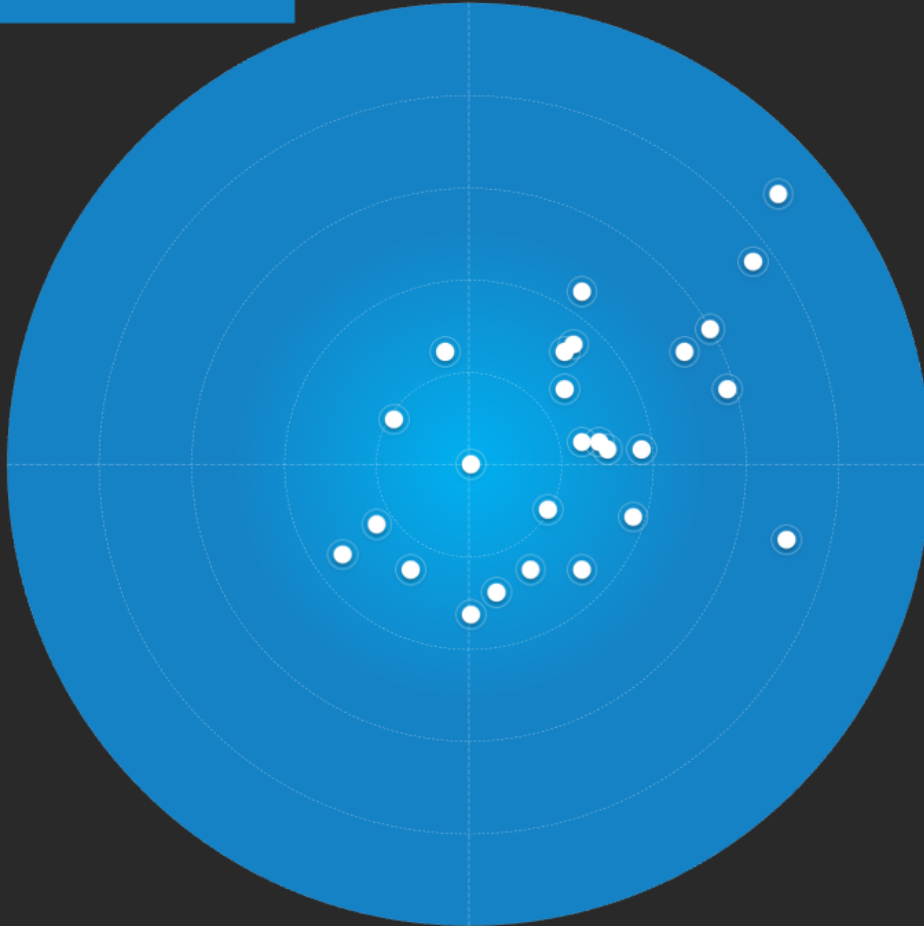


FROST RADAR™

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Frost Radar™: North American UCaaS Market, 2022

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

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Frost Radar™: North American UCaaS Market, 2022

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Strategic Imperative

Innovative business models are reshaping the UCaaS industry and compelling providers to adapt to boost their competitive edge. More specifically, the following key trends are determining long-term success among market UCaaS participants:

- Integrated platforms delivering UCaaS, CCaaS and CPaaS are at the foundation of next-generation business communications solutions. To address customer needs holistically and tailor functionality for different user personas, providers must leverage integrated, micro-services-based platforms with flexible APIs.
- Increasing disintegration of the value chain (apps + connectivity) is creating new challenges and opportunities for service providers. Provider strategies must capitalize on their core competencies to deliver both complete UCaaS and tangential services (e.g., connectivity, direct inward dial (DID) numbers, calling plans, managed services) for third-party UCaaS.
- Fixed-mobile convergence (FMC) is in the spotlight again with the rise of highly distributed organization. Each UCaaS solution must provide some form of FMC, whether app-based or native/core-based to enable anywhere access to communications.

Growth Environment

Advanced market maturity is resulting in slower installed-base and revenue growth due to slower adoption among more conservative buyers and net new seats representing a smaller percentage of the base. Furthermore, we expect to see worsened political and macro-economic conditions in the near term, primarily due to the aftermath of the COVID-19 restrictions and the war in Ukraine. Fear of stagflation or recession is likely to dampen the momentum the industry has garnered in the past couple of years. Strong recognition of UCaaS benefits—including improved business continuity and enhanced remote/hybrid workforce productivity—is likely to be offset by budget tightening, delayed investments, and re-evaluating technology investment priorities.

However, we expect most available ICT budgets in North America to be allocated to cloud services, including UCaaS, due to its ability to improve business continuity and allow flexible capacity adjustments in uncertain times. This may be in contrast with other world regions, where security and provider origin or viability concerns may favor on-premises deployments for the near term.

Frost Radar™: North American UCaaS Market, 2022

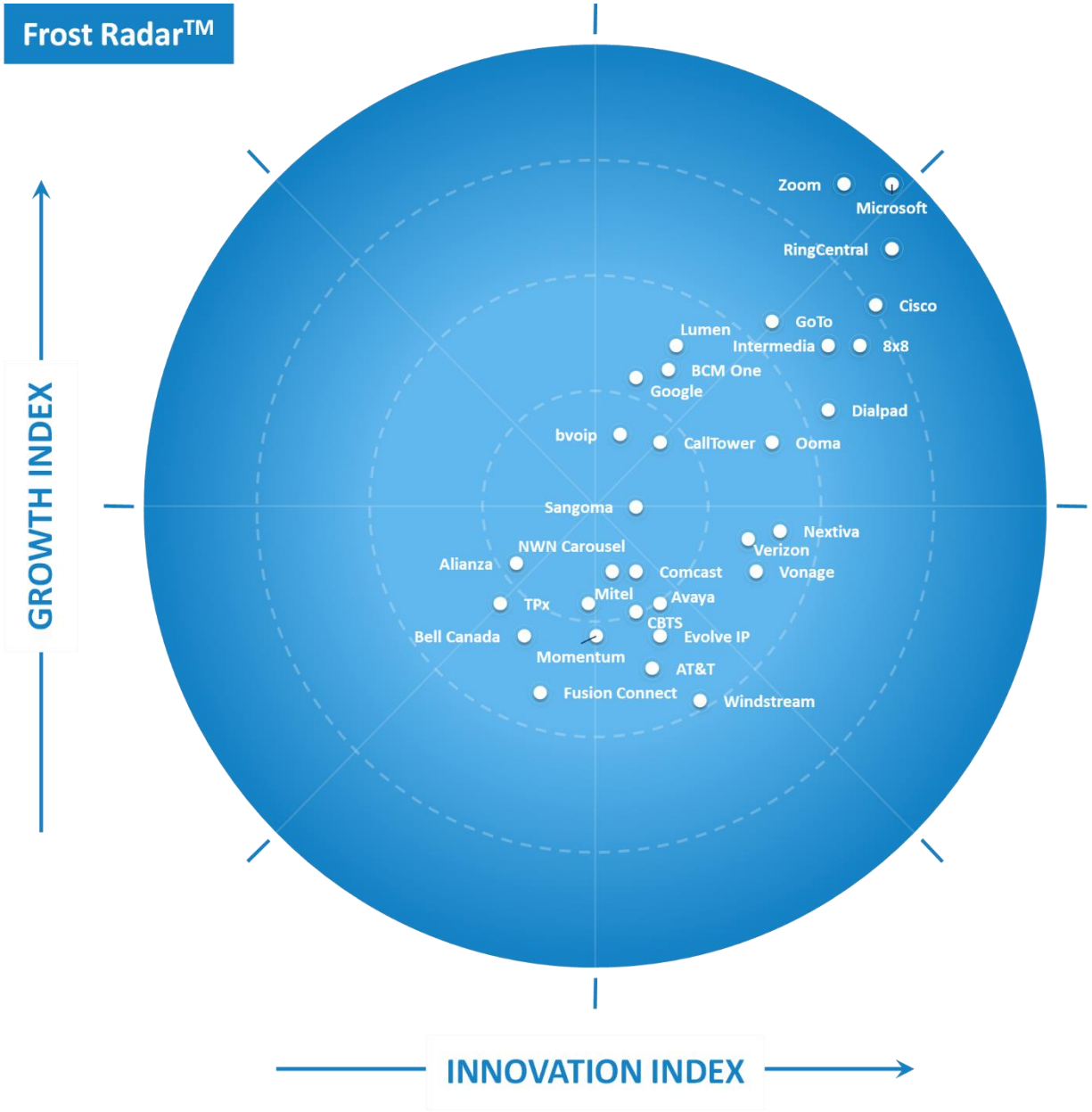
Organizations embracing flexible work styles and supporting a large number of remote and hybrid workers are leveraging UCaaS and cloud collaboration solutions to enable flexible and cost-effective connections among employees and between employees and various external parties. Increased diversity of offerings in terms of features, price, design, and architecture, including mobile UCaaS and highly customizable solutions, are driving broad penetration among the entire customer spectrum. Improved performance in terms of security, reliability, and quality of service, due to leverage of software-defined wide area network (SD WAN) services, redundant data centers, and maturing technologies, is enhancing UCaaS appeal among more demanding buyers. Diverse business models, including fully digital customer journeys, white-glove customer engagements and a variety of reseller/partner models (agency, white-label wholesale, strategic partnerships, and bring your-own carrier (BYOC)), are also expanding providers' market reach. Enhanced value propositions, including vertical/frontliner-workflow improvements and talent-utilization optimization, are boosting UCaaS adoption in organizations pursuing broad digital transformation.

Overall, UCaaS adoption will remain strong throughout the forecast period. Although churn among UCaaS providers is expected to be relatively high, churn away from UCaaS to other types of solutions—e.g., premises-based enterprise telephony systems, consumer services or free/freemium communications solutions—will remain extremely low.

Frost Radar™: North American UCaaS Market, 2022

The Frost Radar™: North American UCaaS Market, 2022

Exhibit 1: Frost Radar™: North American UCaaS, 2022



Source: Frost & Sullivan

*Frost Radar™: North American UCaaS Market, 2022***Frost Radar™ Competitive Environment**

As the North American unified communications-as-a-service (UCaaS) market matures and competition intensifies, it is becoming increasingly important for market participants to accelerate innovation and develop sustainable growth strategies. This market analysis provides a perspective on key market trends as well as an assessment of 30 growth and innovation leaders. The Frost Radar™ plots the selected UCaaS providers based on a set of 10 growth and innovation criteria, which comprise both qualitative and quantitative factors. The quantitative metric used to evaluate providers' performance in this market is hosted Internet Protocol (IP) telephony/cloud private branch exchange (PBX) or UCaaS seats. The size of the providers' North America UCaaS installed bases is used to determine the top 30 market participants to include in this evaluation.

Both technology developers leveraging their own proprietary platforms to deliver services and resellers providing their own branded UCaaS offers based on third-party platforms are included in this analysis. Services based on both pure-cloud/multi-tenant and multi-instance platforms are taken into account when evaluating providers' market position and innovation and growth capabilities. Certain industry classifications recognize hosted offerings as true "cloud" only when a high degree of automation is present. For the purposes of this study, we consider all multi-instance and multi-tenant hosted IP telephony and unified communications offerings to be cloud solutions. The supporting infrastructure can be hosted in a servicer-provider or third-party data center or in a public cloud environment (e.g., Amazon Web Services, Google Cloud, Microsoft Azure).

The research service does not include customer premises-based multi-instance solutions or hosted single-tenant solutions. Also, this research service does not include cloud VoIP services that are primarily targeted at consumers and residential users—such as those delivered by Skype and Google.

8x8

INNOVATION

- 8x8 owns one of the most comprehensive cloud communications portfolios in the UCaaS market. It also leverages a proprietary platform that enables faster, more cost-effective innovation than most other providers using third-party technologies.
- 8x8's new XCaaS strategy highlights 8x8's integrated, single-platform capabilities and the ability to deliver a mix of contact center, UC, video conferencing, team chat and APIs with its X Series service plans to meet diverse needs.
- 8x8 XCaaS leverages a single core foundation, a common data store, and shared services such as machine learning/AI-based quality management, analytics, recordings, storage, call detail records, security, APIs, and compliance across CCaaS and UCaaS users.
- The launch of persona-based offerings such as 8x8 Frontdesk and Agent Workspace differentiate 8x8 from the majority of its competitors. 8x8 Conversation IQ packages quality management and AI-driven speech analytics capabilities, that have long been reserved for contact center staff, into a powerful add-on solution that can be used by any employee, in any role, anywhere in an organization.
- Recent 8x8 innovation from 8x8 spans end-user features such as: in-app 8x8 Meetings integration with Salesforce; meeting lobby and meeting lock features, as well as post-meeting summary enhancements; dynamic video layout adjustments; driving mode for meetings; Work app enhancements, including: choosing a status option from a predefined list, notifications for parked calls and incoming calls when the call waiting tone is disabled, and five levels of noise suppression for microphone input, among many others. 8x8 also enhanced IT admin capabilities with Trust Center for security and compliance; a Service Status site for real-time service availability information; and real-time meeting performance reports via callstats integration.
- In the past year, 8x8 also continued to enhance its capabilities for Microsoft Teams, including the launch of a Microsoft Teams-certified contact center; integrated business messaging for Teams and presence synchronizations between 8x8 and Teams.

