Deploying Flexible, Self-Service Reporting
for many data sources including SQL

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Executives and managers rely on their IT teams every hour of every work day as they try to make sense of the massive data being collected in any rapidly-growing business.

Today it's common for businesses to need to analyze data from many and disparate sources. This makes it challenging for the IT team to provide intelligence across incompatible systems and different formats. The job is further complicated when different systems show different data, and questions arise over what is accurate. And finally, different users need different levels of flexibility to work with their data.

In their desire to quickly give managers reports, some IT teams try to anticipate mangers' needs, gather data and create custom reports and dashboards they think mangers will use based upon past requests. But this approach often fails because IT managers don't think like managers running manufacturing floors, warehouses, multiple retail outlets or project development teams. The reports aren't used because they lack the insight the mangers need, or it goes through multiple revisions to get it "just right." And when the business changes as it invariably will, the reports need to be revised again.

Either way, it's a cumbersome process fraught with delays that often leaves mangers unable to interact and receive their data in a meaningful and timely manner.

WHEN DATA BECOMES THE PROBLEM, NOT THE SOLUTION

When IT managers face the problem of reporting on disparate data, there are often two underlying problems. First, business managers need a better understanding of what is happening in the business and are frustrated with their ability to get answers from the current systems. Second, the process of providing data access and creating custom reports takes up a lot of IT's time which could have been better spent on strategic IT.

George Stanly, Director of Information Technology for veterinarian pharmaceutical firm Virbac, faced both issues. One of his biggest headaches involved gathering data and generating reports so managers could determine how best to meet their objectives. He wanted to improve the situation but didn't want to waste his team's time building a system Virbac's managers wouldn't use.

Virbac's staff of 278 works with 1,700 distributors that sell its vaccines and medicines to treat cats, dogs, cows and sheep to 55,000 veterinarian clinics in the US and Canada. With data on 650 products, Stanly and his small team had to comb through 5 million data records to find the information managers wanted.

George knew Virbac's long practice of cobbling together large spreadsheets – a manual, labor-intensive process fraught with errors - wasn't providing what the company needed to grow and change fast enough.

Stanly knew fully understanding his user's requirements would be the key to a successful BI implementation. And while he was solving the problem, wouldn't it be nice to shift the BI analysis task from the IT team to the actual users, giving them what they need while freeing up IT's time?

BUSINESS REALITY TODAY IS MULTIPLE SOURCES OF DATA

Most organizations deal with data that doesn't reside in one place. Often, each data source has its own reporting tools that can't be easily configured to analyze various data sources together. This was the case at Virbac: one person pulled their numbers from Oracle Forms, another from Oracle Discover, another from Hyperion, and yet another, ASP. Each source had its own presentation tool.

"So the questions and debates we were always dealing with was, 'Which data was right and which should they use?'" Stanly said.

On average, the IT staff spent 10 man hours a month generating the reports managers wanted. A lot of time was spent figuring out which information was needed and which system could provide the data. Training new managers was tiresome and time-consuming because they needed to learn four different systems. And the IT team had to do that while generating monthly and quarterly reports and dealing with a rigorous financial planning process. Virbac's financial calendar includes 5 estimate processes, 1 budget process and 1- and 3-year planning processes.

REPLACE A MANUALLY INTENSIVE, ERROR-PRONE PROCESS

"It was a manual, labor-intensive and error-prone process of aggregating many spreadsheets with many different drivers and

operational based statistics," Stanly said. "Even after this cumbersome process, we would not get the Key Performance Indicators, dashboards and insight into the data our managers wanted."

"We were only 'making-do,'" Stanly said.

Managers started asking for a better presentation tool because the four existing tools were hard to use and did not give them the insight they wanted. At the same time, Stanly wanted to simplify to a unified presentation layer, which would greatly lower costs because they wouldn't be paying monthly fees for seats on four presentation products. And he knew one tool would cut down on training and support costs, freeing his team to concentrate on what they do best.

