

Competitive Strategy Innovation, CSP Billing – Mediation Global, 2011

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360 Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2011 Stratecast Global Competitive Strategy Innovation Award in Communications Service Provider Billing – Mediation to DigitalRoute.

Key Industry Challenges

A competitive strategy in any industry is judged by the marketplace. Stratecast recognizes that a successful competitive strategy leads to sustainability of existing customers, new customers and new revenues, while an unsuccessful strategy leads to loss of market share.

Service offers for both business customers and consumers are becoming more complex. This is attributed to continued advances in network technology, user device evolution, changing regulation, social networking, and convergence of communications services with other industries especially IT computing, media and advertising. The business and operations requirements of these services place a greater need on tightly integrated mediation and rating & charging capabilities. The specifics of each are:

- **Mediation** – Mediation collects usage information from multiple sources following various protocols typically including all network and database sources. A mediation platform then correlates these data streams by customer and provides an “as needed” level of aggregation. The common format data record stream is sent to a rating & charging engine. There is still a business need for both offline and real-time “online” transaction processing. In many cases bi-directional interaction between the mediation system and certain network elements is necessary to define service behavior needs along with implementation of user control functions and customer notifications. Real-time customer expectations place this function, along with real-time rating & charging, at the forefront of effective long-term customer satisfaction.
- **Rating & Charging** – Rating & charging includes real-time or batch-based processing of service usage transactions. Rating & charging facilitates business functions used to create services such as dynamic bundles, defined spending limits, support for promotions/vouchers, and even advertising subsidization. Rating &

charging, with mediation and policy functionality, applies policy rules to usage transactions according to a CSP's business process and service offering definitions. The charging function then accumulates all rated events by customer or group, applies discounts and/or promotions, and calculates a price to be paid for the services consumed. Real-time services also involve balance management, with potentially multiple balances per subscriber, and a provision for customer notifications when further action is needed.

In the recently published (October 2011) Stratecast report OSSCS 12-11, *Global CSP Billing Part 3: Mediation Market Forecast and Supplier Assessment*, billing solution suppliers, including suppliers with solutions in the billing mediation segment, were examined. Stratecast estimated revenues for the entire billing market, for segments of the billing market and for individual companies within that market. DigitalRoute and the two competitors Stratecast examined for this award are all in the top 15 suppliers category based on revenue market share.

This exhaustive study of the CSP billing – mediation sub-segment provided Stratecast with a very strong sense of which competitive strategies are presently working and which are seeing minor success. DigitalRoute and the two competitors we evaluated were chosen based on their similarities and on their success in the rapidly changing communications marketplace. What places DigitalRoute apart from most of the 49 mediation suppliers we identified is its unique real-time solution offering and partner management strategy.

The DigitalRoute MediationZone platform is a convergent mediation solution, providing both offline and online mediation capabilities in a single instance on a single system. In addition to billing mediation, the solution supports data integration efforts - from extract-transform-load (ETL) to data federation, synchronization and distribution – as well as service assurance mediation and horizontal mediation applications – connecting any number of OSS/BSS systems to any number of networks with a single MediationZone deployment.

Stratecast research finds that MediationZone reduces the number of integration points that are required to efficiently manage usage data in any type of network, and it provides the functions to enrich and transform the data using a flexible workflow engine. Integration processes and business rules are modeled, configured, deployed, and maintained through an “intuitive” graphical user interface. The workflows are built using small specialized building blocks that can be rapidly reconfigured or re-arranged to adapt to new requirements with minimal impact on the operational environment.

MediationZone has built-in support for a wide range of input and output formats and enables user-controlled format management through configuration. The workflow building blocks provide comprehensive processing capabilities. Examples include: Analysis; Filtering; Cloning; Splitting; Routing; Correlation; Aggregation; De-duplication; Validation; and Enrichment.

