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BEST PRACTICES

AWARDS

FROST & SULLIVAN

2020 BEST PRACTICES AWARD



AT&T Business

**2020 NORTH AMERICAN DIGITAL HEALTH
COMPANY OF THE YEAR AWARD**

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Background and Company Performance

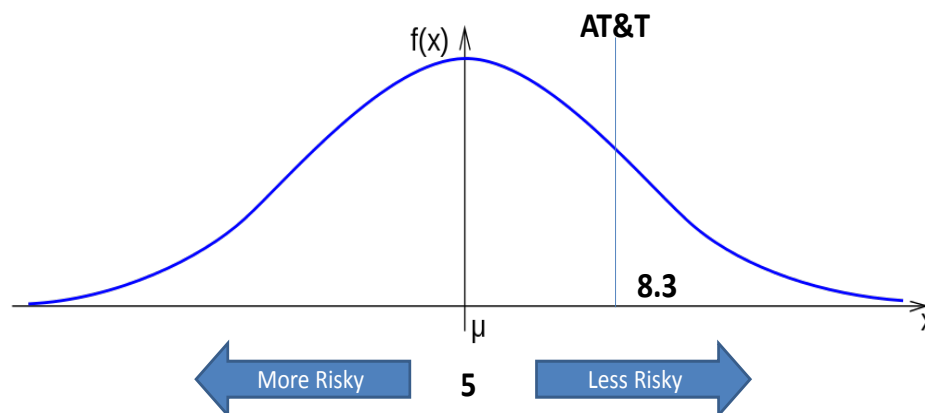
Industry Challenges

Digital health has become even more dynamic as innovation and technology change the way in which healthcare is delivered, consumed, and funded. Integral to this digital transformation is the foundation on which innovative, data-enabled applications run: communications and computer technology. Communications technology in particular is essential to the delivery of healthcare in rural areas; with the imminent introduction of 5G wireless technology, it will become fundamental to the delivery and management of the clinical workflow on hospital campuses as well.

As important as connectivity is to delivering healthcare services, Frost & Sullivan points out that the need to support evolving IT infrastructures is just as great. New technologies, such as Big Data and cloud computing, demand highly reliable connectivity between a provider's health IT systems, applications, and remote computing resources. Even the standard for highly reliable telecommunications—the old five nines of reliability—is insufficient for many healthcare applications, where a delay measured in seconds can mean the difference between a good and bad clinical outcome.

Since health IT organizations often lack the expertise to design reliable networks, Frost & Sullivan believes that telecommunication providers must be able to properly translate the unique needs of healthcare into solutions that are more cost-effective and can be supported and managed by the organization. This requires an intimate knowledge of the healthcare mission and clientele.

Frost & Sullivan has developed an assessment model that ranks information and communication technology (ICT) providers on their ability to enter and be successful in the demanding world of healthcare. This rating system identified a few major players in the ICT market that satisfied the requirements for success. As the graph below illustrates, AT&T Business was the most highly rated company using that schema. Since that time nearly a year ago, Frost & Sullivan has been monitoring notable ICT players that have achieved success in the healthcare space. AT&T Business continues to lead in its penetration of the healthcare market, and as a result merits the Company of the Year Award in the digital health industry.



Visionary Innovation and Performance/Customer Impact

AT&T Business, as one of the leading telecommunications companies in the world, is on the cutting edge of wireless and high-speed landline communications services. Its 4G wireless and fiber optic products enable highly secure connectivity for both fixed and mobile healthcare delivery applications. And, with its introduction of 5G capabilities, it is positioned to offer healthcare providers unique new capabilities to support such applications as high-resolution image delivery and telehealth services to remote clinics in rural areas. Additionally, as a principal provider of emergency communication services to first responders through the FirstNet network, AT&T Business is making mobile, highly reliable wireless communications a reality for first responders across the United States.

Addressing Unmet Needs

FirstNet, built by AT&T, is the country's first nationwide communications platform dedicated to public safety to help first responders connect to the critical information they need in all emergencies. Built by AT&T Business, in public-private partnership with the First Responder Network Authority (FirstNet Authority), FirstNet is bringing public safety a long overdue and much-needed technology upgrade. FirstNet is a response to the recommendations by the 9/11 Commission to address public safety communications challenges that have threatened the safety of communities and emergency responders. FirstNet communications between local, state and federal response agencies help coordinate patient care between care centers to optimize patient intake volumes and to help prevent loss of life. More than 10,000 public safety agencies across 55 states and territories have subscribed to FirstNet services as of 3Q18. Frost & Sullivan notes that AT&T Business was the only national telecommunications provider to respond to the FirstNet Authority's RFP to build FirstNet and is the exclusive provider of FirstNet services.

