Improving XI Security and Service Levels at CNA Insurance with Teleran

Pittsburgh Business Objects User Group Meeting

Chris Sieverts

April 12, 2007

Agenda

- Introduction
- Teleran Suite
- Problem Statement
- Information Delivery Architecture with Teleran for Security and Auditing
- What added value did CNA get from using Teleran?
- Questions

Introduction

- CNA Financial Corporation is based in Chicago
- Has been in business over 150 years
- They provide commercial, property, and casualty insurance products in the United States
- Over 10,000 employees

- HQ based in Northern New Jersey – 30 min outside NYC
- Founded in 1996, privately owned
- Variety of Technology and Service Partners
- Technology Foundation – 7 patents awarded, others pending

Visibility – for Performance & Compliance

iSight™ SQL Monitor – Delivers Visibility and Awareness

- Network-based SQL analysis, auditing and reporting
- Delivers centralized view of who is accessing what information, when, where, & how
  - User ID, parsed SQL query, Corporate Document, application used, IP address, DB objects accessed, errors
  - Query response time, elapsed time, size of result set
- Bundled with reporting and analysis application
- Also can be used with BOBJ for analysis of usage metrics

Real-time Query Management

iGuard™ SQL Policy Manager – Protects Performance and Data

- Prevents runaway, unauthorized or inappropriate queries from reaching the database
- Manages performance, enforces security and compliance

Performance	**Ensure users include a Where clause in query for a large table**
Service Level	**Prevent queries predicted to run over threshold (rows, elapsed time, bytes)**
Security	**Prevent queries if a specified column is included in the Where clause**

User Messaging

iGuard Messaging - real-time user guidance

- Expert System advises users how to use applications and data correctly and efficiently
- Alerts IT or Security staff to inappropriate activity, attempted violations
- Reduces help desk calls, increases user productivity and service

Teleran Message

To: Pierpaolo on 1/26/07 4:35PM

You are not authorized to view personal financial data of Swiss citizens.