GROWTH

- In both 2020 and 2021, 8x8 ranked among the top 3 North American UCaaS providers in terms of installed users. 8x8 has accelerated growth rates in the past three years. The recent acquisition of Fuze additionally boosted its market share, both in North America and in Europe.
- 8x8 supports users in 175 countries, with dial plans and PSTN replacement in 50+ countries and numbers in 120+ countries, enabling it to tap into the MNC customer segment.
- In the last 24 months, 8x8 expanded its public and private cloud footprint for increased capacity and enhanced data residency compliance to pursue more growth opportunities across the globe.
- Creative packaging and pricing of the X Series service plans and the 8x8 Express eCommerce product also expand opportunities.

Frost Radar™: North American UCaaS Market, 2022

- High year-over-year growth rates in key areas validate 8x8's growth strategy: XCaaS (35%+), the enterprise segment (30%+), CPaaS (50%+), international expansion (42%+) and the channel (30%).
- Strategic partnerships (e.g., with Bell Canada and Westcon) will enable 8x8 to accelerate its growth in the region.
- 8x8's partnership and product integration of 8x8 Work with Genesys Cloud CX is also likely to open new opportunities for 8x8 services.
- 8x8 Voice for Microsoft Teams, which provides enterprise-grade direct routing with Teams and brings local numbers, dial plans, integrated fax and business messaging, call recording and native cloud contact center (certified for Microsoft Teams) has been robustly successful (more than 200,000 users as of July 2022) and continues to expand 8x8's addressable market.

FROST PERSPECTIVE

- On Frost Radar™, 8x8 is a leader in terms of innovation due to its robust feature set and adjacent capabilities, such as video, CCaaS and CPaaS.
- Future success drivers for 8x8 include improved channel presence, greater traction upmarket, and ability to leverage its platform to address unique use cases with persona-based offerings.
- 8x8 must align its product development, sales and marketing strategies around the differentiated XCaaS approach to more successfully monetize the persona-based offerings.
- With intense competition in North America, 8x8 should increase its focus and resources in other countries that are less penetrated with UCaaS offers.
- Both domestically and internationally, 8x8 may see greater success in some cases leading with CCaaS and/or Direct Routing for Teams, which can create pull-through for UCaaS as well.
- CPaaS and flexible APIs will enable 8x8 to provide vertically tailored solutions to differentiate and expand its addressable market.
- Frontline worker enablement and vertical strategies can enable 8x8 to capitalize on its XCaaS platform, APIs and persona-based offerings to tap into new growth opportunities.
- 8x8 can leverage Fuze's product development resources, international assets and enterprise customer base to accelerate both innovation and growth.

Alianza

INNOVATION

- Alianza stands out from the majority of North American UCaaS providers with its wholesale cloud services model. Alianza empowers a variety of partners—e.g., telecom operators, MSPs, ISPs, and others—to deliver VoIP services, including cloud PBX and UCaaS, to businesses and residential customers. For many service providers, the ability to leverage a single platform and technology partner to deliver both residential and business services provides convenience and cost efficiency benefits.
- The wholesale cloud services model allows providers to focus on customer acquisition and relationship management, as well as their other core capabilities, which may include managed connectivity, cloud computing, security, and professional services. This model also enables providers to launch new services, upgrade existing ones or tap into new geographies or customer segments faster and at a reduced risk.
- Alianza significantly enhanced its UCaaS feature set with the acquisition of CounterPath in early 2021 and the subsequent launch of Business Cloud Communications for Service Providers.
- Today, Alianza's robust cloud PBX and text messaging capabilities are complemented by the soft clients, video conferencing, and mobility services developed by CounterPath.
- In late 2021, Alianza also launched Managed Specialty Lines, a cloud-based POTS replacement solution for service providers. This new service enables providers to help businesses migrate their legacy voice services, including specialty lines, to next-generation technologies. This solution addresses an urgent market need created by telecom providers' pending decommissioning of legacy circuits.
- Earlier in 2022, Alianza launched GPS-enabled enhanced 911 capabilities to help its resellers address the requirements of Kari's Law and RAY BAUM's Act. With the new capability, Alianza's Cymbus desktop and mobile soft clients will be able to dynamically route emergency calls to the nearest PSAP location.
- Recent innovation from Alianza also includes partnerships with Innovative System and Azotel which enable Alianza to provide more billing and back-office solutions to service providers and thus enable them to streamline their back-office operations.
- Alianza also has partnered with Bandwidth whereby Alianza has integrated its cloud communications platform with Bandwidth's network platform and APIs to enable more holistic transformation within service provider organizations.

GROWTH

- Alianza has grown steadily over the years capitalizing on its differentiated positioning as a wholesale communication service provider for telecom operators, MSP, ISPs and other service providers.
- Alianza's growth in the UCaaS market has accelerated in recent years, driven by solution enhancements, new partnerships, growing demand for cloud communications solutions among businesses, and increased service provider appreciation for the cloud services model.

Frost Radar™: North American UCaaS Market, 2022

- The recent partnership with leading global service provider Lumen whereby Alianza will power Lumen's new Lumen Cloud Communications solution has the potential to boost Alianza's growth rates due to Lumen's brand power and ability to execute.
- Alianza's international presence can help the provider scale faster.
- Alianza's differentiated POTS replacement offering can help its resellers capture market opportunities faster than competitors.

FROST PERSPECTIVE

- With its wholesale business model, Alianza is well positioned to succeed as service providers increasingly seek to outsource UCaaS platform development and management to an expert third party so they can focus on customer acquisition and support.
- Alianza must continue to enhance its cloud solutions portfolio to compete more effectively against other wholesale communications service providers and enable its resellers to compete with confidence against other leading UCaaS providers.
- Alianza must also promote its brand capabilities more aggressively as larger and well-known technology providers gain increasing traction in the UCaaS market.
- Alianza may also need to focus on enhancing its APIs and integration capabilities to develop and enable resellers to develop tailored solutions for different vertical industries, specific workflows, and unique customer needs.

AT&T

INNOVATION

- In mid-2022, AT&T restructured its business voice and collaboration portfolio with the vision to focus on its core assets and competencies to better align services with target customers' needs. AT&T Office@Hand and Office@Hand Wireless, powered by RingCentral, are AT&T's flagship UCaaS offerings for the North American market going forward.
- AT&T Phone for Business Advanced, also powered by RingCentral, will enable AT&T to replace specialty and POTS lines with a next-generation voice-centric solution. AT&T will also help voice-enable Cisco Webex Calling and Microsoft Teams Phone deployments by providing its tried-and-tested IP Flexible Reach and IP Toll-Free connectivity services and competitive Cloud Voice calling plans.
- Launched in 2021, AT&T Office@Hand Wireless is a differentiated mobile offering that enables business voice services using a native mobile dialer. It may prove particularly well-suited for highly mobile users and businesses embracing flexible work models, as well as provide AT&T with competitive advantages over UCaaS providers with no mobile communications assets.
- AT&T's UCaaS portfolio also includes Hosted Business Voice Services, powered by a BroadSoft/Mitel platform and custom-designed to address the unique requirements of government, healthcare, and hospitality organizations. On-shore helpdesk, FedRamp certification and other capabilities differentiate this offer from competitor solutions.
- AT&T complements its UCaaS portfolio with AT&T Phone (a micro-business voice service), contact center solutions, voice and data connectivity, networking, security, and a plethora of value-added implementation, professional, and consulting services.
- AT&T's experience and expertise in network services management and delivery help ensure greater service quality and reliability, which set AT&T apart from most UCaaS competitors.

GROWTH

- AT&T has maintained a strong position in the North American UCaaS market for over a decade. AT&T experienced rapid growth in its hosted solutions portfolio in the past few years and became one of Cisco and Microsoft's largest partners globally. Notably, AT&T manages the largest Cisco Webex customer deployment with hundreds of thousands of seats in more than 180 countries.
- AT&T is in the process of transitioning approximately 1 million AT&T-hosted Cisco HCS and BroadSoft UCaaS users to Cisco-hosted Webex Calling services. Going forward, AT&T will support and scale existing Webex Calling accounts managed by AT&T for the duration of the contracts.
- However, AT&T will not be selling Cisco-based services proactively in the future. This shift is likely to negatively impact AT&T UCaaS growth among midmarket and large enterprises.

Frost Radar™: North American UCaaS Market, 2022

- The strategic focus on RingCentral-based Office@Hand and Office@Hand Wireless can enable AT&T to sustain robust growth rates among SMBs by enabling greater innovation velocity, more timely release management, deeper insights and analytics, more extensive APIs, and increased operational efficiencies (including an improved ability to focus on customer acquisition and support).
- AT&T voice-enablement services for Microsoft Teams, Cisco Webex Calling, and other platforms will enable AT&T to play a vital role in third-party UCaaS environment and drive revenues, albeit with no correlated growth in UCaaS seats.

FROST PERSPECTIVE

- AT&T's broad range of UCaaS, cloud collaboration, and voice enablement offerings is well positioned to meet the diverse needs of North American businesses. AT&T can also leverage its vast consulting services portfolio, its specialized sales teams and UC experts, as well as RAMP (its Rapid Adoption Marketing Program) to assist businesses with their digital transformation.
- The launch of AT&T Office@Hand Wireless is well aligned with market trends and may become a growth driver going forward.
- AT&T's shift to partner-hosted solutions is likely to limit AT&T's ability to influence innovation roadmaps, as well as reduce the provider's profit margins. It may, however, free up resources for AT&T to provide value in other areas, including robust telephony and network services, as well as professional and managed services.
- AT&T API Marketplace CPaaS enables AT&T to address unique customer use cases using real-time embedded communication APIs.
- AT&T Cloud Voice for Microsoft Teams and Webex Calling services will help AT&T expand its reach among businesses choosing these platforms combined with robust voice calling capabilities.

Avaya

INNOVATION

- Over the years, Avaya has successfully transformed itself into an organization focusing primarily on software and services. It has gained a strong traction in the private-cloud and multi-instance UCaaS space with its proprietary solutions in the Avaya OneCloud portfolio. To address demand for flexible and cost-effective multi-tenant cloud communications services, Avaya launched Avaya Cloud Office by RingCentral in 2020.
- Based on RingCentral's cloud-native MVP platform, Avaya Cloud Office is a feature-rich UCaaS offer comprising a cloud PBX, video meetings, team messaging, business SMS, mobility, Internet fax, and more. The robust cloud services suite is also bundled with local and long-distance calling minutes to provide a complete solution to businesses.
- Tailored migration tools and programs, along with the ability to re-deploy Avaya endpoints, enable business continuity and investment protection for existing Avaya customers.
- Avaya Cloud Office also provides highly demanded features, not available on the original RingCentral platform, such as Park and Page, Bridged Call Appearances, and Group Call Pickup, which can be accessed on purpose-built Avaya devices.
- Avaya's robust implementation, integration and other services play a key role in ensuring deployment success for many businesses that require more extensive support.
- Avaya Cloud Office provides a Global Office option tailored for globally distributed organizations. Global Office brings Avaya Cloud Office capabilities to over 45 international locations with international phone numbers in over 100 countries.
- In the near future, Avaya Cloud Office video meetings will be enhanced with AI-based capabilities, including short-form verbal summaries, searchable live transcripts, video highlight reels, and collaborative notes and tasks.
- Other upcoming enhancements include new SMS capabilities in Salesforce and HubSpot; advanced phone features such as the ability to capture actionable insights from call behavior; and an auto dialer to call security or concierge services.

GROWTH

- Avaya Cloud Office grew rapidly in the past two years driven by increased customer demand for flexible and cost-effective cloud communications and collaboration solutions throughout the pandemic lockdowns. The long-term shift to remote and hybrid work is likely to drive continued growth for Avaya Cloud Office.
- International presence, along with Global Office capabilities, enables Avaya to serve multi-national organizations more effectively, which can become an important growth driver for Avaya as the North American markets mature.
- Avaya's robust partner network will enable Avaya to scale its Avaya Cloud Office sales across multiple geographies and types of customers.

Frost Radar™: North American UCaaS Market, 2022

- Geo-redundant data centers and a strong track record of service reliability (including during the calling and video meetings spike throughout the pandemic lockdowns) ensure high service quality, which is likely to drive high customer satisfaction and retention.
- The investment protection that Avaya provides to existing customers evaluating Avaya Cloud Office will compel more businesses to make the move. Customers using Avaya J Series desk phones and B199 conference phones can preserve their investment in these devices and re-deploy them with the new cloud offering with zero-touch provisioning. This minimizes both hardware and user/admin training costs.
- Avaya is also leveraging programs and tools to migrate customers from Avaya IP Office (premises-based or partner-hosted) as well as CS 1000 deployments to the new cloud solution. Avaya support teams, staffed out of Denver, CO, and Raleigh, NC, provide customer assistance before, during and after deployment. Designated Customer Success Managers and Porting Success Managers play critical roles in ensuring deployment success. Avaya professional services teams are available to provide assistance remotely, on site or via custom engagements.

