

Oracle DBI for Financials

Daily Business Intelligence — Automating Operational Reporting

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“Transparency to shareholders and regulators starts with transparency across management teams”

Overview

Today most corporations worldwide are running financials from a packaged software vendor. Additionally, these corporations are mixing and matching reporting tools to monitor financial status and understand their business. This involves IT departments, Finance departments, technical budgets, moving and copying data into separate reporting applications. With the increasing pressures of the Sarbanes-Oxley Act of 2003 (SOX) in the United States, and similar regulations such as the European Union’s anti-fraud directive, financial departments of these companies have new responsibilities added and more risk of technical failure. Time and labor intensive processes to create and maintain separate reporting data marts actually can cause delays, data quality and consistency problems — while contributing to operating costs.

Business applications and technologies that solve both SOX issues and Corporate Performance Management (CPM) issues together will provide far greater return on investment as companies struggle to improve transparency and performance simultaneously. Oracle Daily Business Intelligence delivers daily transaction summaries for up-to-date performance metrics by year, quarter, month and week-to-date, across functional areas of the company. It allows drill to transaction level details for invoices to build management confidence for certification. Furthermore, Oracle’s Internal Controls Manager, a SOX compliance solution, allows the linkage of internal controls objectives, to performance objectives and to performance measurements from Daily Business Intelligence. Today only Oracle can deliver this CPM solution.

“The more we automate the how, the more time you have for the why...”

Many ERP solutions require the extraction of operational data into a separate application or tool that allows for consolidation of Financials data for later reporting. This situation causes delays and extra work, costs, and risks. Problems with this are many:

1. Different technology and tools from different vendors
2. Moving and copying masses of data; a non-value added activity
3. Difficult reconciliation to original transactions
4. Complex interface requirements
5. Scalability of reporting solution for simultaneous users
6. Expense and time of configuration to data sources
7. Changing hierarchies (organization, etc) create ripple effect of damage on reporting
8. Coordination of internal IT staff to external contractors and consulting firms

Appendix A discusses the issues that can arise from the creation of separate data marts, and the way DBI addresses these problems.

Defining Daily Business Intelligence

Oracle's innovation of Daily Business Intelligence (DBI) allows a solution to those problems that is delivered as a pre-built reporting layer on top of existing Oracle applications instances. But the solution goes far beyond technical barriers being broken down. Cost and profit center managers throughout the company now have up-to-date information on their cost centers for headcount, expenses, revenues, and profits where applicable. Daily updates help avoid the month and quarter-close scramble to analyze and explain discrepancies. Oracle applications customers are witnessing the dawn of a revolution. ERP systems that perform their own reporting. These DBI reports summarize the transactions that are already accumulating, and the reports allow a detailed and focused review of transactions that are occurring. Although separate data warehouses are often still required for ad-hoc reporting, advanced analytics and integration to legacy systems; a large portion of operational reporting can now be automated using Daily Business Intelligence.

Oracle's goals for the DBI product family are four-fold:

- 1) Provide more integrated reporting to satisfy the evolving requirements of existing customers of individual applications, with dramatic deployment time savings.
- 2) Provide a more complete and compelling ERP/CRM value proposition to attract future customers to the E-Business Suite overall.
- 3) Provide an alternative to companies with fragmented, multi-vendor ERP systems who face the expensive prospect of building and maintaining separate operational reporting data marts, in addition to selecting individual business applications. In short, simplify the reporting architecture for long-term consolidation.
- 4) Provide tangible proof that Oracle's Single Data Model for the E-Business suite has compelling value in providing more information out, across all business applications.

Appendix B shows many example DBI for Financials pages.

