

2017 Global Hybrid Unified Communications Architecture Competitive Strategy Innovation and Leadership Award

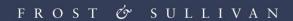
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PRACTICES

GLOBAL HYBRID UNIFIED COMMUNICATIONS ARCHITECTURE COMPETITIVE STRATEGY INNOVATION AND LEADERSHIP AWARD



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Background and Company Performance

Industry Challenges

Frost & Sullivan observes how the unified communications industry is in the midst of substantial transformation. The providers of on-premises private branch exchange (PBX) and unified communications (UC) platforms have witnessed several years of declining product shipments, with many customers opting instead for the convenience of cloud-based UC services, or holding off from new capital investments as they develop their communications strategies. In response, many UC vendors are adopting cloud-first or cloud-only approaches in their product roadmaps, adjusting their pricing models for on-premises UC solutions to be more in line with those of OpEx-driven cloud services, or tightening their focus on selling their solutions to a select set of customer groups (such as very large enterprises or specific niche vertical customers).

Frost & Sullivan points out that the challenge, however, is that these approaches often fail to consider the impact on customers that are either content with on-premises deployments or have specific requirements that demand their UC solutions remain inhouse. For these customers, Frost & Sullivan notes that on-premises UC platforms will continue to be the preferred deployment model, regardless of a particular vendor's roadmap intentions. Many cloud-based UC service offerings continue to be limited in specific software integrations or support for currently deployed legacy equipment, such as overhead paging solutions, FAX and other analog devices. For businesses where these devices and services are a key part of their workflows and processes, moving UC to the cloud is often a non-starter.

In addition, cloud-only offerings from UC vendors often fail to account for the long-term contracts that businesses have in place for telecommunications services or the significant investments that many businesses have made in their communications infrastructure, including platforms, cabling, endpoints, and underlying networks, as well as professional services. In many cases, moving to cloud-based services is an equivalent to a "rip and replace" of the customer's investments.

Strategic leaders in the unified communications market understand that for most customers, the decision between on-premises and cloud-based UC platforms is often not an either/or choice, but is, in fact, a long-term strategy that will include elements of both for the foreseeable future. For these leaders, hybrid solutions that feature a mix of on-premises and cloud-based infrastructure, software, and services allow customers to not only retain and continue to utilize their existing communications investments, but also open their product lines to newer features and innovation that are difficult or impossible to offer on-premises.

Strategy Innovation and Customer Impact

Competitive Differentiation

Beyond a continued emphasis on adding the latest features and capabilities to its on-premises and cloud-based UC offerings, Frost & Sullivan feels that Alcatel-Lucent Enterprise has clearly differentiated from its competitors with the introduction of Alcatel-Lucent RainbowTM. Initially launched as a cloud-based team collaboration tool in 2016, the Rainbow service has evolved into a nerve center for all of Alcatel-Lucent Enterprise's communications offerings. Through Rainbow, on-premises platforms can access a full range of cloud-based services. For example, remote users can access a range of business communications functionality, including call initiation and receipt, voice messaging, instant messaging and rich presences, video conferencing and extension dialing to coworkers from their desktop or mobile device using the Rainbow app.

In addition, Frost & Sullivan appreciates how Rainbow also differentiates itself in terms of management delegation. IT administrators, managed service providers, and channel partners can be authorized to remotely manage a customer's on-premises or cloud-based UC deployment, including inventory management, remote configuration, and centralized analytics. In contrast, competing cloud-based solutions provide integration with on-premises platforms, but administration functions are often managed separately.

Communications platform as a service (CPaaS) is a third pillar of value that Alcatel-Lucent Enterprise delivers through Rainbow. Rainbow's cloud-based platform enables businesses to expose a mix of both cloud-based and on-premises platform resources to deliver a full range of services, including voice calling and UC functionality, provisioning, administration, and analytics, to in-house and third-party application developers through available application programming interfaces (APIs). To date, CPaaS solutions have been largely relegated to standalone service offerings. Frost & Sullivan recognizes how Alcatel-Lucent Enterprise stands out in this emerging space by bringing much of the same powerful CPaaS functionality to on-premises deployments.

Through Rainbow, Alcatel-Lucent Enterprise is redefining the hybrid experience in ways that truly set it apart from its other competitors. Unlike many other providers, the company is committed to delivering the benefits of cloud services together with the best capabilities of on-premises platforms, thereby allowing customers to avoid costly compromises and develop a communications architecture that best suits their particular needs.

Price/Performance Value

In order to encourage strong adoption of cloud-based Rainbow services by both its established customer base as well as businesses that may be new to the company, Alcatel-Lucent Enterprise is rolling out several tiers of offerings. The freely available Rainbow Essential package includes team messaging/chat, file and screen sharing, and peer-to-peer audio and video calling.