FROST PERSPECTIVE

- Avaya Cloud Office reduces the costs and risks associated with cloud migration for organizations with existing Avaya solutions and expertise. Familiar devices, zero-touch device provisioning, and migration tools and programs enable Avaya customers to more easily transition to the cloud using Avaya Cloud Office compared to other UCaaS solutions.
- Avaya Cloud Office, along with the Avaya OneCloud Subscription model, can provide compelling benefits to customers seeking a phased migration to the cloud. More specifically, Avaya OneCloud Subscription enables businesses with both premises-based and cloud services to consolidate bills, trade in perpetual licenses against cloud services credits, pay for only what they use with the option to expand up to 20% over contracted capacity in a given year, combine existing Device-as-a-Service (DaaS) programs with the Avaya OneCloud Subscription, and more.
- Avaya can leverage its cloud contact center solution Avaya OneCloud CCaaS portfolio to provide a compelling services bundle to businesses adopting Avaya Cloud Office and seeking to also move their contact center capabilities to the cloud. This will provide customers the benefits of a single bill and consolidated vendor management.
- Avaya must capitalize on Avaya Cloud Office's flexible APIs to enable custom integrations and address unique customer requirements.
- Avaya must also leverage its APIs, its robust professional services, and partner expertise to develop vertical practices and tailored solutions for specific industries and workflows.

BCM One

INNOVATION

- BCM One, via its SkySwitch brand, stands out in the North American market as a leading provider of private-label services for voice and data resellers looking to augment their portfolios with sticky, high-value UCaaS solutions. Compelling wholesale prices enable BCM One resellers to offer affordable services to their customers, while also generating solid profit margins for themselves.
- BCM One's SkySwitch and CoreDial private-label UCaaS offerings are based on mature cloud communications platforms that enable broad feature sets and high service reliability, security and extensibility.
- SkySwitch leverages NetSapiens' platform, which provides UCaaS, contact center and video meeting services delivered in a single pane of glass to the end user. SkySwitch has also customized and enhanced the platform to deliver business SMS, a mobile app (messaging, video, and calling), virtual fax, call recording and broadcasting.
- More than 240 APIs enable SkySwitch to differentiate and deliver tailored solutions to businesses. SkySwitch supports more than 250 integrations with CRM systems, Microsoft Teams, and other third-party solutions.
- CoreDial's proprietary platform uses open-source technologies at the foundation. It provides a broad applications suite, including a robust cloud PBX, voice messaging, and desktop and mobile UC soft clients, which enable convenient access to voice and video calls, conferencing, instant messaging and chat.
- CoreDial's portfolio also includes a multi-channel contact center solution that resellers can offer standalone or integrated with CoreDial's UCaaS solution. Key functionalities supported on the CoreDial CoreNexa Contact Center platform include: IVR, outbound dialers, call recording, live web chat, email, ACD, SMS, and call-back in queue, among others. Both CoreDial UCaaS and CCaaS support third-party software and services integration—via flexible APIs and/or professional services.
- Planned portfolio enhancements include additional, more robust and partner-friendly CCaaS capabilities, as well as improved mobility capabilities.

GROWTH

- Founded in 1992, BCM One has steadily grown to establish itself as one of the leading providers of cloud communications solutions and managed services in North America. Strategic mergers and acquisitions have represented a key element of BCM One's growth strategy.
- With the acquisition of SkySwitch in early 2021, BCM One gained a strong foothold in the North American UCaaS market. With the subsequent 2021 acquisition of CoreDial, BCM One diversified its cloud communications portfolio and nearly tripled its installed base of UCaaS seats. It also more than doubled the size of its partner network and further solidified its position as a leading provider of private-label cloud services for North American resellers.

Frost Radar™: North American UCaaS Market, 2022

- At the end of 2021, BCM One ranked among the top 14 North American UCaaS providers in terms of installed seats. The company's ability to execute is evidenced by its ability to drive organic growth on both the SkySwitch and CoreDial UCaaS platforms post-acquisition. It continues adding approximately 10,000 net new seats to its installed base each month, which is likely to enable it to maintain a strong competitive position in the foreseeable future.

FROST PERSPECTIVE

- The choice to acquire partner-centric companies such as SkySwitch and CoreDial enables BCM One to effectively differentiate from competitors. BCM One supports partners with a variety of services, including implementation, integrations, number porting, migrations and more. Its SaaS platforms greatly facilitate partner purchase and ownership experiences by automating the quoting, provisioning, billing, taxation and management processes.
- BCM One's robust network of approximately 1,700 private-label UCaaS resellers enables it to scale its operations more rapidly and to provide tailored services locally to businesses throughout North America. For many resellers—in particular, those with established customer relationships and strong brand recognition—the ability to customize the UCaaS solution branding to their own brand is important. BCM One is among few providers in the North American market providing resellers with the opportunity to build brand equity in UCaaS, which is likely to help it expand its partner network and thrive despite increasing competition.
- BCM One offers a variety of additional services such as SIP trunking, SD WAN and SASE. These capabilities will enable BCM One to address diverse customer use cases and capture more growth opportunities.
- Currently, BCM One primarily serves US businesses. As the US UCaaS market matures, BCM One must expand internationally to maintain robust growth rates.
- Historically, BCM One has seen the most traction among SMBs. It must expand into larger organizations, which have been slower to adopt UCaaS and present a more significant growth opportunity.

Bell Canada

INNOVATION

- Bell Total Connect, Bell Canada's flagship UCaaS solution, is a full UC offer, with Calling (Cisco BroadWorks), Teams and Meetings (Cisco Webex), all integrated within a single client for the best possible user experience.
- Owing to the acquisitions of Bell Alliant and MTS, Bell Canada also offers hosted solutions based on Cisco HCS and Ribbon platforms.
- Bell Canada was the first service provider globally to integrate BroadWorks with Cisco Webex Teams and Meetings, giving customers market-leading collaboration and endpoints, along with a carrier-grade voice experience—all delivered and supported by Bell.
- Two deployments models—over the top and over Bell Canada Internet services—provide customers with options to accommodate different requirements.
- Acknowledging high demand for Microsoft Teams services, including Teams Phone, Bell Canada has launched Direct Routing services for Teams, which provide reliable PSTN connectivity and compelling calling rates for Canadian users.
- The provider also demonstrates innovation leadership in network technologies and additional services.

GROWTH

- Bell Canada is the Canadian hosted IP telephony market share leader. Its strong brand and existing customer relationships have contributed considerably to the success of Bell Total Connect.
- Bell Canada's hosted IP telephony installed base and revenues grew steadily at or above industry average growth rates prior to the pandemic. During the pandemic lockdowns in 2020 and 2021, however, Bell Total Connect adoption slowed. Bell Canada had not fully rolled out the over-the-top version of Bell Total Connect, which limited the provider's ability to accommodate the shift to remote work. Unable to access customers' premises, Bell Canada could not install premises-based SBCs, a required element of the original Bell Total Connect design.
- Bell Canada's extensive geographic reach throughout Canada enables it to effectively support organizations with multiple distributed sites, which positions the provider for success in this segment.
- The provider's large partner network delivers local support as well as additional services, which enables Bell Canada to effectively serve customers of varying sizes and geographic locations.

FROST PERSPECTIVE

- Bell Canada's diverse product and services portfolio allows it to bundle Bell Total Connect with other IT and communications solutions.
- Bell Canada's industry-leading network ensures superior service quality, security, and reliability, which drives high customer loyalty.
- It must promote mobility capabilities more actively to gain traction among businesses with mobile users. It must also use the Webex collaboration portfolio to capture demand for cloud meeting and messaging services among remote and hybrid workers.
- Bell Canada may need to diversify its UCaaS portfolio to better address evolving customer needs.
- Intensifying competition, including the rapid influx of US providers into Canada and consolidation of Canadian providers, will require a more aggressive approach from Bell Canada to maintain leadership.

bvoip**INNOVATION**

- bvoip's uniquely designed partner-focused solution offers the simplicity and cost efficiency of multi-tenant platforms as well as the security and customization benefits of multi-instance platforms.
- bvoip leverages multiple technologies to deliver compelling UCaaS functionality to businesses. It leads with a modified (i.e., more scalable) and improved version of 3CX's platform, which enables bvoip and its partners to deliver a full PBX feature set along with additional UC services to end customers.
- bvoip differentiates with a compelling pricing model whereby it charges either per concurrent call path or per user, and provides the ability to mix and match plan tiers with no minimums. This pricing model enables bvoip partners to generate robust profit margins while providing cost-effective services to businesses.
- bvoip has extended its entire platform into Microsoft Teams Voice adding contact center features, CRM integration, Progressive Dialer and multi-tenant management for its partners.
- To ensure partner success, bvoip has developed toolsets and integrations to various SaaS applications and premises-based software that streamline partner interactions with customers through automated ticket creation, call routing, task creation schedules, and integration with CRM, ERP, and professional services automation (PSA) systems.
- In the past year, bvoip made both user-facing and partner-facing solution enhancements. Those include improved on-phone management (e. g., the ability to trigger an answering service-style escalation); automated appointment reminders; new user-based calling plans; new supported device models; enhanced workflow for business voice activation within Microsoft Teams; aggregated reporting from multiple systems and services including Zoom, Teams and any phone system; and additional integrations with commonly used third-party software; among others.

GROWTH

- bvoip has experienced rapid growth in the past six years and has secured a spot among the top North American hosted IP telephony providers in terms of installed users.
- bvoip's large reseller network (approximately 2,700 resellers) and strong partner enablement capabilities (e.g., critical event alerting engine, automated deployment, centralized toolset for partner access) drive partner success and rapid market penetration. bvoip continues adding approximately 30 – 40 new partners per month. A partner-dedicated team ensures that partners are onboarded and trained quickly and efficiently. To ensure effective communication, bvoip aims to support at least one interaction per partner per month.
- With a strong background as an IT services provider and a keen focus on innovation, bvoip is well positioned to enable local interconnects, managed services providers (MSPs) and various IT shops to diversify their portfolios and tap into new growth opportunities.

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- bvoip's unique licensing model based on lines (concurrent call paths) holds a strong appeal among resellers and helps bvoip sustain rapid growth rates through continued channel expansion and robust partner sales. bvoip also offers a per user model, giving partners their choice in the competitive marketplace.

FROST PERSPECTIVE

- bvoip stands out among competitors with its unique partner-centric business model; consistent development capability; feature-rich, cost-effective solutions; differentiated skill set; and strong commitment to innovation and customer value.
- bvoip will benefit from growing demand for inexpensive, secure and feature-rich solutions, as well as growing reseller need for hosting partners that enable private-label offerings.
- bvoip can leverage unique capabilities owing to its IT service provider background to augment the value chain with specific skills and expertise that most other hosted IP telephony providers do not possess, and to address unique use cases and compete more effectively.
- bvoip can further expand internationally to capitalize on broader growth opportunities and better serve multinational customers.
- bvoip must continue to enhance its solutions portfolio. Robust omni-channel contact center capabilities can provide significant value to bvoip partners and customers alike.

CallTower

INNOVATION

- CallTower globally provisions, integrates and manages cloud solutions based on industry-leading technologies such as Cisco Webex Calling, Dedicated Instance and UCM, Metaswitch multi-tenant hosted UCaaS environments, native Microsoft Teams Direct Routing and Operator Connect, hosted Skype for Business, Microsoft 365, CT Cloud Contact Center, Five9, Webex Contact Center, and key integrations into Zoom, Genesys and NICE CXone.
- Proprietary advanced provisioning and management platform for centralized management of all solutions delivers compelling value to businesses managing multi-vendor environments.
- Robust integration capabilities via CT Cloud, including 40 off-the-shelf integrations with popular third-party apps, enable CallTower to deliver custom-tailored cloud, prem-based and hybrid solutions.
- CallTower is also the only provider that can voice-enable Microsoft 365 GCC High organizations and add value to government contractors looking to fully utilize their Microsoft Teams client.
- The recently launched One Click Failover solution for Microsoft Teams provides additional value to businesses by enabling continuity in the event of a downed circuit connection.
- Through a partnership with Singlewire Software, CallTower can support paging and mass notification services for Microsoft Teams users. Notifications can be triggered directly from within Teams and delivered to other Teams users or any devices connected to the Singlewire InformaCast system.