Teleran Value Add

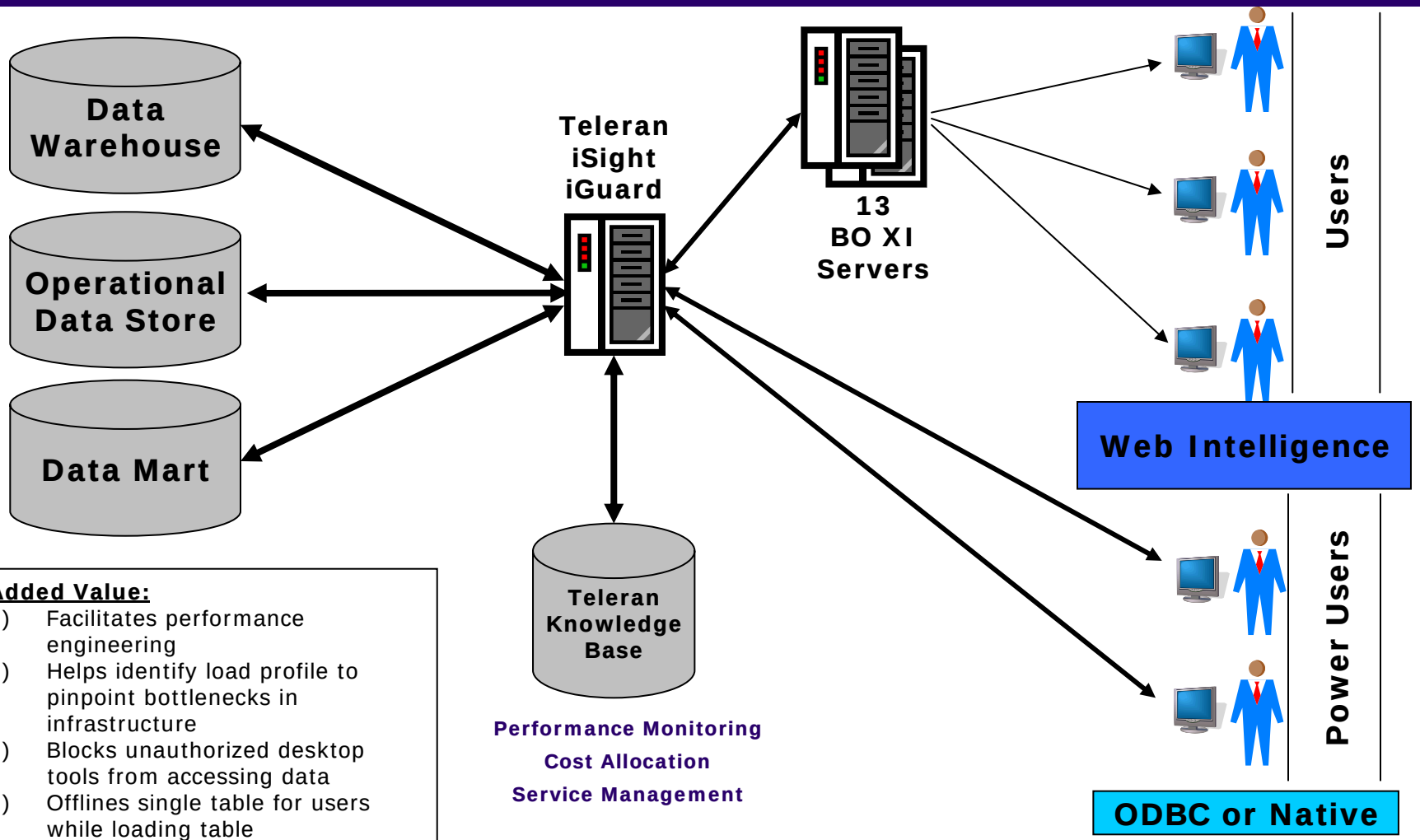
- Facilitates performance management
- Helps identify load profile to pinpoint performance bottlenecks
- Provides insight for data migrations
- Prevents users from unauthorized access for compliance and data protection,
- Prevents inappropriate or wasteful queries
- Offlines single table for users while loading table, improving availability
- Guides users with friendly messages in real-time

Problem Statement

Information is a Corporate Asset

- That needs an audit trail of its consumption.
  - SOX compliance
  - Charge-back model by usage
- That needs to be protected from unauthorized access
  - Users
  - Tools
- Consolidation = Magnified Issues
  - Error tracking
  - Performance Tuning
  - Identifying infrequently used data to execute an archiving strategy
  - Monitor usage patterns to optimize hardware resource allocation

XI & Teleran Architecture



Added Value:

1) Facilitates performance engineering
2) Helps identify load profile to pinpoint bottlenecks in infrastructure
3) Blocks unauthorized desktop tools from accessing data
4) Offlines single table for users while loading table
5) Sends user friendly error messages
6) Delivers same benefits to an OLTP environment

What added value did CNA get from using Teleran?

- Insight for Data Migration

We used it to identify what tables and columns are being used in Legacy Data Marts which gave us insight into what data needs to be migrated to Enterprise Data Warehouse

Table Usage Summary

(Summary of table usage including those not accessed)

Report Date: Tue Dec 30 14:28:15 EST 2003

Start Date: 07/01/2003
End Date: 07/31/2003

Generating CSV...