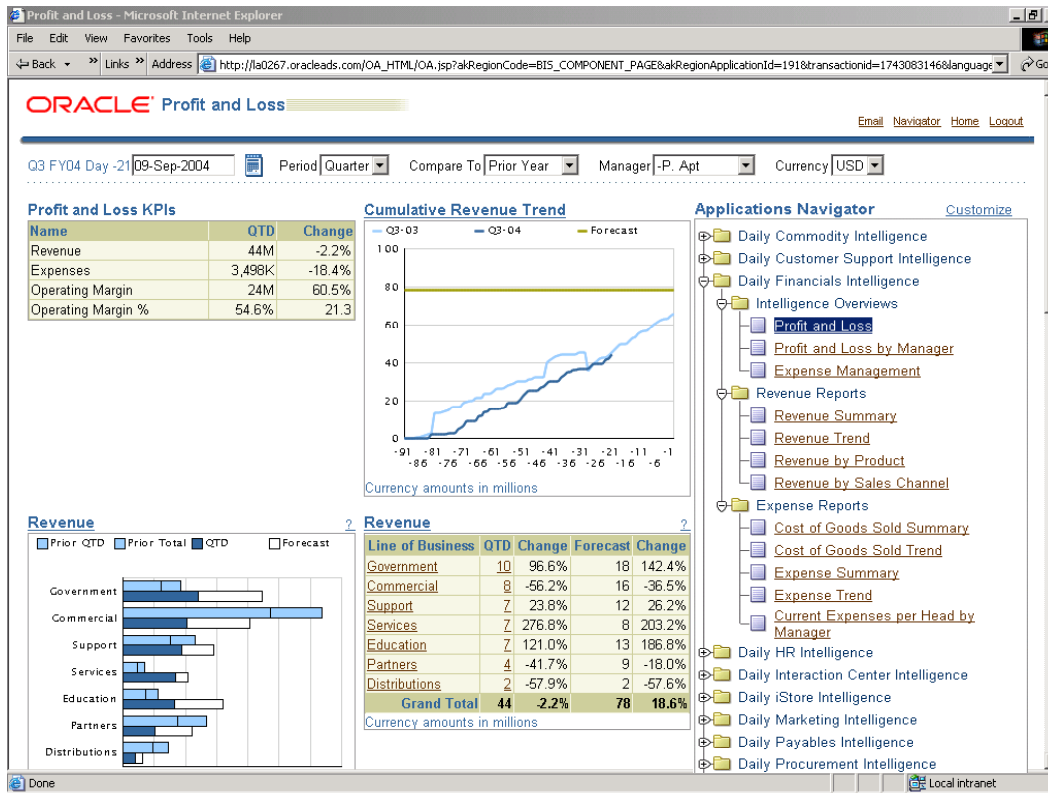


Figure 1. Outline of available pages from DBI for Financials in right-most portlet.

DBI users can see both financial data and non-financial data, such as headcount, integrated into the same reporting pages, called “dashboards”. This alleviates the pain of combining disparate reporting systems and reviewing and juxtaposing several reports for a more complete picture of operations. This capability increases the number of decisions that can be made, the confidence level for each decision, and limits the exposure to slowly evolving problems, that are typically only caught when material impacts have already accrued and the month or quarter-close data is under review. Obtaining daily updates to year-to-date, monthly and weekly summaries and having control over the update frequency (e.g. daily or several times per day) gives new levels of confidence in the financial reporting.

DBI for Financials is part of the DBI product family, a large and growing set of modules that correspond to different business and customer relationship applications from Oracle. DBI itself is part of the Corporate Performance Management solution set from Oracle. Access to all DBI dashboards and drill down pages is by applications role, to the right level in the organizational hierarchy. Changes in hierarchy allow simultaneous changes to access, since the organizational hierarchy is shared from Oracle Human Resources module through the various DBI modules. This allows two forms of insulation from re-organizations, which occur ever more often from changes to the economy and competitive landscape. One, the mapping of managers to cost centers, handled by the HR Organizational dimension, and two, the mapping of people to Oracle application defined by roles (such as VP of Sales) that allow fast reporting deployments. So once the

changes to organization structure are made, DBI for financials reflects the new hierarchy automatically, and each manager sees the changes to cost centers which apply to him or her. Historical data will be collected by cost center for accurate comparisons over time.

Security for DBI is defined by the organizational structure. This answers the question: which people see which level of detail in the organizational structure. Deployment is defined by access to dashboards and pages, specified in responsibilities that allow certain pages from various DBI modules to be visible. Not all DBI modules are required to enable access for individuals in your company.

Internal Controls and DBI

The COSO framework is widely used in the expression of Sarbanes-Oxley compliance in the United States and similar directives such as the Combined Code in the UK, the Stock Market code in Australia, forthcoming laws across Europe. SOX Section 302 – Corporate Responsibility for Financial Reports, requires executives to certify their belief in the accuracy of financial reports. Certification comes from the belief that reports are accurate as an accumulation of legitimate transactions and from having a system in place to assure that they are legitimate. So with DBI providing an audit trail to the original transactions from reporting summaries, that belief can be garnered online within DBI pages. DBI is itself a monitoring tool or an internal control that links transactions to their source in Oracle business applications and to summary reports that enable management and operating decisions. For any given daily result report in DBI, the Finance department has not done a balance-based month end review and the data is not yet adjusted for GAAP quality. For example you might be looking at revenue per billing — before adjusting for bad debt reserve, collection problems, or deferred revenue. Therefore it is not GAAP revenue. However, the managers using this page are assumed to be professionals and simply need to be told about the difference between daily operational reports and the GAAP adjustment process for issuing financial statements to the public. But since DBI is not for the public — it is used for internal operations — its daily updates from transactions are valuable to reduce risk of errors not being addressed and it avoids the lag time for material errors or events to be seen and acted upon.

SOX Section 409 – Real time reporting means that material transactions can be caught rapidly, when DBI for financials exposes summaries that include material items directly from operational systems without the latency inherent in data being extracted to a separate operational reporting application. Furthermore, various DBI reports show the integration to supply chain, purchasing and CRM applications, that allows managers to navigate to see impacts across functional areas and crosscheck for cause and effect relationships that lead to material changes.

Regarding Sarbanes Oxley triggering events for reissuing a form 8-K:

"One result could well be a dramatic change in the nature of the CFO job. Finance chiefs will likely have to dig much deeper into how their companies disclose their operations, says Meshulam, a former assistant chief litigation counsel with the SEC's enforcement division. "That's not a quarterly and annual involvement, with episodic 8-Ks," she adds, " but a steady stream — [or] a daily onslaught."

— David M. Katz, CFO.com

Another Oracle module, Internal Controls Manager (ICM) lists all the measures (KPIs) from DBI in its controls library and marks these as detective controls. Additionally, it allows customer defined control objectives. ICM allows you to link performance measures to internal control objectives, which are required by the COSO framework. An example might be to “avoid making credit commitments to non-creditworthy customers”. DBI allows you to see how well you are doing this by linking performance measures such as Days of Sales Outstanding or Amounts Over 90 days due, to that control objective. Additionally, ICM allows you to relate a specific process (such as Order-to-Cash) to its performance objectives and separately to its control objectives. This integration is a breakthrough in application design and technology that links the compliance requirements to corporate performance management and daily operational reporting using DBI.

