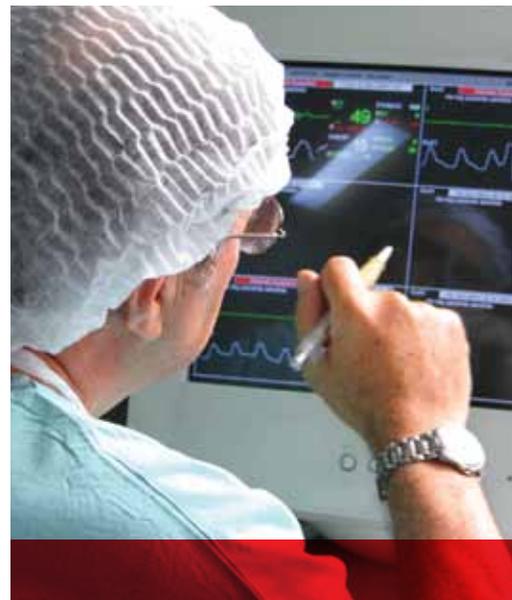
Substantial benefits can be gained by offering your patients a streamlined way to interact with your organization, including increased use of less costly in-home care monitoring, improvements in hospital discharge and readmission rates, and better outcomes due to improved patient compliance with treatment plans.

## Deploy Systems That Drive a Patient-Centric Enterprise

A patient-centric environment requires an infrastructure that provides real-time data integration, uninterrupted availability, and access to complete patient data at the point of care. As the backbone of this environment, an electronic health record (EHR) solution integrates patient data from multiple sources and makes it available to those who need to view it. Oracle technology solutions support an EHR system that eliminates information gaps, protects patient privacy, and drives continuity of care.

### Securely Assemble a Complete Patient History

An EHR system must deliver secure yet rapid access to all important clinical data elements, including a complete patient treatment history, medication history, test results, and more. This means your EHR solution must store and manage large amounts of data gathered from within and outside of your organization. Oracle delivers the solutions you need to handle these challenges.



*“Oracle’s industry-leading technology has been critical to our success in building a highly ambitious people-management solution for 7 percent of the working population in England and Wales, delivering it on time and to budget, and helping the [U.K.’s National Health Service] exceed business case savings targets by more than 30 percent.”*

Frank Rutley  
Vice President  
UK Workforce Solutions  
McKesson Information Solutions UK

**FACT:** Cancer Care Ontario has increased colorectal screening rates from approximately 20 percent to nearly 50 percent in three years with the help of Siebel CRM.



#### MANAGING PATIENTS FOR LIFE

The Oracle Health Management Platform Solution helps you effectively engage with your patients throughout the entire healthcare process, so you can

- Delay or prevent chronic diseases by encouraging healthier lifestyles
- Identify the onset of conditions earlier, leading to timelier intervention and better outcomes
- Ensure that patients receive appropriate treatment inside and outside clinical settings
- Empower individuals to take greater control of their health needs through self-care
- Improve adherence to medications and therapies to prevent recurrent acute episodes
- Boost patient satisfaction and loyalty by actively improving quality of life
- Significantly reduce the costs of delivering medical care and processing claims

#### Ensure Continuous Data Availability

The majority of the information used by healthcare organizations is unstructured data such as documents, multimedia content, location information, medical images, and Web content. With Oracle Database 11g, you can handle unstructured data that in the past had to be stored in a separate file system. Moving large amounts of unstructured data into a database lets you more easily incorporate it into EHRs, as well as better track, secure, and audit this data.

Oracle GoldenGate 11g—a component of Oracle Fusion Middleware 11g—delivers low-impact, real-time data acquisition, distribution, and delivery across heterogeneous systems for improved business insight, lowered integration costs, and continuous system availability. This technology lets you reduce risk by performing system integration with minimal infrastructure impact, and the solution can fall back, or reverse changes, if necessary. These capabilities ensure the reliability and accuracy of your EHR system, so it can be counted on to support high-quality patient care.

