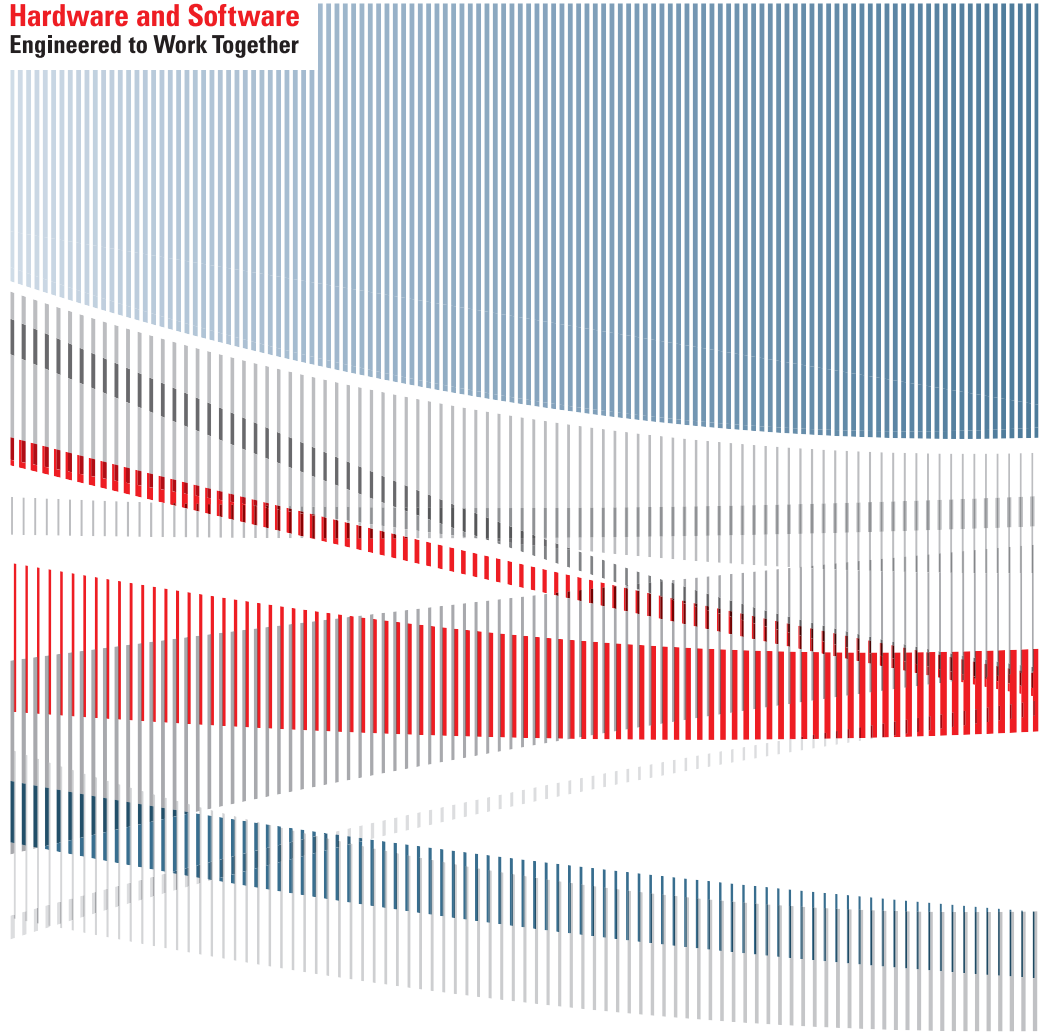


**Hardware and Software**  
Engineered to Work Together



EXECUTIVE STRATEGY SERIES

## Driving Innovation Through Analytics



## Driving Innovation Through Analytics

Digital data volumes are increasing tenfold every five years, and yet a majority of executives say they are not getting the information they need to make important decisions—36 percent say their business units and functional operations are making decisions based on inconsistent information. Are you getting the information you need to run a successful business in today's competitive climate?

As the #1 vendor in business analytics with the industry's most complete and most integrated range of enterprise-class analytics solutions, Oracle leads the way in helping organizations connect performance metrics with financial and operational plans and embed analytics into core business processes.