Changes in Process

Before, financial information was the sole domain of the finance department. Changes to departmental costs and headcount and would emerge after the close of the month or quarter. Then the surprises are doled out. Furthermore, the ability to drill to the source of the problem was not part of the culture. Now that is changing. Causes of problems are discovered only when the evidence is available and linked to the symptoms of the problem. Oracle’s Drill to transaction is the breakthrough that allows management to find the source transactions, which cause unexpected outcomes, both positive and negative to overall corporate profitability. Cause and effect thinking is a growing part of CPM value proposition, and drill to transaction is an indispensable part of that requirement. Furthermore, the shift from reliance on separate, periodically- updated reporting tools, to integrated daily operational reporting causes a difference in management behavior: from the old quarterly review, assess and change mentality — to one of daily progress reports for key metrics. Over time, this removes the lag time in sensing and responding to changes and challenges within business units and even individual departments. Thus DBI can enable improved efficiency and agility for corporations that allow that culture change to happen.

Process and Policy Changes enabled by DBI

1. Daily view of transaction summaries exposes material transactions and mistakes of process (or lack of process)
 - ◆ For example, Oracle itself had large billion dollar transaction resulting from a typo caught well before closing using DBI for Financials
2. Top 10 spenders enables changing culture of org to be more conscientious of T&E spending
 - ◆ Ability to drill to specific details for any expense report, ranked by dollar amount
 - ◆ Knowledge of monitoring ability engenders more conservative behavior
 - ◆ Smoothing behavior of expense reporting to avoid “big hit submissions” which result in being caught as a top ten spender. This improves cash flow, and expense forecasting.
 - ◆ Avoids the \$800 per night hotel bills and \$300 per day car rentals.
3. Reviewing where the money was going or where it was coming from provides new insights into ways to save money or make more money
 - ◆ Changes to cost centers, profit centers and headcount and expenses over time with all data online in summary form, spanning reorganizations
 - ◆ A customer found that cell phone bills were very high in field support teams, leading to change in mobile phone program with free internal calling between people on the same plan, dramatically reducing cellular phone expenses.
 - ◆ Drilling down from huge variances year over year, quarter over quarter, or month over month uncovers mistakes, misclassifications, typos, and even fraud. The advertised ability to drill to transaction detail shifts the culture to a conservative mindset. Mistakes in allocations can show up as unusual variances in allocated employee and non-employee expense categories.
 - ◆ Cost and profit center managers having daily updates changes the psychology and commitment in terms of responsibility and accountability. The Daily reminder relieves the burden of having the Finance department push to reforecast or manage expenses to individual managers. Thus a new precedent in financial expectations is delivered without interdepartmental politics and pressures. This can facilitate culture changes over time.
4. Payables reporting enables:
 - ◆ Throughput and performance tracking in invoice processing
 - Helps justify and support Shared Service Center operations business model
 - ◆ Payables hold and discount tracking to increase cash management performance. A customer found new ability to track discounts allowed changes to timing of purchases and larger contract negotiations with selected suppliers, reducing overall expenses.

Key Performance Indicators From DBI for Financials

Profit and Loss KPIs

Name	QTD	Change
Revenue	44M	-2.2%
Expenses	3,498K	-18.4%
Operating Margin	24M	60.5%
Operating Margin %	54.6%	21.3

Expense Management KPIs

Name	QTD	Change
Expenses	3,498K	-18.4%
% of Forecast	70.4%	N/A
Forecast vs. Budget	3.1%	N/A
Current Expenses per Head	N/A	N/A
Current T&E per Head	N/A	N/A
Current Headcount	207	N/A

Payables Status KPIs

Name	
Open Payables Amount	90M
Invoices Due Amount	9,914K
Number of Invoices Due	462
Weighted Average Days Due	-15.0
Invoices Past Due Amount	80M
Number of Invoices Past Due	505
Weighted Average Days Past Due	689.6
Discount Remaining Amount	6,915
Discount Offered Amount	255K
Invoices On Hold Amount	-11K
Invoices On Hold	.0%

Payables Management KPIs

Name	YTD	Change
Invoices Entered	9,413	87.0%
Electronic Invoices	99.2%	1.7
Invoices Paid	9,138	110.2%
Paid Late	40.3%	-28.6
Invoice to Payment Days	413	14.9%
Payments	798	110.0%
% Discount Offered	.4%	-.1
% Discount Taken	.4%	.0

Figure 2. List of Key Performance Indicators (KPIs) that are populated automatically by DBI for Financials. Any of these KPIs could be represented in one or more scorecards.

Operating income	88%
Revenue growth	81%
On-time performance for customers	67%
Product / service line profitability	66%
Product reliability	59%
Customer response time	54%

Source: PwC Trendsetter Barometer study, Jan 2004

Figure 3. A recent survey of growth companies in 2004, shows that monitoring these key performance indicators are important to a performance management strategy. Here are the percentage companies responding as percentage of the survey respondents: Top 2 indicators are part of DBI for Financials, the other indicators appear in other DBI reports, except for reliability.