Datasource	Database	Schema	Table	Total Accesses	First Accessed	Last Accessed	Last Analyzed
Demo_DW	ORACLE	SALES	SALESTRANSACTION	127	2003-07-07 09:43:46.0	2003-07-31 15:47:16.0	2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	CONTACT	38	2003-07-07 15:44:08.0	2003-07-31 09:32:05.0	2003-11-17 12:38:59.0
Demo_DW	ORACLE	SALES	ACCOUNT	19	2003-07-07 15:07:47.0	2003-07-09 11:17:53.0	2003-11-17 12:38:58.0
Demo_DW	ORACLE	SALES	COMPETEPRODUCT	17	2003-07-07 15:45:04.0	2003-07-30 13:02:30.0	2003-11-17 12:38:59.0
Demo_DW	ORACLE	SALES	TERRITORY	14	2003-07-07 15:44:42.0	2003-07-30 17:12:47.0	2003-11-17 12:39:01.0
Demo_DW	ORACLE	SALES	DISCOUNT	9	2003-07-07 15:50:55.0	2003-07-07 16:26:54.0	2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	AGREEMENT	5	2003-07-07 16:33:15.0	2003-07-16 15:27:24.0	2003-11-17 12:38:59.0
Demo_DW	ORACLE	SALES	SALESREP	4	2003-07-07 15:44:42.0	2003-07-07 16:33:34.0	2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	CONTACTDETAIL	1	2003-07-07 16:32:13.0	2003-07-07 16:32:13.0	2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	PRICELIST	1	2003-07-07 16:33:15.0	2003-07-07 16:33:15.0	2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	ACTIVITY	Not Accessed			2003-11-17 12:38:58.0
Demo_DW	ORACLE	SALES	CUSTOMERSURVEY	Not Accessed			2003-11-17 12:39:00.0
Demo_DW	ORACLE	SALES	OPPORTUNITY	Not Accessed			2003-11-17 12:39:00.0

What added value did CNA get from using Teleran?

-Table and Column use that helped us lower our ETL window

teleran

iSight Web Reporting

teleran home | log out | home

Columns in Use

(Details of column usage grouped by user and table)

Report Date: Wed Jan 17 16:34:43 EST 2007

Start Date: 7/17/2006
End Date: 1/17/2007

Datasource	Database	Schema	Table	User	Column	Date	Time
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Joe"	CITY	12/14/2006	16.40.41
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Joe"	CITY	12/15/2006	11.28.50
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Joe"	CITY	01/05/2007	09.47.44
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Joe"	STORE_NAME	01/05/2007	09.47.44
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Moe"	QUANTITY_SOLD	12/14/2006	15.26.09
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Moe"	QUANTITY_SOLD	12/14/2006	15.26.20
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Moe"	STORE_NAME	12/14/2006	15.26.50
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Moe"	STORE_NAME	12/14/2006	15.27.18
orcl	ORACLE	EFASHION	AGG_YR_QT_MT_MN_WK_RG_CY_SN_SR	"Moe"	STORE_NAME	12/14/2006	15.35.25
orcl	ORACLE	EFASHION	AGG_YR_QT_RN_ST_LN_CA_SR	"Administrator"	QTR	11/23/2006	23.32.22
orcl	ORACLE	EFASHION	AGG_YR_QT_RN_ST_LN_CA_SR	"Administrator"	SALES_REVENUE	11/23/2006	23.32.22

CNA identified the use and patterns of use for Tables, Columns, Views and Indexes in the Enterprise Data Warehouse.

Which enabled them to schedule smarter, save processing time and storage

What added value did CNA get from using Teleran?

-Detailed knowledge of who is using the DW

Track down Rogue Applications: We detected power users who had built applications using the Enterprise Data Warehouse database generating hundreds of thousands of queries per day

All Queries

(List of all queries grouped by user and client application.)

Report Date: Wed Jan 07 14:39:39 EST 2004

Start Date: 07/01/2003
End Date: 07/30/2003

Datasource: Demo_DW **Database:** ORACLE
Operating System User: Alex Bracker **Client Application:** BusinessObjects