## Evolving from Efficiency to Effectiveness to Business Transformation

### Efficiency First

Over the past 25 years, organizations of all sizes have been implementing enterprise resource planning (ERP) and customer relationship management (CRM) systems that have allowed them to

- Integrate and automate business processes
- Reduce costs
- Increase velocity
- Improve customer relationships

Early adopters of ERP gained competitive advantages through resulting operational efficiencies. However, as these transactional business applications matured and as adoption became almost universal, operational efficiencies alone no longer provided as much of a competitive edge as they did previously.

For today's CIOs and CEOs, analytics is a top priority—especially for those who recognize the potential of analytics to extend the value of their existing transactional business application deployments.



According to a recent study, “analysis paralysis” is costing the U.S. economy more than US\$900 billion per year.

## Effectiveness

Augmenting transactional applications with analytics provides the ability to improve operational efficiency as well as operational effectiveness. Providing managers and front-line decision-makers with greater performance visibility lets them detect problems, spot opportunities, and better plan for the future.

The value of analytics is so widely recognized today that nearly all midsize to large scale enterprises have deployed some level of business intelligence (BI) tools and technologies. Most enterprises have multiple BI technologies and standards deployed across various departments.

In spite of the widespread implementation of analytics, its promise of operational effectiveness has not been fully realized. According to a recent survey conducted by independent analyst firm, BI Scorecard, adoption of BI remains surprisingly low—reaching only 25 percent of potential users.

For many, the BI tools available are difficult to use and slow to respond and the content they deliver is of little relevance. As a result, business users default to making decisions based on incomplete information or a “gut feeling.”

The same survey also noted that while 26 percent of respondents reported that their BI deployments were successful, the vast majority of BI programs are falling short of their potential to increase revenues, improve customer service, reduce costs, and use strategic insights to create innovative new products or services.

BI solutions are typically disconnected from planning systems and transactional applications so metrics viewed in BI reports and dashboards often have little or no relationship to target metrics established in financial plans. In the same way, the annual targets established in financial plans and budgets often have little or no relationship to operating plans and dynamically changing business conditions. When BI systems, planning systems, and transactional systems are disconnected and facts and assumptions are misaligned, the pitfalls can include cost overruns, an inventory shortage or surplus, unnecessary risks, and delayed responses to issues and opportunities.

## Integration Drives Innovation and Transformation

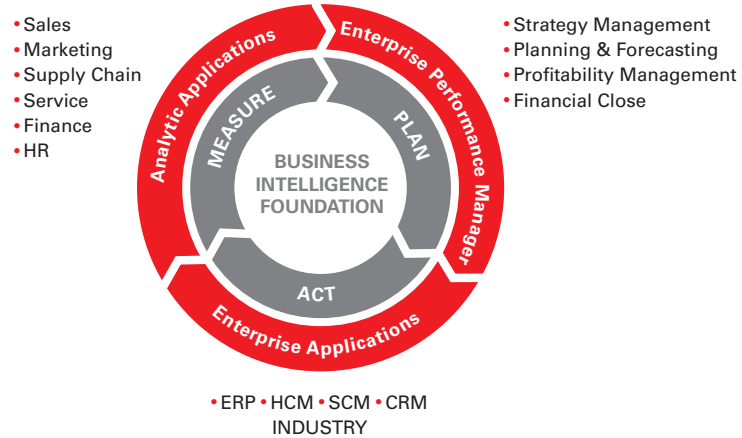
Visionary companies are recognizing an opportunity to achieve a competitive advantage by integrating

- Analytic systems, used to measure and monitor performance
- Planning systems, used to forecast the future
- Transactional business applications, used to execute business processes

Adoption of BI remains surprisingly low, reaching only 25 percent of potential users. For many, current BI tools are difficult to use and slow to respond. What's more, the content they deliver is often of little relevance.

BI solutions are typically disconnected from planning systems and transactional applications so metrics viewed in BI reports and dashboards often have little or no relationship to target metrics established in financial plans.

