FROST & SULLIVAN

ClearOne®

2017 Global Converged Audio/Video Conferencing Solutions Competitive Strategy Innovation and Leadership Award

Contents

Background and Company Performance

Industry Challenges

Technology innovation is progressing at an accelerated pace influencing customer preferences and putting pressure on the vendor ecosystem to innovate existing product portfolios. Today, businesses typically expect greater endpoint functionality at low price points. Increasing competition on all fronts of the conferencing endpoint space and ever-growing customer expectations are posing a challenge to audio conferencing endpoint vendors who are striving to provide the greatest value at a fair price.

Expanding into video conferencing products is a logical extension for audio conferencing endpoints vendors. Therefore, the evolution of video collaboration is considerably impacting the audio conferencing endpoint space. User demand for video communications has been accelerating. With the continuous growth of collaborative spaces and proliferation of video conferencing services, the inclusion of video as part of audio conferencing solutions is becoming a necessity. However, it is becoming increasingly important to simplify the integration of audio/video endpoints and collaborative services. As end-user organizations seek to simplify their collaboration experiences, vendor ability to provide a single unified solution coupled and ease of use plays a critical role in large-scale adoption of integrated audio and video services in enterprises.

In order to sustain growth and identify further growth opportunities in the audio conferencing endpoint market, it is important for providers to address these industry challenges and build a broad, competitive and converged audio/video conferencing solutions portfolio.

Strategy Innovation and Customer Impact

ClearOne stands out among the audio conferencing endpoint vendors with its effective foray into the converged audio/video conferencing solution space. A visionary strategy, effective execution, differentiated capabilities, and excellent customer purchase experiences have enabled the company to innovate and rise to become one of the leaders in the converged audio/video conferencing solutions market.

Legacy in audio conferencing

A pioneer in the audio conferencing endpoint space, ClearOne has a versatile portfolio across tabletop and installed audio conferencing endpoint markets. More specifically, ClearOne's flagship products including CONVERGE® Pro series and Beamforming Microphone Arrays have deeply penetrated large board rooms and conference rooms worldwide. Based on Frost & Sullivan's analysis, ClearOne has been recognized as global market leader in installed audio conferencing market. ClearOne also has the VIEW® AV network streaming and distribution solution, which is an AV over IP system that works in an existing or dedicated Ethernet network infrastructure.

Over the years, ClearOne has consistently retained its market leadership position in the global installed audio conferencing endpoint space.

Nonetheless, ClearOne continues to innovate in the professional audio space. In June 2016, the company launched Converge Pro 2 which is the company's second-generation installed audio platform equipped with the most advanced digital signal processing (DSP) technology. The device is packed with advanced DSP algorithms that ensure acoustic echo cancellation, noise cancellation, feedback elimination, gain and level control, and microphone gating. The new software management console is the highlight of this device as it makes configuration and trouble-shooting easier compared to its predecessors.

Making the case for integrated audio/video strategy

Businesses today are increasingly demanding all-in-one multimedia collaboration bundles at a fraction of the cost of expensive room systems. User expectations are clearly changing with the evolution of video technologies and flexible deployment models. ClearOne ranks among the very few vendors to recognize the need for easy to install, affordable and integrated audio/video systems coupled with a cloud video service. Anchoring on its strong foundation in audio, ClearOne is increasingly focusing on developing a sound video strategy to complement its audio endpoints business. ClearOne's acquisition of VCON in 2012 and Spontania™ in 2014 sowed the seeds for its audio/video collaboration strategy. While VCON added SIP/H.323 video codecs and on-premises room systems to ClearOne's portfolio, Spontania added software-based cloud video and web conferencing service capability which can be bundled with ClearOne's audio and video endpoints. In essence, the integration of these acquisitions into ClearOne resulted in the enhancement of its audio product line and expanded its presence beyond just voice. Post the acquisition, the company has reported having realized consistent growth in revenue contribution from video collaboration products.