FirstNet is radically improving emergency services' ability to respond to catastrophic events such as storms, floods, and fires. Although other telecommunication providers also market services to first responders, Frost & Sullivan points out that AT&T Business is the only one offering FirstNet.

Visionary Scenarios through Mega Trends

Frost & Sullivan's Visionary Innovation team has identified 13 Mega Trends, shown below, which are the transformative, global forces that will define the future world with their far-reaching effects on businesses, societies, economies, cultures, and personal lives. They have an effect on every market, and AT&T Business's efforts in healthcare support many of them.

In particular, AT&T Business has defined a vision for Connectivity and Convergence in healthcare that extends the cellular network presence onto hospital campuses to deliver seamless connectivity across the campus/cellular network interface. This will allow for applications that depend on continuous connectivity and will help ensure that patients can access important treatment information wherever they happen to be. As AT&T Business deploys 5G infrastructure, applications requiring high speed and high security—such as

diagnostic image transfer and real-time patient telemetry—will operate in a wireless environment.



AT&T Business’s efforts also support the Future of Mobility, the development of a Cognitive Era, and the Future of Infrastructure Development. In each case, the requirement is for networking that can deliver high bandwidth with low latency and high reliability regardless of the connection modality. For infrastructure, AT&T Business has introduced solutions to enable the Internet of Medical Things. Its Aira service allows a hospital to establish virtual boundaries around physical locations so that patients using their smartphones can access information specific to that location, such as wait times at a treatment facility. This service is especially beneficial to people with vision challenges; an augmented reality capability called Chloe can interpret text and read it to the wearer of special smart glasses. It also comes in quite handy for reading medication labels.

AT&T Business has supported healthcare customers with a dedicated vertical team for the past 10 years. Digital technologies, however, are rapidly changing the patient care of yesterday to the connected, mobile, edge-to-edge patient care of today—and tomorrow. Originally covering the provider space, the AT&T Business healthcare vertical has been delivering solutions like enterprise core networking, mobility, and cybersecurity services to providers everywhere. At the end of 2017, AT&T Business expanded its focus to include pharma, payer, and medical device manufacturers, allowing us to provide solutions that traverse the entire healthcare ecosystem.

AT&T Business provides digital solutions that orchestrate the transformation of healthcare to connected care. With expertise in **connectivity, data analytics, innovation, and application alliances, AT&T Business** solutions help healthcare organizations:

- **Enhance the patient experience.** Digital Hospital solutions from AT&T Business help

simplify the patient journey, both inside and outside the hospital. AT&T Business empowers digital healthcare with solutions for highly secure patient intake, entertainment, navigation, and education.

- **Connect caregivers to improve outcomes and control costs.** AT&T Business enhances communication and collaboration among healthcare employees. Its solutions also provide highly secure access to clinical and operational data to deliver quality care, virtually anytime and anywhere, while controlling costs.
- **Connect patients.** AT&T Business helps healthcare organizations remotely monitor patients, analyze their data, and manage their care.

Today, the solutions AT&T Business offers go beyond traditional services to boost patient satisfaction and support optimal patient outcomes. Its AT&T Check-in is a self-service kiosk designed to streamline a facility's check-in process and provide wayfinding for patients and visitors. With intuitive, touch-screen kiosks throughout a facility, the client can provide a superior patient experience while increasing operational efficiencies for more time spent on care.

AT&T Business has also expanded connectivity to beyond the four walls of the provider space. It is playing a larger role in the patient home through remote patient monitoring and IoT. As the healthcare industry navigates through a massive digital transformation, the existing and future edge-to-edge capabilities that AT&T Business provides can position healthcare companies for greater growth, profitability, and innovation.

As AT&T Business deploys 5G infrastructure, applications requiring high speed and high security—such as diagnostic image transfer and real-time patient telemetry—will operate in a wireless environment. AT&T Business has two 5G POCs with Rush University Medical Center to bring the first standards-based 5G-enabled hospital to the U.S. Secondly, AT&T BUSINESS and VITAS Healthcare signed a trial agreement with VITAS to study the effects of VR/AR on hospice patients and how advanced LTE and eventually 5G technology could enable that experience.

While many telecommunications solution providers have developed technology to enable connectivity in hospitals, Frost & Sullivan recognizes that AT&T Business is virtually the only provider with a vision that extends to connectivity outside the hospital—to the remote clinic and to a patient's home—using integrated network architecture.

Implementation of Best Practices

Unlike many ICT-related companies, AT&T Business has built an organization specifically devoted to delivering solutions to the healthcare industry. As a result, it is gaining currency on issues associated with technology applied to needs of healthcare delivery organizations. What this means for healthcare decision makers is that AT&T Business can be counted on to be sensitive to the unique privacy and security requirements that characterize the clinical workflow. For example, AT&T Business has been at the forefront of delivering cloud portal solutions and has defined a connected healthcare system

architecture that simplifies the process for healthcare IT personnel to design compliant network architectures.

