So Many Choices: Choosing the Right Business Intelligence Reporting Tool for Your Organization

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In today's IT world, there are so many choices to make. What is the right software for our business? What database will best support the company infrastructure? How will we store and maintain the data files? And finally, which reporting tool will give us the flexibility and information we need?

Trying to make the right decisions can boggle the mind. In this paper, we discuss the pros and cons of some of the choices that are the most integrated with your Oracle Application reporting needs. Evaluating those pros and cons with respect to your organization's requirements will help you choose the right business intelligence reporting tool for your organization. While there are certainly technical issues involved in selecting and implementing any piece of software, this paper will focus on the functionality of each tool with respect to easily providing useful information.

Oracle has supplied several very integrated and focused reporting tools aimed at a specific reporting area such as Financial Statement Generator (FSG), Oracle Financial Analyzer (OFA), and Oracle Sales Analyzer (OSA). Our experience is that FSG is the most widely used of the single reporting area tools. Because of its inherent design to create reports in the accepted Financial Statement Format, FSG is still a good choice for this type of reporting. If a specific financial statement format is not required, we recommend using the other reporting tools covered late in this paper for several reasons. First, FSG, OFA and OSA do not easily allow the integration of data from a variety of the Oracle Applications. Ad Hoc reporting is not a strong point for these tools. Second, they are harder to integrate into the latest information delivery tools such as dashboards. Third, if an organization is using FSG, OFA and/or OSA, it will probably need a more flexible reporting tool which would require maintaining multiple reporting tool environments. This would require more hardware, technical resources, user training, etc.

For more flexible reporting tools that can be used across Oracle Application Modules, we will review and compare:

- 1. Oracle Business Intelligence Discoverer
- 2. Oracle Business Intelligence Applications
- 3. Noetix Reporting Tools

Overview

To some extent, each of these three reporting tools provides similar capabilities from an end user perspective. Canned reports can be scheduled and readily available in various summary or detail formats. A variety of visual displays is also available such as graphs, exception reporting, benchmarking, etc. They can be delivered via traditional paper reports, web display, Excel, and automatically e-mailed. All three tools can provide robust business intelligence reporting in an Oracle Applications environment.

Of course, each tool does have pros and cons. Below is a summary of some key features. This summary is based on what we feel is a key strength of the product. With some additional effort, some of the features not checked could be made available.

Reporting Tool	Canned Reports	AD Hoc	Real Time	Dashboards
		Reporting	Reporting	
BI Discoverer		\checkmark	\checkmark	
BI Applications	\checkmark			✓
Noetix Reporting Tools	\checkmark	\checkmark	\checkmark	\checkmark

Business Intelligence Discoverer

BI Discoverer is an ad hoc reporting tool that has reasonable report writing functionality. Executives, analysts and even casual end users find it easy to use. BI Discoverer is user-friendly enough that users with no technical background are able to write sophisticated reports through a graphical interface by clicking and dragging items for selection. Although the user interface is different, BI Discoverer is similar in functionality and complexity with Excel and MS-Access. Users can drag and drop row and column headings to manipulate the view and results of the reports, similar to Excel Pivot Tables.

Discoverer consists of an Administrative side as well as an End User side. From the administration side of Discoverer, there is a seamless interface between the database and the user called an End User Layer. This helps to manage the data elements used from the existing tables to make that data available to the user without exposing the unused data elements to the user. This helps to reduce the number of null columns available for the reports. The End User Layer has supplied folders from Oracle to help ease the development of table joins. These supplied folders are available to the user based on the user access provided through the security options in the Oracle applications. Security options in the apps can control what the user has the ability to view and report on. For instance, only HR employees can obtain permission to see SSN and other sensitive personal information for the staff.



From an End User side, Discoverer has three ways to access the tool; Discoverer Desktop, Plus and Viewer. Discoverer Desktop is accessed thru the client and is used to create and modify workbooks and worksheets. Discoverer Plus is accessed via the web and is used to create and modify workbooks and worksheets. Discoverer Viewer is accessed through the web and is used to only view workbooks and worksheets pre-defined by another user.

Regardless of the access method you choose for Discoverer, you will find that Discoverer provides robust functionality in an easy to use GUI interface. Users create a Discoverer Workbook which contains one or more Worksheets. Similar to Excel's Sheets, each Worksheet is a separate report. Typically, worksheets in a workbook are different views of the same data. One Worksheet may display detailed transactions while another Worksheet

may show transactions summarized by Sales Geography, Product Line, Time Periods, etc. Reports can easily be manipulated to produce targeted data results by using run time parameters, complex data filters and exception reporting. Users can also do on-the-fly custom calculations, totals and percentages. In addition, there is the table and crosstab functionality that has page item pivoting capabilities to make it easy to see the report in many different views without re-creating the report.

Below is a sample worksheet report using the Client version. There are Page Items with drop down lists to allow you to select specific dimensions to filter the displayed data (i.e. Cur Mon Year Parameter, User Login Name and Area). The user can select any combination of values from these drop-down lists. The below worksheet is using the cross tabular format which automatically summarizes data by the row and column values.