ClearOne's expanded portfolio of video collaboration products includes:

1) **Group Video Collaboration - COLLABORATE® Pro** is an all-in-one series of Media Collaboration solutions that enable video conferencing and in-room meetings, as well as other conferencing capabilities such as HDMI/wireless presentation sharing and live streaming and recording. There are 3 solutions in this series:

   - **COLLABORATE Pro 300**: includes video codec appliance, UNITE® 200 camera, CHAT 150C audio endpoint and one-year subscription to Spontania collaboration meeting room, multi-user in-room wireless presentation and Skype for Business native integration. This solution is targeted at point-to-point meetings in huddle and medium-size rooms.

   - **COLLABORATE Pro 600**: includes video codec appliance, 4-way built-in MCU, UNITE 200 camera, CHATAttach® 150 Speakerphone audio endpoint, and one-year subscription to Spontania collaboration meeting room, multi-user in-room wireless presentation and Skype for Business native integration. This solution is targeted at medium-size rooms.

   - **COLLABORATE Pro 900:** includes video codec appliance, 4-way built-in MCU, UNITE 200 camera, CONVERGE® Pro 840T installed audio endpoint, Beamforming Microphone Array and one-year subscription to Spontania

collaboration meeting room, multi-user in-room wireless presentation and Skype for Business native integration. This solution is targeted at medium and large-size rooms.

2) **Cloud video and web conferencing – Spontania is a** stand-alone feature-rich web and video conferencing service that can be deployed on-premises or in the cloud. The service is targeted at multiple workspaces and use cases including meetings, classrooms and training sessions. This service can be used with ClearOne or third-party audio/video peripherals.

3) **Bring your own video and web conferencing – COLLABORATE Versa 150** includes USB PTZ camera, speakerphone and central hub that connects the laptop to the meeting room peripherals via single USB 3.0 connectivity. COLLABORATE Versa 150, compatible with Cisco WebEx, Google Hangouts, Microsoft Skype for Business/ Lync, GoToMeeting and more, is also bundled with 1-year free subscription of Spontania Pro cloud video and web conferencing. This solution is targeted at small and medium conference rooms.

4) **Professional Camera – UNITE 200/150** is a professional-grade PTZ camera series supporting USB, HDMI and IP connectivity. It delivers 1080p HD resolution, 12X optical zoom and is compatible with PC-based and Pro-AV applications, supporting wide range of meeting spaces.

ClearOne has been successful in leveraging the synergy effect of its acquisitions and positioning itself as a holistic provider with end-to-end offerings including audio/video endpoints as well as audio/video peripherals.

Competitive Differentiation

ClearOne's diverse collaboration products and services portfolio caters to businesses of varying size, industry and technology requirements with a high degree of customization. While there are many vendors now that acknowledge the opportunities arising from growing demand for video collaboration and cloud video services, there are few that offer a tight integration between audio and video endpoints and cloud video services. ClearOne's ability to deliver this tight audio-video integration gives it an edge over competing audio conferencing vendors that are focusing on either professional cameras or cloud video services or both. In addition to supporting third-party collaboration services, ClearOne offers native integration between Spontania and its audio conferencing endpoints. This means increased call-control flexibility for ClearOne users from the Spontania app as well as ClearOne audio conferencing endpoints.

ClearOne is able to leverage its long track record and experience in the industry to hone up its audio portfolio and build up advanced features and functionalities in order to more effectively accommodate evolving customer needs. ClearOne's video products also include interesting features such as in-meeting and online instant messaging and presence, multi-user wireless presentation sharing, recording and live streaming. In addition, ClearOne plans to enhance the meeting experience by launching Skype for Business room solution, interactive digital white boarding and video webinar in the second-half of 2017. By using its

own audio/video technology, ClearOne has the flexibility to develop new products or features as soon as it perceives rising demand among its existing or prospective customers.