#### Access and Secure Data with an HIE Solution

A health information exchange (HIE) makes it possible to securely compile an accurate and complete EHR by accessing patient information from integrated delivery networks, labs, providers, payers, and others. Oracle's health information exchange solution reduces the complexity of setting up an HIE with a comprehensive and preintegrated portfolio of products. The solution delivers prebuilt healthcare-specific functionality such as patient consent management, data-access auditing, a clinical data and document repository, and medical terminology services. Further, Oracle's health information exchange solution delivers support in three vital areas: complying with governmental regulations; realizing a higher level of personalized healthcare; and in the U.S., meeting "meaningful use" requirements.

Two key components of Oracle's health information exchange solution become increasingly important as healthcare organizations grow, merge, and form affiliations.

- A master person index provides a single point of reference for information about patients, payers, and others when consolidating data between systems—ensuring that data regarding patient "John Smith" refers to the correct John Smith.
- A record locator improves your EHR management and reduces information gaps by identifying the location of multiple health records for each patient, even those stored in other data centers.

Oracle's health information exchange solution helps you securely manage and share health data to improve patient care, comply with regulations, and reduce costs.

#### Deliver Access to Data at the Point of Care

Medical professionals switch from desktop to desktop as they move between facilities, and they need secure and rapid access to patient data. Oracle Virtual Desktop Infrastructure delivers always-on, mobile, and point-of-care access—optimizing time with patients by reducing data-access time. It does this by virtualizing complete desktop environments and installing them in the data center where they can be secured, maintained, and tracked for compliance purposes.

The solution also delivers secure, smart card access to virtual desktops from Oracle's Sun Ray Clients, traditional PCs, and other devices. Oracle's virtual desktop solution for healthcare enables

- The ability to halt a desktop or application session on one device and resume it on another, with no interruption to the session or loss of data
- Mobile application access, reducing rekeying and associated human error
- The use of a smart card instead of a mobile device, reducing injuries and fatigue
- The management of a few servers rather than numerous desktop devices, reducing costs and dramatically lowering power consumption

### Enhance Security to Protect Privacy and Minimize Risk

Protected health information (PHI) must be treated with utmost care. However, it must still be readily available to patients, providers, and payers in order to facilitate meaningful use and extend the power of personalized healthcare to the consumer. Oracle security solutions are designed to help you deliver authorized access to sensitive healthcare data by creating automated, best-practice-based processes. For example, Oracle Identity and Access Management enhances security through user single sign-on capabilities, central authorization procedures, and access privileges that are automatically synchronized and audited with personnel changes for fraud detection. With Oracle's comprehensive security solutions, you can demonstrate your commitment to your patients, as well as lower your corporate and clinical risk.

### Increase the Value of All Your Resources

It is essential that key stakeholders and decision-makers have access to integrated financial, operational, and clinical data to make informed, timely decisions that balance cost impact with optimal patient care and outcomes. Oracle Health Resources Management Solution delivers a trusted and dynamic single source of truth that can integrate all your resource utilization and performance data. By standardizing on best practices for human resources, finance, purchasing, inventory, and more; automating performance management monitoring; and thoroughly examining all your operations, you get better, more-informed resource utilization and management.

### Tie Your Enterprise Together with Integrated Processes

Interoperability is one of the greatest challenges facing healthcare enterprises. Service-oriented architectures (SOAs) enable you to integrate disconnected applications, legacy platforms, and community, state, and national health information exchanges. Oracle SOA Suite for healthcare integration jumpstarts your integration initiatives by providing a technology platform that includes built-in support for common standards for healthcare messaging and data exchange. Building on the legacy of Sun Java Composite Application Platform Suites, Oracle's SOA Suite for health integration enables you to move from transactional systems to comprehensive SOA-based architectures in one step. You can collaborate and share resources more efficiently and at lower cost, increasing the benefits you gain from electronic health information.



