

# Oracle Process Manufacturing for Commodity Chemical Industries

Value Proposition



ORACLE®



*The Commodity Chemicals Industry* has always ridden a boom-and-bust cycle—realizing large profits when times are good and suffering declining margins when times are bad. But you could dramatically reduce the impact of this cycle on your business if you had the information necessary to address five crucial issues:

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“The drivers are working in favor of giving customers more choices and making those choices at hyper speed. So simpler times are not around the corner. The world is going to get even more complex.”

— Michael Fradette  
Global Director,  
Manufacturing Practice,  
Deloitte Consulting

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**Margin Pressure.** Do you have all of the information necessary to measure, understand, and control the revenue and cost side of your business?

**Reducing Costs.** Do you have the systems that will allow you to accurately allocate costs among different products and lines of business? Can you pinpoint the greatest potential for cost-reductions in capital? In energy? In raw materials?

**Globalization** isn't just a word in the Chemical Industry. Emerging markets in Asia and South America represent huge potential gains for companies that have the information systems and infrastructure to let them enter these markets.

**Growth.** The Commodity Chemical Industry is plagued by chronic overcapacity. But you are measured on growth and profitability. You need good information to resolve this conundrum.

**Islands of information.** Your ability to reduce costs, boost profits, ensure regulatory compliance, and develop new markets is hampered by fragmented information environments.

In the next millennium, conventional factors for success in the Commodity Chemical industry will no longer be sufficient to compete. Managing and executing against the strategically important aspects of your business will become critical to gaining your competitive advantage.

*The rules of the game are changing.*

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" We implemented the software right out of the box. Because OPM and Oracle Financials are very sound applications that utilize good business practices, we didn't have to modify the functionality. We were able to address current business needs immediately to gain rapid return on our investment."

— Clay Owens,  
Systems Implementation  
Manager,  
Heritage Ink International

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**Realizing** the benefits of enterprise-wide information access requires Oracle Process Manufacturing and the business intelligence it provides. Oracle ensures the best returns through rapid implementation of key business functionality in relatively short periods of time. Additional business capabilities may be installed subsequently, based solely on what your business requires.

**Savings.** 15% of an organization's total manufacturing management costs can be eliminated by making it possible for executives to access the information needed to analyze critical operations. Oracle Process Manufacturing helps you understand the true costs of every product you make. That helps you understand which products you should be making to achieve your strategic goals.

**Quickly.** Customers have implemented the full Oracle process suite in multi-country installations in less than 6 months, getting critical functionality right out of the box.

# *Business Improvement Potential with Oracle Process Manufacturing...*

<b>Benefits</b>	<b>Typical Impact</b>
Increase Resource Utilization	≈ 20%
Reduce Manufacturing / Management Costs	≈ 15%
Increase Production Yields	≈ 30%
Reduce Order-to-Ship Time	From weeks to days
Decrease Cost of Regulatory Compliance	≈ 50%

Source: Oracle Corporation

*...for Your Competitive Advantage*

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# *Oracle is Committed to the Commodity Chemical Industry*

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"Oracle understands the unique requirements of process manufacturers. Oracle is delivering a comprehensive process manufacturing solution that will enable our customers to increase their global competitiveness and decrease the cost of running their businesses."

— *Tony Friscia,*  
*President,*  
*Advanced Manufacturing*  
*Research*

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Oracle has dedicated itself to providing strategically focused solutions for Commodity Chemical companies. Hundreds of dedicated professionals in the process manufacturing sector span the globe to support your needs. Our suite of solutions are already being used by over forty chemical customers worldwide.

Oracle is the only software company that can combine:

Core strengths in data management and Internet-enabled process manufacturing applications;

An extensive record of product commitment and success in process manufacturing;

And, the technical capability and flexibility to tailor a powerful end-to-end architecture to your company's specific requirements.

The result is an end-to-end solution built to meet your needs for information access and management.

# Oracle Process Manufacturing for the Commodity Chemical Industry Will...

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"The OPM software enabled you to change from this atomized organization, in which head office fixed the production budget for each unit, to a structure in which there is regular and direct communication between sites."