Blue Ocean Strategy

AT&T Business has recognized that healthcare is relatively new to the complexities of building distributed computing and communications architectures. However, with the rapidly accelerating consolidation of the healthcare provider market, distributed networks are essential; consolidated healthcare providers would not even be possible without robust, reliable data networks. The problem, however, is that healthcare providers lack the experience to deploy such networks.

AT&T Business brings more than a century of expertise in network design and is well-positioned to be a trusted partner for such expertise. Unlike many of its other competitors, Frost & Sullivan recognizes how AT&T Business has been in the communications business long enough to appreciate the regulatory concerns that healthcare providers have and is in a position to help them avoid the pitfalls associated with deploying technology in a highly regulated environment.

Financial Performance and Brand Equity

AT&T is one of the top three telecommunications companies in the world and is formerly the largest company on the planet. As such, its financial performance has been excellent for well over a century. It is estimated by Wall Street analysts that AT&T will close 2019 with revenue exceeding \$180 billion—year-over-year growth of more than 6%. It has achieved this in spite of significant and increasing competition in the wireless space.

It is said in telecommunications that no one was ever fired for choosing AT&T. Frost & Sullivan concludes that this is based on a well-deserved reputation for technological excellence and a fanatical focus on customer service. AT&T is one of the best-known brands in the market and, along with just a few other companies in any market, is so familiar that its name alone serves to identify its purpose as a communications solution provider. Few of its other competitors can claim such brand equity.

Conclusion

AT&T Business is virtually synonymous with telecommunications, so tightly that it is interwoven with most of the largest companies in the world. Now it is bringing its expertise to bear on the healthcare industry and is delivering innovative communication solutions that enable new ways of delivering healthcare to patients while improving patient outcomes. Solutions that enable cloud computing and the Internet of Medical Things are just the beginning of what AT&T Business is developing to accelerate the digital transformation of the healthcare industry.

More than any of its competitors, Frost & Sullivan finds that AT&T Business has truly focused on healthcare as a market in need of transformation and is becoming a trusted partner to healthcare delivery organizations seeking to deploy cutting-edge networking in support of the clinical workflow. With its strong overall performance, AT&T Business has earned the 2020 Frost & Sullivan Company of the Year Award.

Significance of Company of the Year

To receive the Frost & Sullivan Company of the Year Award requires a market participant to demonstrate excellence in growth, innovation, and leadership. This excellence typically translates into superior performance in three key areas—demand generation, brand development, and competitive positioning—that serve as the foundation of a company's future success and prepare it to deliver on the 2 factors that define the Company of the Year Award: Visionary Innovation and Performance, and Customer Impact).



Understanding Company of the Year

Driving demand, brand strength, and competitive differentiation all play critical roles in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation and Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated each factor according to the criteria identified below.

Visionary Innovation and Performance

- Criterion 1: Addressing Unmet Needs
- Criterion 2: Visionary Scenarios through Mega Trends
- Criterion 3: Implementation of Best Practices
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Financial Performance

Customer Impact

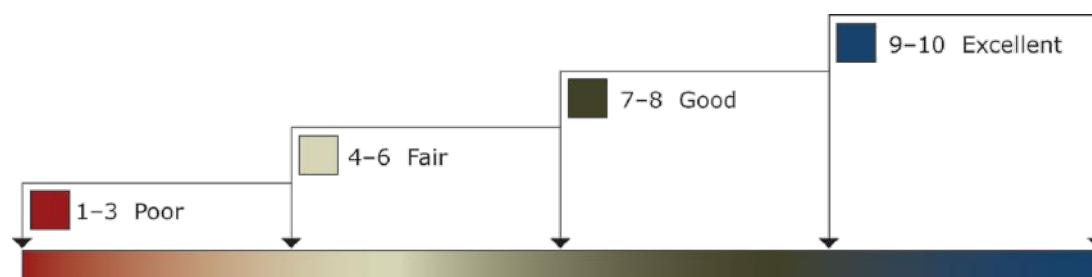
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practices Award Analysis for AT&T BUSINESS

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 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 considers Visionary Innovation and Performance and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion 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 participants as Competitor 2 and Competitor 3.

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
Company of the Year	Visionary Innovation & Performance	Customer Impact	Average Rating
AT&T BUSINESS	10	10	10.0
Competitor 2	9	10	9.5
Competitor 3	8	8	8.0

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs

Requirement: Implementing a robust process to continuously unearth customers' unmet or underserved needs, and creating the products or solutions to address them effectively.