Stratecast notes that the business philosophy of DigitalRoute is quite different from its competitors. First, DigitalRoute has focused on mediation since its inception and even its recent expansion into policy control is built around its strength in the mediation space. While many companies offer mediation, they also provide solutions in related areas including provisioning, rating & charging, balance management retail billing and interconnect billing. Such strategies are working well for many of the larger billing suppliers; however, the DigitalRoute strategy is to stay focused on delivering mediation software. Second, the company focuses on developing a product which is easy to implement and upgrade. Third, DigitalRoute focuses on license sales, instead of “install with heavy services effort.”

The market focus of DigitalRoute has allowed the company to utilize an OEM-partner strategy. DigitalRoute delivers its solutions through both direct and partner channels. It offers the MediationZone platform through OEM agreements with partners such as Ascade, Comverse, Convergys, IBM, Nokia Siemens Networks, Sigma Systems and Cerillion to name a few. It also provides solution capabilities through select systems integrators including Accenture, Atos, Capgemini, Logica and Sofrecom. This strategy has allowed DigitalRoute to provide mediation solutions to some of the largest CSPs in the world.

Stratecast believes DigitalRoute business philosophy offers a number of key advantages. First, it allows the company to focus on delivering a “best of breed” mediation solution, with a lower cost of ownership and a shorter time to market than its competitors. Second, the DigitalRoute MediationZone platform offers users a higher degree of self-sufficiency by the design of user control and configurability rather than relying on customizations provided by a DigitalRoute services team or a systems integrator. Third, DigitalRoute receives deeper insight into the longer-term needs of the marketplace from direct interaction not only through its customers but also from its OEM partners. Fourth, the use of MediationZone to satisfy business needs outside of billing has continued to expand over the past two years.

DigitalRoute is a private independent software vendor focused on the global telecommunications industry. Based in Sweden, the company employs approximately 150 people. Founded in 2000, the company has expanded from a pure-play billing mediation supplier to a real-time data collection, aggregation, and correlation provider for any group of business functions. This is what DigitalRoute now calls “horizontal mediation” addressed by its MediationZone solution. Examples beyond pure billing include policy control management and customer-centric network traffic control management.

Stratecast views DigitalRoute as a major competitor within the global billing mediation market, because its approach differs from other suppliers and because its success is undeniable, based on the rapid rise in its total CSP customer base. Stratecast research shows that the company had 12 customers in 2003, more than 100 in 2008 and over 240 today—all within the CSP market segment.

Stratecast firmly believes DigitalRoute is well positioned in the marketplace today. It has earned a solid reputation among its partners and with many CSPs worldwide with its “can do” capabilities using low cost hardware, without the help of any commercial database functionality. The MediationZone architecture is the major reason for the company’s ongoing business success.

Stratecast feels DigitalRoute is well-positioned to meet the changing needs of a communications marketplace that must now rely on automated data management functions to address a growing number of customer-centric business issues. Stratecast believes that DigitalRoute will continue to grow as it fills additional CSP needs in the traditional billing mediation domain and as it works closely with its partners to address related data transaction processing challenges in other business areas.

Impact of Competitive Strategy Innovation Award on Key Stakeholders

The Competitive Strategy Innovation Award is a prestigious recognition of DigitalRoute’s accomplishments in the Global CSP Billing – Mediation Sector. An unbiased, third-party recognition can provide a profound impact in enhancing the brand value and accelerating DigitalRoute’s growth. As captured in Chart 1 below, by researching, ranking, and recognizing those who deliver excellence and best practices in their respective endeavors, Frost & Sullivan hopes to inspire, influence, and impact three specific constituencies:

- **Investors**

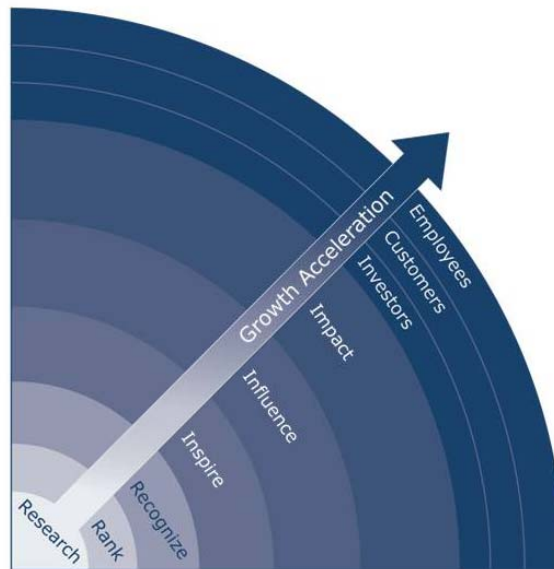
Investors and shareholders always welcome unbiased and impartial third-party recognition. Similarly, prospective investors and shareholders are drawn to companies with a well-established reputation for excellence. Unbiased validation is the best and most credible way to showcase an organization worthy of investment.