GROWTH

- Comprehensive CallTower cloud solutions portfolio addresses diverse client needs and delivers complete end-to-end, turnkey, multi-platform, and hybrid solutions for customers—capabilities that are likely to drive growth in the future.
- CallTower-hosted and managed solutions enable CallTower to fully manage the customer experience and relationship.
- A choice of more economical, plug-and-play cloud PBX services (CT Cloud Voice, Cisco Webex Calling) or more sophisticated and customizable UCaaS solutions (CallTower Cisco UCM, Cisco Dedicated Instance and HCS, Skype for Business) allows CallTower to tailor its offerings for differing business requirements.
- Ability to voice-enable Microsoft 365 with native Microsoft Teams Direct Routing, Operator Connect and a hosted Skype for Business provides a reliable option to businesses looking for a hosted voice environment and opens new growth opportunities for CallTower among the rapidly expanding Microsoft Teams customer base.
- A new partnership with TD Synnex and other large technology distributors in the business development queue may help CallTower accelerate growth among Cisco and Microsoft resellers may help CallTower accelerate growth among Cisco, Microsoft and Zoom resellers.

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- CallTower is launching an International Rebiller Model for Microsoft Teams, which aims to replicate the success of CallTower's Rebiller Model for Cisco Webex's International Cloud Connected PSTN (CCP) program. This new capability is likely to enable CallTower to sell more successfully through the VAR/MSP/ISV channel by allowing for quoting and billing CallTower services on partner invoices.
- The acquisition of OneStream Networks will enable CallTower to deliver a broader range of communications services, including global PSTN, as well as leverage their international data centers to support geographic expansion, with regional dial capabilities.

FROST PERSPECTIVE

- CallTower adds value and differentiates through multi-vendor solution, integration, and other services (e.g., WAN acceleration via CT Cloud Boost, Enterprise Contact Center, CRM Integration, SMS/MMS Text, UC Analytics), as well as the ability to serve as a one-stop-shop to businesses for multiple communications and productivity tools, which positively affect its ability to attract and retain customers.
- CallTower can improve margins and grow the business through partnerships, including wholesale resellers.
- CallTower must expand internationally to capture new opportunities.
- Microsoft Teams-based cloud calling use cases represents a considerable growth opportunity for CallTower's differentiated Direct Routing and Operator Connect services.
- CallTower can capitalize on multimedia conferencing, email, team spaces and productivity services to serve as a single-source provider to businesses and differentiate from UCaaS providers with less robust portfolios.

CBTS**INNOVATION**

- CBTS, the business communications and IT solutions arm of alfiber, differentiates from its competitors with its broad cloud, infrastructure, communications, and consulting expertise, and its ability to custom-tailor solutions to businesses' specific needs by employing a highly consultative approach.
- CBTS leverages leading third-party technologies for its Hosted Enterprise UC (Cisco HCS), Hosted Unified Communications (BroadSoft/Cisco BroadWorks), Microsoft Teams Voice (Microsoft Direct Routing and Operator Connect), and Cloud Calling (Cisco Webex Calling) offerings.
- Dependence on third-party call-control and collaboration platforms limits CBTS' ability to influence product roadmaps and speed of innovation, but it continues to integrate new vendors to expand its offerings.
- CBTS' broader portfolio— including fiber connectivity, multiple as-a-service network models, integrated contact center, and SIP trunking—provide additional value to UCaaS customers.
- Recent and upcoming enhancements of Hosted UC include new devices (desktop phones, ATAs, video endpoints, headsets, analog gateways), cloud recording lite, CRM integration upgrades, PCI and HIPAA compliance, enhanced disaster recovery and more.
- Recent and upcoming enhancements of Hosted Enterprise UC include new portal, SSO, IP fax, new development environment, Okta integration, E911 Mobility, Canadian compliance and more.

GROWTH

- CBTS has grown organically and through M&A via its parent organization and has secured a spot among North America's leading UCaaS providers.
- Today, it remains one of Cisco BroadWorks and Cisco HCS top partners worldwide and a leading UCaaS provider for retail, healthcare, and state and local government and education (SLED) verticals.
- With 27 offices in five countries, CBTS is well positioned to scale its UCaaS operations in the future.
- Much of CBTS's past UCaaS growth has come from very large deployments, including many in healthcare, SLED, and retail. CBTS is poised for continued growth in these sectors as government and education organizations embrace cloud services to support the rise in remote/hybrid work.
- CBTS' broader portfolio is also a key growth driver as more than half of UCaaS sales also include SD-WAN and Network as a Service sales.

FROST PERSPECTIVE

- CBTS must seek to further enhance the value it delivers to customers (e.g., by cross-selling team collaboration or CCaaS to its diverse UCaaS base).
- CBTS must explore opportunities to integrate communications and collaboration services with third-party productivity, communications, business, or vertical software and services to more tangibly impact mission-critical business processes.
- CBTS may need to explore additional M&A opportunities with the objective of acquiring customers and prospects, as well as differentiated capabilities.
- The recent acquisition of Cincinnati Bell by Macquarie Infrastructure Partners has the potential to boost the company's financial resources and flexibility to further enhance its Communications, Cloud, Security, and other practices.
- The retail, healthcare and SLED verticals are ripe for transformation due to the impact of the global pandemic. CBTS is particularly well positioned to capitalize on increased demand for advanced technologies, including UCaaS, in these verticals.
- Direct Routing and upcoming Operator Connect services can enable CBTS to generate additional revenues in Microsoft Teams-centric UCaaS environments.
- Providing PSTN connectivity and calling plans in partner (e.g., Cisco, Microsoft) UCaaS deployments will enable CBTS to capture a portion of the revenue and help provide an excellent customer experience.

Cisco

INNOVATION

- With its BroadWorks and HCS platforms, Cisco has earned a reputation as a provider of feature-rich, reliable, secure, and scalable cloud calling and unified communication solutions.
- Presently, Cisco focuses its development efforts on the Webex cloud collaboration portfolio, which it hosts and manages and delivers to end customers via partners.
- The Webex portfolio appeals to businesses looking for a complete, integrated set of calling, messaging, meetings, contact center, and team collaboration. The Webex platform delivers a unified user experience via the Webex App and unified admin control via the Control Hub portal and supports integrations with third-party solutions.
- In the past two years, Cisco leveraged AI and ML to enhance Webex with noise cancellation, closed captioning, simultaneous translation, blur and virtual background, new video layouts optimized for hybrid meetings, and the ability to elevate voice and video calls to meetings.
- Most recently, Cisco launched Webex Go, a differentiated mobile-first offering, allowing Webex Calling users to use the native mobile dialer on their personal or company-provided devices to make and receive business calls using their business phone number and calling plan.
- Also recently, Cisco enabled support for cloud delivery of a Cisco Unified Communications Manager- based option, called Dedicated Instance for Webex Calling. Cisco resellers can provide this option to customer organizations requiring unique integrations or subject to strict compliance regulations.
- Cisco's innovation in cloud communications services is complemented by its comprehensive portfolio of smart devices for every kind of workspace, including board rooms, meeting rooms, huddle spaces, executive suites, hot desking stations, home offices, and more. These devices are equipped with sensors to automate the process employees use to connect their laptop or smartphone to shared devices using the Webex App.

GROWTH

- Cisco holds a dominant share of installed UCaaS users globally. Building on the success of its partner- hosted HCS and BroadWorks solutions, Cisco is expanding its reach with the Webex portfolio, as well as moving certain partner-hosted users to Cisco-hosted Webex services.
- Webex Calling, integrated with Webex meetings and messaging, and now with a dedicated instance call-control option, enables Cisco and its partners to address a broad spectrum of customer requirements. In the past two years, Cisco Webex Calling experienced rapid growth and reached 6 million users in March 2022, up from 5 million users at the end of 2021.
- Cisco partners and customers are embracing the integrated Webex App as a compelling user experience in both greenfield Webex use cases and existing UCM, BroadWorks and HCS deployments. The pandemic validated the value of collaboration-rich cloud solutions and accelerated Webex adoption.
- The Webex Suite bundle along with integrated calling plans and an online purchase channel, are likely to drive traction among SMBs looking for cost-effective, pre-packaged solutions.

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- Webex Go is likely to appeal to highly mobile users and allow Cisco and its resellers to expand their addressable market.
- A recently launched Webex Wholesale option enables providers to more flexibly and cost-effectively provide Webex services to SMBs.

FROST PERSPECTIVE

- Cisco Collaboration Flex Plan and hybrid deployments enabled by Webex are creating significant opportunities for Cisco to provide a bridge to the cloud for its large installed base of on-premises communications solutions customers.
- For service providers, Cisco cloud services enable greater agility and the ability to shift focus from platform development and operation to customer acquisition and support, which is accelerating Webex sales.
- Cisco's increasing vertical focus will give it an edge and expand its addressable market among frontline workers.
- Future Cisco success will be determined by its ability to maintain high innovation velocity and continue to provide partners with other compelling incentives to promote Webex, including robust margins, co-branding, joint selling, and flexible APIs to tailor Webex deployments.
- Cisco also can leverage its adjacent device, networking, and security products to provide comprehensive integrated and differentiated solutions.

Comcast**INNOVATION**

- Business VoiceEdge is Comcast's flagship UCaaS offering comprising cloud-based communications and collaboration features as well as integrations with 3rd party productivity apps. Customers can also get the service "over-the-top", extending the offer beyond Comcast Business's broadband footprint.
- Business Voice Mobility addresses the needs of small, single-site businesses that need a simple solution to support staff both on and offsite.
- Comcast leverages Cisco's industry-leading BroadWorks platform to deliver Business VoiceEdge. It has enhanced the solution with proprietary technologies that enable mobility and a collaborative user experience.
- Recent enhancements include a desktop app, collaboration enhancements, advanced call queues, and key system emulation.
- Ownership of the Blueface platform enables Comcast to innovate at its own pace and deliver the latest in UCaaS technology. Blueface also creates opportunities for Comcast to address the needs of organizations requiring FMC capabilities, call advanced queuing and CCaaS, international presence and API integrations.
- Potential integration of Business VoiceEdge with Blueface on the same platform is likely to provide Comcast with greater flexibility in packaging, pricing, and positioning its UCaaS offerings.
- The recent acquisition of Masergy complements Comcast's services portfolio with additional UCaaS solution options for customers, as well as a robust suite of managed software-defined networking, cloud platforms and cybersecurity services.
- Masergy's UCaaS offerings are positioned for use cases whereby customers, typically mid-market and enterprise organizations, require a robust collaboration feature set, which Masergy delivers through the integration of Cisco-hosted Webex meeting and messaging services with the Masergy-managed cloud PBX based on BroadSoft/Cisco technology. Masergy's UCaaS offering is also best suited for channel partner sales.

GROWTH

- Comcast has garnered a strong market share in the North American UCaaS market with its flagship offering, Business VoiceEdge.
- Extensive experience delivering services to SMBs enables Comcast to effectively promote and support Business VoiceEdge. With continued investment in Business VoiceEdge, Comcast has successfully extended the value and application of its voice services to meet the needs of upper mid-market organizations.
- Comcast Business offers a robust, cost-effective, enterprise-wide managed voice solution delivered end-to-end from service design to on-site installation to support national US-based enterprises.

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- The recent launch of an over-the-top solution is likely to boost Comcast UCaaS growth out of region. A softphone-only option is likely to make this solution appealing to organizations embracing flexible work models.
- The acquisition of Masergy is likely to help Comcast gain further traction among mid-market and large organizations and also leverage Masergy's presence in 100 countries worldwide to gain greater international footprint—creating opportunities to accelerate growth.
- Comcast has seen less robust growth rates in the past couple of years as many businesses chose over-the-top, meeting-centric solutions which are better suited for remote and hybrid workers. Comcast's future growth rates will depend on its ability to address new work models and effectively position as a managed services provider with a diversified portfolio of UCaaS, SD WAN, managed security and more.

FROST PERSPECTIVE

- Comcast Business is transforming its voice portfolio into a richer UC suite with seamless integrations and superior digital experiences, which is likely to increase the portfolio's appeal among different businesses.
- With its well-established Internet, cable TV, telephony and VoIP services, newly acquired Masergy portfolio, and the launch of Comcast Business Mobile, Comcast is well positioned to offer a strong 'business in a box' value proposition, which may open additional bundling or pull-through sales opportunities for Comcast UCaaS solutions.
- Comcast's vast network enables the provider to scale services domestically.
- By extending services out of region (i.e., on third-party networks), Comcast is likely to expand its addressable market and accelerate growth.
- Comcast must continue to enhance its hosted offerings for increased solution appeal among more demanding customers.
- International expansion through the Masergy and Blueface offerings may enable the provider to penetrate distributed organizations with international sites more effectively, as well as expand into less mature UCaaS markets.
- Masergy's acquisition can also enable Comcast to grow its channel presence and accelerate growth through the channel.
- Direct Routing services for Microsoft Teams can provide Comcast with opportunities to deliver additional value to businesses leveraging Microsoft Teams as their primary UCaaS solution, either by solely providing connectivity services or by supporting mixed environments with Microsoft and Comcast UCaaS solutions.

