

Addressing Today's Data Warehouse Challenges Beyond Database Monitoring

Challenges of Analytics and Data Warehouses

The biggest challenge of managing analytics, data warehouses and Big Data is keeping up with dynamic business demands:

- Rapidly changing usage patterns
- Growing data variety, volumes and complexity
- Increasingly resource intensive visualization tools
- And expanding compliance and security demands

Analytics and data warehouses are now complicated and dynamic beasts. In fact, data management and analytics can no longer be viewed as two distinct processes or disciplines. Analytics is now intimately tied to the data with all its different formats, data platforms, and processing requirements. This demands a holistic understanding of the users, applications, objectives, and the data.



How are DBA's Staying Ahead of Challenges?





Database Monitors - Database Perspective

Database monitors like Oracle Enterprise Manager or Quest are great for tuning the database, but they don't deliver a business view of user, application and data usage that we need in these increasingly integrated, complex, and rapidly changing environments.





We Need a "Business Usage" Context

To understand and manage analytics, data warehouses and Big data requires a more holistic view than you get from database monitors.

We need a business context to answer questions like:

- What are user's really trying to do?
- How are applications behaving?
- What data are they using? How and When?





Teleran: Delivering Value to the Business

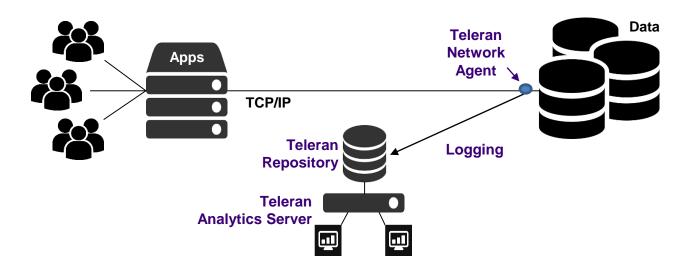
Teleran offers an innovative usage analytics software solution. It is not another database monitor. Rather, it delivers a holistic view of analytics/data usage to ID issues that can not be visualized with DB monitors. In the next few pages you'll see how with Teleran you can:

- Analyze how data is used to ensure business value and resource efficiency
- Leverage usage metrics to effectively communicate and succeed with your business users
- Automatically prevent wasteful and inappropriate user behavior



Teleran Usage Tracking and Analysis

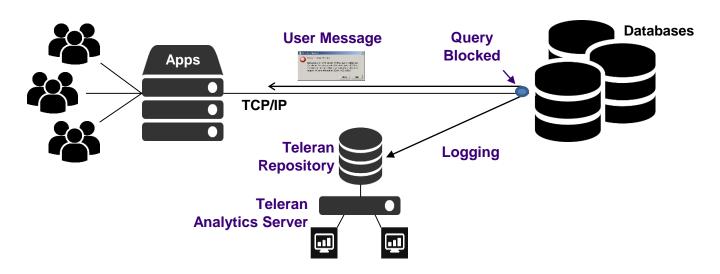
Teleran's solution is designed from the ground up to address today's analytics and data warehouse issues and changes.



- Teleran's non-invasive usage capture agents reside outside data stores and do not impact data platform performance
- It provides a continuous and holistic view of usage vs. invasive in-the-database monitors that capture only periodic snapshots of database activity

Teleran Usage Tracking and Management

It also delivers real-time application user/query controls that prevent inappropriate queries, while guiding application users via messages.



- Real-time user/query controls prevent inappropriate queries before database and...
- They guide users with real-time messages within the application

Solutions to Real-World Challenges

On the next few pages we will show you how Teleran delivers real solutions to keep your analytics and Big Data warehouse delivering continuous value to the business.

• We will describe 3 common situations where user behavior is affecting service, generating bad results, and impacting compliance and security.

Case Studies

 And, that can not be easily addressed via database monitors.