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		▶North		-1,274.66	9,435.22	10,709.88	241,842.39	180,058.10	-61,784.29	241,842.39	-61,784.29
		▶ South		134,024.00	196,383.00	62,359.00	1,709,580.00	2,391,638.00	682,058.00	1,709,580.00	682,058.00
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		North >		1,052.48	7,244.04	6,191.56	7,317.44	80,811.30	73,493.86	7,317.44	73,493.86
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		▶ South		4,590.00	-781.00	-5,371.00	134,777.00	180,713.00	45,936.00	134,777.00	45,936.00
A02.004	Open territory	▶ East		20,562.68	7,457.20	-13,105.48	466,384.63	241,089.63	-225,295.00	466,384.63	-225,295.00
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Below is the same report displayed using the Viewer version.

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It has the web look and feel. Users have less control over fitting the data within a screen but there is a good print format option to produce a printed report or PDF file.

Additional functionality consists of having Business Intelligence Excel spreadsheet add-ins, Business Intelligence Publisher and automated emailing of PDF formats of the reports. The BI Spreadsheet Add-in allows users to have their Excel Spreadsheet automatically updated by a Discoverer Query. BI Publisher allows Discoverer Reports to easily be included on the Web such as in a Corporate Portal.

The key to making BI Discoverer an effective user tool is in the way the End User Layer (EUL) is implemented. This requires resources with IT experience and knowledge of the Oracle Application relational database model. Oracle does provide an easy to use GUI interface with the Discoverer Administration component. This includes automatically creating Folders from the Oracle Tables and Views in the database using a point and click interface. These Folders are used to select the data that is reported within a Worksheet. Lists of Values, Data Hierarchies and Alternative Sorts are also easy to implement using a click and point interface. User Security and Privileges are also easily implemented with a point and click interface.

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Applications Dashboard - Business Flows Sample

Experience has shown that for typical complex reports that need to include data from numerous tables in the Oracle Relational database, creating a SQL script that becomes a Custom Folder is more effective than using the point and click interface. This allows the technical developer creating the folder to use the full functionality of SQL to access the data required. Developers should use the existing Oracle Views as a starting point to create the SQL used in Custom Folders. Unfortunately, rarely does a view provide the exact data needed so an experienced SQL developer

is required to modify and combine Views and tables into a new SQL script. Another task that should be completed when developing the EUL is to ensure that the data items have names that clearly identify their use in the Oracle Applications. For example, many tables have items with generic names like "Name", "Attribute 1", "Effective Start Date", etc. Changing these names to an easy to understand business description allows users to select the data they need. The EUL even allows a description to be entered for each item that allows even more documentation for users.

Creating a well designed EUL is the most time consuming part of implementing a BI Discoverer environment. Luckily, creating the EUL is usually a one time set up process with minor enhancements as new releases of the Oracle Applications are implemented. Once good Custom Folders are developed, creating the actual Worksheet reports is the easy part.

BUSINESS INTELLIGENCE APPLICATIONS

Business Intelligence Applications provide a set of predefined reports in dashboard format that are immediately available upon installation. The Business Intelligence Applications (BI Applications) are listed below:

- 1. Oracle Financial Analytics
- 2. Oracle HR Analytics
- 3. Oracle Order Management and Fulfillment Analytics
- 4. Oracle Supply Chain Analytics
- 5. Oracle Sales Analytics
- 6. Oracle Service Analytics
- 7. Oracle Contact Center Analytics
- 8. Oracle Marketing Analytics
- 9. Oracle Usage Accelerator Analytics for CRM

Each BI Application comes with a set of dashboards. Each dashboard consists of different regions each containing a specific type of content. There are five types of regions:

- 1. Parameter Region to allow the users to select run time parameters.
- 2. KPI Region to report on Key Performance Indicators.
- 3. Graph Region for graphic reporting.
- 4. Links Region to allow links to other Dashboards, company or external websites, etc.
- 5. Table Region to provide tabular reports.

Below is a sample dashboard with the regions identified.

Parameter Region ORACLE Profit and Loss Compare To Prior Year Manager W. Tucker Currency USD 04 Day-21 09-Sep-2004 -Period Quarter Personaliz KPI id Loss by Man Region Links A Milling Region Table 55 -43 Region Person Graph Region

The content for a region is based on a report that has more details than the dashboard region. Users are able to drill down from a region to the underlying report. Depending on the report, users may be able to drill into the actual Oracle Application the report is based on.

As shown in the following list, BI Applications provide dashboard reporting for many of the Oracle Application modules.