SQL Id	Query Rows	Elapsed Time (Secs)	Response Time(Secs)	SQL Statement	Result Status	IP Address	SQL Start	SQL End
102636	0	1.903	1.903	select O.productid, O.orderid from orders.orderfact O, orders.ordertime OT, orders.shipment S where O.shipmentdate = OT.timeid and S.shipmentdate = OT.day	Successful	10.0.1.56	2003-07-29 13:39:30.0	2003-07-29 13:39:31.0
102768	9000	8.442	0.341	select I.inventoryid, I.inventorylocationid from orders.inventory I, orders.inventorylocation IL where state = 'New Jersey'	Successful	10.0.1.56	2003-07-29 14:02:03.0	2003-07-29 14:02:11.0
102867	0	0.591	0.591	select orderid, sum(totalamount) from orders.customerorder where customerid = 11924	DB Error	10.0.1.56	2003-07-29 14:36:22.0	2003-07-29 14:36:23.0
103610	4141	20.669	3.525	select orderid, shipmentid from orders.shipment S, orders.customerorder CO where CO.totalamount = S.insuredamount and customerid = 7568 order by orderid, shipmentid	Successful	10.0.1.56	2003-07-29 16:06:38.0	2003-07-29 16:06:59.0
104098	3484696	22983.168	51.774	select purchaseid, purchaseamount from sales.salestransaction ST, orders.customerorder CO where ST.discountid = CO.discount	Successful	10.0.1.56	2003-07-29 15:18:21.0	2003-07-29 21:41:24.0
104112	2010391	24305.85	28.841	select purchaseid, purchaseamount from sales.salestransaction ST, orders.customerorder CO where ST.discountid = CO.discount	Successful	10.0.1.56	2003-07-29 14:56:26.0	2003-07-29 21:41:32.0
125217	0	0.03	0.02	select orderid, sum(totalamount) from orders.customerorder where customerid = 11924	DB Error	10.0.1.56	2003-07-09 14:27:10.0	2003-07-09 14:27:10.0
138892	0	10.475	10.475	select O.productid, O.orderid from orders.orderfact O, orders.ordertime OT, orders.shipment S where O.shipmentdate = OT.timeid and S.shipmentdate = OT.day	Successful	10.0.1.56	2003-07-23 09:15:30.0	2003-07-23 09:15:41.0

What added value did CNA get from using Teleran?

-Discover what tools are being used against the DW

CNA was able to identified un-authorized query tools

Client Application Usage Summary

(Summary of users grouped by client application)

Report Date: Tue Feb 13 09:40:54 EST 2007

Start Date: 12/13/2006
End Date: 2/13/2007

Client Application	Datasource	Database	User	Total Queries	First Time Accessed	Last Time Accessed
BUSOBJ.EXE	orcl	ORACLE	"Dan"	14	2006-12-14 16:55:57.0	2006-12-14 17:05:26.0
BUSOBJ.EXE	orcl	ORACLE	"Joe"	5	2006-12-13 13:37:10.0	2007-01-05 09:47:44.0
BUSOBJ.EXE	orcl	ORACLE	BO651	92	2006-12-18 12:14:19.0	2006-12-18 17:03:06.0
BUSOBJ.EXE	orcl	ORACLE	EFASHION	19	2006-12-13 13:37:08.0	2007-01-05 09:47:44.0
BUSOBJ.EXE	orcl	ORACLE	IRESORTS	1	2006-12-13 14:36:56.0	2006-12-13 14:36:56.0
Client Application BUSOBJ.EXE has been used by 5 users						

Client Application	Datasource	Database	User	Total Queries	First Time Accessed	Last Time Accessed
SQLPLUS.EXE	orcl	ORACLE	TTSERVER	8	2007-01-02 14:26:25.0	2007-01-02 14:26:30.0
Client Application SQLPLUS.EXE has been used by 1 users						

Client Application	Datasource	Database	User	Total Queries	First Time Accessed	Last Time Accessed
DESIGNER.EXE	orcl	ORACLE	""	47	2006-12-13 14:11:14.0	2006-12-20 10:05:16.0
DESIGNER.EXE	orcl	ORACLE	"Dan"	1	2006-12-14 17:04:25.0	2006-12-14 17:04:25.0
DESIGNER.EXE	orcl	ORACLE	BO651	39	2006-12-18 11:56:53.0	2006-12-20 10:04:42.0
DESIGNER.EXE	orcl	ORACLE	EFASHION	67	2006-12-13 14:11:12.0	2006-12-14 17:04:25.0
DESIGNER.EXE	orcl	ORACLE	IRESORTS	64	2006-12-13 14:12:40.0	2006-12-13 14:13:57.0
Client Application DESIGNER.EXE has been used by 5 users						

