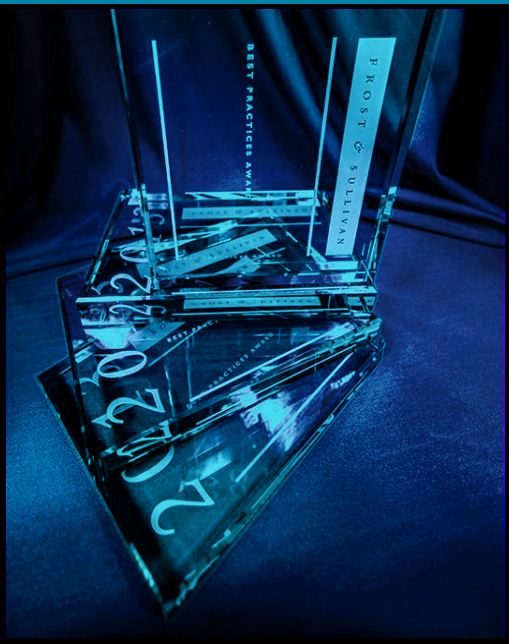


F R O S T & S U L L I V A N

Level(3)[®]

2016 North American
VoIP Access and SIP Trunking Services
Product Leadership Award



FROST & SULLIVAN

BEST
2016 PRACTICES
AWARD

NORTH AMERICAN
VoIP ACCESS AND SIP TRUNKING SERVICES
PRODUCT LEADERSHIP AWARD

2016
BEST PRACTICES
AWARDS

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Background and Company Performance

Industry Challenges

Voice over Internet protocol (VoIP) and session initiation protocol (SIP) trunking services represent an important element of modern business communications, yet still one of the many choices available to customers. Today customers face a deluge of communications products, solutions, and services, including a mix of VoIP access, SIP trunking, hosted unified communications, and cloud-based collaboration tools. As a result, businesses are often confused about which products best meet their specific needs. Additionally, customer expectations are high, requiring VoIP solutions to not only be as reliable as legacy telecommunications services, but also support new capabilities, such as the sharing or pooling of VoIP trunks, dynamic disaster recovery options, and the tools and resources to provide smooth transitions from existing services.

Product innovation leaders address these challenges. Leading providers typically rationalize or slim down their product portfolios, offering only the best-of-breed services that provide the right set of capabilities for their target customers. Product leaders also work to bundle the most common value-added services and features into these rationalized offerings, making it simple for customers to order and deploy VoIP services. Additionally, by focusing only on the services that most closely align with the needs of their typical customer types, product leaders are able to create operational efficiencies within their own organization, accelerating adoption of their services and propelling market growth.

Product Family Attributes and Business Impact

Match to Needs

Level 3 Communication's Voice Complete solution is a refined VoIP and SIP trunking product that simplifies service deployment and management for businesses. Voice Complete combines bundled local and long-distance calling services with many of the features and functionality that Level 3's business customers require from an IP-based communications service. Shared concurrent call paths, disaster recovery and business continuity options, geographically independent telephone numbers and a simplified migration path from TDM-based solutions to native IP-based SIP trunks are all service options that deliver considerable value to Level 3's enterprise customers.

Voice Complete functionality and features align very closely with Level 3's target customers. At an organizational level, Level 3 Communications has a well-defined "sweet spot" in terms of customers: medium to large-size businesses that either have multiple locations or high bandwidth data needs. These customers are moving to unified communications platforms across business sites. Additionally, customers in this segment are supporting a geographically dispersed workforce and demand dynamic sharing of voice

resources. With its broad feature set Voice Complete has been designed to match the requirements of nearly all Level 3 target customers.

Reliability and Quality

Level 3 Communications leverages its extensive global network to deliver voice and data services to businesses. Customers that use Level 3's Multiprotocol Label Switching (MPLS) or carrier Ethernet data services can be assured of secure and reliable VoIP services. Voice Complete can provide on-network quality of service (QoS) with minimal latency. By leveraging its extensive network, Level 3 is able to provide greater uptime guarantees, which is positively impacting the service level agreements (SLA) that it is able to provide to its customers.