— Olivier Fuchs,  
Logistics Manager,  
Merck/Lipha Group,  
*Informatiques Magazine*,  
15 March 1998

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**Manage variability** in raw materials, intermediate products, and the process itself so that you can accurately match the quality of inventory to customer and regulatory specifications. This allows you to buy, produce, and ship exactly what each customer wants—no matter how their product requirements or your raw materials might change.

**Control inventory** in tremendous detail, tracking inventory at the lot and sub-lot level, based on quality, shelf life, and a host of other attributes ranging from catch weight issues to multiple on hand balances simultaneously, and in different units of measure.

**Make the best use of available resources** ranging from equipment to capacity using our rules-based system that enhances your flexibility through closed loop control, multiple routing options, and alternative formula capabilities thereby optimizing the conditions specific to your manufacturing facility.

**Make the right product at the right price** by using our multiple cost methods to capture precise product costs thereby managing your margins and optimizing your capacity.

Oracle Process Manufacturing is a component of Oracle's solution for Commodity Chemical companies. Oracle's solutions are designed to help you more effectively manage your business, on a low-cost, flexible and scaleable infrastructure. They span applications, database, tools, data warehouse, education, support, and consulting services.

# *Oracle Process Manufacturing* is the only comprehensive solution

designed for managing the issues of the Commodity Chemical industry. As the only major Enterprise Resource Planning (ERP) vendor with a suite of solutions designed exclusively for process manufacturers, Oracle is uniquely qualified to help Commodity Chemical companies achieve their business goals, and successfully meet the challenges of today's rapidly changing marketplace.

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"With Oracle Applications and SQL Rapier we went live on time, in less than six months."

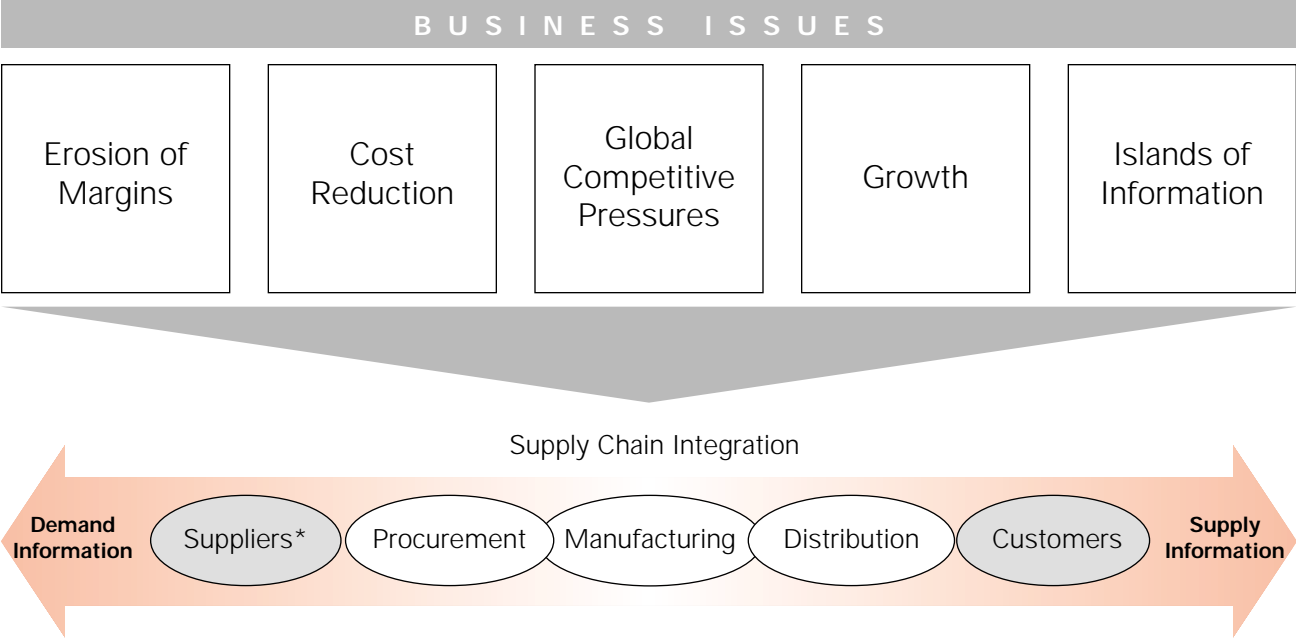
— Denis Chauvin,  
Pradies Acetiques MIS  
(ACETEX Corp.)