Client Application	Datasource	Database	User	Total Queries	First Time Accessed	Last Time Accessed
MSACCESS.EXE	orcl	ORACLE	EFASHION	92	2006-12-26 12:29:01.0	2006-12-26 13:03:03.0
Client Application MSACCESS.EXE has been used by 1 users						

MS Access was not
an approved tool

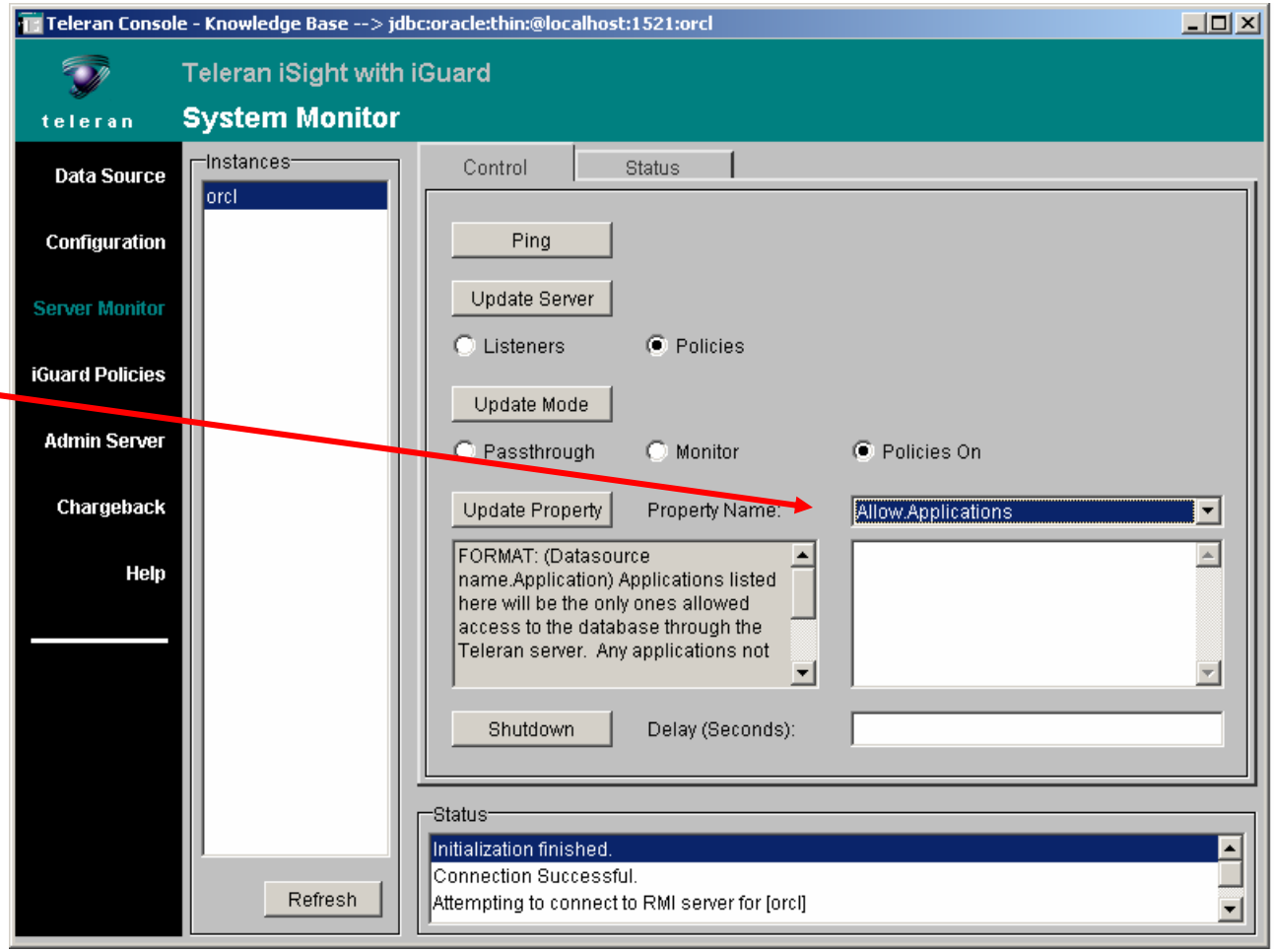
What added value did CNA get from using Teleran?

