

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



VI BUSINESS RECEIVES THE 2023 TECHNOLOGY INNOVATION LEADERSHIP AWARD

*Identified as best in class in the Indian session
initiation protocol trunking industry*

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Vi Business excels in many of the criteria in the session initiation protocol (SIP) trunking space.

AWARD CRITERIA	
<i>Technology Leverage</i>	<i>Business Impact</i>
Commitment to Innovation	Financial Performance
Commitment to Creativity	Customer Acquisition
Stage Gate Efficiency	Operational Efficiency
Commercialization Success	Growth Potential
Application Diversity	Human Capital

SIP Trunking: One-stop Solution for Enterprises' Modern Communication Needs

Legacy time-division multiplexing (TDM) telephony networks are becoming irrelevant because all fixed line services¹ and new cloud-based voice services are gaining significance. To adopt/move toward these new cloud and IP-based services, session initiation protocol (SIP) trunking has emerged as the stepping stone for enterprises to support the transition and ensure a reliable communications infrastructure. SIP is the protocol used to initiate, maintain, modify, and terminate real-time communication sessions, such as voice and video, over IP-based networks. The session could be a voice call between two people or a video conference between teams or team members. SIP trunking simply connects a PBX (legacy PSTN network element) to the Internet to facilitate calls, which then becomes IP-PBX. Over time, SIP trunking's popularity and significance have grown because of its endless benefits, including improved reliability, easier management, flexibility, and speed of deployment. For example, SIP's IP-based nature allows users to add layers of software to achieve the required level of security and flexibility. In addition, SIP services are scalable based on changes in use and requirements.

Going a little deeper, SIP results in consolidated communication systems, where one IP-based network can be used for various types of data transmission, such as voice, video, and more, without the need for multiple, overlapping networks. Moreover, SIP results in permanently reduced communication costs, which is a winner for small- and medium-size businesses because SIP's monthly costs are based only on

¹ Fixed line services include ISDN, SIP, and tollfree services.

the actual use, with the potential end of fees, such as dialer surcharges and certain monthly taxes. SIP makes the cost of the entire phone system predictable and simple because SIP calls use Internet/third-party IP networks instead of expensive physical phone lines. Moreover, long distance and international calls become local calls with SIP, making them cheaper.

SIP comes with an instant return on investment (RoI) because there is no risk or massive upfront investment necessary to get started. Enterprises choose SIP trunking services because they are affordable from the start and provide greater capability and reduced communication costs.

Apart from these advantages, SIP is essential because it is the first step toward unified communication (UC). SIP enables organizations to control the connections between on-premises and cloud-based systems and services, such as managing routing, sessions, and dial plans. UC merges all channels into one platform, such as video conferencing, instant messaging, collaboration apps, and more. SIP service providers can shift all the communication channels of an enterprise to a data network, thus facilitating a key step toward achieving a UC-as-a-service (UCaaS) platform so that all real-time communication can be handled in one place. SIP serves as a backbone for data centers.

Based on the Frost & Sullivan Annual Demand Side Survey 2022, more than 55% of organizations are already using SIP trunking, while more than 30% plan to adopt the solution in the next 2 to 3 years, indicating the extent to which enterprises are acknowledging the significance of SIP services.

Vi Business: Going Beyond Standard SIP Services

Vi Business is a leading Indian telecom operator, with headquarters in Mumbai and Gandhinagar. In terms of its enterprise business solutions, Vi started offering SIP services only 5 to 6 years ago and has since

“In terms of its enterprise business solutions, Vi started offering SIP services only 5 to 6 years ago and has since been making a strong impact on the telecommunication industry. Vi Business launched its MSIP that no other participant offers in the industry, which has since become a gamechanger for operators. This industry-first initiative offers advanced, end-to-end, and proactive monitoring and real-time analytics services to customers, enabling them to make more informed decisions.”

- Kanika Jain
Senior Research Analyst, ICT

been making a strong impact on the telecommunication industry. Frost & Sullivan notes that Vi Business’s SIP solution is differentiated from other offerings based on its many impressive features. For example, Vi Business’s SIP services offer business continuity, which means providing customers with geographical redundancy in times of disasters or disruptions because connectivity is always maintained. For customers, geo-redundancy ensures that critical business applications and connectivity remain secure and accessible in case of any emergency by distributing important components or infrastructures across multiple centers in different locations. If a primary location (headquarters) fails, geo-redundancy provides a safety net, in turn helping customers serve their end users better or solve their communication needs more efficiently.

In addition, Vi Business provides users with dual last-mile connectivity, which means higher uptimes in terms of the service level agreement (SLA) or the customer availability perspective, improved productivity levels, business continuity (even with any major unforeseen disruptions to the primary network), and cost

effectiveness because this connectivity eliminates the need to have two service providers. Some of the key features that Vi Business offers include unlimited capacity (virtually unlimited in terms of sessions on a single trunk) and multiple pilots (up to 5 pilots on a single trunk so that customers can use multiple pilots for different lines of business or for different purposes), in addition to its standard SIP offerings, making Vi Business's solutions unique and a winner among customers.