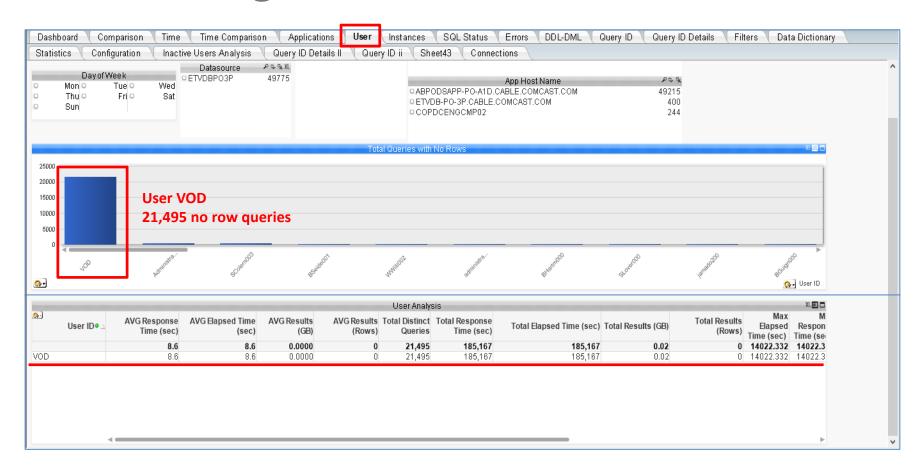


Case #1 – Big Queries. No Results



We start with the Teleran Dashboard, a customizable set of usage activity visualizations. We see that too many queries are running long and not bringing back <u>any</u> results. Users are wasting system resources and their own time and getting nothing back for their trouble.

Case #1 – Big Queries. No Results



Let's drill down on that. We see the user who is creating all these errant queries. Are they poorly formed queries? Are there other means of processing the information that will deliver actual results with less resources consumed? Let's find out.