Oracle Module	Content	Module Required for DBI
General Ledger	Expense and Revenue balances	Required
Payables	Drill to Expense invoices	Optional (Required for Payables intelligence)
	Sort by Invoice Value or Date	
Receivables	Drill to Revenue invoice	Optional
	Sort by Invoice Value or Date	
Internet Expenses	Top Ten spenders, Expense Report access	Optional
Human Resources	Expenses per head, headcounts by cost center, managers for cost center, profit centers	Optional

Figure 4. Applications used to source data for DBI for Financials.

DBI for financials configuration options for Oracle financials customers

1. Financial dimension setup and hierarchy manager allow you map existing financial accounts and dimension values and hierarchies into DBI hierarchies. Financial Data Hierarchy manager (FDHM) tool allows this control and is included in DBI modules.
2. Leverage existing GL structure, financial categories for expenses are built from Natural Account segments.
3. For currency display options, expenses and revenues can be displayed in two currencies: primary global, secondary global. For payables, these two choices plus the ability to display in accounting currency (the currency of the ledger) to see original local currency amounts is offered. This allows using the reports for different purposes for different audiences with the local subsidiaries or at corporate headquarters. Global currency gives comparison across countries for a corporate view and relative performance, while accounting currency allows the matching of expenses and revenues in support of operational hedging. Currency hedging refers to a strategy that strives to minimize the exposure to exchange rate fluctuations, thereby minimizing the uncertainty of future transactions denominated in a foreign currency and providing more stability to earnings and cash flow. Unlike financial hedging contracts, a firm's operational hedging policies are likely to affect expected profits. For example, having plants in several countries allows the firm to shift some production to the location where costs, after observing the exchange rate movements, are the smallest in domestic currency terms. Matching operating costs and with operating revenues within a functional currency reduces operating risks and avoids the need for currency hedging — this enables better accuracy for hedging that is performed by the treasury function.
4. Mergers and acquisitions require that new sets of books be quickly integrated into financial reporting. New interfaces, collection programs, and mappings of natural accounts are handled quickly and easily with the FDHM tool. DBI for Financials supports multiple sets of books, and allows a consolidated global view across lines of business with different charts of accounts and currencies in each set of books.
5. The DBI Line of Business concept represents your major business divisions and lines, and draws the detail directly from the company and departmental codes in your Financials.

Integration to the Organizational Hierarchy

Since so many aspects of expense reporting and expense KPIs are linked to the organizational hierarchy, having the most up-to-date view from HR is valuable in expense analysis. Since the HR module contains the “master” organization hierarchy, we find a hierarchy of people each mapped to a set of cost centers. This hierarchy controls access permission so that only cost center owners see data from within their cost or profit centers. It also provides headcount information for measures such as Expenses per head. Changes to the organizational hierarchy within the HR module (e.g. hiring, re-organizations) are reflected as of the next update to the DBI pages — typically one day. Changes in headcount are reflected in expenses per headcount automatically. Managers can then stay current with expenses and revenues without waiting until the month or quarter closes. Large multinational companies can have several org-structure changes per day, at various levels. This highlights the value of integration between the organizational hierarchy and financial reporting methods.

In many organizations, it’s natural for senior management to think in terms of management teams as people’s names, and not cost center IDs. Exposing the current organizational hierarchy as a pulldown dimension offers this advantage. The level of visibility in this hierarchy is determined by the access role of the individual user of DBI.

Loading Forecast and Budget Data into DBI

DBI for Financials stores budget and forecast data that can be developed in Oracle or external applications, and loaded using WebADI tool. ADI is “applications desktop integrator” the new web version requires only Internet explorer to load this data into GL for variance analysis being automated by DBI for Financials. Users enter for unique combination (financial category, period, company-department) for each amount. The choice of budgeting at month, quarter, and year level is specified at profile options during configuration. Users ensure source data granularity matches those options. This easy open interface comes with pre-defined templates for loading spreadsheets, from any external source of financial information. Users can either type into cells, or cut and paste regions from other spreadsheets for forecast and budget input. This allows arbitrary sources of information to be incorporated alongside daily actuals, without creating a separate instance to reconcile. Update programs can be run manually or automatically to validate and populate forecast or budget information into the DBI summaries after loading with WebADI.

Extensibility of DBI

Extensibility is a fundamental part of the DBI overall solution. Although the initial value proposition of DBI was a broad set of pre-defined dashboards and reports, many customers want to take the same interface and extend it to include non-Oracle source data in the same format. Extensibility allows new dashboards to be created with a combination of pre-built KPIs and new KPIs defined by the user. Custom KPIs can be driven from external data sources and can leverage pre-defined and custom dimensions. Pre-defined dimensions refer to those delivered out-of-the-box with DBI, for example organization, currency, line of business, and others. Custom dimensions can be defined based on Flexfields and other attributes within Oracle applications tables or views or

even based entirely on external data sources. This allows a customized new KPI such as “Sales Orders from minority or women-owned businesses” to be realized from existing Flexfield values as dimension values pulled from Flexfield data stored in the applications. Combined with the breadth and depth of pre-built reporting in DBI, the extensibility tools enable customers to cost effectively supplement DBI content with the additional reporting they need to run their business.