The most compelling feature available in the Essential tier, however, is PBX integration and calling. By leveraging a software agent installed on the latest versions of Alcatel-Lucent Enterprise's call control platforms, business users are able to make and receive calls from their business extension through the Rainbow desktop and mobile clients. Frost & Sullivan research reveals that other competing cloud-based services offer similar PBX capabilities, but charge a premium for this business-critical feature.

In addition to the Essential tier, Alcatel-Lucent Enterprise offers Rainbow Business and Enterprise editions that include additional value-added services, including multi party audio/video conference, PSTN extensions, cloud-based voice mail services, support for multiple corporate administrators, and Active Directory integration.

Customer Ownership Experience

Alcatel-Lucent Enterprise is keenly aware of the requirements of its current installed base of UC customers as well as the limitations of on-premises deployments. In response, the company has developed a hybrid architecture that leverages the best of on-premises solutions and the Rainbow cloud. For existing customers, a hybrid architecture instills confidence that Alcatel-Lucent Enterprise will not abandon their investments for a cloud-only future. The company is not only supporting on-premises customers; through Rainbow, it is enhancing the true value of those products.

Moreover, the approach through which Alcatel-Lucent Enterprise is enabling these additional services presents a compelling alternative to competing vendors. A simple software agent, included in the latest version of many of the company's PBX platforms, connects directly to the Rainbow cloud. Competing offerings require the addition of purpose-built session border controllers or adjusting firewall settings to enable similar connections. Alcatel-Lucent Enterprise's simplified approach, as well as the favorable set of features in the Essential Rainbow offering, will certainly appeal to both early adopters and more conservative business leaders.

Stakeholder Integration

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Alcatel-Lucent Enterprise has paid particular focus on how its Rainbow services and hybrid communications architecture will impact its key stakeholders - namely its customers, business partners, and the third-party application development community. The result is a differentiated set of features and capabilities that set Alcatel-Lucent Enterprise apart from many of its competitors in the communications market. For customers, a feature-rich freemium Rainbow service extends their on-premises solutions into the cloud, providing significant investment protection and introducing newer capabilities with little to no risk. With respect to channel partners, systems integrators and vertical solutions integrators, Rainbow is not only a set of value-added capabilities which can be marketed to customers, but also an important management and analytics tool. Through Rainbow, business partners are given a view into the communications assets of their customers. With customer permission, partners can be granted access to manage their customer's platform for them. As such, Rainbow nicely opens up new managed service opportunities and reduces costly, inefficient truck rolls for business partners. Finally, the CPaaS options in

Rainbow allow developers to create compelling integrations between a customer's cloud UC services, their on-premises platform and business applications. Vertical applications can leverage a consistent set of cloud-based APIs, rather than needing to connect with each customer's on-premises platform on a case-by-case basis. For these applications, the Rainbow services will simplify integrations and allow developers to deploy their solutions faster and for a broader base of customers.

Brand Equity

Alcatel-Lucent Enterprise has a long, rich history in the telecommunications market, and it has retained that legacy among end user organizations of all sizes and industries. The company has been a recognized global competitor in the telephony and unified communications markets for decades, and holds a strong competitive position in the business communications and data networking spaces. In the communications arena, Alcatel-Lucent Enterprise offers a full range of field-proven on-premises UC and contact center platforms under the OmniPCX and OpenTouch brands.

Frost & Sullivan observes how Alcatel-Lucent Enterprise has earned this reputation, with both a commitment to innovation as well as a strong focus on protecting and enhancing the communications investments that customers and partners have made in the company's products. Over the years, the company has found particular success in several key vertical industries, including hospitality, healthcare, transportation, and education. Going forward, Alcatel-Lucent Enterprise intends to double-down on these successes by developing specific communications solutions and business offers that address the unique needs of these key industries. While its other competitors have directed efforts to provide horizontal solutions that deliver a generic set of features to a broad swath of businesses, Alcatel-Lucent Enterprise has become increasingly vertically-focused, offering exceptional high-value capabilities for a narrower target customer - and thus nurturing strong customer satisfaction and loyalty in these portions of the market.

Conclusion

In response to a fast changing and challenging unified communications market, Alcatel-Lucent Enterprise has developed an innovative approach with a hybrid communications architecture that merges the best capabilities of its existing platforms with the promise of cloud-based services. In the process, this hybrid architecture delivers both compelling new capabilities for its customers, as well as gives the vendor a strong roadmap and strategy against new and existing competitive threats.

With its strong overall performance, Alcatel-Lucent Enterprise has earned the 2017 Frost & Sullivan Competitive Strategy Innovation and Leadership Award.

Significance of Competitive Strategy Innovation and Leadership

Any successful approach to achieving top-line growth must (1) take into account what competitors are, and are not, doing; (2) meet customer demand with a comprehensive, value-driven product or service portfolio; and (3) establish a brand that resonates deeply with customers and stands apart from other providers. Companies must succeed in these three areas—brand, demand, and positioning—to achieve best-practice levels in competitive strategy.