## Oracle's Analytics Strategy: Intelligent Business Processes



Oracle Business Intelligence foundation and packaged applications support intelligent business processes that help organizations continuously measure, plan, and act.

Oracle's analytics strategy enables customers to create an intelligent business process that is connected and continuous—a business process that supports all three aspects of performance management:

- Shaping strategy through financial and operational planning
- Taking action to execute the strategy across business operations
- Measuring the results to enable fact-based decisions

With this closed-loop process, your organization can realize business outcomes that continue to improve over time. The sections that follow explain the key components of Oracle's analytics strategy.

### The Enterprise-Class Business Intelligence Platform: A Foundation for Managing Performance

BI tools proliferate in most enterprises because different user communities have different requirements. Oracle Business Intelligence foundation integrates the capabilities of multiple BI tools into a single, unified technology platform that supports the full spectrum of enterprise requirements for business analytics including reports, dashboards, scorecards, scenario planning, and forecasting models, as well as ad hoc queries and analysis.

Simply put, Oracle's analytics strategy is to leverage an enterprise-class BI platform that supports closed-loop, intelligent business processes to deliver:

- Integrated, operational analytic applications
- Planning and performance management
- Transactional business applications

Oracle has introduced an innovative new capability in Oracle Business Intelligence foundation that literally breaks down the traditional walls between analysis and execution by allowing users to initiate actions, such as workflows and notifications, directly from reports and dashboards.

Oracle's unique common enterprise information model enables self-service BI that minimizes your users' reliance on IT. The model centralizes all metrics, calculations, and assumptions so that users are insulated from the complexities of traditional BI tools and receive consistent and accurate information—regardless of where or how that information is presented.

## Analyzing Big Data

Businesses today need to analyze huge amounts of data, including social media activity, Web logs, warranty claims, call center activity, movement of assets with RFID tags, and sensor data. In most cases, organizations need to integrate unstructured data with data that resides in multiple data sources such as data warehouses, enterprise business applications, and online analytic processing (OLAP) cubes. Oracle's BI solutions make it easy for organizations to access, integrate, and analyze all data sources—unstructured data, as well as relational and OLAP data sources—within the enterprise and beyond.

## Visualization and Data Discovery

The sophistication of many of today's analytic applications—combined with larger and more complex data sets—is making it challenging for casual business users to interpret all the information they can now access. Oracle is pioneering innovative ways to simplify how users interact and navigate data using powerful, intuitive visualization paradigms. The best ways to visualize the data are automatically suggested to users, based on the data and on the nature of their business questions. The user can then render meaningful and compelling charts, graphs, spatial maps, and other forms of visual representation at the speed of thought.

## Analytics for the Mobile Workforce

Demand for mobile intelligence is exploding, due largely to the popularity of the Apple iPad and other tablet devices. Gartner projects that by 2013, more than 33 percent of BI information will be consumed on mobile devices. The popularity of mobile BI is also seen by many analysts as a factor that will drive greater adoption of BI. A survey conducted by the Aberdeen Group suggests that the emergence of mobile BI solutions could double BI adoption. Oracle's BI solutions provide comprehensive support for analytics on smart phones and tablet devices so that today's mobile workforce can access the information they need, wherever they are, with no compromise in functionality.

## From Insight to Action

Conventional BI platforms can deliver insight in the form of dashboards and reports, but before they can take action based on that insight, users need to leave the BI environment and enter some other system. Oracle has introduced an innovative new capability in Oracle Business Intelligence foundation that literally breaks down the traditional walls between analysis and execution by allowing users to initiate actions—such as workflows and notifications—directly from reports and dashboards.

## Engineered System for In-Memory Analytics

As analytic applications become more sophisticated and calculation-intensive, the use of mobile BI expands, user adoption increases, and data volumes explode, and the need for speed becomes more important than ever. In-memory



“It is estimated that 95 percent of the world’s data is unstructured, which is driving the need to access ‘big data.’”