Conclusion

DBI for Financials is a new type of operational reporting for large-scale deployments to cost center managers and department heads throughout corporations or institutions. It provides perpetual synchronization to the underlying applications, fast access without query delays, and drill to transaction level detail. Furthermore, it can be customized for personal layouts and new KPIs can be defined and added to pages, dashboards, and scorecards. It is unique in the industry, and is only possible through the combination of a single data model for the Oracle E-business suite of applications, the Oracle database technology innovations, and the reporting architecture that links the summary process to the single data model using that database technology.

Appendix A:**Background in Consolidating Data marts and the Origin of DBI**

Many organizations see consolidating data marts as a good way to cut down on staffing and support costs, providing a direct improvement to their bottom line. Scattered data marts can hinder overall enterprise performance, since they often store inconsistent data making one version of the truth impossible to obtain.¹ Many vendors use “Single version of the Truth” as a marketing message, but to challenge that, you must ask yourselves: Who creates and maintains that Single Version of the Truth? If the answer is your company, that is extremely different from “the Vendor who said it”. Verify this difference in your planning.

Consolidating data marts can be extremely daunting, with all types of technical, tools, and political decisions acting as barriers. Gartner Group estimates that enterprises that successfully consolidate their disparate data marts will experience a 50 percent decline in costs and 500 percent increase in business value. The most common phrase used to justify the expenditures and ongoing labor effort — which actually did make sense in the past — is “best of breed”. This implies that all the integration and reconciliation work and cost is justified, because of some feature or function differences, which may or may not be used in practice.

The two reasons for consolidation of data marts is 1) economies of scale in managing central data. 2) Comprehensiveness from reduced fragmentation of data. The first is measurable in current period operating costs and future projections. The second is more akin to measuring the value of data quality; it is vague but instinctively important.

Origin of Oracle Daily Business Intelligence

Oracle delivered operational intelligence reporting on top of the E-business suite of applications; without the need for a separate operational reporting application with inherent delays in updating of its copy of the data. This is Daily Business Intelligence. By leveraging the E-Business Suite single data model, and decades of experience in data warehouse technology and administration, Oracle was able to define an integration and delivery architecture that provides an automated pre-defined data structure with pre-defined reporting, on top of the existing data model for the ERP and CRM applications. The result saves customers an order of magnitude in cost and effort in deployment, and scales usability to thousands of simultaneous users within the scope of weeks. This breakthrough will slowly change management culture and style of decision-making in corporations of the future.

This innovation is an outgrowth of leading database technology, and the prescient strategic decision in 1986 to design a unified set of applications that adhere to a common data model. This gives Oracle a competitive advantage in delivering a spectrum of intelligence reporting that is directly integrated to the source transaction systems. Because of the integration at the architecture level, Oracle’s expansion roadmap in terms of content breadth and depth for DBI modules is without peer. This integration provides a

¹ Knightsbridge Solutions LLC, “Top Ten Trends in Datawarehousing” July 2002

multitude of benefits beyond time to deployment and minimal maintenance cost. Unlike other business intelligence tools vendors, DBI is an application-reporting layer that is already integrated to Oracle Financials ensuring that no separate technology, or repositories exist to increase labor or technical risks or reconciliation problems. The impact comes in many forms such as:

- Increased data quality
- Reduced data redundancy
- Reduced software licenses
- Decreased inefficiencies from bottlenecks in accessing Financial data
- Achievable horizontal comparisons across functional areas
- Delivery of KPIs into Scorecards and Portal pages, without moving data
- Responsibilities based security access controls, across pages and portlets
- Common calendars across business applications for accurate comparisons (variance analysis in week, month, quarter, year intervals)

Problems in the past from “Best Piecemeal Architecture”

Previous generations of systems were stitched together one application at a time. Each piece of the business software spawned several integration challenges and tasks. Slowly and surely, the IT teams of integrators became a dominant force in building and maintaining control over corporate business software and its integration. The various ERP separate applications over time created the data fragmentation problem, which has reduced alignment within firms. Alignment is challenged because the fundamental data that is important to each individual department, does not integrate into a overarching set of goals which accurately reflect the corporate achievement of its stated goals. DBI specifically fights this by allowing a common set of organizational dimensions, and common calendar to apply to all functional reporting areas.

Alignment is the capability and collective will of an organization to reach a specific goal

The ability to drill into source transactions and have a read-only reporting layer broadly distributed — engenders trust within the user community and allows different departments to work from the same set of facts. Moreover the ability to select a few Financial KPIs, some supply chain KPIs, and other KPIs from different functional areas, and place them into departmental or corporate balanced scorecards is a breakthrough for reducing time to deploy a performance management solution. So the DBI KPIs are up-to-date daily and their values can be displayed in customized scorecard views — all without loading the source data. This moves much analysis in front of the monthly or quarterly close, and gives self-service access to managers with report-reading privileges to view the source transactions creating problems or opportunities — without the need for dialogs and meetings.