- **Customers**

Third-party industry recognition has been proven to be the most effective way to assure customers that they are partnering with an organization that is leading in its field.

- **Employees**

This Award represents the creativity and dedication of DigitalRoute’s executive team and employees. Such public recognition can boost morale and inspire employees to continue their best-in-class pursuit of a strong competitive position for DigitalRoute.

Chart 1: Best Practices Leverage for Growth Acceleration

Key Benchmarking Criteria for Competitive Strategy Innovation Award

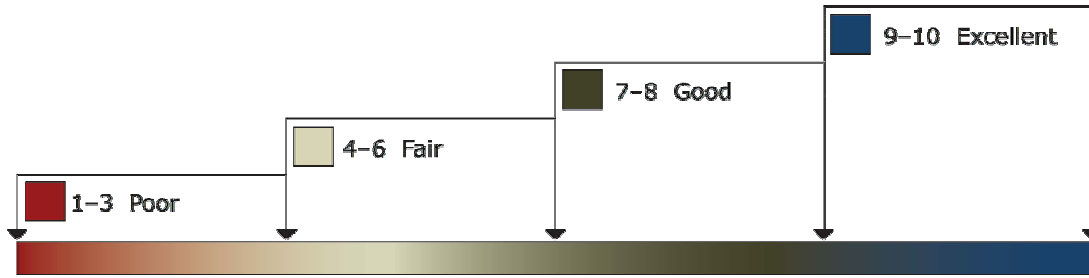
For the Competitive Strategy Innovation Award, the following criteria were used to benchmark DigitalRoute's performance against key competitors:

- Uniqueness of Strategy
- Improves Market Position
- Leverages Competitive Intelligence

Decision Support Matrix and Measurement Criteria

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Matrix (DSM). The DSM is an analytical tool that compares companies' performance relative to each other with an integration of quantitative and qualitative metrics. The DSM features criteria unique to each Award category and ranks importance by assigning weights to each criterion. The relative weighting reflects current market conditions and illustrates the associated importance of each criterion according to Frost & Sullivan. Fundamentally, each DSM is distinct for each market and Award category. The DSM allows our research and consulting teams to objectively analyze each company's performance on each criterion relative to its top competitors and assign performance ratings on that basis. The DSM follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are shown in Chart 2 below.

Chart 2: Performance-Based Ratings for Decision Support Matrix



This exercise encompasses all criteria, leading to a weighted average ranking of each company. Researchers can then easily identify the company with the highest ranking. As a final step, the research team confirms the veracity of the model by ensuring that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies. A high-level summary of this methodology is shown in Chart 3.

Chart 3: Frost & Sullivan’s 10-Step Process for Identifying Award Recipients



Best Practice Award Analysis for <DigitalRoute>

The Decision Support Matrix, shown in Chart 4, illustrates the relative importance of each criterion for the Competitive Strategy Innovation Award and the ratings for each company under evaluation. To remain unbiased while also protecting the interests of the other organizations reviewed, we have chosen to refer to the other key players as Competitor #1 and Competitor #2.

