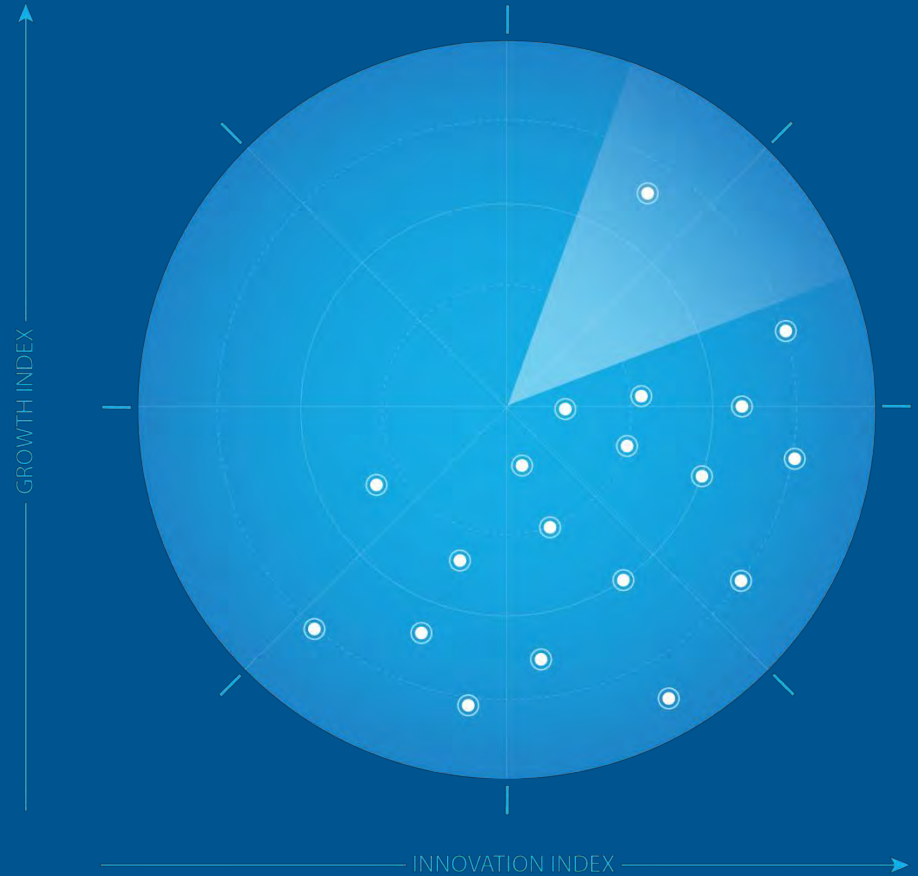


Frost Radar™: Cloud-Connected Calling Enablement, 2023

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A Benchmarking System to Spark Companies to Action - Innovation That Fuels New Deal Flow and Growth Pipelines



Strategic Imperative and Growth Environment



Strategic Imperative

Factors Creating Pressure on Growth

- Frost & Sullivan has identified cloud-connected calling enablement as a nascent but aggressively growing segment of the voice-over-internet protocol (VoIP) access and session initiation protocol (SIP) trunking market. Cloud-connected calling enablement services provide carrier-grade managed voice and telephony services into third-party cloud private branch exchange (PBX) environments, including Microsoft Teams, Cisco Webex, Zoom, and RingCentral platforms.
- Frost & Sullivan believes that the rise of cloud-connected calling enablement and bring your own carrier (BYOC) solutions enabled across the leading unified communications as a service (UCaaS) platforms represents a significant shift in the enterprise communications ecosystem and will have a profound effect on specific markets.
 - The VoIP access and SIP trunking services market will experience a lateral shift from on-premises connectivity to cloud PBX) platforms. Over time, carrier connections to myriad cloud platforms will become a significant proportion of the market.

Source: Frost & Sullivan

Strategic Imperative

Factors Creating Pressure on Growth

- Provider-managed communications infrastructure will provide an additional value-added service and revenue stream alongside core public switched telephony network (PSTN) connectivity services.
- UCaaS market participants must support widescale BYOC options to attract new businesses, particularly midmarket and large enterprise customers. Some businesses will leverage BYOC options to support multi-provider UCaaS deployments, enabling separate subsidiaries, business units, or even specific user personas to utilize distinct UCaaS solutions that fit their specific needs or compliance requirements. UCaaS provider BYOC strategies will result in the disintegration of the value chain and the redistribution of revenue whereby certain parties (typically UCaaS providers that own their platforms) collect the cloud application revenue, and other parties (typically telecom carriers) collect the PSTN connectivity, direct inward dialing (DID), and calling plan revenue.