*"Oracle products, such as Oracle Real Application Clusters and Oracle BPEL Process Manager, enabled us to use SOA to integrate systems without the need for major programming. As a result, we were able to make critical healthcare information available to medical staff in real time."*

Tomohiro Sawa, Chief Information Officer, Department of Anesthesia, Teikyo University Hospital

**FACT:** University of Pennsylvania Health System slashed budgeting and planning time by 25 percent by moving away from a spreadsheet-driven system to an integrated budgeting and planning solution based on Oracle Hyperion Financial Reporting and Oracle Hyperion Planning.



A SOA also helps your organization rapidly deploy highly adaptable business applications. These applications enable cross-entity processes that share information, orchestrate services and workflows, and provide unified service delivery. They can also provide

- The ability to add external services offered by payers to your applications
- Transparent access to multiple applications or services, so caregivers can easily complete a complex workflow using a single application interface
- Automated processes that help monitor enterprise events, with notifications displayed on dashboards to create real-time insights—letting you rapidly solve problems

### Increase Operational Consistency and Efficiency

The need for better-informed decisions affects the entire healthcare enterprise. State-of-the-art enterprise resource planning (ERP) solutions can help you implement realistic strategies that optimize costs. Oracle is the #1 healthcare ERP solution vendor and offers many prebuilt healthcare capabilities. Oracle's ERP solutions deliver support for finance and accounting, human capital management, manufacturing, sales and service, customer relationship management, and more. They improve the flow of information between internal business areas and manage connections to outside stakeholders.

Moreover, you can use ERP applications to implement shared services that drive benefits across lines of business through lowering the cost of transaction processing, streamlining business processes, and improving data quality. Oracle's ERP applications help boost performance in all areas of healthcare delivery.

- **Workforce**—By fostering a stimulating, collaborative workplace with continuous learning and development and automated business processes, you reduce absenteeism, increase productivity and improve employee morale.
- **Medical supplies and goods**—By leveraging automated and cost-efficient “requisition to pay” processes, including mobile-enabled, stock-management features, you can exploit economies of scale and gain value from enhanced buying power.
- **Buildings, equipment, and information/computer technology**—By establishing a coordinated maintenance regime that results in more availability with less cost, you gain better visibility into mobile asset use and prevent theft.
- **Financial**—By implementing streamlined transaction processing, you get maximized income from patient billing, grants, and other funding sources, as well as faster, more-effective management and statutory reporting.

### Make More-Informed Cost Decisions

Healthcare providers and payers must develop cost-effective, sustainable business operations and manage ongoing enterprise performance to remain competitive. Oracle's healthcare costing and performance management capabilities integrate planning, budgeting, costing, and reporting. They include

- A healthcare costing data model designed to deliver seamless data integration
- Easy-to-apply, multiple costing methodologies that allocate costs to clinical services or case types, and integrate these costs directly into the planning process

- Business intelligence (BI) technology that allows customized, role-based performance metrics and analytics

You can calculate costs and better understand your total profitability based on overall case mix and other factors. With this information, optimizing all service-line costs is possible, leading to increased operating efficiency and an improved bottom line.

### Reduce Clinical Operating Costs and Improve Performance

With the push for shared-risk healthcare delivery models in the U.S., using your resources to ensure the greatest patient-care improvements is mission-critical. Oracle Health Resources Management Solution helps your organization deploy and manage resources effectively and set meaningful performance goals to achieve operational efficiency. Oracle Health Resources Management Solution helps drive economies of scale and complete faster transaction processing at lower cost through collaboration to obtain better buying decisions and waste reduction by supporting lower stock-holding.

As a provider, it is now critical to your survival to understand your resource utilization by service line, and to have reliable insight and intelligence on administrative and care delivery costs. Oracle Health Resources Management Solution supports ad hoc analysis by combining service delivery costs and patient revenues by service line and enabling accurate analysis of costs and margins, delivering a single source of truth. Reports deliver historical data, trend data, or drill-down data through customized dashboards.

Oracle Health Resources Management Solution provides benefits that help your organization advance its strategic and operational objectives and drive value through resource utilization planning, budgeting, costing, and analytics. The solution consists of Oracle Supply Chain and Order Management Analytics; Oracle Financial Analytics; Oracle Human Resources Analytics; and Oracle Procurement and Spend Analytics.