The Economist

technology can dramatically accelerate analytic performance. Oracle Analytics In-Memory Machine is the industry’s first engineered system for analytics that combines analytic software, in-memory database software, and hardware that are engineered and optimized to work together to deliver extreme performance. As a result, users can visually navigate and explore information at the speed of thought, without limits on the complexity of their questions or the volume of the underlying data. The system also enables a new class of smarter and more powerful analytic applications that simply weren’t possible using conventional BI software and generic hardware configurations.

#### Enterprise-Class Platform and Lowest TCO


Oracle Business Intelligence foundation—recognized as a category leader by all of the major industry analyst research firms—represents the underlying BI technology for all of Oracle’s packaged analytic applications, as well as business applications such as Oracle E-Business Suite; Oracle’s PeopleSoft, JD Edwards, and Siebel solutions; Oracle Fusion Applications; and Oracle’s industry applications. According to Gartner, Oracle ranks lowest in total cost of ownership (TCO) among all major BI vendors.

#### Measuring Performance with Operational Analytics Applications

Although every organization has unique reporting and analysis needs that require custom applications, many requirements can be addressed through packaged analytic applications. The basic analytic requirements of common functional groups such as finance, human resources (HR), sales, and procurement are similar among organizations or industries. For example, finance departments in nearly all private and public sector organizations must continuously measure and monitor trends and variances of their general ledger accounts, accounts receivables, accounts payables, and fixed assets.

#### With Oracle Business Intelligence Applications

- Finance professionals have visibility into cash flow, gross margins, operating expenses, account balances, and business unit profitability
- HR professionals can gain insights into headcount trends, employee attrition rates, and the effectiveness of training programs
- Procurement and supply chain professionals can track parts and material trends, supplier performance, trade discounts, and warranty return costs
- Marketing professionals can monitor the efficacy of promotions and campaigns and make adjustments that maximize success rates
- Sales professionals can more effectively forecast revenues and transactions, manage the pipeline, and track key opportunities
- Service managers can optimize call center and depot staffing levels, identify problem areas that need attention, and respond more effectively to customer service calls



Oracle is the only vendor that offers a comprehensive family of more than 50 preintegrated, packaged operational analytic applications (Oracle Business Intelligence Applications) for every major front-office and back-office business function. Gartner estimates that over the next several years more than 33% of BI information will be consumed on mobile devices.

Oracle Business Intelligence Applications are built on Oracle Business Intelligence foundation, and are preintegrated with Oracle's ERP and CRM systems, as well as with SAP. Each application features dashboards, reports, and guided analysis, along with metrics, key performance indicators (KPIs), and calculations derived from established industry best practices and experiences from more than 4,000 deployments.

Each functional BI application can be deployed as an individual module that conforms to an enterprise data model. This allows organizations that deploy multiple BI applications to perform cross-functional analysis by drilling up, down, and across subject areas.

#### Measuring Financial Performance, Accelerating the Close Process, and Reducing Financial Risk

The ultimate scorecard for every business is reflected in the financial statements that are produced at the end of each fiscal quarter and at the end of the fiscal year. Income statements, balance sheets, and statement of changes in financial position are assessed against stakeholder expectations that are set in the firm's strategic goals and financial plans.

In reporting financial performance, it is critical for financial professionals to have ongoing visibility into key financial metrics during intraperiod financial cycles, as well as throughout the financial close process. Failure to anticipate and proactively respond to potential issues that may affect financial expectations can ultimately lead to a decline in shareholder value.

Oracle helps mitigate this risk by providing end-to-end visibility and control of the financial close and reporting processes so that finance executives can avoid undesirable surprises, ensure regulatory compliance, have confidence in their numbers, and complete the close process faster.

During intraperiod financial cycles, operational dashboards and reports give corporate and divisional finance professionals views of ongoing financial performance so they can spot potential issues and take corrective action before the period-end close is processed.

At the beginning of the close cycle, Oracle's financial close solutions ensure that subledger account reconciliations are accurate and that the quality of the data is validated before the consolidation phase. Oracle's solutions automate the processes of

- Performing intercompany eliminations
- Producing consolidated "flash" reports and final statements for management and statutory reporting



Oracle planning solutions span applications for strategic, financial, and operational planning.