The strength of Level 3's network and its footprint extends to a business' telephone numbers (TN) and their existing platforms. As part of the Voice Complete solution, customers can access their domestic phone number anywhere on Level 3's network. This not only enables a highly mobile workforce to stay connected, but also allows businesses to ensure that E911 and emergency services follow users to their current location. Additionally, customers can connect legacy telephony platforms and applications to Voice Complete without additional hardware investment. This enables businesses to gain some of the advantages of a SIP-based trunking service while extending the lifecycle of legacy or proprietary applications.

Operational Efficiency

Unlike its competitors, which often offer a myriad of voice services under an equally large number of brand and product names, Level 3 has rationalized its VoIP access and SIP trunking services down to a single product line: Voice Complete. While making voice services easy for customers to understand, a single product offering that includes both the fundamental voice services and the most commonly sought-after features also creates a number of inherent operational efficiencies for both Level 3 and its partners.

For example, Level 3's direct and indirect sales teams do not have to learn and understand a large product catalog of voice services. Other than a few optional add-on features, the combined salesforce is able to focus on the value proposition of a flagship product, while other providers have to commit significant time and energy to understand which of their services is the best fit for a customer's needs. This efficiency carries forward at customer acceptance, as the order entry process is less intensive in comparison to those of Level 3's competitors.

A single product line also enables Level 3 to develop operational efficiencies in the deployment and management of voice services. Without the baggage of multiple billing and operational platforms, Voice Complete creates opportunities to apply best practices and inject process improvements into Level 3's daily operations.

Growth Potential

Level 3 is well positioned to take advantage of the ongoing transition from legacy telecommunications services, such as T1/E1 and primary rate interface (PRI) switched-circuit trunking services to next-generation VoIP access and SIP trunking services. While many businesses have already discovered the value of IP-based communications, there still remains a significant installed base of legacy connections, representing an untapped growth opportunity for Level 3 and its competitors.

Level 3 has designed its Voice Complete service to be both highly scalable and, more important, highly repeatable. To make Voice Complete a repeatable offering, Level 3 has performed the necessary rationalization and optimization of its platforms and internal best practices. Repeatability is particularly key to Level 3's growth potential, as the company will be able to apply the lessons learned beyond North America and into new geographical regions, and to offer accelerated deployment times to new customers in existing territories.

Additionally, Level 3's leadership position in the data services market provides numerous pull-through opportunities for its entire set of services, including Voice Complete. The value proposition of SIP trunking services is often tied to the consolidation of voice and data services onto an end-to-end IP network access. For example, a customer currently using Level 3's network access services will likely find the provider's voice, security, contact center, or conferencing services to be not only cost-competitive compared to competing solutions, but that they can also be easily added to their existing services. Level 3's strength in one market expands its potential in the other.

Positioning

Level 3 positions itself as a competitive alternative to both the incumbent telecommunications providers and the over-the-top (OTT) VoIP providers in the medium-to-large enterprise space. Unlike competitors that focus on small and mid-size businesses (SMB), Level 3's customers are among the largest multi-national corporations. As such, Voice Complete is positioned as a VoIP service that caters to the needs of these large organizations. Large, distributed enterprises prefer to work with well-established providers and often place a higher value on the overall capabilities of a provider, such as network and voice reliability, a large geographical footprint, and business continuity. Furthermore, most large enterprises require SIP trunking services that allow for the pooling and dynamic distribution of concurrent call paths (CCP), the sharing of calling resources, and the portability of telephone numbers between sites. Level 3 understands this type of customer and has positioned Voice Complete to deliver on these values.

Level 3's brand is well known throughout business circles as a provider of data network, content delivery, data center, cloud, and managed services, which helps promote its VoIP access and SIP trunking solutions to customer organizations. Level 3's value proposition is

well understood by enterprise IT and decision makers, which are familiar with Level 3's broader portfolio and already deploying some of its services.

