How can we visually explore *all* our data assets and make analytical insights available to a broader class of users?

Business Impact

"SAS Visual Analytics helps business users to visually explore data on their own. But it goes well beyond traditional query and reporting. Its high-performance in-memory architecture delivers answers in seconds or minutes instead of hours or days."

Jim Goodnight
CEO, SAS

Challenges

- **Complicated systems.** Current systems are difficult to use, and analysts can't easily explore and understand data without first going through extensive data profiling exercises.

- **Trial and error.** There's no way to quickly identify and explore visual patterns in data, and because even basic data exploration takes so long, analysts often resort to trial and error to identify areas to analyze further.

- **Data volume and complexity.** Due to the volume and complexity of the data, it takes a lot of time to understand and process information, which results in delays in reporting or information sharing.

- **Limited IT infrastructure.** Limitations in the current infrastructure prevent analysts from accessing the huge amounts of data they need for analytic purposes.

- **Lack of information sharing.** Not only is it difficult to generate reports that are meaningful and useful, but even when such reports exist, it's hard to get them into the hands of those who could use them.

YOUR GOAL: Easily analyze and visualize data sets of any size

CDRs, IPDRs and other data assets contain a wealth of information about the experiences of millions of customers. The volume and complexity of the data, however, has constrained the ability of communications service providers to analyze all the data. Because data volumes are so large, only samples or aggregates of the data get analyzed. The inability to analyze *all* the data means that valuable insights – insights that could help you change a customer's experience from disappointment to delight – go undiscovered.

The value of such insight can't be overstated. After all, customers are not isolated entities that act independently; they are all part of a social fabric, reacting to the influence of peers and exerting their influence on others. In order to maximize the business value of every customer, you must deliver personalized offers that consider all factors that affect the customer experience, including relationships within social communities. But the communications industry is dynamic, and the number and variety of potentially relevant factors are constantly in flux. With millions of customers and hundreds of potential offers, providers grapple with the offer assignment problem within the context of their business constraints. What is needed is the ability to quickly and confidently explore relevant data to uncover insights that can give you a competitive advantage.

OUR APPROACH

Using SAS® Visual Analytics, communications service providers of any size can get lightning-fast insights through visual data exploration, robust reporting and flexible information sharing. SAS Visual Analytics broadens the use of sophisticated analytics, enabling everyone – from nontechnical business users to advanced analysts – to:

- **Visually explore all available data** – no subsetting or sampling required – to look at more options, identify key relationships, make more precise decisions and drive success faster than ever before.

- **Answer complex questions faster**, and quickly identify opportunities or concerns, using an enhanced data discovery and exploration process that provides extremely fast results to enable better, more focused analysis.

- **Create and share meaningful reports** with anyone anywhere by enabling even those with limited technical skills to quickly produce, view and interact with reports via the Web or mobile devices, while IT maintains control of the underlying data and security.

- **Liberate IT** by enabling business users to dynamically explore data, add data from local sources, create reports and share information on their own, once IT loads the data and makes it available.

SAS Visual Analytics also gives you room to grow, with an infrastructure based on highly scalable commodity hardware that supports increasing demands for access to more and more data.

THE SAS® DIFFERENCE: Advanced analytics, visual data exploration and easy sharing of insights

SAS Visual Analytics combines our industry-leading business analytics software with high-performance technologies, so you can get fast answers to previously unsolvable problems. Only SAS delivers a market-leading approach that extends the power of high-end analytics to a wider array of users. With SAS, you get:

- **A scalable, in-memory solution for visually exploring data on commodity hardware.** Designed from the ground up to perform high-speed analytical calculations in memory, SAS Visual Analytics goes far beyond traditional query and reporting capabilities, providing the unprecedented ability to visually explore data sets of any size quickly and efficiently, glean insights, and create meaningful reports that can be shared easily via mobile devices.

- **More approachable analytics.** Anyone in your organization can use the solution, thanks to unique features – such as on-the-fly forecasting, autocharting, "what does it mean" and drag-and-drop capabilities – that make it easy to use, even by those with nontechnical or limited analytic backgrounds.

- **In-memory technology that provides larger volumes of analytic computations and guided analyses.** SAS has combined the sophistication of visual data exploration with in-memory analytic computations so that large numbers of users can understand and benefit from complex data.

- **The ability to perform descriptive analytics in memory without having to develop SQL code.** Out-of-the-box capabilities make it easy to explore and seek correlations among extremely large numbers of variables very quickly.

SAS enables you to take advantage of a highly scalable and reliable infrastructure that is optimized for any size data set and complex computations – even as your requirements evolve to tackle larger problems and more complex scenarios.

SAS® VISUAL ANALYTICS IN COMMUNICATIONS

■ Offer optimization

With a drag-and-drop interface, SAS Visual Analytics streamlines data preparation and exploration, enabling you to visually explore more variables – including new variables from network resources and ecosystem partners. For the first time, you can quickly and easily build and test complex models that profile adoption and propagation of new services – and choose the best variables for the most accurate results. In addition, you can easily share results with those who need them, across a variety of mobile devices, including the iPad® and Android tablets.

■ Customer link analysis

As a communications service provider, you have unique data assets that can help you identify influential relationships among customers. With that information, you can develop a more accurate view of how your customers actually use your services in the context of their social groups. SAS Visual Analytics lets you build and test models that will enable you to understand complex social relationships among millions of customers. These models – which run in minutes instead of days – can help you identify issues and opportunities (e.g., for new products and services) so you can act before problems escalate, or before windows of opportunity close.

■ What if you could …

Visually explore all available data
What if you could quickly visualize the social influence that customers and their friends have on each other, and then use that information to further brand advocacy or promote new products and services?

Quickly identify opportunities or areas of concern
What if you could quickly identify issues with new products and services so you could proactively address them before they get out of hand?

Easily create and share meaningful reports
What if you could quickly and easily share market reports or dashboards across the appropriate levels of the organization through mobile devices?

Liberate IT
What if you could visually explore large quantities of data – including data from network resources and ecosystem partners – without the need to involve technical specialists?

■ You can. SAS gives you The Power to Know® – by visualizing your data.

SAS FACTS

- SAS has been in business since 1976 and today has customers at more than 60,000 sites worldwide.

- SAS has more than three decades of experience working with communications companies around the world, and more than 200 communications companies worldwide use SAS.

- SAS customers include 90 of the top 100 companies on the 2011 Fortune Global 500®.

Learn more about SAS software and service for communications:
sas.com/industry/communications