Vi Business's Managed SIP: Fulfilling the Needs of Customers with Innovation and Creativity

Vi Business offers many distinguished SIP features that provide customers with better quality of service (QoS), compared to other market participants. Based on industry feedback and continual interaction with clients, enterprises still had some unmet needs and faced challenges while using SIP services. For instance, Vi Business noticed the unresolved need for SLA-backed voice services in the industry. In addition, some key customers, such as conference solution providers, struggle to identify the root cause behind quality failures during conference calls. Moreover, contact centers must rely on agent-generated reports to measure critical and important key performance indicators (KPIs), and communications platform-as-a-service (CPaaS) providers must plan their short-duration auto-dialer calls manually to ensure they do not choke the network that could lead to reduced efficiency. For information technology-enabled services (ITes) clients, Vi Business observed that they are unable to detect sudden network quality issues in time. Identifying the issues, raising tickets for resolutions, and conducting repairs take time, thus impacting business operations and leading to the conception and evolution of managed SIP (MSIP).

On June 15, 2021, Vi Business launched its MSIP that no other participant offers in the industry, which has since become a gamechanger for operators. This industry-first initiative offers advanced, end-to-end, and proactive monitoring and real-time analytics services to customers, enabling them to make more informed decisions. The MSIP solution is an SLA-backed platform that embeds real-time analytics to enhance customers' decision making, deliver better uptime, and improve operational efficiency. With such a solution, Vi Business has impressed all stakeholders with its extensive in-house research and development initiatives.

MSIP's real-time analytics includes usage reports and, similar to an ECG, provides visibility on network efficiency, in terms of voice KPIs, such as network efficiency ratio (NER), answer-seizure ratio (ASR), and mean opinion score (MOS) for voice quality. NER measures the network's ability to deliver a call to the terminal, ASR measures network quality and call success rates, and MOS ranks the quality of voice and video sessions. All these parameters basically denote the network's capability and health and are thus significant to all customers.

In the MSIP portal, these KPIs can be monitored and customized based on customers' requirements. MSIP ensures 99.95% uptime and enables a better QoS for customers. The portal provides a comprehensive network view and thus facilitates faster corrective measures, in addition to providing proactive monitoring services rather than traditional reactive services. Trouble tickets are automatically logged in at a round-the-clock service management desk, with a dedicated service manager who monitors and authenticates each network element. The portal offers 24/7 support service and the integrated management of customers' premises-based session border controllers, routers, and gateways to administer security, multivendor interoperability, protocol interworking, QoS, and session routing, resulting in an improved

resolution time by 30%. Fundamentally, Vi Business's MSIP solution suite provides enterprises with a 360-degree view of their entire fixed voice networks, with quality scores and a complete analysis of the traffic.

The MSIP portal has predictive capabilities as well. By proactively monitoring network factors and parameters, the portal can predict the possibility of failures and then take measures to prevent them. For a large customer with multiple trunks in multiple geographies and locations, when a network failure happens, the MSIP provides a Trunk Utilization Report that gives historical data of network utilization at any point in time and suggests when the network should be upgraded at a particular location, enabling customers to make informed decisions.

Similarly, MSIP can improve call quality by changing the network's bandwidth or codec type, such as changing compression rates and encoding parameters. The portal proactively measures the quality of various calls in the network and, based on the quality, determines any kind of deterioration in terms of the MOS and notifies customers to take action, such as changing the codec type or enhancing the bandwidth. In addition, the portal provides a network efficiency report that monitors any challenge in the network. The portal, therefore, offers real-time dashboards for visibility, configurability, and agility, thus driving informed and timely decision making while delivering advanced capabilities and functionalities.

The following are some key customer use cases where Vi Business's MSIP solution has successfully resolved customers' challenges across different industry verticals:

Contact Centers: A contact center manager was always challenged to improve call connect numbers and identify issues because the data entered by agents was often inaccurate or unreliable. Empowered by Vi Business's MSIP solution, the customer receives important insights through a real-time dashboard that displays specific metrics, such as successful calls, invalid numbers, non-responsive customers, abandoned calls, and network unavailability.

ITeS Companies: These companies struggle with identifying a voice network concern because it can significant time and increases the time to conduct repairs or restorations, thus negatively impacting the business. Vi Business's MSIP solution makes the network intelligent enough to detect any breaches of threshold values and raises a ticket automatically, thus making restoration possible before a customer becomes aware of any problems.

eCommerce Participants: Pan-India delivery centers require extensive customer calls to track shipments. The challenge is to improve call connections and always maintain optimum infrastructure. Vi Business's MSIP solution supports these centers by providing a Pan-India overview of their link utilization (i.e., a real-time dashboard displaying unsuccessful calls with failure reasons), allowing them to make informed decisions and augment voice infrastructure.

UC Companies: These companies always need to improve call quality while failing to pinpoint whether areas of improvement are with its application or on the end user's side. Vi Business's MSIP provides an online dashboard that offers a view of the voice quality of Vi's network. UC companies, therefore, can map the complaints to specific occurrences.