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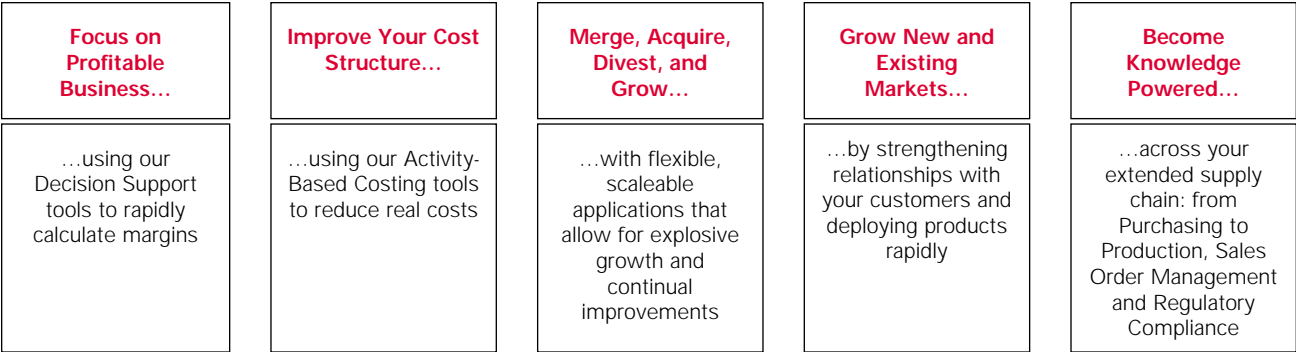
**Our Solution Suite** is comprised of three major components: Core Manufacturing Process, Logistics & Planning, and Financial Management. Combined, this suite of products can optimize your operations, thereby enhancing your cost structure and contributing significantly to your organization's bottom line.

**Driving Business Value.** Successful global operations require the efficient collection, consolidation, analysis and distribution of business information. Underlying Oracle Process Manufacturing's deep functionality is a data model that provides an unequaled representation of the Commodity Chemical enterprise. By addressing all the functions and relationships that define your business, assets, and activities, Oracle Process Manufacturing lets you manage your company's manufacturing activities as an integrated whole. And because of our open architecture, Oracle Process Manufacturing integrates easily with other applications and systems both within the enterprise and across the supply chain.

# Commodity Chemical Industry Business Issues...



## ...Addressed by Oracle Process Manufacturing...



## ...Driving Business Value


\*Note: Capabilities provided in conjunction with Oracle Web-based suite of solutions.

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# Oracle Process Manufacturing Enables You to Focus on Improving Margins

## Business Issues Addressed:

- Focus on Improving Margins
- Reduce Costs
- Respond to Globalization
- Drive Growth
- Enhance Information Access




Oracle Capability	Solution Component	Potential Benefits*
Detailed tracking and allocation of costs throughout the entire chemical manufacturing life-cycle	OPM Cost Management	<ul style="list-style-type: none"> <li>• Allows tactical analysis and strategic decision making of specific markets</li> </ul>
Perform product cost allocation and what-if analysis to understand the true cost of each product and process	OPM Cost Management OPM Sales Management	<ul style="list-style-type: none"> <li>• Enhance revenue opportunities through optimal pricing strategies</li> </ul>
Rapid margin analysis using standard and actual costs	OPM Intelligence	

\* Source: Deloitte & Touche and Oracle

# Oracle Process Manufacturing Enables You to Reduce Costs

## Business Issues Addressed:

- Focus on Improving Margins
- Reduce Costs
- Respond to Globalization
- Drive Growth
- Enhance Information Access