Conclusion

Voice Complete from Level 3 Communications provides differentiated value to businesses. With the right mix of value-added features and Level 3's far-reaching global network, the SIP trunking service is well positioned to meet the needs of even the provider's largest and most demanding customers.

With its strong overall performance, Level 3 Communications has earned Frost & Sullivan's 2016 Product Leadership Award.

Significance of Product Leadership

Ultimately, growth in any organization depends upon customers purchasing from your company, and then making the decision to return time and again. A comprehensive product line, filled with high-quality, value-driven options, is the key to building an engaged customer base. To achieve and maintain product excellence, an organization must strive to be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding Product Leadership

Demand forecasting, branding, and differentiation all play a critical role in finding growth opportunities for your product line. This three-fold focus, however, must be complemented by an equally rigorous focus on pursuing those opportunities to a best-in-class standard. Customer communications, customer feedback, pricing, and competitor actions must all be managed and monitored for ongoing success. If an organization can successfully parlay product excellence into positive business impact, increased market share will inevitably follow over time.

Key Benchmarking Criteria

For the Product Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Product Family Attributes and Business Impact—according to the criteria identified below.

Product Family Attributes

- Criterion 1: Match to Needs
- Criterion 2: Reliability and Quality
- Criterion 3: Product/Service Value
- Criterion 4: Positioning
- Criterion 5: Design

Business Impact

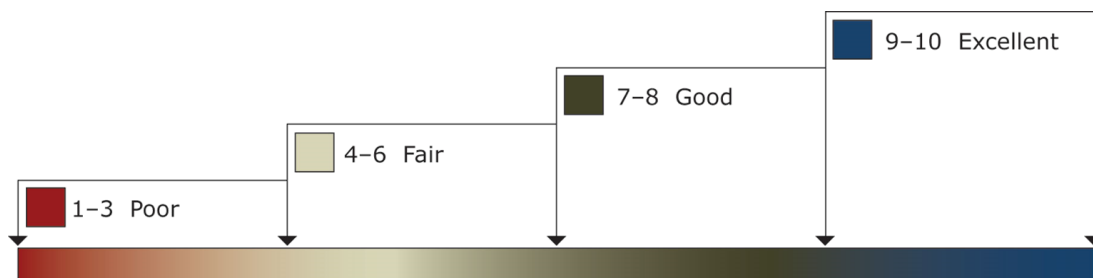
- Criterion 1: Financial Performance
- Criterion 2: Customer Acquisition
- Criterion 3: Operational Efficiency
- Criterion 4: Growth Potential
- Criterion 5: Human Capital

Best Practice Award Analysis for Level 3 Communications

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 Product Family Attributes and Business Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria 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 players as Competitor 2 and Competitor 3.

DECISION SUPPORT SCORECARD FOR PRODUCT LEADERSHIP AWARD

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
Product Leadership	Product Family Attributes	Business Impact	Average Rating
Level 3 Communications	10	9	9.5
Competitor 2	9	8	8.5
Competitor 3	8	8	8.0

Product Family Attributes

Criterion 1: Match to Needs

Requirement: Customer needs directly influence and inspire the design and positioning of the product family

Criterion 2: Reliability and Quality

Requirement: Products consistently meet or exceed customer expectations for performance and length of service

Criterion 3: Product/Service Value

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

Criterion 4: Positioning

Requirement: Products or services unique, unmet need that competitors cannot easily replicate or replace

Criterion 5: Design

Requirement: The product features an innovative design, enhancing both visual appeal and ease of use

Business Impact

Criterion 1: Financial Performance

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

Criterion 2: Customer Acquisition

Requirement: Product strength enables acquisition of new customers, even as it enhances retention of current customers

Criterion 3: Operational Efficiency

Requirement: Staff is able to perform assigned tasks productively, quickly, and to a high quality standard