Finally, the system needed to be scalable. Virbac works with 1,700 distributors that sell its 650 products to 55,000 veterinarian clinics in the US and Canada. It needed Business Intelligence that can not only work with the many sources of data it uses today, but the new data sources that may be needed as the company grows.

SOLUTION: SELF-SERVICE BUSINESS INTELLIGENCE

Stanly engaged high-tech consulting firm Syntelli Solutions Inc. to help Virbac access the company's needs, find a solution and implement it.

As Stanly began formulating his checklist for an ideal solution, he realized that Hyperion had a planning module built on the Essbase database.

But "as we were looking at the analytics, dashboarding and adhoc-reporting capabilities of Hyperion Planning, we found them to have shortcomings for our needs," said Stanly. For one thing, they needed to find a solution different groups could use.

"From day one, we knew we needed to bring in data from various sources and it needed to be combined with business rules before reporting and that we needed direct data mining in the system," Stanly said. "Based on this, we identified two types of users: 1) the financial analysts and data miners and 2) regular users who need to slice and dice the formatted data to make decisions."

The result? Virbac needed to find a better front-end for Hyperion Planning. "We looked at several products," Stanly said. "Some were short on features, but had no native integration to Hyperion Planning (Essbase.)"

Rishi Bhatnagar of Syntelli Solutions suggested Virbac take a look Tableau, a business intelligence application providing browser-based analytics and visual analysis, for its dashboard capabilities and ease of use.

"Essbase is a very powerful 'forward looking' engine and is great for modeling and forecasting," Bhatnagar said. "Tableau not only presents this forward looking information, but also gives context to historical data, thus providing a unified view."

ONE EASY-TO-USE PRESENTATION LAYER FOR MULTIPLE DATA SOURCES

Tableau acts as a unified presentation layer across multiple systems, giving managers an easy-to-learn, drag and drop tool to get answers from any data source. Managers can answer their own questions in minutes.
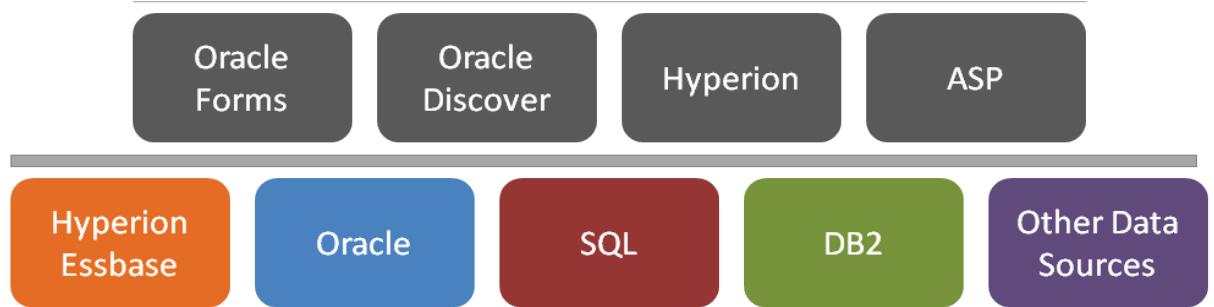
Additionally, Tableau deploys a live connection to the database for analytics, and lets users quickly build and share beautiful, effective dashboards – all without the need for programming or consultants. The result is high user adoption with minimal demand on IT resources.

"Our initial analysis found Tableau Software could use Essbase as native data-source and that Hyperion had used Tableau as an OEM for several years," Stanly said. "So, Tableau became our de-facto choice as the front-end for Hyperion Planning."

Another plus was that Tableau connected seamlessly to Oracle and SQL databases, which were used across several applications within Virbac US. So Stanly could achieve his vision of a single presentation layer for all of Virbac's disparate data.

"Standard workbooks are created by analysts or IT and deployed to the users using Tableau Server. Some reports get automatically refreshed daily while others hourly based on the type of the report," Stanly said.

Disparate Presentation & Data Layers

Oracle Forms	Oracle Discover	Hyperion	ASP

Hyperion Essbase	Oracle	SQL	DB2	Other Data Sources

Unified Presentation Layer

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SOFTWARE

Hyperion Essbase	Oracle	SQL	DB2	Other Data Sources

"To address our need of visual analysis, rapid and ad-hoc analysis, the power that Tableau exhibited was unbeatable. Another factor influencing Tableau as our choice was the software's ease of use and ability to turn around powerful reports quickly."

