



2014 North American Network-Enabled Cloud
Product Line Strategy Leadership Award



F R O S T & S U L L I V A N



50 Years of Growth, Innovation & Leadership

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Background and Company Performance

Industry Challenges

As the cloud market matures, businesses are starting to rethink what they expect from a cloud service. Frost & Sullivan recognizes that rather than viewing the cloud model simply as an inexpensive source of compute capacity, enterprise decision-makers (both IT and Line of Business) are considering its potential to address key enterprise goals; for example, increased productivity, compliance assurance, decreased security risk. As the cloud decision moves from tactical to strategic, businesses are more conscious of the characteristics of the network they use to access cloud services. In fact, in the 2014 Frost & Sullivan Cloud User Survey, 54% of US businesses cited “unreliability of networks connecting cloud services” as important to their decision not to use cloud for one or more workloads.

For businesses that are implementing a hybrid cloud—one that connects multiple cloud environments—a reliable, consistent, secure network is especially crucial. For such businesses, the network needs to be integrated into their cloud service. In the Frost & Sullivan survey, 76% of all respondents and 82% of large enterprises respondents cited “integrated network and cloud” as “very important” to the choice of a cloud service provider, tied for the top criterion.

Anticipating customer demand for reliable, secure cloud connectivity, AT&T introduced AT&T NetBond ServiceSM, which extends enterprises’ MPLS Virtual Private Networks (VPNs) into the cloud. The service is now available in partnership with leading cloud service providers as well as AT&T’s own portfolio of cloud, managed hosting, and co-location services. For developing and delivering a high-quality, high-performance, secure network-enabled cloud service unmatched in breadth and functionality, AT&T is the recipient of the Frost & Sullivan Product Strategy Leadership award for its AT&T NetBond Service.

AT&T NetBond Service's Product Line Strength and Customer Impact

Breadth of Service

Frost & Sullivan's competitive benchmarking reveals that early in the cloud era, when its competitors were scrambling to buy or build cloud infrastructure services, AT&T made the choice to pursue a more comprehensive cloud approach—the network-enabled cloud. Recognizing that enterprises will choose to deploy hybrid environments, comprising multiple services, vendors, and deployment models, AT&T delivers a safe and reliable network connection not only to its own cloud centers but also to a broad range of leading cloud and co-location providers.

AT&T NetBond Service draws on AT&T’s networking strength to allow businesses to extend their MPLS-VPNs to cloud service providers’ data centers, thus providing the secure, consistently high-performance and cost-effective end-to-end cloud delivery model that

enterprises are looking for. Furthermore, AT&T leverages Application Programming Interfaces (APIs) to integrate with the cloud service orchestration platform, providing enterprises with a high level of control over cloud application performance.

Competitors that offer network connectivity to the cloud generally provide transport to the cloud center, rather than integration with the cloud platform. As such they do not offer the degree of end-to-end security, consistency, and control available with the AT&T NetBond Service.

Scalability

AT&T NetBond Service delivers a cloud-like experience to customers. Like the cloud-based infrastructure or applications it connects, AT&T NetBond is available on demand, with usage-based pricing (base capacity commitment, with overages charged based on use). Unique in the industry, AT&T NetBond includes patented technology that provides “dynamic bonding” between the network and cloud platform, thus allowing the network and cloud to flex in tandem. Frost & Sullivan finds that because capacity and costs scale with the application usage, enterprises can more easily manage both application performance and costs.

AT&T’s competitors generally allow “bursting” up to the full capacity of the network pipe; however, they have not yet introduced a cloud connectivity service in which network usage is dynamically tied to cloud usage.

Technology Leverage

As part of its transition to a fully digital, software-defined environment for network and services, AT&T has deployed a software control platform on its network. With AT&T NetBond, AT&T has opened the control plane of the MPLS network to its partners’ platforms, via Application Programming Interfaces (APIs). The APIs facilitate agility, in that the connections do not need to be re-engineered when the partner or AT&T makes a change. Furthermore, the APIs can extend into partners’ cloud management tools, allowing customers to control and manage their cloud environments end-to-end; from their connected location and end users, through the network, and into their cloud-hosted workloads.

Frost & Sullivan’s research reveals that AT&T’s competitors’ services do not expose the control plane of the network to customers and cloud partners.

Customer Purchase Experience

AT&T customers currently have a choice of nine cloud providers to connect to via AT&T NetBond Service, and the company says it plans to expand to 100 providers by the end of 2016. Current providers include IaaS providers (IBM, HP, VMware, Microsoft Azure, CSC, AT&T, and newly-announced Amazon Web Services); SaaS providers (Salesforce.com and recently announced Box); and co-location providers (Equinix and AT&T). Recently AT&T

announced an expansion of its relationship with IBM to include the Softlayer infrastructure platform.