Criterion 4: Growth Potential

Requirements: Product quality strengthens brand, reinforces customer loyalty and enhances growth potential

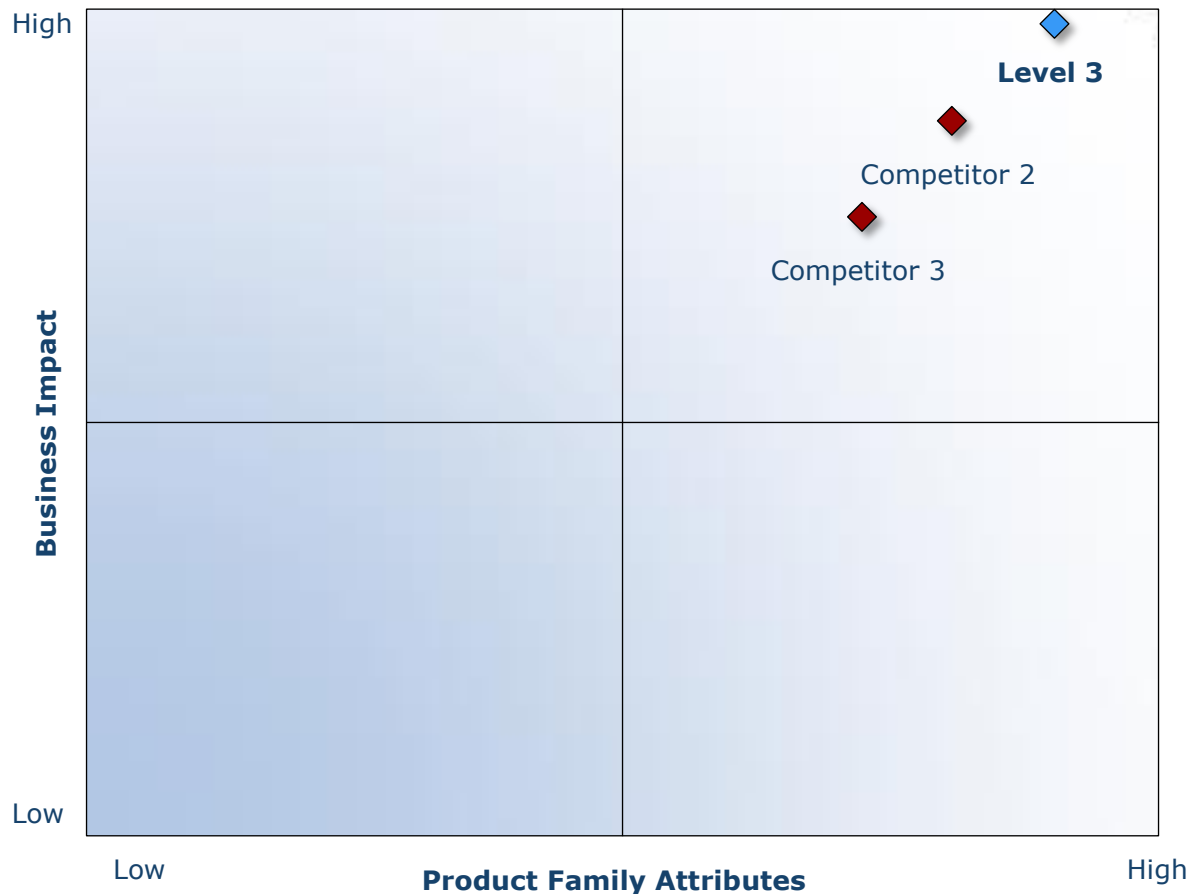
Criterion 5: Human Capital

Requirement: Company culture is characterized by a strong commitment to product quality and customer impact, which in turn enhances employee morale and retention

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can 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.

DECISION SUPPORT MATRIX FOR PRODUCT LEADERSHIP AWARD



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



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 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	<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 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 winner 	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"> • 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	<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

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 almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.