ClearOne's media collaboration products are competitively priced compared to more expensive room systems. While the basic model, COLLABORATE Pro 300 is available at a list price of $3,499, the high-end models COLLABORATE Pro 600 and 900 are available at a list price of $6,999 and $11,999 respectively. ClearOne's ability to offer all-in-one solutions, smaller footprint, a unified user experience, as well as related support and maintenance makes it the vendor of choice for customers. On the other hand, the stand-alone Spontania cloud video is offered with flexible deployment options including cloud, on-premises and hybrid. Licensing models include subscription or perpetual licenses priced at $20-$83 per room per month in case of subscription and $955 per room for lifetime.

Comprehensive portfolio, compelling features, affordable prices and unified solution capabilities are key criteria for vendors to gain share in the future. With a comprehensive audio and video conferencing endpoints and peripheral portfolio, ClearOne is well positioned to grow further and achieve larger customer mindshare.

Creating New Revenue Streams for Service Providers

ClearOne's Spontania cloud video is available in SaaS (Software as a Service) as well as PaaS (Platform as a Service) models. ClearOne's decision to host the video infrastructure on the Spontania Cloud and white-label the service platform to key channels worldwide is not only unique but proven to be a successful go-to-market strategy in the cloud video conferencing services market. In tune with this strategy, ClearOne has successfully established partnerships with some of the major international carriers including Airtel, Bouygues Telecom, Deutsche Telekom, Etisalat, Hrvatski Telekom, Indosat, O2 Ireland, Ooredoo, Qatar Telecom, Slovak Telekom, Tata Communications, Telefonica, UNE EPM Telecomunicaciones and Vodafone.

Conclusion

ClearOne offers a strong and innovative portfolio in the converged audio/video solution market. ClearOne is also in the process of strengthening its video portfolio to become a competitive holistic audio/video collaboration provider. This is opening up new growth opportunities for channel partners to offer end-to-end collaboration products and services. In addition, ClearOne offers superior value to its customers looking for a one-stop-shop audio/video offering.

With its strong overall performance, ClearOne has earned Frost & Sullivan's 2017 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.

- Shift Competitors Customers
- Increase Renewal
- Increase Upsell
- Improve Profitability
- Improve Win/Loss Ratio

- Increase Equity
- Improve Recognition/Recall
- Inspire Customers
- Create Differentiated Messaging
- Communicate Brand Value

DEMAND   BRAND

Competitive Strategy Innovation and Leadership

COMPETITIVE POSITIONING

- Carve Out New Market Opportunities
- Pull Away from the Competition
- Establish Differentiated Position
- Increase Market Share
- Improve Profitability

Understanding Competitive Strategy Innovation and Leadership

As discussed above, driving 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 ClearOne

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

9–10	Excellent
7–8	Good
4–6	Fair
1–3	Poor
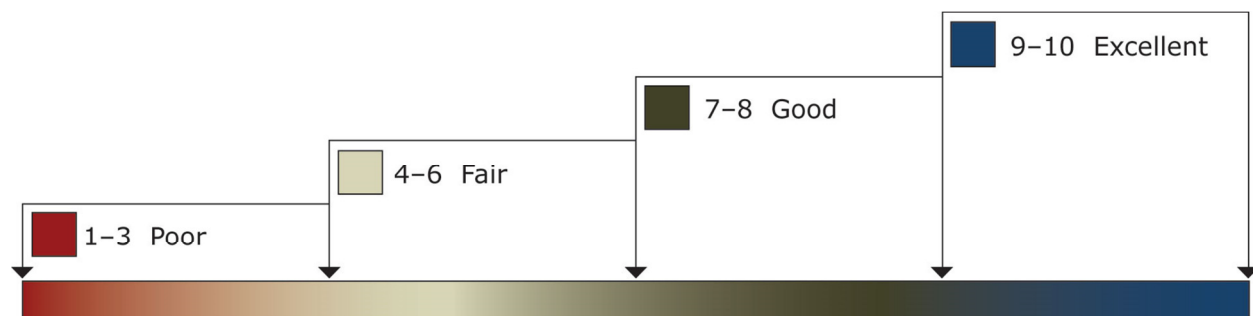
The Decision Support Scorecard is organized by Strategy Innovation and Customer Impact (i.e., these are the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard.). The research team confirms the veracity of this weighted scorecard 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**
ClearOne	**10.0**	**9.0**	**9.5**
Competitor 2	9.0	8.0	8.5
Competitor 3	8.0	7.0	7.5