Oracle Capability	Solution Component	Potential Benefits*
Reduce and manage inventory more effectively	OPM Inventory Management	<ul style="list-style-type: none"> <li>• 18% reduction in inventory days on hand</li> <li>• 20% reduction in inventory savings</li> <li>• 20% improvement in cycle time</li> </ul>
Optimize production plan scheduling while minimizing changes	OPM Master Production Scheduling OPM Production Management	<ul style="list-style-type: none"> <li>• 10%-15% reduction in direct materials cost</li> <li>• 5%-50% improvement in rework costs</li> <li>• 10% improvement in manufacturing productivity</li> </ul>
Maximize/minimize co-products, by-products, hazardous materials, and scrap/waste production	OPM Production Management	<ul style="list-style-type: none"> <li>• 50% improvement in scrap/waste costs</li> </ul>
Identify and reduce indirect and support costs (order processing, procurement and development)	OPM Sales Management OPM Master Production Scheduling OPM Cost Management	<ul style="list-style-type: none"> <li>• 20%-40% savings</li> </ul>
Determine optimal pricing while reducing COGS by identifying true unit and product costs	OPM Cost Management	<ul style="list-style-type: none"> <li>• 10%-15% reduction in manufacturing labor costs</li> <li>• 2%-10% improvement in labor productivity</li> </ul>
Enable responsive cost analysis, product modeling, and planning formulas during product development	OPM Laboratory Management OPM Formula Management	<ul style="list-style-type: none"> <li>• 60% reduction in new product/options costs</li> </ul>

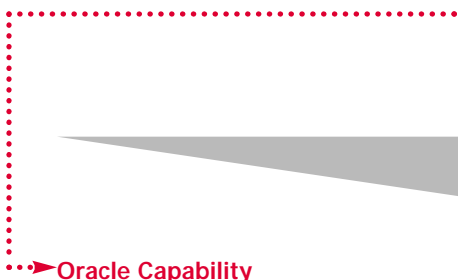
\* Source: Deloitte & Touche and Oracle

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# Oracle Process Manufacturing Enables You to Respond to Globalization

## Business Issues Addressed:

- Focus on Improving Margins
- Reduce Costs
- Respond to Globalization
- Drive Growth
- Enhance Information Access



Oracle Capability	Solution Component	Potential Benefits*
Perform Global Capacity Production Planning	OPM Inventory Management	<ul style="list-style-type: none"> <li>• 20% - 40% reduction in distribution and logistics costs</li> </ul>
Perform global optimization and what-if analysis to manage changing production schedule	OPM Master Production Scheduling	<ul style="list-style-type: none"> <li>• 5% improvement in capacity utilization</li> </ul>
Deploy the leading manufacturing solution for the chemicals industry in all your plants around the globe	Oracle Financials	<ul style="list-style-type: none"> <li>• Allows the same application to be deployed in each country using the native language with no changes to the application itself</li> </ul>
Support of international trade	OPM Sales Management	<ul style="list-style-type: none"> <li>• Supports international trade through flexible pricing/taxation models, allowing different customers preferences and requirements to be met</li> <li>• Facilitates international trade by allowing multiple currencies to be used at a single plant or office</li> </ul>
Distribute precise formula information to any area of your enterprise, including inventory, production and process/materials requirements planning	OPM Formula Management	<ul style="list-style-type: none"> <li>• Moves formula rapidly from the lab to worldwide production, speeding entry into new markets</li> </ul>


\* Source: Deloitte & Touche and Oracle

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# Oracle Process Manufacturing Enables You to Drive Growth

## Business Issues Addressed:

- Focus on Improving Margins
- Reduce Costs
- Respond to Globalization
- **Drive Growth**
- Enhance Information Access