CPaaS Participants: These companies use a large voice setup to host interactive voice response (IVR) and outbound dialer (OBD) campaigns and struggle to deliver high call volumes at required times. Vi Business's

MSIP real-time dashboard provides details of the current cost-per-sale (CPS) that is configured for the trunk, along with the CPS utilization. Customers, therefore, can spread calls over a defined timeframe and avoid trunk choking. Furthermore, the solution helps Vi Business determine an optimum CPS for specific campaigns.

Vi Business is planning to continue adding more to this MSIP service. In the future, the company is looking to increase its functionality to host virtually the application level firewalls in networks. The aim is to build on other expertise beyond this portal to strengthen the offerings in the future. The company will add applications, such as sales lead management, sale service process management, and customer lifecycle management, on top of the core services to increase the convenience for customers.

Impressive Financial Results: Proof of Vi Business's Success in the SIP Market

“Vi Business has been growing steadily and currently holds the second spot, in terms of market share, (only after Tata Tele), after surpassing Airtel. Vi Business aims to take its SIP revenue across the INR 150 Cr mark by the next financial year.”

- Kanika Jain
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In terms of the commercial adoption of SIP services so far, Vi Business's key customers include CPaaS participants and aggregators. These companies are the bulk buyers that manage campaigns for their various end users, such as political campaigns or campaigns run by BFSI customers. Conferencing service providers, content centers, and other companies (e.g., IT, ITeS, and BFSI) all serve as key customers. To build a strong customer base for its SIP services and to cater to different markets, Vi Business has been commercially sensitive to customers' needs and thus offers slab-based pricing based on volume. To maintain balance,

the company focuses on enterprises' volume gain and average revenue per user (ARPU).

The MSIP portal has generated a new revenue stream for Vi Business. In Q1 2022, the portal contributed 5% of the overall SIP revenue, and by the end of 2022, based on Vi Business's estimates, the contribution will be 15 to 20% of the SIP revenue, This contribution is expected to increase to 25 to 30% by 2023 and will continue growing at a strong pace as more customers adopt the manage SIP services and with uptake among large conference providers and aggregators.

Vi's enterprise SIP revenue growth more than doubled from 2018 to 2019 (approximately 117% growth).² In 2020, amidst the challenging COVID-19 pandemic, the company sustained this three-digit year-over-year (YoY) growth in SIP revenue, at 138%. Since then, Vi Business has been growing steadily and currently holds the second spot, in terms of market share, (only after Tata Tele), after surpassing Airtel. Vi Business aims to take its SIP revenue across the INR 150 Cr mark by the next financial year.

² F&S started reporting Vi's SIP starting in H2 2017.

Conclusion

In the challenging fixed line services market, SIP trunking is the only product that helps enterprises in their digital journey. This IP-based protocol is the preferred choice service because it is scalable, flexible, secure, cost effective, and customizable. SIP serves as the backbone technology for UC platforms, cloud telephony, contact centers, and data centers.

In the price-sensitive Indian market, Vi Business's revenue growth speaks for itself. With its SIP solution, the company has carved out a space in only 5 to 6 years. With sensible pricing and over-the-top features, such as MSIP, Vi Business's SIP services are a winner in the market. Going forward, Vi Business plans to invest further in the MSIP portal and make it even stronger.

Vi Business's applications will be useful in helping customers have a more comprehensive digital journey and facilitate their digital adoption. Vi Business is currently investing and working on the seamless integration of its platforms with customers' environments.

With its innovation, customer-centric approach, and strong market performance, Vi Business earns Frost & Sullivan's 2023 Indian Technology Innovation Leadership Award in the SIP trunking industry.

What You Need to Know about the Technology Innovation Leadership Recognition

Frost & Sullivan's Technology Innovation Leadership Award recognizes the company that has introduced the best underlying technology for achieving remarkable product and customer success while driving future business value.

Best Practices Award Analysis

For the Technology Innovation Leadership Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Technology Leverage

Commitment to Innovation: Continuous emerging technology adoption and creation enables new product development and enhances product performance

Commitment to Creativity: Company leverages technology advancements to push the limits of form and function in the pursuit of white space innovation

Stage Gate Efficiency: Technology adoption enhances the stage gate process for launching new products and solutions

Commercialization Success: Company displays a proven track record of taking new technologies to market with a high success rate

Application Diversity: Company develops and/or integrates technology that serves multiple applications and multiple environments

Business Impact

Financial Performance: Strong overall financial performance is achieved in terms of revenues, revenue growth, operating margin, and other key financial metrics

Customer Acquisition: Customer-facing processes support efficient and consistent new customer acquisition while enhancing customer retention

Operational Efficiency: Company staff performs assigned tasks productively, quickly, and to a high-quality standard

Growth Potential: Growth is fostered by a strong customer focus that strengthens the brand and reinforces customer loyalty

Human Capital: Commitment to quality and to customers characterize the company culture, which in turn enhances employee morale and retention