Rapidly changing regulatory requirements, combined with new mandates for extensible business reporting language (XBRL) filings have put added pressure on finance organizations to report in a timely, accurate, and cost-effective manner.

Oracle's financial close solutions enable collaborative financial filings, and automated XBRL tagging helps both publicly traded companies and private companies submit their filings faster and for a significantly lower cost.

### Aligning Strategic, Financial, and Operational Plans

Even the best-laid business plans are destined for failure if the underlying facts and assumptions are not aligned with corporate goals and objectives, financial plans and budgets, and the day-to-day operational realities of the business. Oracle's planning solutions span applications for strategic, financial, and operational planning.

### Strategic Planning

Long-range, strategic planning typically has a timeline of three to five years.

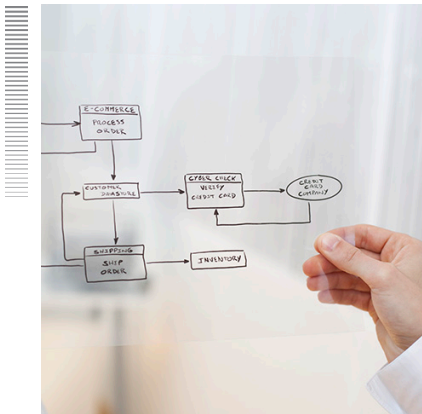
In assessing strategic activities (such as mergers, acquisitions, debt and capital restructuring, equity issuance or buybacks, and new business models), organizations need to understand the potential impact on the balance sheet, the cash flow statement, and other key financial criteria.

Oracle's strategic planning solution lets CFOs and leaders in strategic finance, mergers and acquisitions (M&A), business development, treasury, and other functions involved with long-range planning model scenarios that help inform the most optimal outcomes of major strategic initiatives.

### Financial and Operational Planning

All organizations generate annual financial plans and budgets. With its market-leading performance management applications, Oracle's financial planning solutions infuse the planning process with agility and flexibility, and align budgets with strategic and operational plans. Annual financial plans include long-range planning assumptions as well as other critical inputs including product, customer, and business unit profitability models that can be developed using Oracle's cost and profitability solutions. Through direct integration with ERP systems, all baseline plans, forecasts, and monthly or quarterly plan updates have up-to-the-minute information in the general ledger. Planning can be performed in a top-down or bottom-up manner, with rolling forecasts and the ability to revise plans and budgets in real time.

Another key tenet of Oracle's analytics strategy is the integration of financial plans with workforce planning, capital asset planning, project planning, and other operational processes. Modular solutions for operational plans that directly integrate with Oracle's financial planning and budgeting solutions ensure that financial resources are continuously aligned to support ongoing operational needs.



## Embedded Intelligence: The New Standard for Enterprise Applications

A survey by Dresner Advisory Services recently asked more than 600 business intelligence professionals to rank 10 emerging BI technologies according to importance. The list included data mining, real-time BI, in-memory technology, mobile BI, cloud computing, big data, open source, and collaboration. Respondents ranked the integration of analytics with operational processes highest on the list, with 74 percent indicating it was either critical or very important.

Embedded intelligence is a defining characteristic of Oracle's analytics strategy. Instead of limiting BI to managers or designated users, Oracle delivers intelligence to users who need it to support their business processes.

Embedded transactional intelligence—a key capability in Oracle Fusion Applications—provides each transaction with access to the information it needs to ensure the right course of action. The embedded intelligence capabilities of Oracle Fusion Applications are powered by Oracle Business Intelligence foundation, so enterprises can rely on a single, standard technology platform for all their analytics requirements including custom-built analytic applications, prepackaged analytic applications, or analytics embedded in transactional applications.

## Summary

Data is the new raw material of business, and competing with analytics is the new mantra for innovation, excellence, and leadership. Oracle's analytics strategy helps senior executives lead their organizations to new levels of excellence by harnessing business analytics into an intelligent business process. By building on existing gains in efficiency and improving operational effectiveness, organizations can achieve business transformation through greater alignment of information and unprecedented levels of insight.



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