

FROST & SULLIVAN

ixia

**2017 Global Network Packet Brokers
Market Leadership Award**

FROST & SULLIVAN

BEST
2017 PRACTICES
AWARD

GLOBAL NETWORK PACKET BROKERS
MARKET LEADERSHIP AWARD

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Background and Company Performance

Industry Challenges

Network packet brokers (NPBs) play a critical role in network performance, retrieving live data from production networks and performing analysis to understand network functionality. Although these functions are the fundamental use of NPBs, today's intelligent switches provide more visibility into the network and better assistance in solving network problems.

Networks are becoming more complex, thereby making monitoring and sustaining proper functioning more difficult. In such a scenario, the lack of end-user awareness in terms of product features, interconnection between networks, and security plays a major role in determining NPB vendor success.

Cloud and virtual monitoring have become critical elements for centralized monitoring. NPBs form the basis of data monitoring; however, security is a challenge. Most Tier II and Tier III service providers and enterprises hesitate to adopt new technologies because they fear their networks will be trespassed. In addition, although basic NPBs provide the option to retrieve data for analysis, they are not accurate and do not adhere to security requirements. NPB vendors need to develop and deploy intelligent NPBs that will eradicate these issues and support clients with optimum output.

Vendors that can provide effective NPBs are expected to increase their customer base as this will pave the way to managing network storage, network security, and network performance monitoring.

Ixia's Market Leadership

Growth Strategy Excellence

Based in California, Ixia, a Keysight Business, is the market leader in the global NPB market, with a market share of 30.5% in 2016. The company sells its products in about 25 countries worldwide, with a key focus on North and South America; Europe, the Middle East, and Africa (EMEA), such as France, Germany, and the Netherlands; and Asia-Pacific countries, such as China, India, and Japan. With a focus on security, network monitoring, and ease of use, Ixia has developed its NPB offering to provide true intelligence in the ability to retrieve the right data at the right point in time.

Ixia moved from the second position to the leadership position in the market 3 years ago through its continuous focus on end-to-end monitoring. While NPBs form the basis of network performance monitoring, several companies have neglected their importance and focus only on either network storage or network monitoring.

With its 20-year history in serving the telecommunication market, Ixia already has more than 1,800 employees. With its continuous focus on product development, Ixia has underscored the importance of NPBs and increased its focus on intelligent switches, thereby enabling the company to become a holistic solution provider and a key competitor in the market.

Technology Leverage

Ixia entered the NPB market through its acquisitions of Anue Systems in 2012 and NetOptics in 2013 and has since been expanding its business on a continuous basis, with a focus on the future. For instance, Ixia's products provide customers with the capacity to experiment with 100 G in their data centres or how its NPBs work with its cloud visibility platform, both of which are offered by only a few vendors in the market today.

In addition, Ixia offers high performance to customers by providing up to 32 different tools to distribute the load from 100 G networks, making the company unique in the market. Ixia is focused on security and uniquely offers application and threat intelligence and other security features like SSL decryption and encryption in the intelligent switches it builds to help clients manage their networks effectively, without any loss of data capture and safeguarded from dangerous threats.

Ixia's customer base is spread across service providers, governments, and large enterprises. By catering to these major end-user segments, Ixia has the largest customer base among the competition, thereby making the company the market leader.

Implementation Excellence

Ixia's acquisitions have helped the company expand its customer base and gain market share. In addition to Anue Systems in 2012, Ixia acquired Net Optics in 2013, which offered next-generation cloud services, along with total network visibility and intelligent access solutions for physical and virtual networks. These acquisitions have increased Ixia's leverage in the end-to-end network monitoring market, and Vision ONE is the outcome, which is an all-in-one tool that provides high performance and superior visibility into the network.

Following a strategy of constant innovation, Ixia has developed a broad portfolio of solutions. In addition to previously mentioned products, Ixia offers its iBypass line of bypass switches, and Flex Taps, passive optical taps. Real-time analysis is critical to ensuring proper network functioning, and NPBs form the basis of retrieving live data. With its iBypass and Flex Taps, Ixia caters to both active and passive monitoring, thus enabling its customers to understand the performance of various networks, both in real time and post analysis.

Intelligent switches assist in only filtering required packets, thereby saving cost and time for analysis. Bring Your Own Device (BYOD) and Wear Your Own Device (WYOD) programs are creating security challenges for service providers and enterprises. In such cases, intelligent switches and security tools work hand-in-hand to deliver the right content at the appropriate time.

Customer Ownership Experience

Ixia's investment of time and knowledge in the NPB market is a reflection of its continuous product development efforts, starting from Vision xStream 40, Vision 5236, Vision 5288, Vision 7300, Vision ONE, Vision E40, Vision E100, and the latest, Vision Edge OS - a software only version of its NPB for use on open switches.