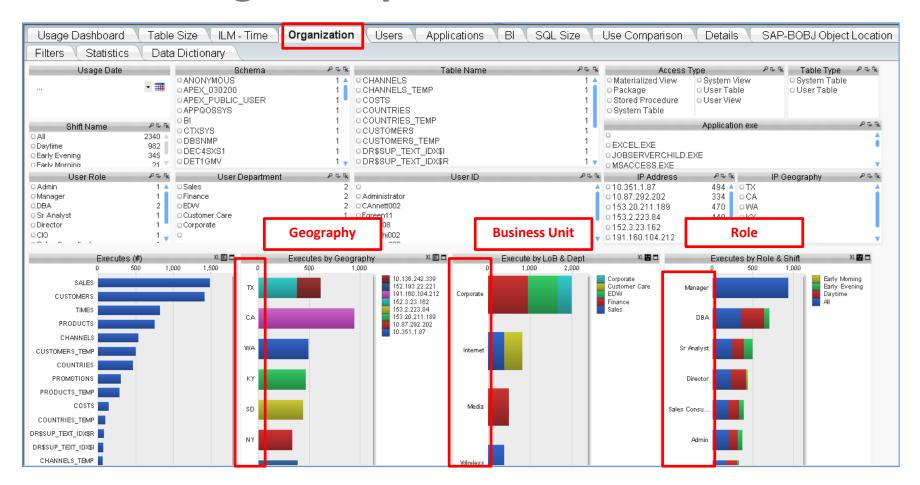
Case #1 – Big Queries. No Results

Query ID Detail with SQL Text														
ate •	Hour	Minute	Response	Elapsed Time	Result Se	d .	Result Set	Application exe	OS Login Name	IP Address	Ann Heet Name	DB Error	Query	_
ate •	Hour	winute	Time	(msec)	(Rows)	Ľ	(bytes)	Application exe	OS LOGIN Name	IP Address	App Host Name	Code	ID	SQL Text
11 -141-141	18	37	2,409,016	2,409,016	0		459	NQSSERVER	ORACLE	917-945-940	ABPODSAPP-PO- A1D.CABLE.COM	1013	4002	select T80507.LAST
10 -14-14	19	37	430,238	430,238	0		256	SQLPLUS	ORACLE	(01) (1) (00) (00)	ETVDB-PO- 3P.CABLE.COMC	1013	4009	SELECT T8: T81798
10 - 24 - 241	20	16	406,995	406,995	0		1,384	NQSSERVER	ORACLE	sum	[91402.YEAR_MON (T90597.RECORD_	_COUNT)	as c2,	STR as c1.
10 - 34 - 341	20	16	402,649	402,649	0		943	NQSSERVER	ORACLE	sum	(T90597.ERROR_C (T90597.LEASE_P	RICE) ás	c4,	_ 0
10 -140-141	19	53	398,011	398,011	0		459	NQSSERVER	ORACLE	from	402.YEAR_MONTH			5
10-34-341	19	55	230,127	230,127	0		459	NQSSERVER	ORACLE	TIME	_VOD_LOCATION_ E_HOUR_DIM T914)	102,		
11-14-10	20	5	125,398	125,398	0		406	NQSSERVER	ORACLE	where	T79986.NG_KEY DIVISION = 'Weste	= T90597	.NG_KE	
0-16-161	19	54	101,735	101,735	0		459	NQSSERVER	ORACLE	'Portlar	id,OR' and T79986. 7.TIME DIM ID = T9	REGION =	= 'Orego	on' and
0.345.341	20	2	75,690	75,690	0		358	NQSSERVER	ORACLE	group t	oy T91402.YEAR_M 2.YEAR_MONTH_C	10NTH_0I	F_YEAI	
0.00	20	22	65,976	65,976	0		406	NQSSERVER	ORACLE	order b	y c5 IA1D.CABLE.COM		1020	[c1 _,
10 - 24 - 241	20	0	62,195	62,195	0		411	NQSSERVER	ORACLE	1017 (1990) 8491	ABPODSAPP-PO- A1D.CABLE.COM	1013	4026	select distinc
17 - 245-341	20	2	45,643	45,643	0		406	NQSSERVER	ORACLE	017-1941-041	ABPODSAPP-PO- A1D.CABLE.COM	0	4026	select distinc
10-140-141	20	1	15,465	15,465	0		411	NQSSERVER	ORACLE	917 (847) (847)	ABPODSAPP-PO- A1D.CABLE.COM	1013	4026	select distinc
14:10	19	44	3,866	3.866	n		256	SQLPLUS	ORACLE		ETVDB-PO-	1013	4010	SELECT TO

As we drill down further we see each query and exactly what errant SQL is being generated. We can then make corrections at the application level or with the user.

