

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

FROST & SULLIVAN BEST PRACTICES AWARD

HOSTED IP TELEPHONY AND UCAAS - GLOBAL

Technology Innovation 2019

metaswitch

FROST & SULLIVAN

2019

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Contents

| | |
|---|----|
| Background and Company Performance..... | 3 |
| <i>Industry Challenges</i> | 3 |
| <i>Technology Attributes and Future Business Value</i> | 4 |
| <i>Conclusion</i> | 7 |
| Significance of Technology Innovation..... | 8 |
| Understanding Technology Innovation..... | 8 |
| <i>Key Benchmarking Criteria</i> | 9 |
| <i>Technology Attributes</i> | 9 |
| <i>Future Business Value</i> | 9 |
| Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices..... | 10 |
| The Intersection between 360-Degree Research and Best Practices Awards..... | 11 |
| <i>Research Methodology</i> | 11 |
| About Frost & Sullivan..... | 11 |

Background and Company Performance

Industry Challenges

The global hosted Internet protocol (IP) telephony and unified communications-as-a-service (UCaaS) market is maturing as businesses of all sizes and industry sectors increasingly move their communications and collaboration solutions to the cloud. An abundance of service provider solutions tailored for different business and end-user requirements, as well as growing customer awareness of the benefits of cloud communications, are driving accelerated hosted IP telephony and UCaaS adoption around the world. A global 2019 Frost & Sullivan survey of IT and telecom decision makers reveals that 40 percent of businesses using enterprise IP telephony have already moved part or all of their solutions to the cloud and another 46 percent plan to do so in the next two years.

Service providers of various backgrounds and skill sets aspire to earn a share of the burgeoning hosted IP telephony and UCaaS market. Many have launched compelling service offerings with varying feature sets and price levels to address different customer needs and budgets. Competition is intensifying as providers continually invest in technology development and introduce new capabilities to meet evolving customer requirements. Accelerated technology innovation is raising customer value but creating challenges for providers to sustain differentiation and pitch unique value propositions.

There are important gaps in the hosted IP telephony and UCaaS market in terms of solutions and functionalities tailored specifically for the mobile workforce. Mobile soft clients have gained limited appeal among business users to date due to their various limitations: clunky interfaces; the need to constantly switch apps; poor voice quality over WIFI networks versus toll charges on mobile networks; limited integration with other communications and collaboration services; and so on. Innovative technology developers are now launching mobile native UCaaS solutions and creating opportunities for service providers to better cater to mobile worker needs.

Mobile UCaaS is particularly well suited for mobile operators, many of which have traditionally focused on the consumer segment and are now looking to expand into the business market. Mobile operators can leverage their networks and related expertise to differentiate from other UCaaS providers and gain a competitive edge as more businesses and entrepreneurs gradually shift to mobile communications. There is a particularly large pent-up demand for business-grade mobile solutions among prosumers, small office/home office (SOHO) and micro-businesses that have already discontinued their landline communications services and are using mobile devices instead to reduce costs and stay connected on the go.

Mobile operators and diversified telecom services providers (with both wireless and wireline networks) are seeking technology partners and platforms that integrate with their existing billing and provisioning systems and enable them to straddle multiple customer segments. Multi-purpose communications platforms enabling a broad spectrum of mobile native services allow providers to future-proof their technology investments and sustain

growth as customer communications requirements shift and evolve over time. Technology developers that deliver innovative mobile UCaaS solutions are likely to become partners of choice for mobile and diversified operators looking for a competitive advantage in the highly dynamic business communications market.

Technology Attributes and Future Business Value

A long-standing provider of communications technology solutions for telecom service providers, Metaswitch recently enhanced its extensive portfolio with advanced mobility functionality with the objective to address growing demand for convenient access to business communications and collaboration tools on mobile devices. Under the new MaX brand and the multi-purpose MaX platform, Metaswitch offers solutions tailored for different customer segments, as follows: MaX One for individual users, MaX Family for families, MaX Micro for small teams and micro-businesses, and MaX UC for SMBs and enterprises. The MaX family of products stands out among competitor solutions with its significant potential to impact the industry and create new growth opportunities for both Metaswitch and its service provider customers.

Visionary Innovation and Industry Impact

Metaswitch's innovative MaX portfolio is closely aligned with both evolving end-customer needs and shifting service provider requirements.

More specifically, the MaX UCaaS solutions portfolio addresses several key challenges that service providers face today. With declining wireline voice usage and shrinking residential mobile revenues due to heightened competition and price pressures, telecom operators need to leverage opportunities in the business space—more specifically, address pent-up demand for contemporary mobile communications. As most communications services also become highly commoditized, providers need technologies that enable them to differentiate and offer unique value propositions to their entire customer spectrum—from consumers to entrepreneurs, SOHOs, micro-businesses and enterprises. Furthermore, providers are facing intensifying competition from innovative over-the-top (OTT) providers. Mobile native solutions enable mobile operators to leverage their mobile network assets to differentiate and out-compete OTT providers.