Appendix B: Sample pages from DBI for Financials

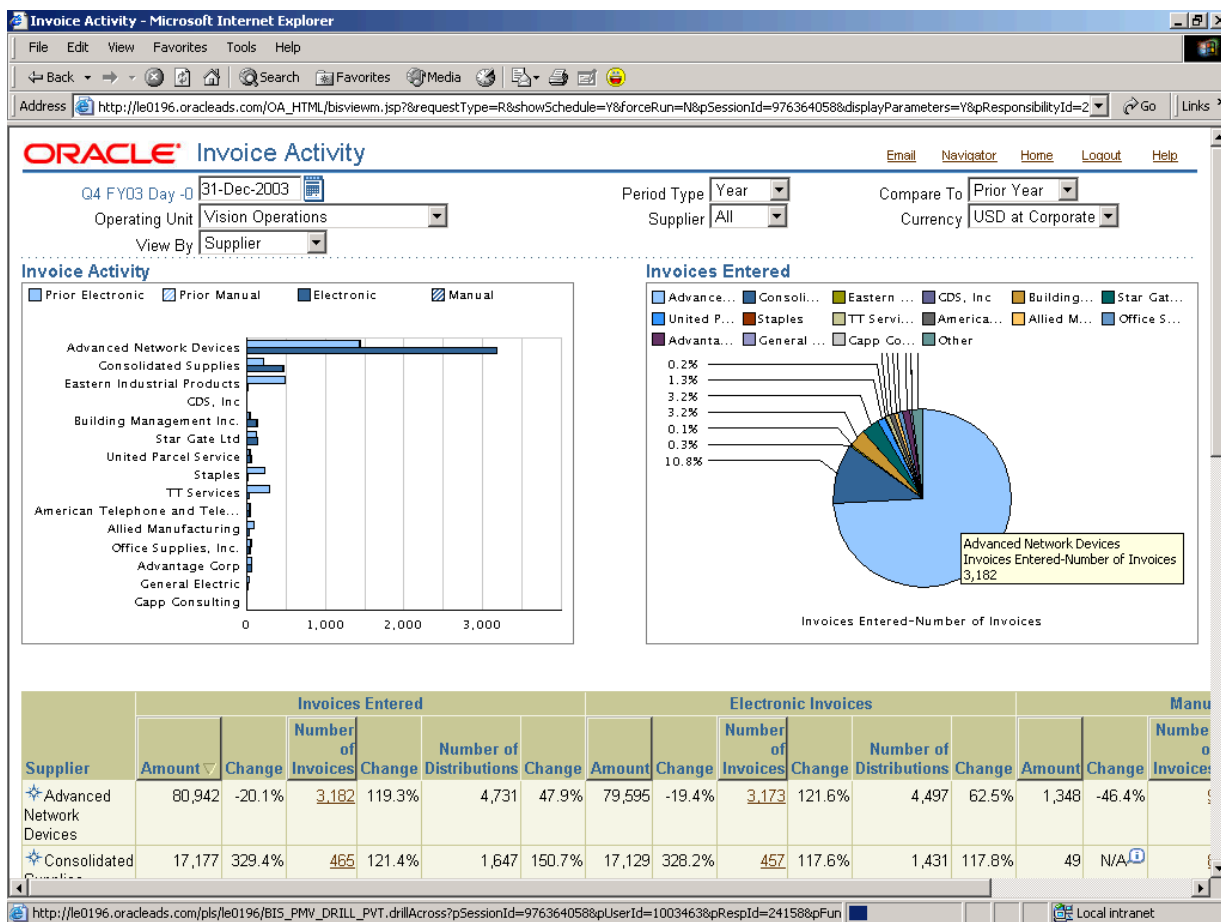


Figure 5. Invoice classification within Payables pages. Note the column headers are active buttons allowing sorts of ascending or descending values by a choice of column. Underlined text allows drill to detail for that number.

ORACLE® Expenses Detail by Invoice

Manager **P. Apt** Currency **USD**
 Month **Mar-02**

Invoice Number	Invoice Date	Invoice Description	Supplier	Amount
1008-02-Week-10-02	05-MAR-2002	Postage	Office Supplies, Inc.	8,564
1008-02-Week-11-02	11-MAR-2002	Postage	Office Supplies, Inc.	8,586
1008-02-Week-12-02	22-MAR-2002	Postage	Office Supplies, Inc.	8,607
1008-02-Week-13-02	27-MAR-2002	Postage	Office Supplies, Inc.	8,629
1008-02-Week-14-02	31-MAR-2002	Postage	Office Supplies, Inc.	8,650
Grand Total				43,037

Data Last Updated:29-NOV-2004

Figure 6. Miscellaneous Expenses by Journal Source Payables, \$43,037 for postage?

ORACLE® Expense Reports Listing

Q3 FY04 Day -21 **09-Sep-2004** Period **Quarter**
 Currency **USD**

Report Number	Entered		Amount ▾	Cost Center	Report Date	Purpose
	Currency	Amount				
W22019	USD	77	77	420-Sales East-01	14-Sep-2004	Sporting Event
W22001	USD	75	75	420-Sales East-01	13-Aug-2004	Sporting Event
W22015	USD	1	1	420-Sales East-01	20-Sep-2004	Regional Meeting
W21997	USD	1	1	420-Sales East-01	19-Aug-2004	Regional Meeting
Grand Total			155			

Currency amounts in thousands
 Data Last Updated:29-NOV-2004

Figure 7. Expense reports for one person, the top spender this period. Clicking Report Number gives Internet Expenses review of the expense report — without leaving the browser.