With a broad array of ecosystem partners, AT&T customers are able to exercise their choice of providers while still maintaining consistent levels of performance, security, and reliability. Furthermore, AT&T's initiative to converge its IP and wireless networks means that AT&T NetBond is available to connect corporate users' mobile devices via the AT&T LTE network.

Competitors' cloud connectivity partnerships are limited to a smaller number of IaaS providers. They are not available for wireless network users.

Customer Ownership

In the Frost & Sullivan 2014 Cloud User Survey, nearly half of IT decision-makers named AT&T as their preferred provider for integrated network and cloud services—garnering 40% more responses than its closest competitor. The company consistently leads the market with its MPLS-VPN service, based on functionality, reach, and revenue. Furthermore, AT&T says its own hosting, co-location, and cloud services continue to deliver strong results, offering a choice to enterprise clients that prefer to keep some workloads on an end-to-end AT&T-managed infrastructure. By positioning AT&T NetBond as a way for customers to get what they want from the cloud—performance, security, reliability, and control—without restricting their choice of vendor or service, AT&T has been able to retain and grow its customer base.

Competitors are unable to match the breadth and depth of AT&T's portfolio of network, hosting, and network-enabled cloud services.

Price/Performance Value

Cost control remains an important driver for the cloud, with 77% of respondents in the Frost & Sullivan survey citing "reduce costs" as important to the cloud decision. At the same time, 50% say they are concerned about using the public Internet to access the cloud. By providing customers with the ability to leverage the cost-effective cloud model without giving up performance, availability, and security of their applications, AT&T NetBond delivers a high level of value. Furthermore, by partnering with AT&T, cloud service providers have the visibility they need to offer end-to-end service level agreements, thus increasing the value of their cloud services.

Competitors do not offer integrated functionality with cloud service providers, thus diminishing the price/performance value.

Conclusion

While a number of service providers offer network access to the cloud, AT&T NetBond Service is integrated with the cloud; in fact, the network becomes a seamless and integral component of the cloud experience. Because of the deep level of integration between AT&T's network platform and cloud providers' platforms, AT&T NetBond enables greater end-to-end visibility and management of cloud-based workloads, allowing enterprises to deliver a more consistent, secure, and reliable experience to end users across multiple cloud platforms and multiple access types (including the AT&T LTE mobile network). Furthermore, AT&T's broad array of cloud ecosystem partners, representing leading Infrastructure as a Service, Software as a Service, and co-location providers, offers enterprises the choices they prefer to build a hybrid cloud. With its strong overall performance, AT&T has earned Frost & Sullivan's 2014 Product Line Strategy Award for Network-Enabled Cloud.

Product Line Strategy

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. A full, comprehensive product line that addresses numerous customer needs and preferences is therefore a critical ingredient to any company's long-term retention efforts. To achieve these dual goals (customer value and product line strength), an organization must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition. This three-fold approach to delivering Product Line Strategy Leadership is explored further below.



Key Benchmarking Criteria

For the Product Line Strategy Leadership Award, Frost & Sullivan evaluated two key factors—Product Line Strength and Customer Impact—according to the criteria identified below.

Product Line Strength

- Criterion 1: Breadth
- Criterion 2: Scalability
- Criterion 3: Technology Leverage
- Criterion 4: Features
- Criterion 5: Supply Chain Reliability

Customer Impact

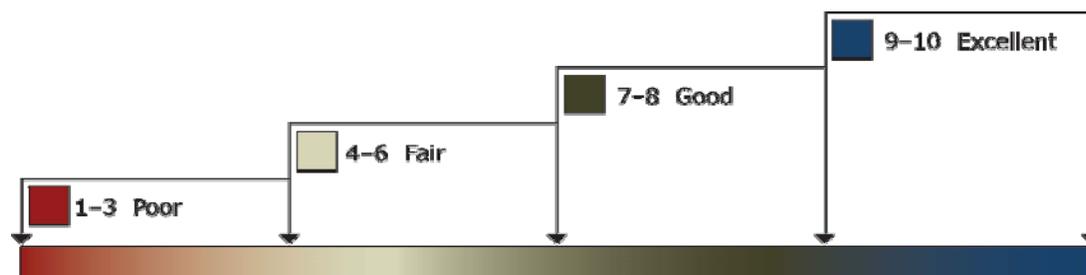
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practice Award Analysis for AT&T

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard is organized by Product Line Strength and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms 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.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key players in as Competitor 2 and Competitor 3.