Dialpad

INNOVATION

- Dialpad has consistently enhanced its unified TrueCaaS platform, which delivers Dialpad Talk, Dialpad Meetings, Dialpad Messaging, Dialpad Ai Contact Center, Dialpad Ai Sales, and includes proprietary and natively integrated AI with robust analytics across the product portfolio.
- Recent Dialpad Meeting enhancements to improve collaborative user experiences for the remote and hybrid workers include advanced AI capabilities to drive productivity and workflows with built-in virtual assistant, live transcriptions with speaker attribution, action item and key moment detection, meeting timer, and virtual backgrounds.
- Further enhancements include support for video-enabled rooms with Poly devices, native meeting experience directly within the Dialpad Talk app, and video meetings in mobile browsers, plus integration with Miro digital whiteboards. Randomly generated meeting links for greater security and virtual waiting rooms are also included.
- Dialpad's app for Microsoft Teams is a fully embedded Dialpad experience now accessible from within the Microsoft Teams environment. Dialpad's License-Free Routing provides outbound PSTN calling from Microsoft Teams through Dialpad but without having to purchase an E5 license or MSFT Teams Phone license or use a second app to complete the call. Users benefit from Dialpad's native AI engine.
- Dialpad also added more integrations with leading cloud partners Google Workspace, Salesforce, Zendesk, Slack, Microsoft Outlook and Teams, among others available in the Dialpad Marketplace.
- Dialpad also provides open APIs to build custom workflows for customers and partner developers that need to bring Dialpad into their cloud apps to drive productivity.
- Google Cloud Platform (GCP), which is at the foundation of Dialpad's PBX, UC and contact center applications, enables rapid, cost-effective innovation and worldwide scalability.

GROWTH

- Dialpad raised its Series F round of \$170 million in December 2021, at a \$2.2 billion valuation, bringing its total funding raised to \$418 million.
- Dialpad increased its market share and generated top-line growth through effective strategy and execution of its enterprise cloud business. Continued solution enhancements, aggressive pricing, execution of field (direct and channel partners) and product-led sales, plus important partnerships and integrations, are likely to accelerate its continued growth.
- Dialpad remains focused on R&D investment, leading to quick product innovation of its Ai-powered TrueCaaS platform and product portfolio. Integrated UC + CC with built-in, native AI is becoming the increasingly de-facto standard and go-to solution for Dialpad's targeted customer base.

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- T-Mobile is a Dialpad customer, investor (Series E and Series F rounds) and reseller of Dialpad UCaaS. Running on T-Mobile's 5G network, T-Mobile Collaborate is one of few mobile UCaaS solutions in the market today. The two companies remain committed to increased investment in resources, sales enablement and onboarding and, subsequently, T-Mobile Collaborate is well positioned to capitalize on growing demand for flexible enterprise-grade business collaboration services among highly mobile and remote/hybrid workers.
- Dialpad is well positioned to capitalize on the value of its workspace and CCaaS integrations with Google. The partnership enables Google to resell Dialpad's product suite and be referred by Google's Fiber team as UCaaS vendor of choice.
- Dialpad is particularly well positioned to capitalize on the high value it delivers to Google Workspace customers as it enables tight integration with UCaaS. The ISV partnership with Google, whereby Google will resell Dialpad UCaaS and CCaaS across GCP and Google Fiber customers, can boost Dialpad growth rates considerably.
- Dialpad significantly expanded its Executive Management team, bringing in strong talent from across the industry to focus on UC, CC and AI innovation, as well as Sales, Customer Support and continued growth.
- Continued international expansion (new leadership in UK, Western Europe, NZ/AUS and Japan, coupled with partnerships and opportunity to bill for services in more countries) is creating new growth opportunities

FROST PERSPECTIVE

- Dialpad can use Dialpad Talk, Dialpad Meetings, Dialpad Ai Contact Center (inbound), and Dialpad Ai Sales (outbound Dialer) to upsell and cross-sell existing customers, as well as create pull-through for UCaaS.
- Dialpad can accelerate growth through further expansion in Canada, UK, Europe, Australia, and New Zealand, where it has established footprint.
- Dialpad can leverage the flexibility of Google Platform to address unique use cases through targeted ABM campaigns.
- A greater focus on verticals and frontline workers can help differentiate Dialpad from competitors, reach new customer segments and types of workers and boost the value to existing ones.
- Continued investments in conversational AI with real-time voice intelligence and analytics can further enhance Dialpad cloud solutions and enable it to elevate sales conversations with customers to focus on broader business benefits and holistic business transformation.
- To ensure more frequent consideration in UCaaS solution evaluations, Dialpad must expand its reseller channel and continue to boost its brand recognition among customers and channel partners.

Evolve IP

INNOVATION

- Evolve IP differentiates from competitors with its consultative sales approach and a keen focus on delivering reliable, secure and integrated Work Anywhere™ solutions such as collaboration and communications, virtual desktops, and contact center solutions for the midmarket.
- In addition to its own UCaaS offers, Evolve IP integrates its Global Voice Cloud services with both Cisco Webex and Microsoft Teams (i.e., Direct Routing). This enables Evolve IP to better match diverse customer needs and use cases.
- Evolve IP integrates its UCaaS solutions, including its Direct Routing Services for Microsoft Teams, with advanced capabilities such as an omnichannel contact center, AI, speech analytics, call recording, business text messaging and virtual desktops.
- Evolve IP's integrated cloud technologies provide cost efficiencies, boost employee productivity, and improve the IT admin experience by equipping them to focus on business innovation and provide a one-stop shop to businesses.
- Evolve IP's Support "Pods" are purpose-built teams responsible for specific customers, enabling Evolve Techs to deliver a high-touch, consultative experience. Evolve IP has also implemented "swarming" — an innovative approach to engaging its most experienced engineers to address critical customer issues.
- Evolve IP continues to innovate and look for new ways to provide differentiated value in UCaaS deployments. In 2021, it partnered with Dubber to offer advanced call recording and AI-powered call analytics. Keyword search, interactive transcripts, sentiment analysis, automated alerts and notifications, and collaborative coaching are some of the capabilities included in Evolve IP's call recording with voice AI offering.
- In 2022, in a partnership with PeterConnects, a part of Anywhere 365 Group, Evolve IP launched Anywhere Receptionist for organizations using Microsoft Teams Phone as their cloud PBX. This customizable, browser-based SaaS solution significantly improves call handling experiences for receptionists and telephone operators managing multiple incoming phone calls.
- Also in 2022, Evolve IP launched Evolve Anywhere with Webex. This new capability enables Evolve IP cloud PBX users to access integrated calling, meeting and messaging services from within the Webex app.

GROWTH

- Evolve IP has grown organically and through M&A. M&A has both boosted Evolve IP's revenues and significantly enhanced its technological capabilities.
- Direct Routing and deeper integration with Microsoft Teams are creating growth opportunities for Evolve IP among its rapidly expanding Teams base. Evolve IP is a Microsoft Gold CSP with 100+ Microsoft-certified associates.
- Evolve IP's recently launched Anywhere with Webex service has the potential to improve existing customers' satisfaction and retention and attract new customers looking for more collaboration-rich user experiences.

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- Evolve IP's geo-redundant data centers, keen focus on service security and reliability, and proven history of 99.999% uptime drive high customer retention.
- White-glove services implementation ensures efficient customer onboarding and a better user experience, which also positively affects retention.
- Evolve IP's fully integrated cloud services platform of UCaaS, Collaboration, Contact Center and Virtual Desktops enables employees to work on any device, from any location, which will drive growth in the era of hybrid work.
- Evolve IP continues to expand internationally, with PSTN replacement services available in 40 countries and inbound and toll-free services in over 50 countries as of mid-2021.

FROST PERSPECTIVE

- Evolve IP must continue to focus on delivering measurable workflow enhancements through communications integration with business and productivity software.
- It can capitalize on ongoing international expansion to better serve multinational businesses and tap into less penetrated markets as the US market gradually matures.
- It must continue to supplement partnerships with innovative technology developers with internally developed and acquired technologies to deliver differentiated solutions to businesses.
- Evolve IP can continue to differentiate through advanced capabilities such as speech analytics, advanced call recording, managed DaaS, SMS (notifications, broadcasts), etc.
- Further channel expansion, employing both resale and agent models, is likely to enable Evolve IP to scale operations faster and tap into new customer segments and geographic regions.
- Evolve IP must double down on Direct Routing services as a powerful growth engine among businesses looking to complement Teams with robust voice capabilities.
- Evolve IP may also need to join the Operator Connect program to capitalize on Microsoft's efforts to draw customers to this new model of integrating Microsoft Teams Phone with third-party reliable and secure voice services.

Fusion Connect

INNOVATION

- Fusion Connect offers UCaaS solutions based on BroadSoft/Cisco, as well as proprietary technologies. Fusion Connect supports the vast majority of its UCaaS users on platforms hosted and managed on its own network, which provides it with flexibility in terms of solution branding, packaging and pricing. This approach also enables Fusion Connect to support certain custom integrations of its UCaaS solutions with third-party software and services.
- As a certified Cisco CCP and Microsoft Direct Routing partner, Fusion Connect also voice-enables Cisco Webex and Microsoft Teams deployments. It brings reliable and secure PSTN connectivity and PBX services to businesses adopting Cisco Webex Calling and Microsoft Teams Phone as their primary UCaaS solutions.
- Omni-channel contact center solutions complement Fusion Connect's UCaaS offerings. The ability to deliver integrated UCaaS and CCaaS solutions resonates well with organizations seeking to optimize their internal and external communications, simplify IT management, improve their customers' journeys, and enhance agent and enterprise user experiences with valuable additional features.
- Fusion also offers POTS replacement services which address an urgent need among businesses to adopt next-generation solutions as service providers gradually limit the availability of legacy services across their footprint. This is particularly important when it comes to supporting mission-critical specialty lines, including fax lines, elevators, alarm systems, and more.
- SIP trunking and SD-WAN services are also highly complementary to Fusion Connect's UCaaS portfolio. SIP trunking services enable Fusion Connect to gradually transition businesses to end-to-end IP-based communications as well as support hybrid environments whereby businesses are adopting cloud PBX and UCaaS at certain business sites while still operating premises-based solutions at others. SD WAN capabilities enable Fusion Connect to provide more secure and reliable communications services.
- Fusion differentiates from other UCaaS providers with its diversified managed services portfolio including connectivity, communications and security. This enables Fusion Connect to provide businesses the benefits of a one-stop shop, as well as integrated solution administration and management. The ability to offer a bundle of integrated solutions holds a particularly strong appeal among midsize businesses, which represent Fusion Connect's main target customer base.
- Fusion Connect is continually evolving its solutions and capabilities. It is in the process of enabling Operator Connect services for Microsoft Teams, as well as enhancing its managed security and SD WAN capabilities.

*Frost Radar™: North American UCaaS Market, 2022***GROWTH**

- Fusion Connect has grown both organically and through strategic acquisitions and today ranks among the top 30 North American UCaaS providers.
- In the past few years, Fusion Connect's growth in the UCaaS market has slowed due to internal challenges, intensifying competition, and evolving customer preferences favoring more collaboration-centric solutions. The addition of the feature-rich Webex collaboration suite to Fusion Connect's portfolio is likely to help boost both existing customer ARPU and new customer acquisition.
- The recent agreement with Intrado provides Fusion Connect with access to Intrado's substantial voice and network services customer base, which Fusion Connect can transition to its own services portfolio. This creates opportunities for Fusion Connect to more than double its UCaaS customer base and upsell Intrado's customers with its SD WAN and managed security services.
- By aligning with Microsoft to voice-enable Microsoft Teams Phone deployments, Fusion Connect can capitalize on the large and rapidly growing Teams customer base and the strong pull-through Teams messaging and meetings are creating for Teams Phone.
- The recent Intrado agreement also provided Fusion Connect with access to some European assets, which can become the foundation for broader European expansion.

FROST PERSPECTIVE

- Fusion Connect's broad solutions portfolio, robust professional services, and white-glove customer implementation and support services position it well for future success in the UCaaS and broader communications services space.
- Fusion Connect must continue to enhance its portfolio to differentiate and deliver greater value to customers looking for a one-stop-shop experience. By providing a broad range of services, Fusion Connect helps businesses reduce costs and risks associated with multi-vendor solutions environments.
- Further portfolio enhancements could include Operator Connect services for Microsoft Teams, more robust managed security services, and additional UCaaS solutions or voice-enablement services for third-party UCaaS solutions.
- Fusion Connect must pursue further international expansion as the North American market matures. Intrado's European assets can be leveraged to expand throughout Europe and potentially build presence in other world regions.
- Fusion Connect has seen strong traction in certain verticals such as retail, restaurant, and professional services. It can leverage that success to develop compelling replicable offerings for these verticals, as well as develop tailored solutions and strategies for other verticals.
- Fusion Connect must continue to enhance its integrations capabilities through flexible APIs, off-the-shelf integrations, and professional services. This will enable it to integrate its communications services into customer workflows and deliver more tangible business outcomes.