- Control which tools are used against the DW

And then do something about it.

They locked down unauthorized, non-standard query tools:

Power Users that had access to the database now needed to use authorized tools



What added value did CNA get from using Teleran?

- SQL Tuning & Data Model Modification

Improve user experience by helping us track slow performing queries and Target Tables for Indexing, Partitioning, Aggregating/Summarizing

Where Clause with Predicate Literal Analysis

(Analysis of columns used in WHERE clause with reference to the predicates associated with literals and whether the column is indexed)

Datasource: orcl
Database: ORACLE
Schema: EFASHION
Table/View: OUTLET_LOOKUP

Column	Predicate Literal	Times Used	Predicate Usage %	First Used	Last Used	Indexed?
MANAGER	IN 'Mark'	14	15%	2006-12-21 08:52:10.0	2006-12-21 14:43:02.0	NO
MANAGER	IN 'Larry'	15	16%	2006-12-15 11:04:05.0	2006-12-21 14:43:02.0	NO
MANAGER	IN 'Barrett'	17	18%	2006-12-15 10:26:20.0	2006-12-21 14:43:02.0	NO
MANAGER	IN 'Bennett'	17	18%	2006-12-15 10:26:20.0	2006-12-21 14:43:02.0	NO

Group by Clause Column Index Analysis

(Number of times column has been referenced in GROUP BY clause of query and whether the column is indexed)

Report Date: Wed Apr 11 14:59:05 EDT 2007

Start Date: 1/11/2007
End Date: 4/11/2007

Datasource: orcl
Database: ORACLE
Table/View: EFASHION.ARTICLE_LOOKUP
Total Accesses: 92

Column	Group By Usage #	Group By Usage %	First Accessed	Last Accessed	Indexed?
CATEGORY	4	4%	2007-03-26 08:46:36.0	2007-03-26 08:47:29.0	NO
FAMILY_NAME	4	4%	2007-03-26 08:46:36.0	2007-03-26 08:47:29.0	NO

Datasource: orcl
Database: ORACLE
Table/View: EFASHION.PRODUCT_PROMOTION_FACTS
Total Accesses: 29

Column	Group By Usage #	Group By Usage %	First Accessed	Last Accessed	Indexed?
DURATION	1	3%	2007-03-08 15:30:48.0	2007-03-08 15:30:48.0	NO

What added value did CNA get from using Teleran?

- Identify & track DB errors

Provided us with the ability to address database errors that users never reported

Error Type: Database Error
Datasource: orcl **Database:** ORACLE
User: EFASHION **Client Application:** DESIGNER.EXE

Sql Id	Blocked By	Comment	SQL Statement
676	Database Error	ORA-01013: user requested cancel of current operation	Select count(*) From Outlet_Lookup
1010	Database Error	ORA-00904: "COUNTALL": invalid identifier	Select COUNTALL(Shop_facts.Shop_id) From Shop_facts

Error Type: Blocked
Datasource: orcl **Database:** ORACLE
User: "Joe" **Client Application:** BUSOBJ.EXE

Sql Id	Blocked By	Comment	SQL Statement
1649	Blocked	An IN clause contains more than 2 values in an IN value list.	SELECT Outlet_Lookup.Manager FROM Outlet_Lookup WHERE (Outlet_Lookup.Manager IN ('Anderson', 'Barrett', 'Bennett', 'Larry', 'Leonard', 'Mark')) /* TTBOUser='Joe', TTBOUniverse=eFashion, TTBOUnivID=11 */

What added value did CNA get from using Teleran?

-The Ability to Correlate Successful Data Usage with Successful Financial Results

If a business unit is exceeding its goals through analysis, would not other groups benefit from those tables?