- 1. Daily Business Intelligence for Customer Support 1.1. Customer Support Management Dashboard
- Daily Business Intelligence for Depot Repair
 2.1. Depot Repair Management Dashboard
 - 2.1. Depot Repair Management Dashooard
- Daily Business Intelligence for Field Service
 3.1. Field Service Management Dashboard
- 4. Daily Business Intelligence for Financials
 - 4.1. Profit and Loss Dashboard
 - 4.2. Profit and Loss by Manager Dashboard
 - 4.3. Expense Management Dashboard
 - **4.4.** Expense Analysis Dashboard
 - **4.5.** Funds Management Dashboard
 - 4.6. Payables Management Dashboard
 - **4.7.** Payables Status Dashboard
- 5. Daily Business Intelligence for Interaction Center
 - **5.1.** Email Center Management Dashboard
 - 5.2. Inbound Telephony Management Dashboard
- Daily Business Intelligence for iStore
 6.1. Store Management Dashboard
 - **6.2.** Store Top Activity Dashboard
- 7. Daily Business Intelligence for Maintenance
 - 7.1. Maintenance Management Dashboard
- 8. Daily Business Intelligence for Marketing
 - 8.1. Marketing Management Dashboard
 - 8.2. Lead Management Dashboard
- 9. Daily Business Intelligence for Procurement
 - 9.1. Procurement Status Dashboard
 - 9.2. Procurement Performance Management Dashboard
 - 9.3. Procurement Management Dashboard
 - 9.4. Procure-to-Pay Management Dashboard
 - 9.5. Commodity Spend Management Dashboard

9.6. Commodity Supplier Management Dashboard 10. Daily Business Intelligence for Product Lifecycle Management 10.1. Product Management - Engineering Dashboard 10.2. Product Management Dashboard 11. Daily Business Intelligence for Projects 11.1. Projects Profitability Management Dashboard 11.2. Projects Operations Management Dashboard 11.3. Capital Projects Cost Management Dashboard 11.4. Contract Projects Cost Management Dashboard 12. Daily Business Intelligence for Quoting 12.1. Quote Management Dashboard 13. Daily Business Intelligence for Sales 13.1. Sales Forecast Management Dashboard 13.2. Sales Management Dashboard 13.3. Opportunity Management Dashboard 14. Daily Business Intelligence for Service Contracts 14.1. Service Contracts Management Dashboard 14.2. Service Renewals Management Dashboard 15. Daily Business Intelligence for Supply Chain 15.1. Customer Fulfillment Management Dashboard 15.2. Shipping Management Dashboard 15.3. Inventory Management Dashboard 15.4. Manufacturing Management Dashboard 15.5. Product Cost Management Dashboard 15.6. Plan Management Dashboard 15.7. Product Revenue Bookings and Backlog Dashboard **15.8.** Warehouse Management Dashboard **15.9.** Transportation Management Dashboard

As an example of the dashboards and reports for one BI Application, the following list identifies the dashboards and reports available in the BI Procurement Application:

1. Procurement Status Dashboard

- a. Unprocessed Requisitions
- b. Unfulfilled Requisitions
- 2. Procurement Performance Management Dashboard
 - a. Processed Requisitions
 - b. Fulfilled Requisitions

3. Procurement Management Dashboard

- a. Non-Contract Purchases
- b. Contract Leakage
- c. PO Purchases
- d. Payables Leakage
- 4. Procure-to-Pay Management Dashboard
 - a. Manual Invoices
- 5. Commodity Spend Management Dashboard
 - a. Invoice Amount
 - b. PO Price Savings and Quantity Change
 - c. Contract Utilization

6. Commodity Supplier Management Dashboard

- a. PO Price Change
- b. Returns
- c. Rejections on Inspection
- d. Receipt Date Exceptions

Dashboards can be customized as needed but normally the customization would be done by IT technical staff. Each Dashboard can have as many regions as needed to provide the required reporting. Normally, there would be one Parameter Region but there could be multiples for the other region types.

There are several key concepts built into the BI Applications Dashboards.

- Responsibility Identifies the data that a user can access. There are predefined responsibilities along with the capability of creating new ones.
- Date Parameters Define the time period of the data being reported along with a time period for comparison purposes, such as current month to same month in the prior year.
- KPI or Key Performance Indicator KPIs are defined for each Dashboard based on accepted "best practices".

As an example, the KPIs for the Procurement Status Dashboard are used to see what volume of requisitions currently need processing into purchase orders or releases, including how many are processed late (past their expected date) and how long on average they have been in an unprocessed state. The actual KPIs are:

- Unprocessed Requisition Lines: Number of approved requisition lines that are not canceled, returned, or rejected, that are not on an approved purchase order or release.
- Unprocessed Requisition Lines Past Expected Date: Number of unprocessed requisition lines where the current date (specifically, the Data Last Updated date that displays at the bottom of each page) is past the Promised Date or Need-By Date on the purchase order or release shipment, or past the Need-By Date on the requisition line, whichever is available.
- Unprocessed Requisitions Amount: Price * Quantity. Sum of the amounts on each purchase order or release shipment corresponding to each unprocessed requisition line. If the requisition line has not yet been placed on a purchase order, then the requisition line amount (Price * Quantity) is used.
- Unprocessed Average Age (Days): Number of Days Pending / Unprocessed Requisition Lines.