Criterion 2: Visionary Scenarios through Mega Trends

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling first-to-market growth opportunity solutions.

Criterion 3: Implementation of Best Practices

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy

Requirement: Strategic focus on creating a leadership position in a potentially uncontested market space, manifested by stiff barriers to entry for competitors.

Criterion 5: Financial Performance

Requirement: Strong overall business performance in terms of revenue, revenue growth, operating margin, and other key financial metrics.

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 they are buying the 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

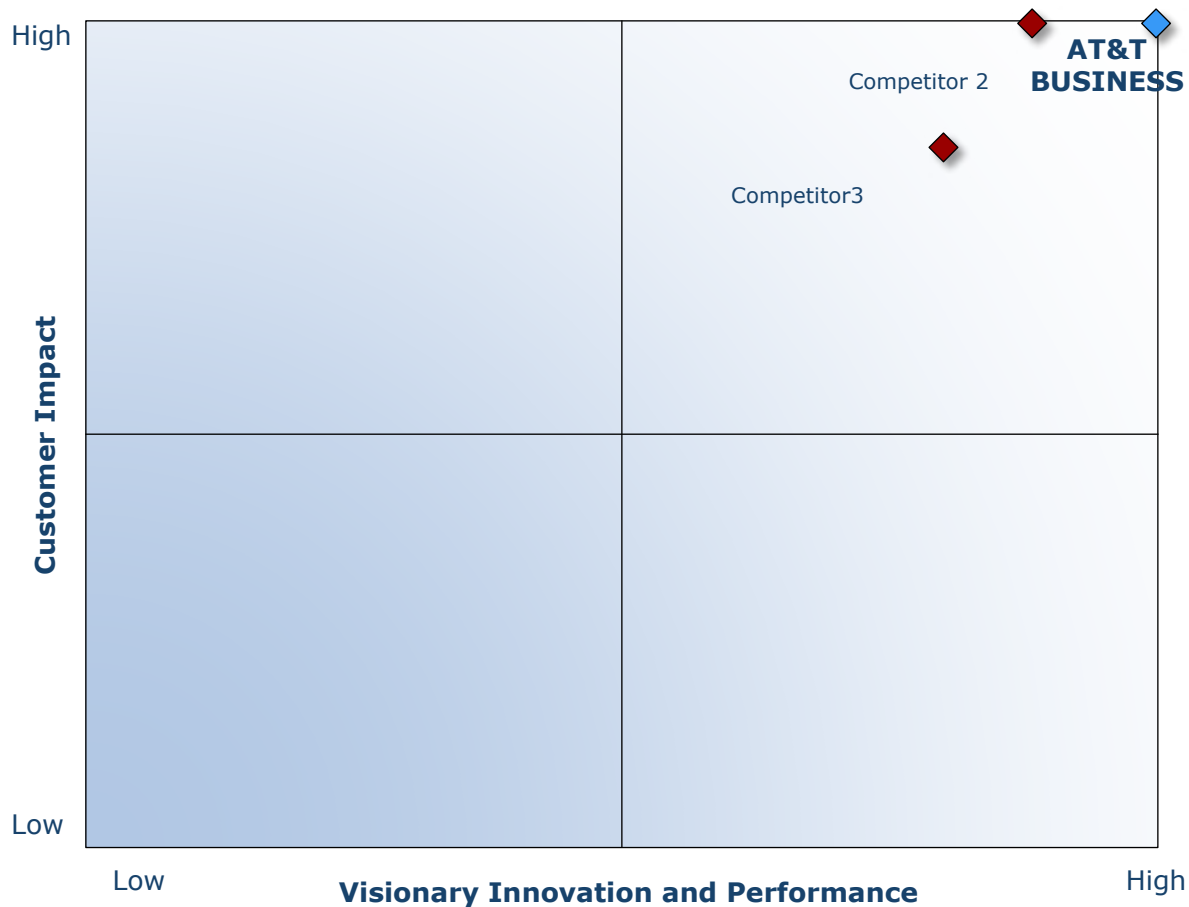
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

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 then 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.



Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify Award recipient candidates from around the world	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging industries • Scan multiple regions 	Pipeline of candidates that potentially meet all best practices criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best practices positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized Award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible Award candidates, representing success stories worldwide
7 Perform quality check	Develop official Award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best practices Award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select winner 	Decision on which company performs best against all best practices criteria
9 Communicate recognition	Inform Award recipient of recognition	<ul style="list-style-type: none"> • Present Award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 Take strategic action	Upon licensing, company able to share Award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess Award's role in strategic planning 	Widespread awareness of recipient's Award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the 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, resulting in 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 participants 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, helps clients 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 practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.