Tie Usage to JD Edwards data

Report Group Column Usage Summary

(Group Column usage including those not accessed)

Report Date: Thu Jan 04 16:40:07 EST 2001

Start Date: 1/01/2000
End Date: 12/18/2000

Datasource: QADB **Database:** ORACLE **Schema:** TTQA
Group: TableGrp **Rooted Under:** Schema-TTQA **Table:** EMPDATA

Column	Times Accessed	Column Type	First Accessed	Last Accessed
ORDERDATE	11	DATE	2000-08-16 12:33:54.0	2000-08-18 11:04:05.0
ORDER_DETAILS_ORDERID	11	FLOAT	2000-08-16 12:33:54.0	2000-08-18 11:04:05.0
EMPLOYEEID	Not Accessed	FLOAT		
ROWNUM	Not Accessed	NUMBER		
ROWID	Not Accessed	ROWID		
LEVEL	Not Accessed	NUMBER		

Datasource: QADB **Database:** ORACLE **Schema:** TTQA
Group: TableGrp **Rooted Under:** Schema-TTQA **Table:** EMPDETAILS

Column	Times Accessed	Column Type	First Accessed	Last Accessed
EMP_ID	68	NUMBER	2000-08-16 12:32:49.0	2000-08-18 11:28:35.0
PHONE	50	VARCHAR2	2000-08-16 12:32:49.0	2000-08-18 11:28:35.0
SEX	44	VARCHAR2	2000-08-16 12:32:49.0	2000-08-18 11:28:35.0
BIRTH_DATE	34	DATE	2000-08-16 12:32:49.0	2000-08-18 11:28:35.0

What added value did CNA get from using Teleran?

-The Ability to Chargeback Departments based on data usage

Resource Utilization Summary by User Group

(Summary of user activities grouped by datasource for selected groups)

Report Date: Mon Mar 19 17:19:33 EST 2001

Start Date: 1/1/2001
End Date: 3/19/2001

Datasource: DS2-mpicconi2

Group: logingrp1_dslevel **Group Level:** Datasource - DS2-mpicconi2

User	Avg Kbytes	Avg Rows	Avg Elapsed Time (sec)	Avg Response Time (sec)	Total Accesses	First Accessed	Last Accessed
BJOHNSON	57.66	1108	1.46	0.04	25	2001-03-07 09:58:10.0	2001-03-07 09:58:48.0
FBURKE	4.04	107	0.18	0.03	20	2001-03-07 09:58:34.0	2001-03-07 09:58:39.0
TTSERVER	0.19	0	0.06	0.04	13	2001-03-02 17:39:50.0	2001-03-07 09:57:38.0

Group Summary

Number of Users	Avg Kbytes	Avg Rows	Avg Elapsed Time (sec)	Avg Response Time (sec)	Total Accesses
3	26.29	514	0.7	0.04	58

Conclusion / Summation

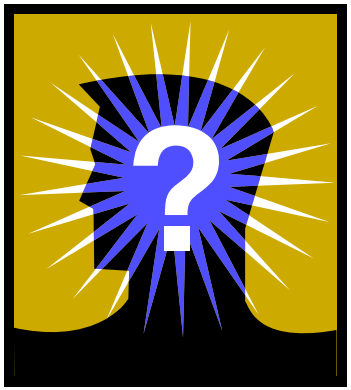
Managing a BI environment requires insights that extend beyond an individual tool suite

- We need a wholistic perspective
  - What are the reporting needs of the Business?
  - Does the Data Model meet those needs?
  - Database tools are resource intensive and have limited sight
  - Auditor is good for knowing certain information but it too is limited
- There are multiple SQL generating applications in every environment
  - Do you know what is out there hitting your database?
  - What control and security can you apply to unsupported applications?

Auditing is not enough, we need to be able to act.

Discussion

Got Questions?



Contact Information

Chris Sieverts	**Product Manager**
Address	**PO Box 667**
	Roseland, New Jersey 07068
Phone	**973.439.1820 x220**
E-mail	**csieverts@teleran.com**

© 2007 Teleran Technologies, Inc. All rights reserved. Teleran, the Teleran logo, iSight, iGuard, and Automated Helpdesk are trademarks or registered trademarks of Teleran Technologies, Inc. Other brand and product names are the marks of their respective owners. SO110.7