Understanding Competitive Strategy Innovation and Leadership

Demand, brand strength, and competitive differentiation all play a critical role in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Strategy Innovation and Customer Impact.

Key Benchmarking Criteria

For the Competitive Strategy Innovation and Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Strategy Innovation and Customer Impact—according to the criteria identified below.

Strategy Innovation

Criterion 1: Strategy Effectiveness Criterion 2: Strategy Execution

Criterion 3: Competitive Differentiation Criterion 4: Executive Team Alignment Criterion 5: Stakeholder Integration

Customer Impact

Criterion 1: Price/Performance Value

Criterion 2: Customer Purchase Experience Criterion 3: Customer Ownership Experience Criterion 4: Customer Service Experience

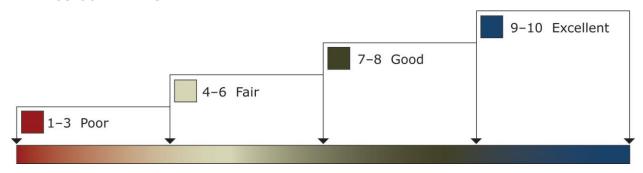
Criterion 5: Brand Equity

Best Practices Award Analysis for Alcatel-Lucent Enterprise

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 Strategy Innovation and Customer Impact (i.e., these are 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, we have chosen to refer to the other key participants as Competitor 1 and Competitor 2.

Measurement of 1–10 (1 = poor; 10 = excellent)			
Competitive Strategy Innovation and Leadership	Strategy Innovation	Customer Impact	Average Rating
Alcatel-Lucent Enterprise	9.0	9.0	9.0
Competitor 2	8.0	9.0	8.5
Competitor 3	9.0	8.0	8.5

Strategy Innovation

Criterion 1: Strategy Effectiveness

Requirement: Strategy effectively balances short-term performance needs with long-term aspirations and vision for the company.

Criterion 2: Strategy Execution

Requirement: Adoption of best-in-class processes supports the efficient and consistent implementation of business strategy.

Criterion 3: Competitive Differentiation

Requirement: Unique competitive advantages with regard to solution or product are clearly articulated and well accepted within the industry.

Criterion 4: Executive Team Alignment

Requirement: The executive team is aligned along the organization's mission, vision, strategy, and execution.

Criterion 5: Stakeholder Integration

Requirement: Strategy reflects the needs or circumstances of all industry stakeholders, including competitors, customers, investors, and employees.

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 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

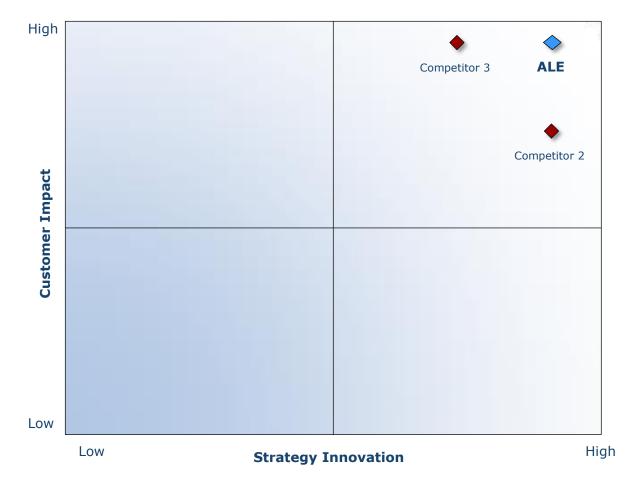
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

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 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	candidates from around the globe research screen globe research • Identify emerging sectors			Pipeline of candidates who potentially meet all best-practice criteria
2	Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	 Interview thought leaders and industry practitioners Assess candidates' fit with best-practice criteria Rank all candidates 	Matrix positioning all candidates' performance relative to one another
3	Invite thought leadership in best practices	Perform in-depth examination of all candidates	 Confirm best-practice 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	 Brainstorm ranking options Invite multiple perspectives on candidates' performance Update candidate profiles 	Final prioritization of all eligible candidates and companion best-practice positioning paper
5	Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	Share findingsStrengthen cases for candidate eligibilityPrioritize candidates	Refined list of prioritized Award candidates
6	Conduct global industry review	Build consensus on Award candidates' eligibility	 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	 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-practice Award recipient	Review analysis with panelBuild consensusSelect recipient	Decision on which company performs best against all best-practice criteria
9	Communicate recognition	Inform Award recipient of Award recognition	 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 may share Award news with stakeholders and customers	 Coordinate media outreach Design a marketing plan Assess Award's role in future 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 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



participants and for identifying those performing at best-in-class levels.

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 45 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.