Chart 4: Decision Support Matrix for Competitive Strategy Innovation Award

<i>Measurement of 1–10 (1 = lowest; 10 = highest)</i>	Award Criteria			
	Uniqueness of Strategy	Improves Market Position	Leverages Competitive Intelligence	Weighted Rating
Relative Weight (%)	33%	33%	33%	100%
DigitalRoute	10	10	10	10
Competitor #1	8	9	9	8.6
Competitor #2	5	3	3	3.7

Stratecast is of the opinion before focusing on the uniqueness of the business strategies exhibited by DigitalRoute, Competitor #1 and Competitor #2, it is important to look at the similarities they share. These similarities are:

- All three companies offer online and off-line mediation functionality to the global CSP billing marketplace.
- All three offer software-only solutions and none of them have their roots as telecom equipment manufacturers.
- Each company provides its solutions via a standard software license model.
- Each company is expanding its solution reach beyond just mediation as the business needs of the evolving communications marketplace require tight integration of mediation with rating & charging, policy management, and an expanding list of other BSS functions.
- All three competitors have customers in all regions of the world.
- Each company has increased its revenues associated with mediation over the last four years and each has increased overall company revenue as well.
- Each company employs different go-to-market strategies for addressing the billing mediation needs of its target CSP customer market.

Criterion 1: Uniqueness of Strategy

The business philosophy of DigitalRoute and the competitive strategy employed by DigitalRoute are quite different from its competitors. First, DigitalRoute has focused on mediation since its inception and even its recent expansion into policy control is built around its strength in the mediation space. While many companies offer mediation, the company also provides solutions in related areas including provisioning, rating & charging, balance management retail billing and interconnect billing. Such strategies are working well for many of the larger billing suppliers; however, the DigitalRoute strategy is to stay focused on delivering mediation software. Both Competitor #1 and Competitor #2 have used their strengths in mediation to move into rating & charging and into policy control. Second, DigitalRoute focuses on developing a product that is easy to implement and upgrade and therefore, on license sales, instead of "install with heavy services effort." This is borne out by a comparison of license/service splits (all approximate): DigitalRoute 60%/40%, Competitor #1 50%/50% and Competitor #2 40%/60%.

The market focus of DigitalRoute has allowed the company to utilize an OEM-partner strategy. DigitalRoute delivers its solutions through both direct and partner channels. It offers the MediationZone platform through OEM agreements with partners and select system integrators. This strategy has allowed DigitalRoute to provide mediation solutions to some of the largest CSPs in the world, even though the company is quite small. In Stratecast's opinion, DigitalRoute is one of very few companies in the mediation space, or any other part of the end-to-end CSP billing space to effectively utilize an OEM partner strategy.

Stratecast believes that DigitalRoute's business philosophy offers a number of key advantages. First, it allows the company to focus on delivering a "best-of-breed" mediation solution, with a lower cost of ownership and a shorter time to market than its competitors. Second, the DigitalRoute MediationZone platform offers users a higher degree of self-sufficiency by the design of user control and configurability rather than relying on customizations provided by a DigitalRoute services team or a systems integrator. Third, DigitalRoute receives deeper insight into the longer-term needs of the marketplace from direct interaction not only through its customers but also from its OEM partners. Stratecast's independent analysis shows that DigitalRoute's competitive strategy is absolutely unique in the mediation space and has proven very successful, as will be detailed in the next criterions. Stratecast ranks DigitalRoute as Excellent in this category.

Competitor #1's strategy is not as unique to that employed by DigitalRoute. For its approach to the marketplace, Stratecast ranks Competitor #1 as Good.

Competitor #2's strategy is a very typical approach exercised by many in the crowded end-to-end billing solution market. While on the surface the company's approach appears similar to Competitor #1, its go-to-market strategy has not yielded the same type of

financial results as what DigitalRoute and Competitor #1 have experienced. Stratecast therefore ranks Competitor #2 as Fair.

Criterion 2: Improves Market Position

Improving market position means increasing revenues and obtaining a bigger market share. It is obviously the ultimate goal of any organization. It is also the strongest measure of the success of a company's business strategy.

DigitalRoute's competitive strategy is absolutely unique in the mediation space. However, the true measure of the value of its strategy is not in how different it is, but if that difference has allowed the company to improve its market position, both in number of customers and in revenue. DigitalRoute has used its unique strategy to grow from 13 customers in 2003 to over 240 today—a phenomenal achievement that few companies its size can claim. Revenue has also grown sharply at a compound annual growth rate (CAGR) of over 25% from 2007 to 2010, during a global recession. The company's total annual billing revenue has grown well over 100% during the same period. With this level of growth, Stratecast ranks DigitalRoute as Excellent in this category.