Google Voice

INNOVATION

- Google Voice for Workspace is a compelling UCaaS solution for Workspace users. Competitively priced and tightly integrated with the popular Google Workspace services suite, Google Voice provides essential enterprise voice features in a familiar user interface on any connected device.
- IT admin tasks such as number assignment, porting, and billing can be conveniently handled through the Google Workspace Admin console. Setting up Google Voice, including key features such as auto attendants and hunt groups, can be done quickly and easily on any connected device.
- Google Voice for Workspace can be deployed with desktop phones for users that prefer more traditional devices. However, Google's focus is on providing a compelling user experience on desktop PCs and mobile devices.
- Google leverages AI to filter spam calls, transcribe voicemail automatically and prevent toll fraud, which differentiates Google Voice from other UCaaS offerings.
- Google Voice stands out with its simplicity and ease of use, provisioning and management. Google Meet and Calendar integration, business SMS, mobile apps and web-based clients enhance Google Voice value to businesses.
- In the past year, Google enhanced Google Voice with support for ATAs, personal call routing, on-demand and automated call recording, missed call reasons, call connection warnings, and admin-recorded audio prompts.

GROWTH

- Google Voice for Workspace is benefitting from the high growth rates of the services suite which includes the highly popular Gmail, Meet, Drive and Google Docs.
- With more than 2 billion monthly active users and tens of millions of paying users, Google Workspace customers represent a large captive audience for Google Voice.
- The original free version of Google Voice has been adopted by more than 5 million consumers, which demonstrates Google brand strength and helps create awareness of Google capabilities in delivering voice services. Google also reports that an estimated 25% of Google Voice users actually use the free service for business purposes.
- Google Voice for Workspace has grown at triple-digit growth rates in the past three years, as a result of which Google now ranks among the top UCaaS providers in North America.
- The pending launch of SIP Link, Google's bring-your-own-carrier option, will enable Google Voice customers to bring their own calling plans and PSTN connections using SBCs from AudioCodes, Cisco, Oracle or Ribbon and third-party providers. The upcoming Carrier Link, an automated service for provisioning third-party PSTN connectivity and calling plans for Google Voice, can further boost Google Voice adoption.

*Frost Radar™: North American UCaaS Market, 2022***FROST PERSPECTIVE**

- Google Voice for Workspace has gained traction primarily in the US. With current availability in 14 countries, Google must continue expanding globally to tap into less mature UCaaS markets and address the needs of multi-national businesses.
- Google Voice has seen success primarily among SMBs. To accelerate growth, Google must take Google Voice upmarket where more untapped opportunities exist, and relationships are stickier.
- Google must promote Google Voice for Workspace more proactively to fully leverage both the company and the services suite's brand strength.
- The education vertical represents a particularly favorable target market for Google Voice for Workspace. Given Google's strong traction in education with a broad and highly differentiated portfolio, Google Voice is a natural add-on to customers' existing Google solutions.
- Google must continue enhancing Google Voice without compromising its differentiated core benefits of simplicity and ease of use. Additional features (e.g., greater meeting scalability, E911 device tracking and contact center), will enable Google to address a larger spectrum of customer needs.
- Google's ability to leverage low-cost compute and telephony network resources enables it to offer real-time communications services, including Google Voice at disruptive prices. This will represent a strong competitive advantage for Google in the long term.

GoTo

INNOVATION

- A comprehensive feature set and competitively priced bundles provide compelling value to customers and make GoTo solutions affordable for most businesses.
- Home-grown, proprietary platform enables more rapid feature development and more cost-effective scalability than what competitors can accomplish using third-party platforms.
- GoTo has fully integrated its solutions—GoTo Connect, GoTo Meeting, GoTo Webinar and GoTo Training—both on the end-user level (via the GoTo Connect desktop and mobile apps) and the admin level. It has also enhanced its cloud offerings with persistent messaging capabilities.
- Capitalizing on its fully integrated platform GoTo has recently bridged GoTo Resolve and GoTo Connect and launched IT Helpdesk functionality within GoTo Connect, which enables users to submit helpdesk tickets from within the GoTo app. It also announced a new product bundle combining UC and IT support functionality with prices starting at a compelling \$24/user/month. Unifying IT support and UC functionality in a single app and delivering the combined capabilities at a highly affordable price differentiates GoTo from the majority of its competitors and increases its appeal to SMBs, which represent its main target customer base.
- GoTo's UC offerings are complemented by the recently enhanced GoTo Contact Center offering, which also includes integrated remote support capabilities. GoTo Contact Center supports multiple interaction channels including voice, video meetings, SMS, web chat and social. It also provides advanced analytics and an outbound dialer.
- The launch of GoTo Connect Legal and GoTo for Automotive, tailored offerings for legal professionals and automotive dealerships, respectively, suggests an increased focus on verticals. Key part of the value GoTo brings in these verticals is the integration of GoTo services with vertical-specific software such as Clio and LawGro for law firms and DealerSocket, CallRevu, and PurpleCloud for the automotive industry.

GROWTH

- GoTo has remained among the leading North American UCaaS providers for the past few years. It reported a particularly strong growth rates in 2019, 2020 and 2021 as it capitalizes on rising demand for cloud services to empower remote workers. Strong focus on continued product enhancements, service reliability, competitive pricing, and customer service are likely to enable GoTo to maintain robust growth rates.
- GoTo's value proposition has been premised on delivering a unified user experience by combining GoTo Connect's robust cloud PBX with GoTo's industry-leading conferencing and collaboration services. With the integration of helpdesk functionality into GoTo Connect, the provider is likely to appeal even more strongly to SMBs looking for convenient and cost-effective ways to manage both internal and external communications.
- GoTo's growth strategy includes steady international expansion with UCaaS already launched in several European countries, Australia, New Zealand, and South-East Asia, in addition to existing services in Brazil and Mexico.

Frost Radar™: North American UCaaS Market, 2022

- The new Essential bundle is likely to create new growth opportunities for GoTo among the most price-conscious SMBs.
- The launch of ‘work from anywhere’ bundles and ecommerce purchase options is likely to boost growth.

FROST PERSPECTIVE

- Over the past three years, GoTo’s commitment to the UCaaS market created opportunities for the GoTo Connect offering to experience accelerated innovation and growth.
- The ability to integrate multiple capabilities across its business communications, customer experience management and IT support solutions portfolio and offer affordable solution bundles to SMBs is likely to represent a sustainable differentiator and a competitive advantage for GoTo.
- GoTo must increase customer awareness of the GoTo brand as the market becomes more crowded and competition intensifies.
- Despite placing a strategic focus on SMBs, GoTo can benefit from increasing penetration among larger accounts, where churn is lower and contract value is higher.
- GoTo must continue to place special focus on vertical markets and public-sector organizations to differentiate.
- It must accelerate international expansion to support MNCs more effectively and tap into SMB opportunities beyond the mature US market.
- It must also continue to expand its channel network to ensure broader geographic reach and enhance customer service.
- Integration with Microsoft Teams is likely to help GoTo tap into the rapidly growing Teams customer base.

Intermedia

INNOVATION

- Intermedia Unite, a full-stack UCaaS solution, features an enterprise-grade PBX fully integrated with video/web meetings, team collaboration and a unique blend of file sync, share, and backup—all accessible through mobile and desktop applications.
- Intermedia's proprietary CCaaS solution is built to stand alone or easily layer on omni-channel functionality for both small and large teams. When purchased with Unite, users receive a single application for unified communications and contact center.
- Intermedia's focus on a completely integrated user experience across all devices and communications modalities is enabled by its end-to-end ownership of the UC, collaboration, and contact center applications. This integrated approach makes user adoption quicker and easier for both users and IT admins.
- Continued solution enhancements via partnerships, acquisitions and internal development represent a key pillar of Intermedia's technology development strategy. Intermedia Unite, further integrates enterprise user and contact center user agent experiences and simplifies solution administration via a single interface for adding and managing users, single sign-on, and the ability to provide contact center capabilities to any user with a single click.
- Intermedia continues to leverage its partnership with NEC, in which NEC resells Intermedia Unite as NEC UNIVERGE BLUE CONNECT (UCaaS) and ENGAGE (CCaaS). The services have been rolling out globally since the launch in May of 2020 and provide Intermedia with a major OEM partner and a large installed base of NEC on-premises PBXs (est. 80M users) that can be upgraded to cloud communications.
- Intermedia and NEC recently launched UNIVERGE BLUE HYBRIDCONNECT BRIDGE, which enables NEC customers to overlay Intermedia collaboration and mobility services on top of their premises-based communications solutions. Users can access calling, messaging and meetings in a single app available both in mobile and desktop environments. Leveraging the optional NEC Cloud Gateway, businesses can access more sophisticated calling capabilities (concurrently ringing multiple phones, call transfer to both in-office and remote users, bi-directional call flip across mobile and desktop devices, etc.) in addition to those available on their premises-based systems.
- Recent innovation also includes the launch of Interaction Analytics that uses artificial intelligence (AI) to improve customer satisfaction by making it easier for supervisors to ensure every frontline employee is meeting customer expectations. Supervisors can use AI-powered sentiment analysis to easily search and evaluate voice conversations with the biggest business impact. They can also automate the search process by setting up rules that flag conversations for evaluation, if they contain key phrases. This comes with a completely refreshed evaluation UI that makes it easier for supervisors to quickly provide more feedback to their frontline employees.

*Frost Radar™: North American UCaaS Market, 2022***GROWTH**

- Intermedia's compelling portfolio and robust and differentiated channel program have enabled it to maintain steady double-digit growth rates over the past few years.
- Intermedia reports a roster of over 7,200 active channel partners, including VARs, MSPs, distributors, and telco carriers.
- Intermedia continues to invest in enhancing its partner programs and capabilities to more effectively serve a wide spectrum of partners, from agents to white-label resellers, and thus broaden its customer reach and accelerate growth.
- Intermedia's growing partnership with NEC is likely to help the provider tap into NEC's large dealer channel and 80+ million-user installed customer base and thus boost customer acquisition domestically and gain international exposure.
- Recent and upcoming NEC launches in Europe and APAC are likely to positively impact Intermedia growth rates in the future.

FROST PERSPECTIVE

- Intermedia will continue to capitalize on strong demand for cloud communications, collaboration and IT solutions among SMBs and Mid-Market.
- Intermedia is further enhancing the UCaaS feature set (e.g., via expanded team collaboration) to deliver greater customer value and tap into companies of all sizes.
- Concerted marketing and sales efforts will help to leverage the NEC partnership to expand UCaaS services internationally and drive growth domestically. Enabling hybrid cloud and premises-based deployments for existing NEC customers can be a powerful growth driver among more conservative businesses or those in more regulated industries.
- Increased focus on white-label and co-branded resale partnerships can extend Intermedia's reach into new geographies and customer segments and accelerate customer acquisition.
- The recent launches of Intermedia Unite Extend (a set of out-of-the-box integrations), the Extend API platform and the Extend API Development Portal will enable Intermedia to deliver better users experiences and automate customer workflows.

Lumen

INNOVATION

- Lumen's UCaaS portfolio leverages industry-leading collaboration technologies from partners such as Alianza, Cisco, Microsoft, Zoom and others. The UCaaS portfolio is complemented by Lumen CCaaS solutions.
- Lumen has launched Lumen Cloud Communications, which will enable it to overhaul its legacy infrastructure and enhance its solutions portfolio with POTS replacement, specialty-line and additional UCaaS offerings. Lumen's intuitive portal enables Lumen to effectively manage and support customers through automated provisioning, as well as online customer ordering and management. Flexible APIs allow Lumen to control customer number porting and activations easily and cost-effectively.
- Lumen's goal is to provide compelling end-to-end digital customer experiences for businesses, including its Lumen Cloud Communications, Cisco Webex Calling, Microsoft Teams Phone and Zoom Phone customers. Automated quoting, provisioning and support services boost customer value and help differentiate Lumen from competitors.
- Lumen stands out from other providers through its broad array of hosted IP telephony offerings positioned for different types of customers.
- It differentiates from UCaaS-centric providers through a robust portfolio of adjacent managed solutions such as connectivity, cloud, IT services and more.
- Lumen also offers Lumen Enablement Services (LES) for UC&C -- a suite of services that assists customers through planning, design, implementation and management of their UC&C and voice platforms. The purpose of LES is to simplify UC&C processes for customers transitioning to a UC&C solution, from planning through post-deployment maintenance. Customers can choose a bundled service offering (package) or choose individual services as needed.
- Lumen is also uniquely positioned among North American providers with its focus on providing PSTN connectivity services and calling plans for several partner UCaaS offerings, including Cisco Webex Calling, Microsoft Teams Phone and Zoom Phone.