Each Dashboard has a similar set of predefined KPIs available upon installation.

There is a key technical consideration when implementing BI Applications. Oracle Materialized Views are used as the source of data. These materialized views must be updated on a scheduled basis. Depending on the organization, this could be daily or even multiple times per day. Incremental updates are used to minimize processing time. For most BI reporting requirements, this snapshot of the data updated on an agreed upon schedule is sufficient.

Noetix Tools

Noetix Corporation offers Business Intelligence Reporting tools that work well with Oracle Applications. These tools include:

- Noetix Views
- Noetix Generator
- Noetix WebQuery
- Noetix Answers
- Noetix Platform
 - o Noetix Dashboards
 - o Noetix QueryServer

Noetix Views is a set of custom Oracle Views each designed to provide specific business information. Data items in these views have been set to commonly understood business terms. This includes all of the flexfields an organization uses. The views and their data items are well documented. There is also a list of "hints" that ask typical business questions and then direct the user to a specific Noetix View to find the needed information.

The following screen shots show the on-line Help available in Noetix Views.

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Ele Edit Bookmark Qotions Help	
Contents Index Back Print Noetix	
Noetix Views*	
Nontix/(news is a set of database views for looking at the data in Oracle Applications (Financials, Manufacturing, Distribution, Human Resources, AOL and Projects). To see the Oracle data, access these views with a <u>client/server</u> guery/teporting tool connected to Oracle.	
Roles (similar to responsibilities) manage the views. To see the data, you must have permission to access the appropriate role. Each application (AP.PO) within each set of books, business group, operating unit or organization has a separate role.	
Copyright Noetix Corporation 1992-2006	
Help File generation information: Schema: NOETIX_SYS Database: PILOT Noetix Administrator: 5.61.317 Scripts Version: 5.61.317 Oracle Applications Release: 11.51.02 Help Code: ALL	
Classic Roles <u>XXNAO_NOETIX_ADMIN</u> Noetix Administration Objects	
Buginass Group: ITC Global Business Group <u>GBLHE. HE. SCTRA. INCO. TYPES Human Resources Extra Information Inquiries</u> <u>GBLHE. HE. SALAPY: MANAGER Human Resources (Confidential Salery)</u> <u>GBLHE. HE. SALAPY: MANAGER Human Resources</u> (Special Information Type Inquiries <u>GBLHE. HE. SPECIAL INFO. TYPES Human Resources</u> (Non-Confidential) <u>GBLHE. HUMAN RESOURCES</u> Human Resources (Non-Confidential) <u>GBLHE. HUMAN RESOURCES</u> Human Resources (Non-Confidential)	
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Noetix Available Views

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Noetix Views* AR01G_RECEIVABLES Views List	
Roles manage access to views. Ask your DBA to grant you access to the roles you need. Your client/server query tool may also provide a way to turn specific roles on or off.	
Set of Books: ITC United States Operating Unit: ITC USA Operating Unit INV/MFG Organization: ITC_USA_INV_ORG	
Examples	
Views	
AHUIG Addresses AR Basic- Customer Address Information.	
ARDIG Adjustment Cases AR Volue Adjued Taxes due on adjustments to each taxing authority	
AR01G Adjustments AR Basic-Invoice Adjustment	
APUIG Bank Cash Flows AR Cross Functional – Cash in and out of bank accounts by day	
APUIG Lass Receipts AH Basic-Payment Receipt information	
ABUIG Cash receipts commence An Dasis - regiment receipt minimation	
ARUIG Cons Invoice Summary AR Value Added - Consolidated Billing Invoices	
AR01G Contact Addresses AR Basic - Contact Address Information.	
AR01G Contacts AR Basic-Customer Contact Information.	
AR01G Correspondences AR Basic - Customer Correspondence and Dunning Letters.	
AR01G Credit Histories AR Basic - Credit History information	
ARUIG Credit Memo Lines AR Basic - Line detail of credit memos	
APUIG Cust Pyrnt GL Je Dist AR Cross Functional - Cash Receipts - Customer Payments GL JE Distribution.	
APOID Cust Tran CL Je Dist AR Cross Functional Customer Transaction GL Je Distribution Information.	
APUIG Customer Account summary AR Value Added – Current balance for each customer	
ADDIG Customer Autresses An Dasic - Customer and Address information	
ABIIC Customer Bank Accounts A Basic-Customer Bank Accounts and Branch Addresses	
ABIIG Customer Calls AB Value Added - Calls made to customers for collections	
AR01G Customer Contacts AR Basic - Customer Contacts and their roles	
AR01G Customer Credit Profiles AR Basic - Current Profile of customer credit	
AR01G Customer Phones AR Basic - Phone numbers for customer and customer contacts	
AR01G Disputes AR Basic - Dispute History information	
AR01G Invoice Activities AR Value Added - Credit memos and receipts for an invoice	
APUIG Invoice Activity Lines AR Value Added - Credit memo lines applied to invoice lines	
APUIG Invoice Lines AFLastic-Invoice Line information	
APDICE INVOLGE TRADES ARE Value Added - Takes on involces for each taking autobity	
APUIS Letters An Desic Fourning Letter Instally APUIS Marrine A Proces Functional — Marrine hatwaen cost and invoiced nice	
ARUIG Misc Cash Distributions AR Basic – Account distributions for miscellaneous cash receipts	
AR01G Misc Pvmt GL Je Dist AR Cross Functional - Cash Receipts - Misc Pavments GL JE Distribution.	
AR01G Period Closed Stats AR Value Added - Statistics on receivables by GL Closed Date periods	
AR01G Period Created Stats AR Value Added - Statistics on receivables by GL Date periods	
ARUIG Period Due Stats AR Value Added – Statistics on receivables by Due Date periods	~
	1000