Competitor #1 followed a more traditional strategy moving from mediation into rating & charging and policy. It saw a slight rise in the total number of customers for all three areas, but a drop in the number of customers for mediation alone. Revenue attributed to pure mediation also dropped. However, Competitor #1 saw a very significant rise in revenue overall from its solution offers in rating & charging and policy. Overall revenue more than doubled from 2007 to 2010. While Competitor #1 lost market position in the pure mediation space, the company increased its overall position in the end-to-end CSP billing market. Stratecast rates Competitor #1 as very good.

Competitor #2 on the surface appears to have followed a very similar path to Competitor #1; moving from mediation into rating & charging and policy. However, Competitor #2's results were less encouraging. While the company reported a rise in total customers, its mediation revenues were down from 2007 to 2010 and the increases it saw in revenues from rating & charging and policy were not enough to offset the mediation losses. Total revenue decreased 10% over the four year period. Stratecast rates Competitor #2 with a poor ranking in this category.

Criterion 3: Leverages Competitive Intelligence

Competitive intelligence is essential for allowing a company to grow its market share. This criterion over the last few years has been made even more important by the global recession which did not spare the telecom industry. CSP billing solution suppliers that effectively leverage competitive intelligence increase their market position, regardless of the state of the economy and regardless of the advancing changes that take place in the converging communications marketplace. Competitive intelligence can come in many

forms, but the most important relative to improved market position is knowledge about the converging communications marketplace, the business needs of the market and the core business capabilities that make customers happy while improving CSP revenue flow for long-term success.

CSP service offers for both business customers and consumers are more complex today because of continued advances in network technology, user device evolution, changing regulation, social networking, and convergence of communications services with other industries especially IT computing, media and advertising. The business and operations requirements of these services place a greater need on policy-enabled, real-time rating & charging capabilities. CSPs understand these changing business requirements and are looking for ways to differentiate by offering an advanced customer experience. Central to any such strategy is the mediation of transaction usage data from multiple sources and directing a normalized data stream to a policy-enabled, real-time rating & charging engine. It is especially important for solutions such as this to adapt to change or that can provide a new pricing package or service offer in a matter of hours or at most a few days.

Stratecast believes that DigitalRoute's business philosophy offers a number of key advantages. First, it allows the company to focus on delivering a "best-of-breed" mediation solution, with a lower cost of ownership and a shorter time to market than its competitors. Second, the DigitalRoute MediationZone platform offers users a higher degree of self-sufficiency by the design of user control and configurability rather than relying on customizations provided by a DigitalRoute services team or a systems integrator. Third, receives deeper insight into the longer-term needs of the marketplace from direct interaction not only through its customers but also from its OEM partners. Stratecast receives that last advantage seems to be borne out by DigitalRoute's success in landing new customers, both directly and via its OEM partners. With over 240 customers and an impressive list of OEM partners, DigitalRoute has done an excellent job of leveraging competitive intelligence to grow its customer base at a CAGR of 44% from 2003 to 2010. Stratecast ranks DigitalRoute as Excellent in this category.

Competitor #1 has also done an excellent job at leveraging its competitive intelligence, though utilizing it to move into different market segments. This is borne out by its significant revenue growth over the last four years overall and in the successful launch of solutions to support CSP business needs within the rating & charging and policy management domains. Stratecast ranks Competitor #1 as very good in this category.

Competitor #2 has done a poor job at leveraging its competitive intelligence, losing market share, both in mediation and overall. Stratecast ranks Competitor #2 with a poor ranking in this category.

Conclusion

The competitive strategy employed by DigitalRoute is quite different from its competitors. DigitalRoute has focused on mediation since its inception and even its recent expansion into policy control is built around its strength in the mediation space. While many companies offer mediation, they also provide solutions in related areas. Such strategies are working well for many of the larger billing suppliers; however, the DigitalRoute strategy is to stay focused on delivering mediation software. DigitalRoute also focuses on developing a product that is easy to implement and upgrade and therefore has expanded its market reach on license sales with minimal installation needs instead of “install with heavy services effort.” The market focus of DigitalRoute has allowed the company to utilize an OEM-partner strategy, delivering its solutions through direct and partner channels. This strategy has allowed DigitalRoute to provide mediation solutions to some of the largest CSPs in the world, even though the company is quite small.