### Keep Up with Changes in the Healthcare Payer Market

#### Achieve Operational Excellence

As healthcare payers, you want to improve operations in ways that help you provide better service and also increase your competitiveness. With Oracle's health insurance applications and payer solutions, you can better understand your administrative costs and automate your business processes. For example, you can monitor your business operations using Oracle's analytics solutions with prebuilt healthcare key performance indicators, and consolidate multiple ledgers for accurate financial reporting. In addition, Oracle Insurance Claims Adjudication for Health lets payers

- Easily configure business rules to process complex claim scenarios automatically
- Achieve more-accurate first-pass adjudication of claims, lowering administrative costs
- Accelerate payments to providers and members, improving service levels
- Automatically detect and flag potential errors, avoiding payment adjustments



*“With Oracle Hyperion Planning, we have standardized institutional parameters for budget development and planning in all hospitals, clinics, and rehabilitation centers. Now we have a single application that allows directors and managers to forecast revenues and expenditures on a monthly basis.”*

**Hector Ipiña Sifuentes**  
Assistant Director of Administrative Systems  
Grupo Christus Muguerza S.A.P.I de C.V.

**FACT:** 70 percent of the top multihospital systems in the U.S. run Oracle technology.



*“Today, consumers and health plan sponsors have many choices, so plans must provide optimum service. Oracle’s Siebel solution enables us to provide informed, efficient service, while also streamlining regulatory reporting.”*

**Leonard Rosignoli**  
Director of IT,  
The University of  
Arizona Health Plans

Under the U.S. Affordable Care Act, states will need to create state-run health insurance exchanges in which millions of Americans and small businesses can obtain information to evaluate plans and purchase affordable coverage. Oracle’s solutions for health insurance exchanges (HIX) offer the only enterprise software that provides a complete platform for integrated program delivery. These solutions can help state agencies transform their legacy IT systems into enterprisewide platforms that can support multiple programs, be deployed more rapidly and cost-effectively, and deliver a comprehensive view of provided services. Oracle’s best-of-breed solutions allow states to leverage existing infrastructure investments, while providing the ability to move to a state-of-the-art architecture and a truly scalable solution.

### **Beat the Competition with Innovative Services**

Oracle solutions don’t simply help you operate more efficiently. Because they are flexible, they promote an agile business environment that supports product development, release, and administration. You can manage the entire product lifecycle in a cost-effective and timely manner, ensure new products adhere to regulations, and easily monitor product-line profitability. Oracle’s health insurance applications and payer solutions support you as you enhance your portfolio by rolling out innovative products and services to keep pace with a dynamic, rapidly changing healthcare environment.

### **Improve Relationships with Patients and Partners**

Excellent service and compliance with agreements helps retain members. Oracle’s Siebel Healthcare solutions are industry-specific CRM solutions that let you more effectively manage relationships between payers, providers, brokers, and members. With Oracle’s business intelligence tools you can monitor your environment to keep your relationships with stakeholders on track, compile benchmark information for providers, determine the profitability of products, and more. Oracle’s health insurance payer solutions help enhance your reputation for providing superior service.

## **The Oracle Healthcare Advantage**

Oracle brings unmatched resources, top-to-bottom industry support, and decades of experience to the challenge of improving healthcare globally. Oracle is the #1 worldwide software vendor in not only healthcare, but also in many areas vital to your success, including customer relationship management, human capital management, middleware, and enterprise performance management.

The Oracle Health Management Platform Solution, Oracle Health Resources Management Solution, connected health solution, and health insurance applications and payer solutions make it easy for you to benefit from Oracle’s healthcare industry investments. They provide enterprisewide visibility and many tools to enhance operational efficiency—letting you deliver improved quality of care with lower costs. To start gaining these benefits, join the more than 350 leading healthcare providers and all of the top 20 U.S. health insurers that run Oracle Applications.



**CONTACT US**

For more information about Oracle's solutions for healthcare, please visit [oracle.com/healthcare](http://oracle.com/healthcare), or call +1.800.ORACLE1 to speak to an Oracle representative.

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