Noetix AR Views



Noetix Views - AR Customer Account Summary Columns

🔗 NoetixViews Help, Noetix Corporation	
File Edit Bookmark Options Help	
Contents Index Back Print Noetic	
Noetix Views' AR01G_Customer_Account_Summary View Description	
Columns See Also Examples	_
Noetix Views*	
AR01G_Customer_Account_Summary Examples	ace Amount, the Open Rec
Here are typical questions people have about the data within the view AR01G_Customer_Account_Summary. Select a question to see a hint on how you can answer these questions using Noetix/Views	rofiles set up for several Ic on specific summaries. In
Hint: Can I see receivables aging buckets for the customers sorted by the customer category? Hint: White it is to be that multiplication in the customers and the processing of the processing to can write a standing the processing of the procesing of the processing of the processing of the processing	
Time what's de destination in the ACCustomer Accounty summary were determine in an exchange rate will be necessary to convertine entered transaction and on to the base canency units the hit which customers are over their credit limits and by how much?	
Hint: What are the accounts receivable aging buckets in functional currency?	
Int_vinia do our customers owe us?	
Noetix Views – AR Customer Account Summary Examples	

NoetixViews Help, Noetix Corporation	
Eile Edit Book <u>m</u> ark <u>O</u> ptions <u>H</u> elp	
Contents Index Back Print Noetix	
Can I see receivables aging buckets for the customers sorted by the customer category?	
View: <u>AR01G_Customer_Account_Summary</u>	
Hint: There are seven buckets that show the agings of the receivables for each customer. To see this aging, select for display these buckets along wit A\$Customer, Customer_Category, Customer_Location and Currency_Code. The usual case is that each customer has one Account Summary row. is true if there is only one customer profile set up for the customer. If, however, customer profiles have been set up in more than one currency or for individual Customer_Locations, the customer may have several Account Summary rows. This can be a little tricky if, for instance, the customer has profiles set up for one location (say Boston), but not for others (say Miami and Seattle). In this oddball case the receivable activity billed to Miami and Seattle is summarized with a blank location. The blank location does not include the data from location Boston. The Boston data is on a second summary record.	h the This .nd

Noetix Views – AR Customer Account Summary Hint

Noetoxylews help, I	Neetix Corporation	
le Edit Bookgark Opt	ons Beb	
ontents Index Back	Pire Noteix	
Noetix	AR01G_Customer_Account_Summary Related Views	
See also these rela	ted views.	
AB01G Credit Hist Hint The Credit Hist	ands: AR Basic - Credit History information anes view shows the credit reform of the customer in the past and in the present.	
AR01G Customer (Hint The Customer	Tails AR Value Added - Calls made to customers for collections. Calls view shows the collection calls that have been made to a customer.	
ARBIG Customer I Hint The Customer	<u>Credit Profiles</u> API Bosic – Current Profile of customer credit Credit Profile shows the current credit information on a customer: credit rating, risk and credit limits.	
AR01G Disputes Al Hint: The Disputes v	R Basic-Dispute History information lew shows a history of the disputes with this customer over involces and payments.	
AR01G Letters AR1 Hint: The Letters vie	Basic - Dunning Latter history w shows the dunning lotters that have been sunt to a customer.	
AR01G Period Clo Hint The Period Clo	sed Stats shows how many invoices and receipts were closed in each Period.	
AR01G Period Cre Hint: The Period Cre	atted Stats AR Value Added - Statistics on receivables by GL Date periods lated Stats shows how many invoices and receipts were created in each Period.	
AB01G Period Du Hint The Period Du	2. Stats AR Value Added – Statistics on receivables by Due Date periods e Stats shows one perspective on the history of your dealings with a customer. Mainly, how many invoices and receipts from this customer were due in each period.	
ARUIG Receivable Hint The Customer Amount the Cre show a summer being attached	Is Estances AR Basic – Balances of invoices and credit memos Account Summary view shows the current balances for each customer. This summary includes the Dutstanding Balance, the Past Due Balance, the Over Credit Limit Amount, the Open Invoice Amount, the dit Amount, the On Account Amount, the In Dispute Amount and the Esmed and Uneermed Discounts Token. Year to date and month-ordate invoice and receipt amounts show the recent customer activity. See of the aging of payments due from this customer. If the customer has proved locations (tables), then this view summarizes the data broech Location. If there is a profile activity for event location (tables), then this view summarizes the data broech Location. There is a profile activity for event location (tables), then this view summarizes and data except what was included in the location specific summaries. In Release 10 each Currency for which this customer the activities is profile activity of paymotices.	pen Receipt ven buckets rr without
RADIG Customers Hint The Customers Number.	AR Basic - Information about customers including their addresses. View tells about the customer, tor instance, Address, Salesrep, and Sales Chennel. The Customer Account Summary summarizes the status of the customer account. To join these views, match the column (ustomer