FAST DEPLOYMENT & IMPLEMENTATION

Virbac deployed Tableau's Desktop version for its financial analysts and data miners, which typically want to explore the data and create new reports. Tableau Server was deployed for regular users, who wanted to filter and drill into dynamic performance data and daily operations data.

From the point Stanly received approval to the first roll out of the reports to managers took just three weeks. That three-week period included server build up, software installation, report creation and testing, training and roll out.

First, Virbac converted all the existing spreadsheet reports into the Tableau Server format. Then the IT team trained users, and asked them to play around with the data and provide feedback. Based on the feedback, IT made changes to the reports and added more reports with visuals.

Virbac started out with about 35 reports and a small footprint of 30 Tableau Server licenses running on version 5.1 and 25 Desktop

licenses. They quickly doubled the Desktop footprint to 50 users, and soon were generating 65 reports.

"From an investment point, the ROI was tremendous, even with 50 Tableau Server users," Stanly said. "The business value from effective reporting and analytics with great visuals fully justified the investment."

REDUCED CYCLE TIME AND IMPROVED ACCURACY

One major advantage of providing self-service business intelligence across multiple data sources is the dramatic reduction in time needed to answer critical business questions. Providing a single set of easy-to-use tools allows managers get up to speed much more quickly. It is also much easier and faster for business users to create reports – without needing IT's help, so IT reaps time savings as well.

The decision to implement a unified, self-service data presentation layer changed the game for Virbac. "This did two things for us," he said. "First, it reduced manager's dependency on IT, so we focused on more strategic initiatives, and second, it improved the user experience and reduced total cost of ownership."

Virbac's IT team saved 10 man hours a month by reducing the number of presentation applications it needed to support, train, and upgrade, moving from four to one. IT also slashed the time it spent generating reports, correcting and redistributing them.

"From our users' perspective, the biggest benefit was in cycle time reduction, accuracy and significantly better end-user experience," Stanly said.

Now managers could drill down to zip-code level because they now have access to row-level data. Everyone can see the same set of information, which means they can spend time evaluating the business rather than doubting the numbers, he said.

Tableau's seamless integration into Hyperion meant significant cost savings, and the Essbase/Tableau combination "provides us a great platform to help us grow seamlessly into the future," Stanly said.

BEST PRACTICES

Disparate data sources and ad-hoc reporting needs are problems common to many organizations. In company after company, several best practices emerge when dealing with these issues:

1. The IT Team must take the time to understand business manager's needs before starting any project. This means listening to what users at every levels need and want.

2. Break users into separate groups based on

    a. The frequency of data they need (dynamic, weekly, monthly)

    b. The level of data needed (daily operational data, strategic data)

    c. Which data sources they need to access

    d. Type of reporting (Monthly, ad-hoc, etc)

    e. Skills of users

Understanding groups of users and their needs makes it easier to find a single solution that fit everyone.

3. Include existing, familiar reports as part of an initial deployment to speed user adoption.

4. Consider a solution that can work across multiple data sources and can scale with new data sources, more users and new requirements.

5. Consider costs such as training and data reconciliation. How many systems does a user need to learn? How much time are people spending on reconciling data versus understanding and using it?

ABOUT TABLEAU SOFTWARE

Tableau Software, a privately held company in Seattle WA, builds software that delivers fast analytics and visualization to everyday businesspeople. Our mission is simple: help people see and understand data. Tableau's award-winning products integrate data exploration and visualization to make analytics fast, easy and fun. They include Tableau Desktop, Tableau Server and Tableau Public.

We understand the needs of businesspeople, non-technical and technical alike, when it comes to retrieving and analyzing large volumes of data. As a result, Tableau has already attracted over 65,000 licensed users in companies from one-person businesses to the world's largest organizations. For a free trial, visit www.tableausoftware.com/trial.