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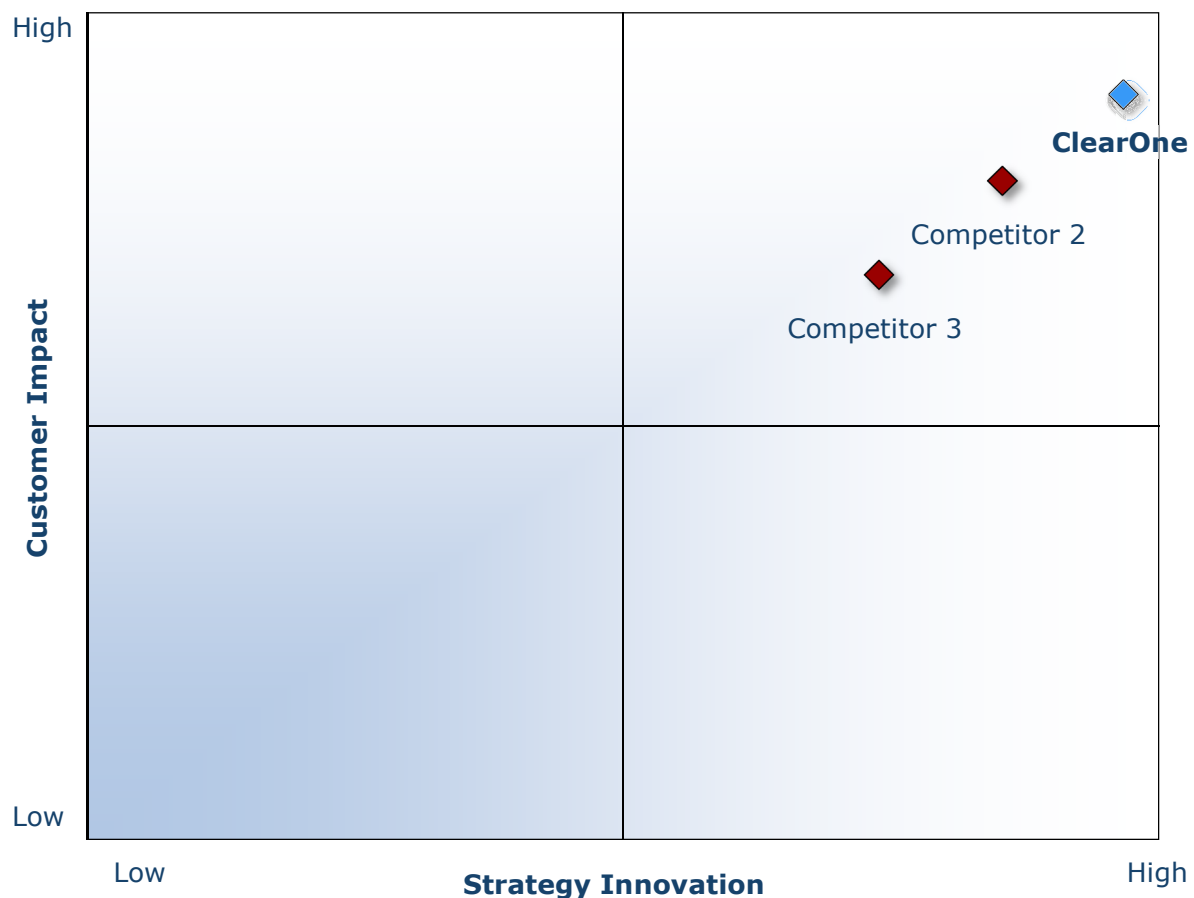
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

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 **Monitor, target, and screen**	Identify Award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	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 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	• 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 panel • Build consensus • Select 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.

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

"We Accelerate Growth"