Noetix Views - AR Customer Account Summary Related Views

The on-line Help included with Noetix Views is the key to enabling users to quickly understand the data available to them. Noetix provides views for the following Oracle Application modules:

- Oracle Financials
- Order Management
- Procurement
- Projects
- Discrete and Process Manufacturing
- Human Resources
- Payroll
- Grants
- Service

Noetix Views are the foundation for all of the other Noetix products to easily access the data within Oracle Applications.

Noetix Generator uses the Noetix Views to create an EUL within BI Discoverer. This greatly reduces the start-up time for implementing a BI Discoverer environment as most of the EUL is automatically created. It is worth noting that although the views are well designed, there are usually a few business requirements in each organization that require enhancement of specific Noetix views. However, even before these enhancements are made the views can provide much of the required reporting right out of the box.

Noetix WebQuery is an ad hoc query reporting tool using a web interface. While the look and feel is different, the basic functionality is very similar to what the BI Discoverer Plus ad hoc query reporting tool provides. Users can easily select data, filter data, use run time parameters, sort and pivot data and create custom calculations. Scheduling reports and interfacing into Excel is also available.

Noetix Answers are predefined reports for Oracle Applications that are available "out of the box". These reports are customizable so new calculations can be created, filters can be applied, columns can be hidden, etc. Data can be seamlessly integrated into Excel. The following screen shots show how Noetix WebQuery and Noetix Answers work together to deliver reports to users via a web interface.

NOETIX		Welcome, gfgc
	Search 'Management' folder	
MY WEB QUERIES		Advanced Search
actions > change theme + nwq administrator + logoff		
ly Web Queries		
My Web Folders • Public > Sales > Management [1 6idar][14 quarker]		
Click on a folder to browse it. [1 folder]		
Dashboard · Dashboard Queries for Sales Management.		
Double dick on a query to execute it. [14 queries]		
	new custom query	
Open Leads - Leads [ModRed: 12/30/2006 9:42 AM] - What Leads are currently open by Sales Team Member?	execute	
Open Opportunity - Opportunity (Medited: 12/30/2006 9:42 AM) This report displays Open Opportunities by Sales Team Member for a given Service Line	query in Excel	
Pipeline Report - Opportunity (Modied: 12/30/2006 9:42 AM) - What pipeline opportunities currently exist across all service offerings?	properties	
Pipeline Report - Opportunity by Sales Team Member (Mulited: 12/30/2006 9-43 AM) - What pipeline opportunities currently exist by Sales Team Member?		
Pipeline Report - Opportunity by Service Line [Medile4: 12/30/2006 9:43 AM] • What pipeline opportunities currently exist by Sales Team Member?		
Cales Strategy Andii De Glad 12/04/2006 6 43 441		

Noetix WebQuery Menu showing available reports (Answers)