Source: Frost & Sullivan

Strategic Imperative

Factors Creating Pressure on Growth

- The ability to shift existing VoIP access and SIP trunking services quickly and easily into cloud PBX solutions will accelerate the decline of on-premises PBX and UC platform deployments. BYOC options eliminate a significant barrier to cloud adoption, and many of these customers will abandon their on-premises platforms.

Growth Environment

- Frost & Sullivan has forecasted a revenue opportunity of almost \$1.5 billion in 2028 solely for Microsoft Teams Direct Routing and Operator Connect solutions offered in North America. That forecast is based on a strong belief that a significant portion of SIP trunking services will be leveraged to support cloud PBX platforms by 2028.
- In 2023, a survey of IT decision-makers worldwide leveraging Microsoft Teams Phone in their business noted an overwhelming preference for cloud-connected enablement services managed by their service provider. Respondents showed a strong preference for Operator Connect (21%), followed by provider-managed Direct Routing (19%) and Teams Phone Mobile (16%). In comparison, only 11% of respondents prefer a self-managed session border controller (SBC) approach.
- Competing cloud PBX providers such as Zoom and Cisco are taking an approach similar to Microsoft and enabling equivalent BYOC capabilities to their platforms. Carriers, communications service providers, and new entrants into the voice market have a significant opportunity to be the trusted voice provider in these new cloud PBX ecosystems.