DECISION SUPPORT SCORECARD: PRODUCT LINE STRATEGY LEADERSHIP AWARD

<i>Measurement of 1–10 (1 = poor; 10 = excellent)</i>			
Product Line Strategy	Product Line Strength	Customer Impact	Average Rating
AT&T	10	9	9.5
Competitor 2	5	5	5.0
Competitor 3	4	3	4.0

Product Line Strength

Criterion 1: Breadth

Requirement: Product line addresses the full range of customer needs and applications

Criterion 2: Scalability

Requirement: Product line offers products at a variety of price points and functionality levels

Criterion 3: Technology Leverage

Requirement: Demonstrated commitment to incorporating leading edge technologies into product offerings, for greater product performance and value

Criterion 4: Features

Requirement: Products offer a comprehensive suite of features to serve customers at multiple levels of functionality, ease of use and applications

Criterion 5: Supply Chain Reliability

Requirement: There is sufficient control over the supply chain to ensure availability of key components and thereby the availability of products in the product line

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

Criterion 2: Customer Purchase Experience

Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service

Criterion 4: Customer Service Experience

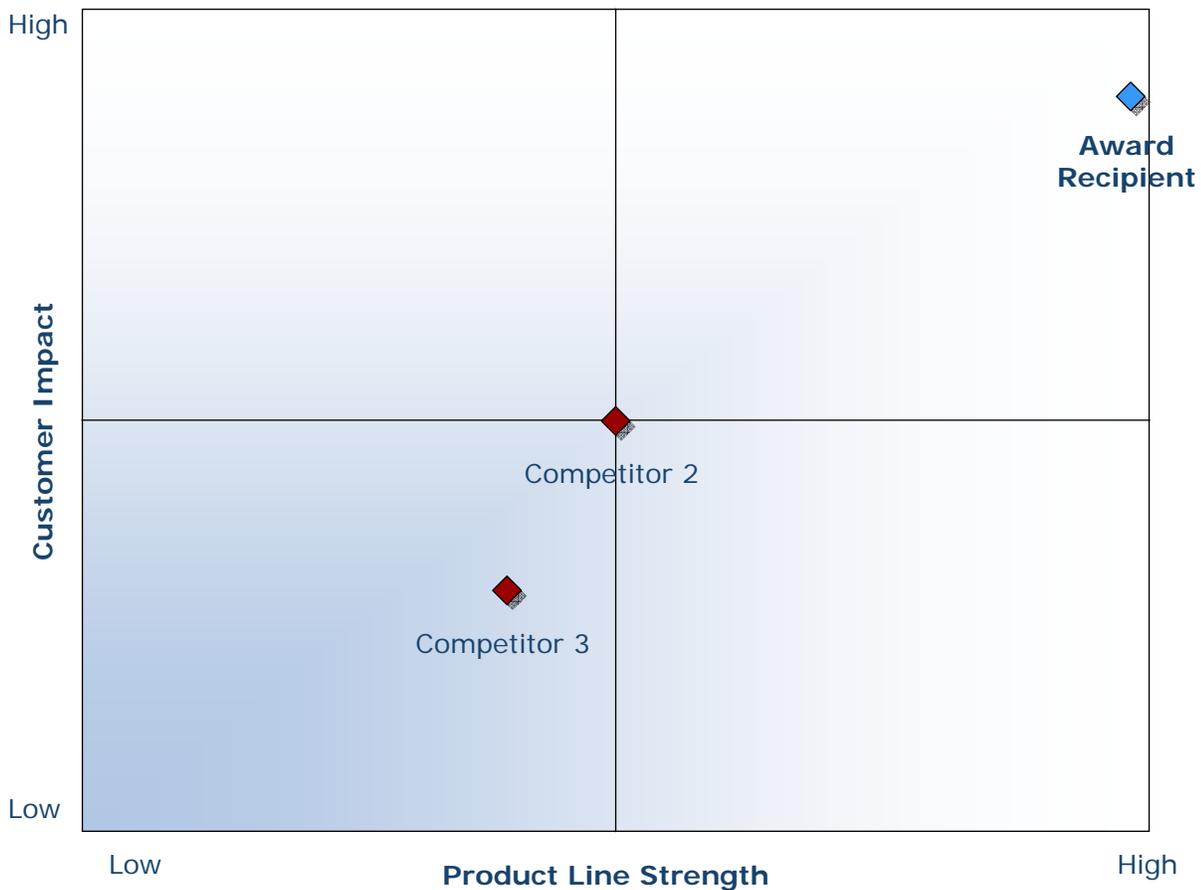
Requirement: Customer service is accessible, fast, stress-free, and of high quality

Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree 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 7 of Frost & Sullivan's research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



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 more than 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.