Hy Recent Queries						Search 'Managem	ent' folder	
MY WEB QUERIES	CUSTOMIZE EXECUTE						Adva	nced Search
actions > save - proper	ties - re-execute - subscribe							
			[Live Query]					
		Open Lea	ds - Leads by Sales Team	Member				
Options P Data Rows: 14	6 Displaying: 1 to 26 (1) (1) (2) (2)							
Owner	- Organization	- Service	- Lead Name -	Lead Status +	Time Frame	- Budget Status -	Date Entered	+ Last Task
Bajaj, Vikas Purshotam	CHOC (ATHOC)	Support Services	Windows Server System Administ	New	Undefined	Pending	15-Feb-07	15-Feb
Basal, Vikas Purshotam	AMPEX CORPORATION	Support Services	Windows Server System Administ	New	Undefined	Pending	15-Feb-07	15-Fel
Batal, Vikas Purshotam	CALIBER HOLDINGS CORPORATION	Support Services	Windows Server System Administ	New	Undefined	Pending	15-Feb-07	15-Fe
Baiai, Vikas Purshotam	Creditwatch Services L.P.	Support Services	Windows Server System Administ	New	Undefined	Pending	15-Feb-07	15-Fe
Bell, Kimberly A. (Kim)	COEUR D'ALENE MINES CORP	Support Services	Migration of OS from Unix to Linux	New	Undefined	Pending	13-Feb-07	6-Ma
Bell, Kimberly A. (Kim)	COEUR D'ALENE MINES CORP	Support Services	Set up CDE Australia into MultiOrc	New	3 - 6 Months	Pending	13-Feb-07	6-Mar
Bell, Kimberly A. (Kim)	COEUR D'ALENE MINES CORP	Support Services	Setup FAS for CDE Chile	New	3 - 6 Months	Pending	13-Feb-07	6-Mar
Bell, Kimberly A. (Kim)	COEUR D'ALENE MINES CORP	Support Services	Upgrade server GOLD1 OS from H -UX 11.00 to 11.11	New	6 -12 Months	Pending	13-Feb-07	6-Mar
Bell, Kimberly A. (Kim)	COEUR D'ALENE MINES CORP	Support Services	Migration of Cerro Bayo to MultiOr	New	6 -12 Months	Pending	13-Feb-07	6-Mar
Bignoli Alfaro, Federico	SYNACOM TECHNOLOGY INC.	Recruitment Services	Peoplesoft, functional consultant,	New	Within 1 Week	Pending	13-Apr-07	13-Ap
Chari, Rashmi	SILICON GRAPHICS, INC.	Consulting Services	Latin America Projects	New	1 - 3 Months	Pending	9-Jan-07	9-Jan
Cohen, Matthew Louis	AETNA INC.	Consulting Services	ID Management	New	Within 1 Week	Pending	16-Oct-07	16-00
Cohen, Matthew Louis	COMCAST CORPORATION	Education Services	GL, AP, FA, Inventory Training	New	1 - 3 Months	Pending	5-Dec-07	5-Dec
Cohen, Matthew Louis	COMCAST CORPORATION	Support Services	Support	New	1 - 3 Months	Pending	19-Oct-07	26-Oc
Cohen, Matthew Louis	CYSTIC FIBROSIS FOUNDATION	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	19-De
Cohen, Matthew Louis	UNIFI, INC.	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	19-De
Cohen, Matthew Louis	VOCOLLECT, INC.	Hosting	Hosting	New	1 - 3 Months	Pending	26-Oct-07	29-00
Cohen, Matthew Louis	WINDBER RESEARCH INSTITUTE	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-00
Crapper, Matias Felipe	MC DONALD'S DE MEXICO, S.A. DE C.V.	Consulting Services	(F) Health Check	New	Within 1 Week	Pending	12-Feb-07	21-Feb
Duval, Jerome (Jerome)	ATHENAHEALTH INC.	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-Oc
Duval, Jerome (Jerome)	BUREAU OF NATIONAL AFFAIRS (BNA)	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-00
Duval, Jerome (Jerome)	E COM VENTURES INC	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-00
Duval, Jerome (Jerome)	FCCI INSURANCE GROUP	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-00
Duval, Jerome (Jerome)	FORDHAM UNIVERSITY	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-Oc
Council Transmis (Transmis)	FRANKE USA HOLDING, INC.	Web Services	Portal Call Campaign	New	Undefined	Pending	17-Oct-07	17-00
ouval, Jerome (Jerome)								

Noetix Answers Sample Report

Noetix Platform is an overall platform that integrates the various Noetix components to provide a complete BI Reporting Environment. Components include:

- Noetix Views
- Noetix WebQuery
- Noetix Answers

- Noetix Dashboards
- Noetix QueryServer
- Noetix Platform

Some of these components can be installed as standalone solutions but to have the complete BI Reporting capability, Noetix Platform provides the overall technical framework to ensure all of the components work together.

Noetix QueryServer is the component within Noetix Platform that manages user queries with respect to the actual sources of data. Users can generate queries that include data from various sources such as Oracle Applications and custom applications both on different hardware platforms. Noetix QueryServer provides the following:

- 1. Breaks down the original query into the format needed by each separate data source
- 2. Passes the query to the data source
- 3. Collects the data from each data source
- 4. Combines the data from different data sources as needed
- 5. Delivers the final query data output to the Noetix component requesting it such as Noetix Dashboards or Noetix WebQuery.

Noetix Dashboards provide interactive graphical reports with drill down capabilities similar to the dashboards in BI Applications. Noetix provides Dasboards for a variety of business functions including:

- 1. Accounts Payable
- 2. Banking
- 3. Call Center
- 4. Finance
- 5. Human Resources
- 6. Sales
- 7. Sales & Marketing for Siebel CRM

As an example, below is a description of the Financial Dashboards:

1. Financials Dashboards 1.1. CFO Dashboard

- 1.1.1. KPIs covering GL, AP, AR and OM. Examples of KPIs are Total Revenue, Total Expenses, EBIT, COGS, Operating Income, Working Capital, Cash on Hand, Total AR, Total AP, Total Cash Receipts and Past Dues.
- 1.1.2. The CFO dashboard also provides sample financial reports such as Balance Sheet, Income Statement, Rolling Quarterly Income Statement, Cash Flow, Capital Spending, Equity Analysis and Stock Options Summary.