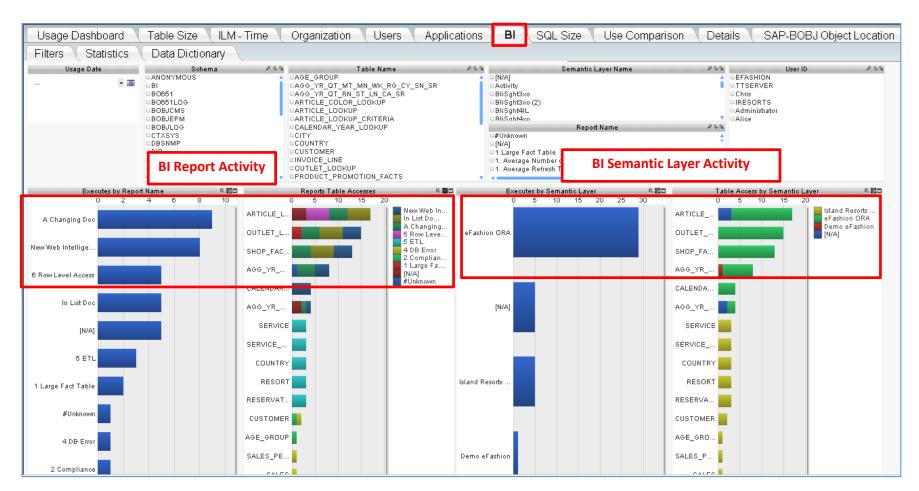


Establishing a Deeper Business Context



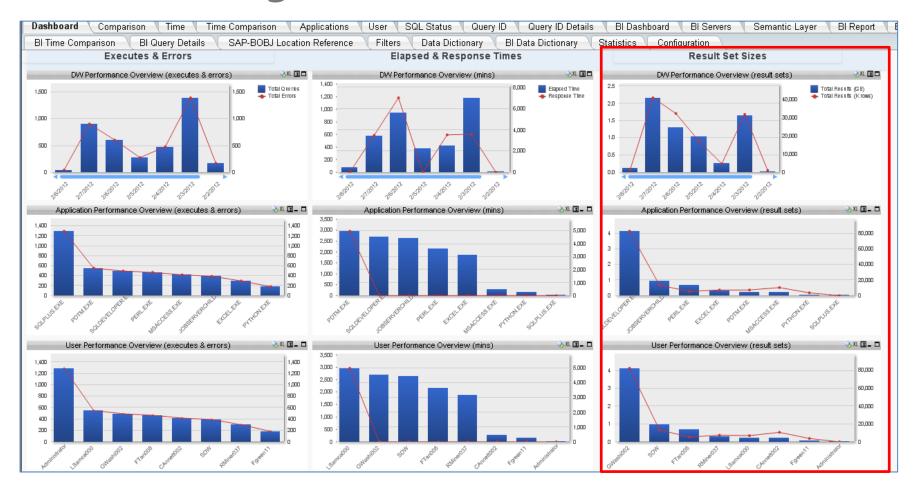
It's critical to establish a business-focused view of your data warehouse usage. With Teleran you can identify who is running what queries or reports from what functional area, department or business unit? And what data are they using?

Establishing a Deeper Business Context



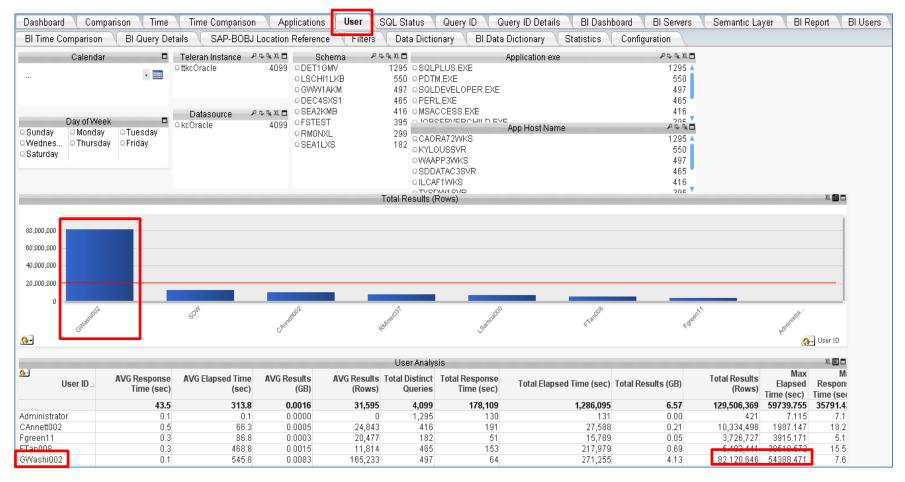
In addition, with Teleran we can integrate BI and analytical application layer usage dimensions including BI reports run as well as semantic layer activity. This provides a holistic view of usage across users, queries, applications and data.

Case #2 - Rogue Datamarts



In this case we see very large data downloads and identify who is downloading the data, with what application to where (IP address) and when.

Case #2 - Rogue Datamarts



We drill down to the users to identify who is doing the downloads. With Teleran we can determine where they are located. Are they in compliance? Should this analysis be "repatriated" back into the data warehouse for better governance? Or, is it legitimate to consider maintaining a separate datamart for the analysis they are doing?