GROWTH

- With diverse UCaaS offerings and an evolving CCaaS portfolio, Lumen addresses the full customer spectrum: SMB, mid-market, enterprise and government organizations.
- The new Alianza relationship creates opportunities for Lumen to migrate its large POTS base to next-generation technologies, as well as offer a compelling UCaaS solution to businesses.
- Lumen's steady growth rates in the past few years prove the effectiveness of its growth strategy and execution.
- Automated ordering and quoting mechanisms are accelerating growth rates for Lumen UCaaS, including Zoom, Microsoft Teams and Webex.
- Strong network, security and edge capabilities, and large geographic footprint provide market power to Lumen.

Frost Radar™: North American UCaaS Market, 2022

- Strong position in the VoIP access and SIP trunking space provides value in premises-based and hybrid deployments and creates opportunities for Lumen to migrate these customers to UCaaS.
- Continued international expansion and new offerings—such as Lumen Solutions for Microsoft Teams, Zoom Meetings/Phone, and an expanded partnership with Cisco to include Webex Calling Dedicated Instance—broaden Lumen’s customer reach.
- Lumen is looking to capitalize on growth opportunities in providing connectivity services in bring- your-own-carrier (BYOC) scenarios with third-party UCaaS solutions. While such services do not help grow Lumen’s share of UCaaS seats, they enable Lumen to capture a larger portion of UCaaS revenues.

FROST PERSPECTIVE

- Lumen must work closely with technology partners to further enhance its hosted IP telephony and UCaaS offerings with new features and endpoints, additional certifications, third-party software integration, etc.
- Lumen can leverage its comprehensive Managed Office solutions and services to address demand for one-stop shopping of multiple cloud services. Bundled managed services managed through integrated services portals and leveraging integrated analytics across different services can be particularly effective in the under-penetrated mid-market.
- Lumen can capitalize on demand for automated customer journeys that can be provisioned completely through a digital experience. Such capabilities appeal most strongly to digital native buyers, but have also proved effective during disruptive times such as the pandemic lockdowns.
- Lumen can also use its FedRAMP certification and Cisco UCM Cloud for Government solutions to get ahead of competitors in the government vertical.
- Lumen must also seek to develop tailored solutions and solution bundles for other verticals leveraging its broad services portfolio and extensive professional and managed services expertise.
- Direct Routing and upcoming Operator Connect services for Microsoft Teams customers provide Lumen with access to Teams-centric customer organizations, where it can deliver not only connectivity services, but potentially UCaaS, CCaaS and more.
- A variety of calling plan and PSTN connectivity options for Zoom Phone customers will enable Lumen to capitalize on Zoom’s increasing popularity as a UCaaS provider.

Microsoft

INNOVATION

- Microsoft Teams is one of the vendor's and the industry's most successful collaboration solutions. Microsoft envisioned Teams as a platform that will deliver a variety of communications services including messaging, meetings, and calling, and make these capabilities available within the applications and workflows where users spend most of their time.
- Microsoft built Teams to integrate with the rest of its software solutions to deliver greater customer value and create pull-through across Microsoft services. Microsoft 365 plans enable businesses to purchase compelling productivity and collaboration app bundles. E5 is unmatched in the industry as it comprises email, calendar, meetings, Teams and Phone System, cloud document storage, social business, streaming media, and analytics.
- A strong frontline worker emphasis is another example of Microsoft's innovation. Microsoft delivers access to location-based services, scheduling tools, messaging and presence, file storage and sharing, social business, and workforce management for frontliners on mobile devices.
- Microsoft continues to evolve its Teams UC soft clients as user requirements change (e.g., more extensive use of video, work from home, frontline worker use cases).
- Teams Direct Routing and Operator Connect enable businesses to activate cloud PBX features within Teams and add PSTN connectivity using the provider of their choice.

GROWTH

- Microsoft has garnered 12 million UCaaS users—defined as PSTN-connected Teams Phone users—in approximately five years since the launch of Teams. Teams Phone's phenomenal growth rate is unmatched in the industry and has secured Microsoft a leadership position among UCaaS providers globally.
- Including Teams into Microsoft 365 services bundles and embedding it into Windows PCs considerably boosts the vendor's ability to extend the solution's reach to a larger addressable market and offer a highly compelling price to businesses.
- Other pricing and packaging strategies, including the availability of a free Teams version and the recent launch of the highly economical Microsoft Teams Essentials, also significantly increase the solution's appeal to more cost-conscious organizations, which enables faster and broader adoption.
- Microsoft's bundling approach enables the vendor to populate many customer organizations with the full Teams feature set, including Microsoft Teams Phone. For many businesses, the compelling collaboration functionality within Teams eventually becomes an incentive to activate the integrated PBX services, which enables stickier relationships and additional revenues.
- Direct Routing is significantly expanding Microsoft's reach among businesses with existing connectivity contracts, those that can secure more competitive calling plans than Microsoft's, and in areas where Microsoft calling plans are not available.

Frost Radar™: North American UCaaS Market, 2022

- The new Operator Connect and Operator Connect Mobile offers deliver additional avenues for service providers to integrate their networks and platforms with Teams, opening a potentially substantial growth opportunity.
- With extensive marketing and product development, Microsoft raised awareness of UCaaS solutions for frontline workers and established strong mindshare that can lead to rapid growth.

FROST PERSPECTIVE

- Microsoft Teams, in general, and Teams Phone, in particular, will experience continued rapid growth driven by increasing demand for remote collaboration tools and availability of more flexible deployment options (e.g., Direct Routing, Operator Connect and Operator Connect Mobile).
- Microsoft's exceptionally strong brand creates consideration and often secures deals in all the different markets in which it operates. It has played a significant role in driving traction for Teams and Teams Phone as well.
- Microsoft is expected to further enhance Team Phone features to compete against best-of-breed UCaaS and collaboration solution providers more effectively.
- Microsoft has gained a first-mover advantage in the frontline worker segment, which provides new growth opportunities.
- The highly extensible Teams platform enables Microsoft to support a broad range of integrations with third-party solutions, which boosts the vendor's value proposition in cloud services.
- Microsoft may consider opening Azure Communications Services with the goal of extending programmable communications (CPaaS) to its entire ecosystem.
- The launch of Viva enhances the value proposition of Microsoft Teams and may drive Teams Phone adoption as well.

Mitel

INNOVATION

- In Q4 2021, Mitel announced a partnership with RingCentral whereby RingCentral MVP became Mitel's exclusive public-cloud UCaaS offer. Prior to this, Mitel led with its own MiCloud Connect offer, from which customers are being migrated to other Mitel platforms and RingCentral.
- Mitel is focused on providing an extensive range of Unified Communications choices to customers who prefer a dedicated-instance path to unified communications evolution. It is differentiating from other business communications providers by focusing on customers who are concerned about maintaining control of their networks, mitigating perceived security risks, ensuring data storage sovereignty, and wish to integrate communications and collaboration capabilities with specific vertical or business apps. To serve such customers Mitel offers multiple options: public cloud (AWS, Azure, Nutanix), private cloud (partner or customer data centers) and on-premises for all its Unified Communications solutions. It also offers CapEx and OpEx/Subscription commercial choices for every solution to address diverse customer needs.
- Mitel will continue offering MiCloud Flex Wholesale (private/multi-instance), which addresses businesses' elevated security and customizability requirements in a private cloud environment through select partners. Mitel had a retail offer for this product that it continues to support for existing customers, but no longer sells.
- Mitel's differentiated CloudLink architecture enables the delivery of cloud-based applications and integration capabilities across Mitel's entire UCC and contact center portfolio. Mitel CloudLink provides particularly compelling value to current Mitel premises-based telephony customers looking to enhance user experiences with cloud-based collaboration services. CloudLink also facilitates RingCentral MVP adoption acting as a bridge to enable Mitel devices and service capabilities to operate on RingCentral MVP. In the future, Mitel has the potential to leverage CloudLink to overlay RingCentral services on third-party premises-based telephony systems.
- Mitel offers its in-house MiCloud Connect Contact Center CCaaS solution as well as RingCentral's CCaaS for customers migrating to RingCentral MVP.
- By partnering with RingCentral, Mitel can deliver an industry-leading UCaaS solution to partners and customers while focusing its investments and R&D efforts on premises-based, private-cloud, hybrid, and vertical-specific solutions including public cloud availability via all Mitel platforms.
- What also differentiates Mitel from others is the deployment commercial flexibility offered to customers.
- Mitel launched a new Developer Program that provides its open communication and collaboration APIs to technology partners, channel partners and customers who choose to develop upon them to build enhanced and tailored communications and collaboration applications and integrations.
- Recent product developments also include several different approaches to integrating Mitel solutions with Microsoft Teams for businesses with a strong preference for the collaboration experience provided by Teams.

*Frost Radar™: North American UCaaS Market, 2022***GROWTH**

- Organic growth and complementary M&A have catapulted Mitel to one of the top positions in the North American UCaaS market. Success factors have included Mitel's diverse architectural options, channel strength, large installed base, and ability to deliver a variety of end-to-end premises-based and cloud communication solutions.
- Mitel's current growth strategy focuses on partner-led sales in the midmarket, where it has a strong foothold and a compelling value proposition. New customer self-service onboarding capabilities enhance customer value and may help boost Mitel UC solutions adoption.

FROST PERSPECTIVE

- In the past, proprietary technologies enabled Mitel to innovate at its own speed and scale cost-effectively. The RingCentral partnership may enable Mitel to bring customers a better public-cloud option but will reduce its ability to control the capabilities it delivers to businesses as RingCentral fully controls its UCaaS roadmap.
- Transitioning partners with both VAR and agent business models and customers to the RingCentral solution may also prove disruptive in the short term. Optimized partner lead registration, compelling incentives, and promotions (e.g., months of free service, waived termination fees), and effective partner engagement may help alleviate migration challenges.
- Device migration programs and tailored migration tools (e.g., configuration porting) may also prove effective in facilitating Mitel customer migration to RingCentral MVP.
- Mitel will retain control over CloudLink development and will co-innovate on migration efforts with RingCentral to make CloudLink even more robust and address more use cases.
- For Mitel, the goal is to leverage CloudLink to support hybrid environments across multiple vendor premises-based call-control platforms.
- Mitel must continue its international expansion to tap into new markets with a high growth potential.
- Open APIs and a vertical approach can boost the value of Mitel's offerings and expand its addressable market.
- Microsoft Teams integration, including Direct Routing services, will represent an important growth axis for Mitel.

Momentum Telecom

INNOVATION

- Momentum Telecom has enhanced its UCaaS offering based on a Cisco/ BroadSoft with a proprietary mobile application and the Realtime Provisioning Explorer (RPX), an intuitive proprietary CPaaS platform for service provisioning, user account and device management, analytics and third- party software integration.
- The integration of Webex collaboration services with Momentum's cloud PBX will enable the provider to deliver greater customer value. The integrated Webex app will allow users to access calling, meeting and messaging services via a single pane of glass.
- Flexible feature bundles and a-la-carte options allow businesses to select the right features for their users.
- Momentum Telecom's Voice-Enabled Microsoft Teams enables businesses to integrate Teams with Momentum's voice network in a derived routing or hybrid deployment. This design provides Teams customers with additional capabilities, such as Quality of Service (QoS) monitoring, contact center, hunt group, call recording and more.
- Momentum has also boosted its fiber networking and SD-WAN capabilities through acquisitions and the recent launch of its Juniper-powered Momentum Navigator SD-WAN offering.

GROWTH

- Through organic growth and complementary M&A, Momentum Telecom has become a leading global managed cloud services provider.
- Retail and wholesale business models allow Momentum Telecom to scale and reach a broad customer spectrum across geographies and businesses sizes.
- Expanded fiber networking capabilities create pull-through sales opportunities for UCaaS as just another application on the network.
- Over the past few years, Momentum Telecom has made a concerted effort to move upmarket which has helped it improve solution selling with comprehensive services bundles (SD-WAN, fiber broadband), create stickier relationships, and drive up ARPU.
- The acquisition of Altus Technology boosted Momentum's UCaaS and managed services portfolio and customer base.
- The launch of Webex collaboration services enables Momentum to upsell existing customers and sell more premium seats going forward.
- Voice-enabled Microsoft Teams is likely to enable Momentum to capitalize on Teams' strong appeal and rapid growth. Direct Routing services for Microsoft Teams will allow Momentum to generate additional revenues from businesses adopting Microsoft Teams Phone as their primary UCaaS solution.

FROST PERSPECTIVE

- Long track record in delivering next-generation services and strong financial performance favor Momentum Telecom solutions among competitors.
- Strong focus on custom solution design, white-glove implementation, onboarding, training and lifecycle management enables a superior customer experience.
- Momentum Telecom can leverage its broader solutions portfolio including cloud voice, managed network, and award-winning SD-WAN services to position as a one-stop shop for businesses.
- It can promote third-party cloud voice integration with Microsoft Teams and Webex, international managed network connectivity, and seamless integration with business productivity applications to create stickier relationships.
- Momentum Telecom must continue to expand into larger businesses to reduce churn and sell more services to UCaaS customers.
- Extensive channel partnerships provide Momentum Telecom with a competitive advantage. It must leverage the partner channel to provide richer services bundles and to scale geographically.