Stratecast is of the opinion that DigitalRoute’s competitive strategy is absolutely unique in the mediation space. However, the true measure of the value of its strategy is not in how different it is, but if that difference has allowed the company to improve its market position, both in number of customers and in revenue. DigitalRoute has used its unique strategy to grow from 13 customers in 2003 to over 240 today. Its revenue has also grown sharply, at a compound annual growth rate (CAGR) of over 25% from 2007 to 2010, during a global recession. The company’s total billing revenue has risen 60% over the last four years.

Stratecast is proud to present the 2011 Stratecast Global Competitive Strategy Innovation, Global CSP Billing – Mediation Award to DigitalRoute, for its MediationZone solution.

The CEO 360 Degree Perspective™ - Visionary Platform for Growth Strategies

The CEO 360 Degree Perspective™ model provides a clear illustration of the complex business universe in which CEOs and their management teams live today. It represents the foundation of Frost & Sullivan's global research organization and provides the basis on which companies can gain a visionary and strategic understanding of the market. The CEO 360 Degree Perspective™ is also a “must-have” requirement for the identification and analysis of best-practice performance by industry leaders.

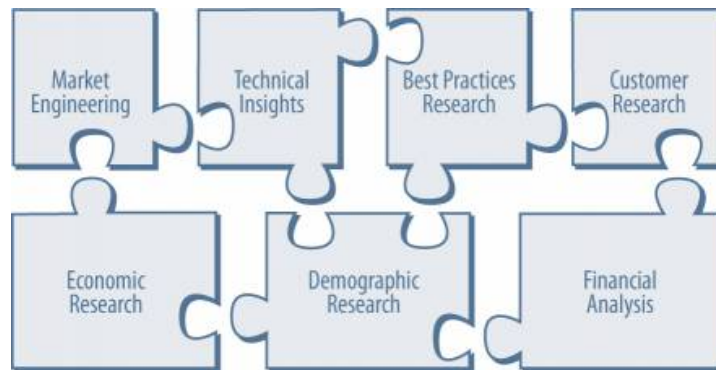
The CEO 360 Degree Perspective™ model enables our clients to gain a comprehensive, action-oriented understanding of market evolution and its implications for their companies’ growth strategies. As illustrated in Chart 5 below, the following six-step process outlines how our researchers and consultants embed the CEO 360 Degree Perspective™ into their analyses and recommendations.

360 Degree Perspective™ Model



Critical Importance of TEAM Research

Frost & Sullivan's TEAM Research methodology represents the analytical rigor of our research process. It offers a 360 degree view of industry challenges, trends, and issues by integrating all seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

Chart 6: Benchmarking Performance with TEAM Research

About Stratecast

Stratecast assists clients in achieving their strategic and growth objectives by providing critical, objective and accurate strategic insight on the global communications industry. As part of Frost & Sullivan, Stratecast's strategic consulting and analysis services complement Frost & Sullivan's Market Engineering and Growth Partnership services. Stratecast's product line includes subscription-based recurring analysis programs focused on Analytics, Customer Experience and Marketing (ACEM), Business Communication Services (BCS), Cloud Computing (CC), Communications Infrastructure and Convergence (CIC), Connected Home (CH), Consumer Communication Services (CCS), OSS and BSS Global Competitive Strategies (OSSCS); and our weekly opinion editorial, Stratecast Perspectives and Insight for Executives (SPIE). Stratecast also produces research modules focused on a single research theme or technology area such as IMS and Service Delivery Platforms (IMS&SDP), Managed and Professional Services (M&PS), Mobility and Wireless (M&W), and Secure Networking (SN). Custom consulting engagements are also available. Contact your Stratecast Account Executive for advice on the best collection of services for your growth needs.

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best-practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.