Frost & Sullivan research shows that demand for mobile business communications and collaboration is rising. A growing number of businesses are becoming virtual organizations as they seek to defy geographic boundaries in search of talent and work-life balance. One-third of companies report that one-quarter of their employees telecommute on a regular basis. Furthermore, employees are becoming increasingly mobile and using mobile devices to connect with co-workers, customers and partners. In over 25 percent of organizations, more than 50 percent of employees use smartphones for business purposes. Nearly one-quarter of IT/telecom decision makers report that smartphones represent a top investment priority for their organizations. These trends create the need for business users to access corporate communications and collaboration tools on mobile devices to stay productive while working from anywhere.

Service providers acknowledge requirements to deliver compelling mobile business communications solutions but have traditionally lacked the right technologies and capabilities to do so effectively. MaX by Metaswitch enables mobile native communications that overcome the shortcomings of mobile apps typically used to access company voice and UC services on mobile devices. A mobile native dialer enables convenient access to business communications tools on iOS or Android devices, eliminating the need to switch apps and choose on the fly whether to use their business or consumer persona. Utilizing network voice, rather than voice over IP (VoIP) over WIFI, ensures greater audio quality and enables network-based analytics using Artificial Intelligence (AI) for automated identity management (i.e., to determine when to use the business persona). This innovative approach differentiates the MaX platform from competitor mobile solutions, which require manual (ad-hoc) persona management and thus make the user experience more cumbersome.

With its visionary approach in developing the MaX solutions portfolio, Metaswitch is well positioned to provide enhanced value to both service providers and their customers.

Product Impact

The new mobile native capabilities enhance the value of the entire Metaswitch portfolio for service providers. Metaswitch enables providers to launch innovative mobile-first offerings tailored for consumers and business users that employ mobile devices as their primary or sole communications endpoints. However, the mobile capabilities also provide benefits to businesses and users with both desktop and mobile devices. Such users can easily switch from mobile to desktop devices depending on their circumstances and objectives. Multi-device users may also standardize on mobile devices over time, if business needs change.

Many providers may find that more cautious business customers first move to cloud using desktop phones and soft clients but later on adopt mobile UCaaS. For mobile operators, the MaX platform creates opportunities to engage that more traditional customer base with the vision to deploy desktop-centric UCaaS first and migrate to mobile-first UCaaS later in a non-disruptive and more cost-effective manner (i.e., reduced need for integration or retraining).

Overall, the enhanced MaX portfolio creates more options for Metaswitch service providers and their customers—businesses and end users.

Scalability

The Max UC product line leverages Metaswitch's proven, scalable and extensible standards-based platforms that support rapid innovation and continued feature development. This enables Metaswitch and its service provider customers to quickly and effectively align their solution offerings with evolving market trends. Metaswitch's tried and tested platform offers one of the most comprehensive feature sets in the industry, including cloud private branch exchange (PBX); voicemail; instant messaging (IM) and presence management; audio, web and video conferencing (natively and through partnerships with industry leaders such as Zoom); contact center and more. Scalable technologies at the foundation enable new generations of products over time, as well as

increasing levels of quality and functionality. Unique new capabilities include: group feed dashboard for team activities; group chat, presence and location sharing; full desktop UC; team call routing; team admin and policy control through the mobile device; group policy application programming interfaces (APIs) for integration with third-party applications; and more. Few platform vendors catering to the service provider community can match the capabilities offered by Metaswitch's MaX portfolio.

Another important capability for service providers is MaX platform's support for existing authentication, billing, interconnect, mobility, emergency and regulatory requirements. MaX services can be delivered via voice over long-term evolution (VoLTE) or 3G networks. The platform has been developed as cloud-native software, giving service providers the opportunity to build and scale their solutions across any number of deployment models, including their own private data centers, private cloud services, or public cloud services. Providers can both choose their own preferred infrastructure and quickly scale to meet customer demand.

Application Diversity

Under a single platform, Max by Metaswitch enables the launch of several new solution offerings to address different use cases and user environments. With Max One, Max Family, Max Micro and Max UC services providers can straddle multiple customer segments. For mobile operators that originally focused on the consumer space, the multi-purpose MaX platform creates opportunities to tap into the business market cost-effectively and at a lower risk. It also allows providers to upsell both residential and business users currently using legacy services to more advanced mobile UC solutions that enable greater collaboration and more effective communication among family or team members. Finally, customers with an evolving profile—e.g., a micro-business growing into a full enterprise—can conveniently and cost-effectively upgrade from MaX Micro to MaX UC without the disruption of changing providers or user experiences. In contrast, competing solutions are typically scaled and priced out of the box to address a single market segment. Therefore, providers in the past were required to customize UC platforms or deploy multiple disparate UCaaS platforms to target specific customer needs or use cases.