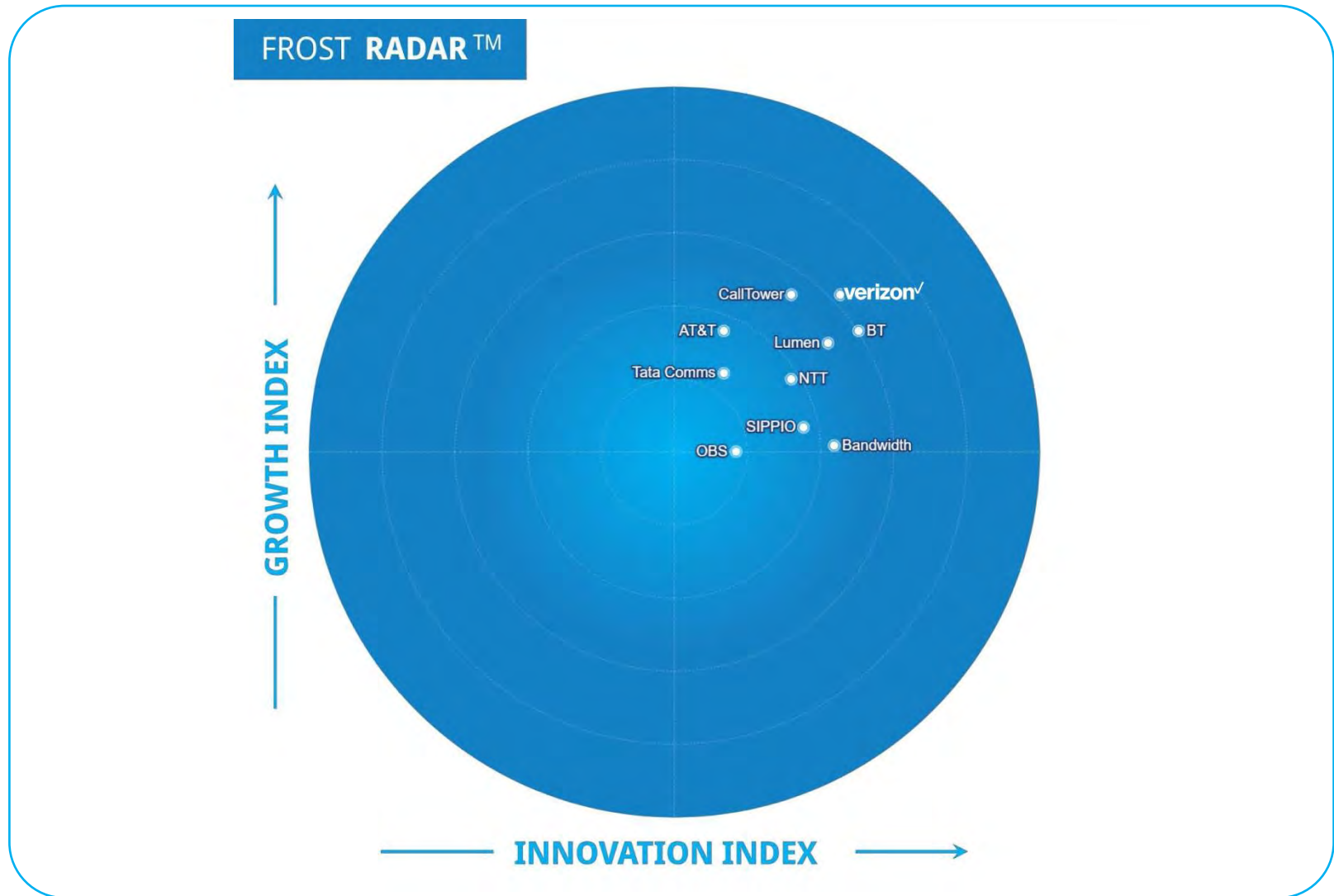
Source: Frost & Sullivan



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Source: Frost & Sullivan

Competitive Environment

- As an emerging segment of the VoIP access and SIP trunking market, success in cloud-connected calling enablement requires commitments to innovation, partnerships, and driving early adoption. While almost any of the thousands of VoIP access and SIP trunking service providers worldwide could enter this segment, Frost & Sullivan chose these ten providers for further inclusion based on time in market, breadth and depth of service offerings, and unique value propositions and go-to-market strategies.
- Verizon, the innovation and growth leaders in this segment, follow similar paths to success. Verizon has multiple solutions for Microsoft Teams Phone, including well-established Direct Routing and Operator Connect services. They were early launch partners for Microsoft Teams Mobile, leveraging their wireless networks to create links between cloud-based Teams and corporate mobile devices, and both providers have extended beyond their successes with Microsoft to include other ecosystems, such as Cisco or Zoom.



Companies to Action:
Companies to Be Considered First for
Investment, Partnerships, or Benchmarking

Company to Action: Verizon

Innovation

- Verizon has one of the longest histories in the cloud-connected calling enablement market. The provider has deep, long-term relationships with Cisco Webex and Microsoft Teams, leading cloud PBX platforms. Verizon also works closely with contact center partners, including Genesys Cloud, NICE CXone, Medallia, and Pindrop, to integrate toll-free number services closely.
- Verizon is modernizing its base of Cisco customers to Webex Calling, leveraging the complete stack of collaboration, meetings, and calling that Cisco provides from its cloud platform.
- For customers who view Microsoft Teams as their go-forward platform, Verizon has a full suite of options.
 - Verizon Calling with Microsoft Teams is a managed SBCaaS offer specifically designed to quickly integrate the provider's IP Trunking and third-party SIP trunking services into a customer's Teams Phone tenant. Verizon Calling with Microsoft Teams is a value-added service that offers advanced call routing, administrative, and analytics capabilities to existing SIP trunking services with a per-user/per-month pricing model.

Source: Frost & Sullivan

Company to Action: Verizon (continued)

Innovation

- Verizon Calling with Microsoft Teams is a managed SBCaaS offer designed to quickly integrate the provider's IP Trunking and third-party SIP trunking services into a customer's Teams Phone tenant. Verizon Calling with Microsoft Teams is a value-added service that offers advanced call routing, administrative, and analytics capabilities to existing SIP trunking services with a per-user/per-month pricing model.
- Verizon VoIP for Microsoft Teams Operator Connect offers customers a direct and highly automated link between Verizon IP Trunking and Microsoft Teams Phone platform. Once provisioned, a customer's telephone numbers can be directly assigned from the Microsoft Teams admin portal, completely abstracting the challenges of number and SIP trunking management for IT staff. Operator Connect is an optional feature as part of Verizon IP Trunking.
- Verizon Mobile for Microsoft Teams enables the simplicity of single-number reach for corporate-liable mobile devices in the Microsoft Teams platform. Once activated, a Verizon Mobile user can leverage the device's native dialer to make and receive calls, call the extension of any other Teams user in the organization, and make and receive PSTN calls on the Teams desktop client from the same number.
- Verizon has been a consistent Microsoft launch partner. For Direct Routing, Operator Connect, and now Teams Phone Mobile, Verizon launched its services soon after Microsoft announced the technologies.

Source: Frost & Sullivan

Company to Action: Verizon

Growth

- Verizon is the only telecommunications service provider in the United States that can offer its enterprise customers a mix of Microsoft Teams Direct Routing, Operator Connect, and Teams Phone Mobile. This makes it especially appealing to businesses seeking to consolidate services under a single provider. The depth of services also affords Verizon a broader addressable market of Microsoft Teams Phone opportunities than competitors, who only offer a subset of the solutions.
- Verizon has positioned its cloud-connected calling enablement solutions as value-added services or optional features alongside its traditional calling services. This approach enables customers to migrate quickly without materially altering existing enterprise contracts.
- Verizon's strong standing in North America's SIP trunking and wireless services market puts the provider in a trusted position to guide its enterprise customer base as they transition into cloud-based communications services.