Oracle Capability	Solution Component	Potential Benefits*
Grow customer loyalty, retention and repeat sales	OPM Sales Management	<ul style="list-style-type: none"> <li>• Builds and maintains a detailed profile that defines your business relationship with each customer</li> <li>• Provides customer service staff with easy access to all essential order processing information. This includes quality specifications, pricing, payment terms, currency requirements, and shipping logistics</li> </ul>
Distribute precise formula information to any area of your global enterprise, including inventory, production and process/materials requirements planning	OPM Formula Management	<ul style="list-style-type: none"> <li>• Moves formula rapidly from the lab to worldwide production, speeding entry into new markets</li> </ul>
End-to-end integration of corporate information	Oracle Process Manufacturing Oracle Financials	<ul style="list-style-type: none"> <li>• Eases and speeds the flow of critical information throughout your global operation</li> <li>• Yields faster and more accurate decision making, reducing cycle times and driving growth</li> </ul>
Perform product cost allocation and what-if analysis to understand the true cost of each product and process	OPM Cost Management OPM Sales Management	<ul style="list-style-type: none"> <li>• Grow revenue and profits through optimal pricing strategies</li> </ul>

\* Source: Deloitte & Touche and Oracle

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# Oracle Process Manufacturing Enables You to Enhance Information Access

## Business Issues Addressed:

- Focus on Improving Margins
- Reduce Costs
- Respond to Globalization
- Drive Growth
- Enhance Information Access



Oracle Capability	Solution Component	Potential Benefits*
Establish multiple sets of books that can be changed regularly through flexible accounting systems	Oracle Financials	<ul style="list-style-type: none"> <li>• Improves flexibility to adapt your business requirements to meet changes in your operating strategy (growth, mergers, consolidations)</li> </ul>
Streamline and manage contractors and suppliers more efficiently	OPM Master Production Scheduling OPM Quality Management	<ul style="list-style-type: none"> <li>• 5% savings in purchased services</li> <li>• Up to 5% reduction in product cost</li> </ul>
Use Internet-based technologies to conduct business with suppliers	OPM Purchasing Module	<ul style="list-style-type: none"> <li>• Reduces cycle times</li> <li>• Facilitate business transactions 24 hours a day, 7 days a week</li> <li>• Eliminate data entry errors</li> </ul>
Conformance to widely understood and supported computing industry open standards	All Oracle Products	<ul style="list-style-type: none"> <li>• Supports acquisition of and/or merger with other chemical manufacturers. Because OPM is built on an "open," widely understood foundation, it is easy to exchange knowledge and information with other applications that already exist in your acquisition</li> </ul>

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# Appendix – Oracle Products

## Oracle Process Solutions

- OPM Cost Management* OPM Cost Management provides a broad range of features along with flexible analytical tools to help you successfully manage your costs. Key features include cost monitoring, cost allocation, cost development, inventory valuation, standard and multiple actual costing methods, and cost analysis.
- OPM Formula Management* OPM Formula Management is designed to support the synchronized management of complex formula and processing information across the enterprise. It includes four key features, including formula definition, formula control, process routing, and activity-based costing.
- OPM Intelligence* OPM Intelligence is part of the Oracle Business Intelligence System (BIS), a pre-built decision support solution that provides managers better information for decision making and a framework for continuous process improvement. Key analysis areas include inventory summary and detail, matching inventory to customer specifications, ingredient drilldown, resource bottlenecks, margin source cost, and costs associated with inventory, formulas, routings, and production.
- OPM Inventory Management* OPM Inventory Management provides comprehensive real-time visibility and control of inventory across the enterprise. It includes eight key features including item definition, multiple unit of measure control, item location, lot control, transaction processing and inquiry, inventory replenishment, physical inventory, and report generation.