The scalability and application diversity of the MaX platform will resonate well with mobile operators as well as other service providers looking to invest in future-proof solutions that effectively support growth and customer diversification.

Customer Acquisition and Technology Licensing

With the MaX platform, Metaswitch is better positioned to acquire new customers—more specifically, add more mobile operators to its service provider roster. Traditionally, mobile service providers have had few technology options to enable the delivery of advanced UCaaS services to businesses or effectively serve families and SOHOs. The MaX platform is likely to find considerable appeal among those providers as they can also expand their reach among new customer segments.

Simple customer onboarding and solution management facilitate service provider and end-customer acquisition. Flexible licensing options enable providers to deliver right-sized

solutions to customers and adjust both features and pricing as customer needs evolve. Customers across different segments (e.g., consumer, SOHO, enterprise) and world regions typically have distinct requirements. For example, prosumers demand voice and short/multimedia messaging services (SMS/MMS), caller ID, shared messaging, and so on. Enterprises require more advanced conferencing (video, file/screen share) and collaboration functionality, contact center and integration with third-party (e.g., team messaging, customer relationship management (CRM)) solutions. Operators can first turn on only the essential features and then add mobility, video, contact center or other advanced features upon customer demand.

Unlike competitor solutions, the MaX suite of services can deliver optimum performance on a variety of devices, including bring-your-own devices (BYOD) because all intelligence resides on the network and the platform is interoperable with standards-based third-party phones. Multi-device support for voice and messaging represents a significant advantage for Metaswitch's solution as it offers greater flexibility for both service providers and end customers. Furthermore, the open MaX platform can integrate with a variety of third-party solutions—conferencing, contact center, and more—enabling service providers to deliver integrated best-of-breed services suites.

Brand Loyalty

The MaX platform and solutions portfolio enhance Metaswitch's already strong brand in the communications industry. Metaswitch is well known among service providers as key performance metrics demonstrate:

- 300 operators worldwide offering business communications services based on Metaswitch technologies
- 23 million deployed business lines globally
- 25 percent growth rate in business UC customers worldwide in 2018

With its robust and feature-rich MetaSphere platform (now part of the MaX portfolio) Metaswitch has earned the second largest market share among UCaaS platform providers to the service provider community. The new mobile native capabilities position Metaswitch and its brand even more strongly among mobile operators, thus creating growth opportunities for the company.

Conclusion

With its innovative MaX solutions portfolio, Metaswitch has demonstrated impressive technology innovation, which is likely to have a significant impact on service providers and end customers alike. It will address considerable pent-up demand for compelling mobile native communications solutions among a broad range of customer segments: consumers, prosumers, SOHOs, micro-businesses and enterprises.

For its strong overall performance, Metaswitch is recognized with Frost & Sullivan's 2019 Technology Innovation Award.

Significance of Technology Innovation

Ultimately, growth in any organization depends on finding new ways to excite the market and maintaining a long-term commitment to innovation. At its core, technology innovation, or any other type of innovation, can only be sustained with leadership in 3 key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Technology Innovation

Technology innovation begins with a spark of creativity that is systematically pursued, developed, and commercialized. That spark can result from a successful partnership, a productive in-house innovation group, or a bright-minded individual. Regardless of the source, the success of any new technology is ultimately determined by its innovativeness and its impact on the business as a whole.

Key Benchmarking Criteria

For the Technology Innovation Award, Frost & Sullivan analysts independently evaluated 2 key factors—Technology Attributes and Future Business Value—according to the criteria identified below.

Technology Attributes

Criterion 1: Industry Impact

Requirement: Technology enables the pursuit of groundbreaking ideas, contributing to the betterment of the entire industry.

Criterion 2: Product Impact

Requirement: Specific technology helps enhance features and functionalities of the entire product line for the company.

Criterion 3: Scalability

Requirement: Technology is scalable, enabling new generations of products over time, with increasing levels of quality and functionality.

Criterion 4: Visionary Innovation

Requirement: Specific new technology represents true innovation based on a deep understanding of future needs and applications.

Criterion 5: Application Diversity

Requirement: New technology serves multiple products, multiple applications, and multiple user environments.

Future Business Value

Criterion 1: Financial Performance

Requirement: Potential is high for strong financial performance in terms of revenue, operating margins, and other relevant financial metrics.

Criterion 2: Customer Acquisition

Requirement: Specific technology enables acquisition of new customers, even as it enhances value to current customers.

Criterion 3: Technology Licensing

Requirement: New technology displays great potential to be licensed across many verticals and applications, thereby driving incremental revenue streams.

Criterion 4: Brand Loyalty

Requirement: New technology enhances the company's brand, creating and/or nurturing brand loyalty.

Criterion 5: Human Capital

Requirement: Customer impact is enhanced through the leverage of specific technology, translating into positive impact on employee morale and retention.

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 practices 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 recipient | 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 is 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.



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>.