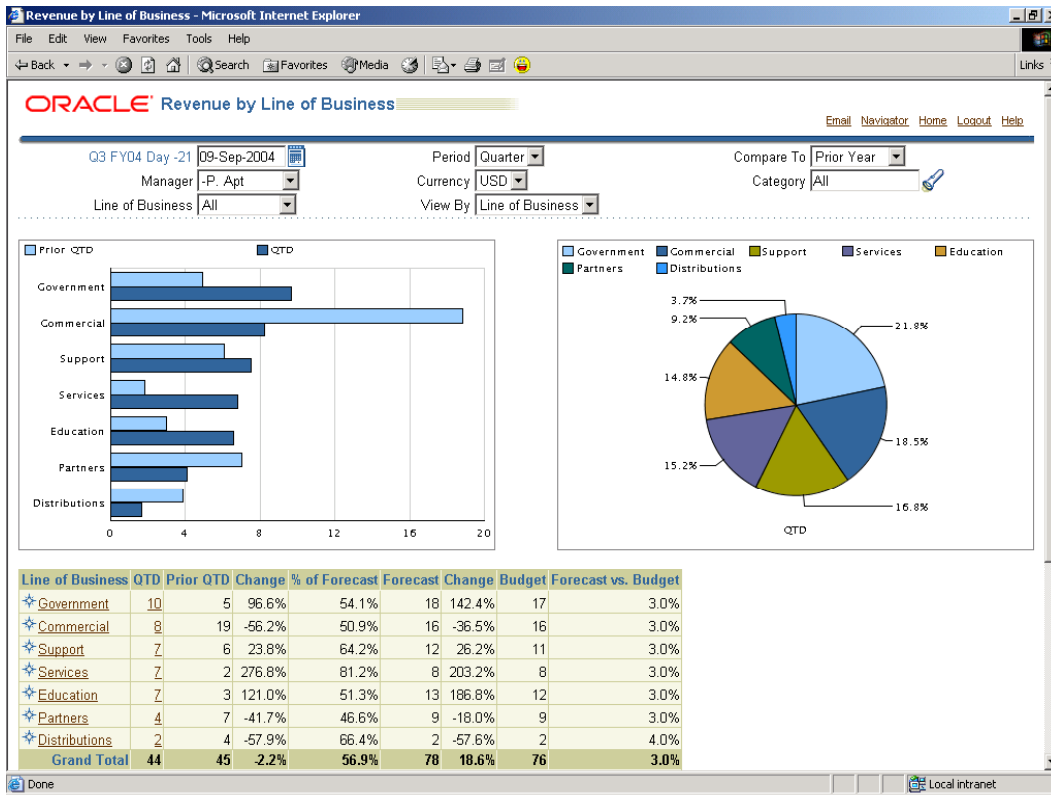


Figure 8. Revenue by line of Business, with built comparison graph and contribution pie charts.

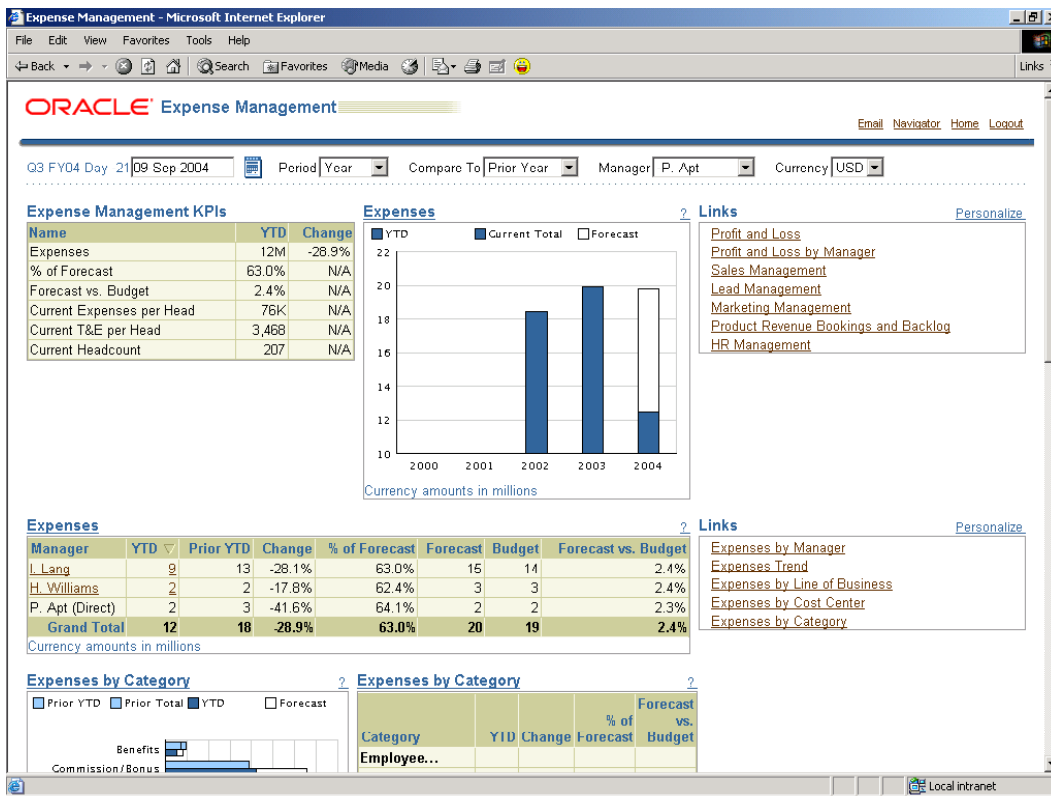


Figure 9. Expense Management Overview Dashboard.