## *Appendix – Oracle Products (Continued)*

<i>OPM Laboratory Management</i>	OPM Laboratory Management is a formulator's toolkit designed to help process manufacturers streamline new product delivery and integrate their research and development operations. Key features include laboratory definition, technical parameters, formulation capabilities, "what if" analysis, and formula management.
<i>OPM Master Production Scheduling</i>	OPM Master Production Scheduling is a global planning and local plant control solution that facilitates production planning across multiple sites and functional levels. Key features include customized data views, plant-warehouse effectivities, schedule parameters, firm planned orders, and material activity.
<i>OPM Material Requirements Planning</i>	OPM Material Requirements Planning provides enterprise-wide coordination to balance resource demand and to ensure timely delivery of finished products. Key features include reorder rules, planning horizons, shop calendars, Process/MRP runs, and action reports.
<i>OPM Production Management</i>	OPM Production Management ensures manufacturing consistency throughout the production cycle by providing tight control of ingredients and processes, balanced with the flexibility to respond to changing conditions. Key features include integrated planning, formula information, inventory allocation and assessment, production release, firm planned orders, production orders, and production flexibility.
<i>OPM Purchasing Management</i>	OPM Purchasing Management is designed for the purchasing function within a formula-based manufacturing company. Key features include supplier management, requisitions, receiving, electronic commerce, agreements/contracts/blankets, workflow/approvals/security.

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<b><i>OPM Quality Management</i></b>	OPM Quality Management controls and communicates quality across the enterprise. Its key features include specification management, sampling, result measurement, shelf life management, lot control, and expiration reporting.
<b><i>OPM Regulatory Management</i></b>	OPM Regulatory Management automates the document creation and management processes, helping to ensure your employees well-being and business compliance with government regulations.
<b><i>OPM Capacity and Factory Planner</i></b>	OPM Capacity and Factory Planner delivers two capacity planning solutions, one for infinite, enterprise planning, and the other for finite, plant level planning. Working together, these products enable material planning and detailed production scheduling.
<b><i>OPM Sales Management</i></b>	OPM Sales Management ensures manufacturing consistency throughout the production cycle by providing tight control of ingredients and processes, balanced with the flexibility to respond to changing conditions. Key features include customer profiles, sales orders, quality control, pricing, inventory allocation, shipping, charges and taxes, and financial administration.
<b><i>Oracle Financial Management</i></b>	Oracle Financial Management is a family of modules within Oracle's suite of information-driven products providing applications that marry process automation with complete information access. Some of the key features include Global Consolidation System, Global Intercompany System, Cross Currency functionality, Request Center, Enterprise Cash Forecasting, Integrated Financial Analysis, Cash Management, Accounts Receivables, and Accounts Payables.

\* Are not standard part of the Oracle Process Manufacturing suite of products.

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# *A Comprehensive, Global Business Solution*

## **A Comprehensive, Global Business Solution**

Oracle Applications, an integrated suite of more than 45 software modules for manufacturing, supply chain management, financials, projects, human resources, and front office, deliver the ability to automate an entire enterprise.

### **Process Manufacturing**

- Laboratory Management
- Formula Management
- Master Production Scheduling
- MRP
- Production Management
- Process Operations Control
- Quality Management
- Cost Management
- Capacity and Factory Planner

### **Discrete Manufacturing**

- Engineering
- Bills of Material
- Master Scheduling/MRP
- Capacity
- Work in Process
- Quality
- Cost Management
- Project Manufacturing
- Flow Manufacturing

### **Supply Chain Management**

- Inventory
- Order Entry
- Purchasing
- Product Configurator
- Supply Chain Planning
- Supplier Scheduling

### **Financials**

- General Ledger
- Financial Analyzer
- Cash Management
- Payables
- Receivables
- Fixed Assets

### **Strategic Enterprise Management**

- Activity Based Management
- Balanced Scorecard

### **Projects**

- Project Costing
- Project Billing
- Project Time and Expense
- Activity Management Gateway
- Project Connect
- Project Analysis Collection Pack

### **Strategic Procurement**

- Purchasing
- Supplier Scheduling
- Workflow
- Requisite Content
- TPN Register

### **Human Resources**

- Human Resources
- Payroll
- Training Administration
- Time Management
- Advanced Benefits

### **Front Office**

- Sales and Marketing
- Field Sales Online
- Sales Compensation
- Service
- Customer Contact Center
- Call Center and Telephony
- Internet Commerce Server

### **Applied Technology**

- Business Intelligence System
- Applications Data Warehouse
- Workflow
- Alert
- EDI Gateway

### **Self-Service**

- Customers
- Suppliers
- Human Resources
- Expenses
- Purchasing

## *The Internet Changes Everything*

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# ORACLE

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