These products have been developed so that each update provides at least one unique additional aspect that stands out from the competition in terms of features, price, and performance. For example, the Vision 7300 supports up to 100 G, with the option of 6 line cards in a 7 rack units form factor and with a graphical interface that can cater to new applications in any upgraded network. Other stand out features include application and threat intelligence, deduplication and handling of encrypted data.

Ixia ensures these upgrades and new products are developed as per customers' growing requirements by constantly working in tandem with its customers regarding product features and enhancements.

Brand Equity

Well known in the communications test and measurement (T&M) market, Ixia is now a part of Keysight Technologies and is expected to benefit from the Keysight brand name as well as expand its customer base by catering to Keysight's existing global customer base.

Ixia's customer base has increased since 2012, when the company entered the NPB market. The aforementioned acquisitions have significantly increased the company's brand recognition in the end-to-end monitoring solutions market, where Ixia is considered a one-shop-stop solution provider among service providers and enterprises.

Security concerns are one of the biggest challenges as well as a growth opportunity for NPB vendors in the current market. Because ensuring proper network safety is critical, most Tier I and Tier II end users prefer well-recognized original equipment manufacturers (OEMs), such as Ixia, when purchasing security-related products.

The future is about creating and developing security tools that can automatically detect threats and dynamically redirect traffic, even without administrator intervention. This kind of security response and intelligence is driving market growth.

Ixia has significantly gained brand recognition since 2012 in the NPB market as well as in the overall network performance monitoring market, which is evident from its increased customer base.

Conclusion

With the critical need for capturing data efficiently and effectively, NPBs have gained more importance. Networks are more complex in nature, and companies need to analyze data as well as safeguard their networks.

Ixia addresses the 100 G market space, which is an upcoming trend in the NPB market. It constantly embraces new market trends, including software defined networking, providing products like Vision Edge OS that allow customers to use Ixia software on open switches. With its continuous development of innovative NPBs and other end-to-end monitoring solutions, Ixia addresses market needs with its intelligent switches and has rapidly gained market share by expanding its customer base over the past 5 years. This significant growth can be attributed to its acquisitions of Anue Systems and NetOptics, which helped increase Ixia's customer base among network monitoring service providers and enterprises.

For its strong overall performance, Ixia has earned Frost & Sullivan's 2017 Market Leadership Award.

Significance of Market Leadership

Ultimately, growth in any organization depends upon customers purchasing from a company, and then making the decision to return time and again. Loyal customers become brand advocates; brand advocates recruit new customers; the company grows; and then it attains market leadership. To achieve and maintain market leadership, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Market Leadership

Driving demand, strengthening the brand, and differentiating from the competition all play a critical role in a company's path to market leadership. This three-fold focus, however, is only the beginning of the journey and must be complemented by an equally rigorous focus on the customer experience. Best-practice organizations, therefore, commit to the customer at each stage of the buying cycle and continue to nurture the relationship once the customer has made a purchase. In this way, they build a loyal, ever-growing customer base and methodically add to their market share over time.

Key Performance Criteria

For the Market Leadership Award, Frost & Sullivan Analysts focused on specific criteria to determine the areas of performance excellence that led to the company's leadership position. The criteria considered include (although not limited to) the following:

Criterion	Requirement
Growth Strategy Excellence	Demonstrated ability to consistently identify, prioritize, and pursue emerging growth opportunities
Implementation Excellence	Processes support the efficient and consistent implementation of tactics designed to support the strategy
Brand Strength	The possession of a brand that is respected, recognized, and remembered
Product Quality	The product or service receives high marks for performance, functionality, and reliability at every stage of the life cycle
Product Differentiation	The product or service has carved out a market niche, whether based on price, quality, or uniqueness of offering (or some combination of the three) that another company cannot easily duplicate
Technology Leverage	Demonstrated commitment to incorporating leading-edge technologies into product offerings, for greater product performance and value
Price/Performance Value	Products or services offer the best value for the price, compared to similar offerings in the market
Customer Purchase Experience	Customers feel they are buying the most optimal solution that addresses both their unique needs and their unique constraints
Customer Ownership Experience	Customers are proud to own the company's product or service, and have a positive experience throughout the life of the product or service
Customer Service Experience	Customer service is accessible, fast, stress-free, and of high quality

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

Frost & Sullivan Awards follow a 10-step process to evaluate Award candidates and assess their fit with 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice 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-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	<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-practice 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-practice 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-practice criteria
9 Communicate recognition	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of Award and plan for how recipient can use the Award
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 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>.