Case # 3 - Unproductive User Behavior

---Exception Alert---

From: iGuard

[mailto:501458408@chicisapp429v.corporate.gr.com

Sent: Monday, July 26, 2017 5:25PM

To: rsimon@gr.com

Subject: iGuard Daily Status for 7/26/15

Exception activity: large number of queries above

processing threshold canceled by users.

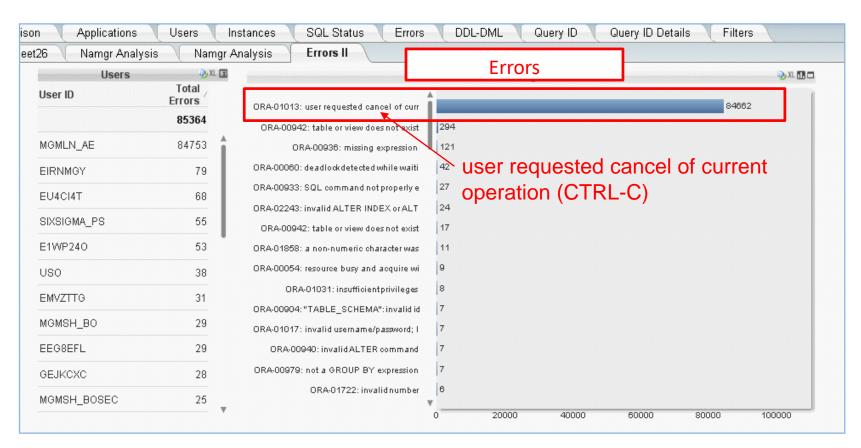
Download report.



In this case we get a Teleran alert that users are canceling lots of queries. Let's download the active report.

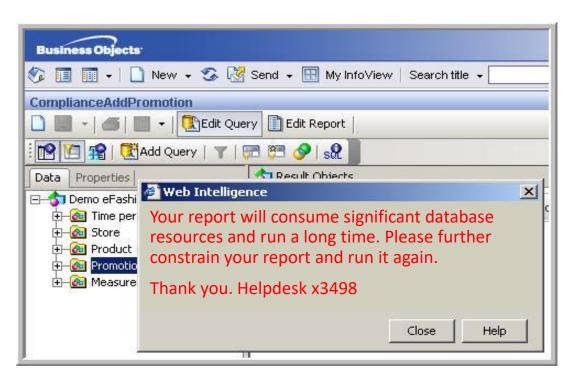


Case # 3 - Unproductive User Behavior



Here we see database errors associated with users and queries. We can drill down on who these users are and investigate why these queries are taking longer than expected. Are they nonsensical or poorly formed queries? Are they poorly constrained and processing too much data? With Teleran we can drill down further and answer these questions and take steps to prevent this wasteful behavior.

Case # 3 - Unproductive User Behavior



This iGuard policy stopped the query before it hit the database.

It instantly sent this message back to the BusinessObjects user.

We can also discourage users from launching and then canceling these resource intensive queries with Teleran's real-time user/query manager. iGuard evaluates queries and identifies those that are inefficient or even non-sensical. It can stop a query before it reaches the databases and automatically send a prescriptive message back to the application user guiding them to adjust their query.



Key Takeaways



As you've seen Teleran delivers the user, analytics, and business perspective to analytics and data warehouse management. It is a strong complement to database monitors, yet brings a whole new business user context to ensure your analytical and data warehouse environment continuously meets business needs by delivering:

- A holistic picture of activity to quickly troubleshoot and resolve usage issues that you can't visualize with database oriented tools only
- The ability to track what data is important to the business to ensure productive applications and resource efficient use
- Usage metrics from the user, application and query/reort perspective to effectively communicate with, manage and succeed with your business users
- Identify and automatically address wasteful user behavior and inefficient analytical and application use

To Learn More How Teleran Can Help You...

Visit our website at: www.teleran.com

Request a demonstration <u>here</u>

Contact us at <u>Sales@Teleran.com</u>

The Teleran logo, iSight and iGuard are trademarks or registered trademarks of Teleran Technologies, Inc. Other brand and product names are the marks of their respective owners. SO0220.8