1.2. Sales Dashboard

1.2.1. The contents include Sales by Region by Period, Number of New Customers, Average Order Size and Top/Bottom 5 Products, Top/bottom 5 Sales Persons and DSO. Reports included are Pipeline by Region, Sales and Product Sales.

1.3. Financial Ratios Dashboard

- 1.3.1. Contains major financial ratios used by executives including:
 - Activity Ratios—AR Turnover, Asset Turnover and Inventory Turnover
 - Liquidity Ratios—Current, Quick, Days Sales in Inventory and Days Sales in Receivables
 - Capital Ratios—Debt, Debt/Equity, and Interest Coverage
 - Profitability Ratios—ROA, ROE, Average Total Assets, Profit Margin and Earning Per Share

Below is a sample Noetix Dashboard with several options that display different data related to the purpose of that Dashboard.

🖉 Call Center Dashboard Demo - Wind	lows Internet Explorer		🛛
N http://www.noetix.com/Products/Resources	(DemoPlayer.aspx?identity=57		×
ABC Company, Inc.	Call Center Dashboard for Siebel CRM		
Service Requests	Service Requests O By Snapshot	O By Resolution Time Avg	O By Customer Requests
Service Time	Call Center - Headcount 25	Open SR	s by Priority
Service Order			
Reports	Litital Response Time Avg. J	yuntaryon of the second	2.High 3.Highdum 3.Highdum 4.Low Vary, High
	Open Service Requests. by Products	250	ce Requests Trend By Priority
	Performa.	150	Priority 1 Priority 2 Priority 3 Priority 4
Powered By NOETIX	CD-ROM	50 Aug Sept Oct	Nov Dec About
Done		6	Internet 🔍 100% 🔹

Noetix Dashboard Sample – Screen 1





Call Center Dashboard Denio - with http://www.noetix.com/Products/Resource	uovs interinet Explorer sjDenoPlayer.aspcildentity=57	· · · · · · · · · · · · · · · · · · ·
ABC Company, Inc.	Call Center Dashboard for Siebel CRM	
Service Requests	Reports	
Service Time	Detailed Reports	
Reports	Daily Incident Open Incident Priority by Product Open Incident by Product by Customer Open Incident Aging by Priority by Product Open Incident by Support Person Support Person Efficieny Types of Open Incident Calls Customer Satisfaction	
Powered By NOETIX		About
one	🖓 Internet	Q 100% •

Noetix Dashboard Sample - Screen 3

Conclusions and Recommendations

All of the tools reviewed in this presentation are good products. They can enhance BI Reporting depending on an organization's requirements. The chart below summarizes some of the key points for each tool.

BI Tool	Pros	Cons
BI Discoverer	 Least expensive Works well for organizations just needing limited BI reporting 	 No pre-built reports Creating the EUL requires time and good technical resources No seamless dashboard capability
BI Applications	 Many "canned reports" available Many dashboards available Using materialized views will minimize performance impact for Oracle Applications users 	 Does not access data in real time Set up is more complicated than the other options
Noetix	 Noetix Views make this the easiest option for ad hoc reporting Many "canned reports" available Many dashboards available 	Multiple vendorsAnother technology to support

BI Tool Comparison

Choosing the right BI Reporting tool for an organization depends on the reporting needs of that organization. Some organizations may just need some limited ad hoc reporting while other organizations want a complete BI solution. The table below summarizes some recommendations based on the "overall" reporting requirements.

Organization Requirements	Recommendations			
Ad hoc data access tool for a limited number of	BI Discoverer with help from technical resources			
data requirements	experienced with creating an effective EUL.			
Ad hoc reporting across a number of Oracle	Noetix Views with either of the following options:			
Application modules without the need for	1. BI Discoverer			
dashboard reporting	2. Noetix WebQuery and Noetix Answers			
	The option picked depends on reviewing the canned			
	reports provided by Noetix Answers and determining			
	how well they meet the organization's requirements.			
Complete BI reporting environment including:	One of the following options			
1. Ad hoc reporting	1. BI Applications and BI Discoverer			
2. Management summary reporting using	2. Noetix Platform with all of its components			
a Dashboard framework				
3. Various Oracle Application Modules	The option picked depends on comparing each option's			
	available canned dashboards and reports to the			
	organizations BI Reporting requirements. This requires			
	reviewing the actual reports available in each dashboard			
	for the Oracle Application modules in use.			
BI Tool Recommendations				

Of course there are other issues that will influence the BI Reporting Tool decision. These usually involve technical issues and comparable costs. However, these technical issues may not be that significant when compared with the following benefits:

- 1. Quick implementation of a BI solution to improve immediate decision making.
- 2. Long term benefits of having a tool that is flexible and allows reporting to easily change as the organization changes.

Answering the question of which reporting software is right for you, we can't do. What we have provided in this paper is the overview of each of the most popular reporting tools for your Oracle data. The information herein should assist your decision making process and help you compare the pros and cons against your needs. It is now up to you to determine the best tool, or the best combination of tools, to provide your organization's users with the reporting mechanism they need to be more effective and efficient in their roles.