Source: Frost & Sullivan

Company to Action: Verizon

Frost Perspective

- Early on, Verizon identified that businesses would shift to cloud-based communications platforms such as Microsoft Teams and Cisco Webex. Recognizing the opportunity, Verizon partnered with these platform vendors to create innovative value-added services that complimented Verizon's traditional IP Trunking and wireless offerings.
- Verizon is well positioned to stave off customers churning to other providers and grow its enterprise voice and mobile services market share.
- With established and deep support for two of the leading cloud calling platforms, Verizon should now expand the breadth of its partnerships to include other leading cloud platforms such as Zoom or RingCentral.

Source: Frost & Sullivan



Key Takeaways

Key Takeaways

1

The most successful cloud-connected calling enablers share certain characteristics.

- They offer broad telephony support for the most popular cloud PBX platforms and can expand into each of the collaboration-first communications ecosystems;
- They provide a high level of automation to connect businesses to their preferred collaboration platform. Automated onboarding of businesses to cloud-connected calling improves customer satisfaction, boosts customer loyalty, and drives operational efficiency for the provider.
- They offer diverse connectivity options (e.g., Direct Routing, SBCaaS, and Operator Connect) to meet their customers' exact needs and requirements. One size does not fit all in calling enablement, so a broad set of solutions enables a provider to create a tailored experience when needed.

2

Frost & Sullivan data and forecasts suggest that a significant proportion of the traditional voice services market, including legacy telephony services, VoIP access, and SIP trunking services, will migrate to cloud PBX connectivity. This represents an existential threat to traditional carriers and telcos unwilling or unable to adapt to a new managed services-led calling services environment.

Source: Frost & Sullivan

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Frost Radar™ Analytics



Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

VERTICAL AXIS

Growth Index (GI) is a measure of a company's growth performance and track record, along with its ability to develop and execute a fully aligned growth strategy and vision; a robust growth pipeline system; and effective market, competitor, and end-user focused sales and marketing strategies.

GROWTH INDEX ELEMENTS

- **GI1: MARKET SHARE (PREVIOUS 3 YEARS)**
This is a comparison of a company's market share relative to its competitors in a given market space for the previous 3 years.
- **GI2: REVENUE GROWTH (PREVIOUS 3 YEARS)**
This is a look at a company's revenue growth rate for the previous 3 years in the market/industry/category that forms the context for the given Frost Radar™.
- **GI3: GROWTH PIPELINE**
This is an evaluation of the strength and leverage of a company's growth pipeline system to continuously capture, analyze, and prioritize its universe of growth opportunities.
- **GI4: VISION AND STRATEGY**
This is an assessment of how well a company's growth strategy is aligned with its vision. Are the investments that a company is making in new products and markets consistent with the stated vision?
- **GI5: SALES AND MARKETING**
This is a measure of the effectiveness of a company's sales and marketing efforts in helping it drive demand and achieve its growth objectives.

Frost Radar™: Benchmarking Future Growth Potential

2 Major Indices, 10 Analytical Ingredients, 1 Platform

HORIZONTAL AXIS

Innovation Index (II) is a measure of a company's ability to develop products/services/solutions (with a clear understanding of disruptive Mega Trends) that are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs.

INNOVATION INDEX ELEMENTS

- **II1: INNOVATION SCALABILITY**

This determines whether an organization's innovations are globally scalable and applicable in both developing and mature markets, and also in adjacent and non-adjacent industry verticals.

- **II2: RESEARCH AND DEVELOPMENT**

This is a measure of the efficacy of a company's R&D strategy, as determined by the size of its R&D investment and how it feeds the innovation pipeline.

- **II3: PRODUCT PORTFOLIO**

This is a measure of a company's product portfolio, focusing on the relative contribution of new products to its annual revenue.

- **II4: MEGA TRENDS LEVERAGE**

This is an assessment of a company's proactive leverage of evolving, long-term opportunities and new business models, as the foundation of its innovation pipeline. An explanation of Mega Trends can be found [here](#).

- **II5: CUSTOMER ALIGNMENT**

This evaluates the applicability of a company's products/services/solutions to current and potential customers, as well as how its innovation strategy is influenced by evolving customer needs.

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