Case Study

CUSTOMER
Transverse LLC   (Austin, TX – USA)

transverse

TITLE
Data Warehouse & embedded analytics for TRACT

CUSTOMER SPEAK
"At Transverse our goal has been to give seamless service to our global customers through TRACT. Towards this end we achieved what we had set out to accomplish in this project. GrayMatter's expertise in data modeling and Pentaho was pivotal for the success of this project. We look forward to work with this team to gain more customer insights in the future"
Transverse USA

About the Customer:

Transverse was founded in 2008 by billing veterans who saw an opportunity to make sophisticated billing available to more businesses. Previously, activity- or usage-based billing models required multimillion dollar investments in systems implementation and maintenance fees. Transverse looked to the cloud to provide a lower cost of entry, accelerated deployment, and real-time data insight to businesses that were previously priced-out.

In 2011, Transverse launched TRACT Billing, the all-in-one activity, rating/metering, and subscription billing software as a service (SaaS) platform. The key differentiator for TRACT is activity-based billing, which allows users to view customer activity in real-time and bill for usage. Customers are using TRACT to monetize and quickly bring to market new products and services, realize greater revenue, and increase customer loyalty by making billing a more strategic tool.

Requirements & Challenges:

Transverse wanted to build DWH model to support ad-hoc & analytical reports and dashboards to help its customers in understanding their business better. The key challenge was to enable reporting as well as analytic capabilities for both the transactional and BI systems. Some of the requirements and challenges are outlined as under:

- Accounting, Billing & Orders were the modules identified for DWH of Transverse
- Further for each of these modules the following were the requirements
  - Data modeling
  - Building the ETL Layer
  - Building the Semantic Layer for Reports & Analytics
  - Standard, Ad-hoc and Analytics reports
  - Multi-currency support
  - Multi-tenancy support
- An utility to copy the master data of one tenant to another and enable the system to start transactions from copied tenant
- Multi-Level Security – At database level, Semantic Layer Level, Files(Reports/Dashboards) Level and at Tenant Level
- Rebranding and Embedding Pentaho BI platform into TRACT application

GrayMatter's Solution:

The team in collaboration with Transverse built a Data Warehouse to integrate transactions from TRACT system majorly on modules like Accounting, Billing and Orders, which not only servers' BI platform but also serves the operational Reporting and Dashboards. A Fully integrated/embedded BI application was enabled within TRACT application to ensure the business user did not feel like he is using third party software for BI reports and analytics. Built a set of operational reports and BI analytics cum reports to enable business users and TRACT owners (Transverse) in understanding the various aspects of the Business. A platform for business users to build ad-hoc reports and analytics by themselves without the technical details required on Database or on the System was developed. An ETL platform to synchronize data between transactional systems to Data Warehouse was created. A Utility to simplify the Tenant operations by copying similar Tenant information from another - GrayMatter designed a unique

solution in collaboration with Transverse team which provided a list of tables along with insert order of data to the database table. Simultaneously a utility was built for tenant copy with ETL jobs that accepts parameters and enables data copy from one tenant to other tenant. User level security within Pentaho was achieved by building a utility which called for the web service URL of Pentaho that assigned ACLs and create folders based on tenant /user hierarchy.

Results:

- Defined outcome based DWH data model was deployed for Transverse
- Rebranded, embedded BI platform to TRACT application
- The required standard and analytical reports built for identified modules
- An ad-hoc platform for Business Users to build Reports and Analytics by themselves
- Analysis through testing of different scenarios enabled for the operations team at Transverse
- End-user BI security levels applied for the tenant and its users in Pentaho
- A satisfied customer base for the TRACT product of Transverse translating into enhanced revenue and new customers

GrayMatter Quote:
"We achieved the desired outcome for Transverse to analyze, standardize reports and create security levels within user groups. The Transverse team's deep involvement, a collaborative effort between both teams and innovative work around's were key for this quick success of this Pentaho embedded solution"
Suresh Kumar – Project Manager, GrayMatter