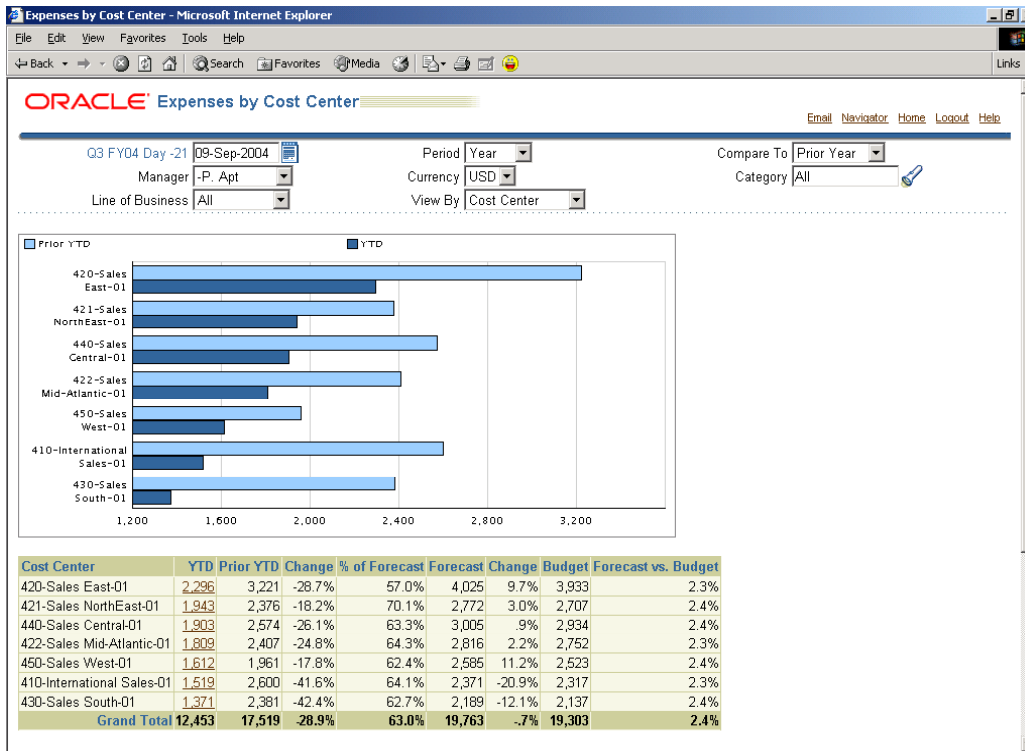


Figure 10. Expenses by Cost Center with links to drill into YTD amounts as time series of months.

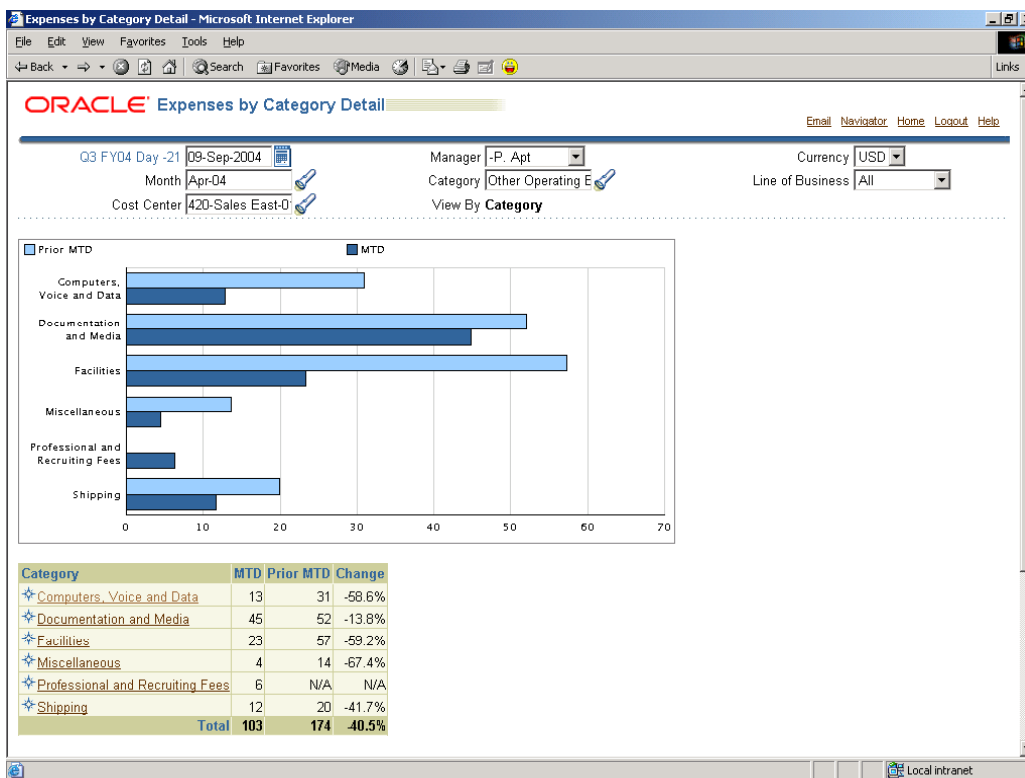


Figure 11. Expenses by Expense Category breakdown, ability to drill to expenses within one category.