Nextiva**INNOVATION**

- Nextiva offers an integrated services suite leveraging NextOS, a single platform enabling seamless communication through any customer engagement channel.
- Nextiva's flagship multitenant UCaaS solution provides telephony, video conferencing, screen and file sharing, instant messaging and group chat, recording, presence, mobility, unified messaging, HIPAA compliance, and integrations with common software such as Salesforce and Service Now.
- Nextiva differentiates its UCaaS offering through NextOS applications such as multichannel customer support, sales and service tools, chat, online surveys, email marketing software, analytics, AI and automation, cloud storage, and backup solutions.
- In 2021, Nextiva also launched an omni-channel contact center offering in partnership with Five9 to complement its existing contact center offering.
- The introduction of NextivaONE app in 2022 delivers on Nextiva's vision for a truly unified platform combining communications and customer management. With threaded conversations at its core, NextivaONE is touted as a communications and collaboration workhub that addresses multiple challenges including applications overload, siloed data, and expensive and ineffective integrations. Blending of internal and external conversations; automated customer surveys, insights and sentiment analyses; and a no-code call-flow builder represent some of the key differentiators of the NextivaONE app.

GROWTH

- Nextiva has maintained steady growth over the past decade, often surpassing industry average growth rates, as a result of which it has earned a position among the top North American UCaaS providers.
- High growth rates have enabled Nextiva to invest in continued technology development focused on empowering organizations to improve productivity, communications and customer relationships and grow their business.
- Nextiva was quick to respond to customer challenges due to COVID-19 and the rise in remote work with new service bundles and capabilities (e.g., video, team collaboration, HIPAA), as well as hourly webinars educating customers on Nextiva remote-work tools, which resulted in robust growth rates in 2020.
- In 2021, Nextiva raised \$200 million in its first external funding round. The new funding is likely to fuel both innovation and growth, including international expansion.
- Compelling packaging and pricing, and a highly entrepreneurial culture can drive robust growth rates for Nextiva in the future

FROST PERSPECTIVE

- Nextiva's success can be attributed to its business agility and laser focus on customer value.
- Expanding geographic reach as well as continued growth in enterprise remain Nextiva's main growth opportunities.
- Nextiva can further leverage channel partnerships to expand customer reach and better serve customers.
- It must enable more extensive integrations with third-party applications to more effectively enhance customers' specific business processes.
- It can penetrate the existing customer base of users with new features and services to increase ARPU.
- Nextiva can further specialize into vertical markets where integrated cloud communication and customer experience products enable synergies that produce customer value.

NWN Carousel

INNOVATION

- NWN Carousel offers both single-tenant and multi-tenant cloud calling solutions which enables customers to choose the solution that meets their specific communications requirements such as integrations, survivability or flexibility.
- The provider has had considerable success with an internally hosted and managed UCaaS solution based on Cisco HCS technology. Going forward, Cisco Webex Calling – Direct Instance will represent NWN Carousel’s flagship UCaaS offering.
- NWN is also providing connectivity (Direct Routing), professional and managed services to business adopting Microsoft Teams and has earned a Microsoft Partner of the Year in Calling, Messaging and Devices recognition.
- As a Master Agent, NWN Carousel is also reselling RingCentral Office and evaluating other UCaaS partners.
- NWN Carousel delivers Unified Communications as a bundled solution as a service that combines best-of-breed OEM components with integrated connectivity, security, and adoption services powered by the provider’s Experience Management Platform (EMP) and SLAs. EMP is a key part of NWN Carousel’s value proposition.
- EMP aggregates and simplifies provisioning; day-to-day management; billing, reporting and analytics; proactive monitoring; ticketing and service-level dashboards; across the various solutions sold and supported by the provider. It enables self-service and visibility of the entire UCaaS technology stack from the network to the end-user devices and applications, which enables NWN Carousel to provide industry-leading SLAs. EMP also allows customers to easily integrate UCaaS with the provider’s security and contact center offerings.
- A diversified portfolio spanning devices, connectivity, security, contact center and UCaaS, along with flexible delivery models enable the provider to address a large variety of customers and provide a one-stop shop to businesses with more complex needs.
- In January 2022, NWN Carousel launched the Hybrid Work Suite comprised of devices, security, unified communications, contact center, and networking. All services included in the Suite can be managed via EMP, which reduces risks and provides efficiencies to businesses. Customers can purchase the entire suite or only a sub-set of services that best fit their specific needs.

GROWTH

- NWN Carousel has grown organically and through acquisitions to become a leading technology solutions provider in the US. With the acquisition of Carousel Industries, NWN Carousel emerged as a technology solutions powerhouse with a run-rate revenue of \$1 Billion in 2021 and approximately 7,000 customers, more than 950 of which have in excess of 10 years tenure with the provider.
- NWN Carousel has captured a large market share in terms of UCaaS users driven by increasing cloud solutions adoption among government organizations and larger businesses, which account for most of its base.

Frost Radar™: North American UCaaS Market, 2022

- Its strategic investment in a SLED strategy team enables it to win state telecom contracts in competitive bids.
- NWN Carousel also reports 750,000 seats on its cloud platform, approximately half of which are NWN Carousel-hosted and managed UCaaS seats.
- The company's differentiated At-Home Essential bundle, which combines Internet connectivity, wireless access, security and video conferencing endpoints is likely to appeal to the organizations supporting remote workers.
- Making the Hybrid Work Suite available to other MSPs may help NWN Carousel expand its customer reach and accelerate growth.

FROST PERSPECTIVE

- NWN Carousel must continue to grow traction in the public sector and further refine offerings for education and government clients, which have become more receptive to cloud services since the onset of the pandemic.
- It must leverage flexible cloud delivery models such as single-tenant and multi-tenant to provide more options to businesses.
- NWN Carousel must seek to expand its customer reach through channel partners.
- It can leverage its cloud contact center solution as a differentiator and a compelling benefit for businesses looking to migrate both communications and customer care to the cloud.
- NWN Carousel must expand internationally to scale.
- Providing services in Microsoft Teams environments represents a considerable growth opportunity for NWN Carousel. Microsoft Teams adoption received a significant boost throughout the pandemic and is creating pull-through for Teams Phone, Microsoft's cloud PBX solution. With most businesses preferring to integrate Teams Phone with third-party voice services, large opportunities exist for NWN Carousel to reduce complexity and boost customer value by delivering a variety of integration and managed services.

Ooma

Innovation

- Ooma's innovation focus is on removing the complexity of purchasing and using its products and developing highly complementary services to round out a complete business portfolio.
- Ooma Office is focused on simplicity but is a feature-rich UCaaS offering for SMBs, while Ooma Enterprise offers deeper customization and integration for enterprises. Ooma's largest customer has more than 47,000 users on Ooma Enterprise.
- In 2021, Ooma enhanced Ooma Office desktop and mobile apps, as well as launched a new analytics dashboard. In May 2022, Ooma announced the Office Pro Plus tier targeted at larger SMBs that includes functionality such as call queuing and native CRM integrations.
- In 2021, Ooma started offering UJET CCaaS to Ooma Enterprise customers with Ooma implementation and first-level support and a single invoice for both services.
- It also enhanced Ooma Meetings with Remote Control and Meeting Logs.
- Ooma Caller Info Match automatically displays inbound and outbound caller profiles across a variety of web-based CRM and vertical applications.
- Ooma Connect (now using Continuous Voice technology) provides SD-WAN optimization and wireless LTE backup for UCaaS/voice traffic.
- Ooma Managed Wi-Fi delivers business-grade Wi-Fi on a monthly subscription basis to take the complexity out of high-quality Wi-Fi for SMBs and to enhance the reliability of Wi-Fi IP phones.
- Ooma Airdial, an innovative POTS-line replacement solution, enables continued support for specialty analog devices (e.g., alarm systems, elevators) and traditional voice analog devices as telcos decommission their legacy services.

GROWTH

- Through organic growth and strategic M&As, Ooma has branched out from its original consumer VoIP focus and quickly earned a top spot in the North American hosted IP telephony and UCaaS market.
- Presently Ooma reports over 1.1 million core users across its residential and business VoIP services, which is strong evidence of Ooma's effective strategy and execution.
- Ooma experienced strong demand during the COVID-19 quarantines and, with its economical and easy-to-use consumer and business solutions, is particularly well positioned to capitalize on the rise in remote work.
- In 2022, Ooma business service revenues continue to grow at robust double-digit year-over-year growth rates and surpassed residential revenues in the first quarter of the year.
- Differentiated connectivity solutions and tiered UCaaS offerings will allow Ooma to effectively serve a broad customer spectrum.
- Ooma Direct Routing services for Microsoft Teams are likely to create additional growth opportunities for Ooma among the Teams base.

Frost Radar™: North American UCaaS Market, 2022

- Ooma has started expanding internationally, which can expand Ooma's addressable market considerably. Ooma service is now available in 23 countries around the world with a roadmap to significantly expand coverage for its largest customer.
- T-Mobile has recommended Ooma's residential home phone solution (Ooma Telo) since December 2021. In September 2022, T-Mobile began offering Ooma AirDial through the T-Mobile For Business sales organization to sell services billed by T-Mobile.

FROST PERSPECTIVE

- Through a recent partnership with AppSmart, a leading technology services marketplace, Ooma is now making its communications solutions portfolio available to a larger audience.
- Ooma is very well positioned to offer attractive bundled pricing and delivery for a complete office or branch "in a box" solution and should lean hard into that approach.
- Having a mix of device-as-a-service (DaaS) and upfront device purchase options gives customers choices and should be compelling to mid-market and small enterprise customers.
- Ooma must continue to enhance its solutions (e.g., via video meetings, team spaces, multi-channel contact center) to address broader and continually evolving customer needs.
- Ooma must pursue international expansion more aggressively to accelerate growth rates.
- Ooma's partnership with Jazzware enables Ooma to offer tailored solutions for the hospitality industry and must be followed by other vertical solutions.
- Ooma must build more robust channel partnerships to scale and leverage partner solution portfolios and skill sets to deliver greater customer value. Potential telecom carrier partnerships can help Ooma leverage carrier brand strength and existing customer relationships to grow its UCaaS business.

RingCentral

INNOVATION

- The company's flagship RingCentral Office service is an advanced solution offering an enterprise-grade phone system with a broad set of UCC features.
- A collaborative user experience, SMS, analytics tools, video and web conferencing, webinar and integrated contact center services (competitively packaged and priced) set RingCentral solutions apart from most competitors.
- Flexible cloud technology and a proprietary platform enable rapid innovation and cost-effective scalability.
- In the past year, RingCentral enhanced its video meetings with AI-based capabilities, including short-form verbal summaries, searchable live transcripts, video highlight reels, and collaborative notes and tasks. It also launched a RingCentral webinar service. It also introduced a whiteboard capability and announced new hardware partnerships for RingCentral Rooms.
- In 2022, RingCentral also added new SMS capabilities in Salesforce and HubSpot; launched advanced phone features such as the ability to capture actionable insights from call behavior; and introduced an auto dialer to call security or concierge services, among other innovations.
- Innovation also is evident in RingCentral's open platform and its broad set of APIs, which enable businesses to more directly impact their processes. In the past year, RingCentral added support for more third-party apps within the RingCentral app, including Google Drive, TextBot SMS and Poll add-ins.
- The company has most truly innovated on the partner front, where it has forged alliances with Alcatel-Lucent Enterprise, Atos, AT&T, Avaya, Mitel, TELUS and Verizon to sell its portfolio in North America and other regions. RingCentral's recently launched RISE program aims to facilitate telco partner onboarding and sales of RingCentral solutions.

GROWTH

- RingCentral has maintained a leadership position in the North American UCaaS market since 2013 and is gradually expanding its presence in other world regions. Frost & Sullivan expects RingCentral to maintain a strong position in North America by leveraging creative partnerships.
- RingCentral's unwavering commitment to innovation and comprehensive yet tiered service bundles will help attract a diverse customer audience.
- Expanding capabilities and focus on the midmarket and enterprise customer segments may help reduce churn.
- The Global Office solution will enable RingCentral to effectively support multinational businesses regardless of their domicile.
- Increased focus and positioning as an end-to-end UC, contact center, video, and messaging provider are creating greater awareness and growth opportunities for RingCentral.
- The company is building out its vertical expertise and solutions to better distinguish itself in certain areas.

FROST PERSPECTIVE

- RingCentral Cloud PBX (Direct Routing) for Microsoft Teams will enable it to expand its reach among businesses looking for robust voice capabilities behind the Teams UX.
- RingCentral Persist, the capability to retain communications services in case of an Internet failure, along with consistent 99.999% service availability, may boost RingCentral's appeal among risk-averse buyers.
- RingCentral must continue expanding internationally, as well as among midmarket and enterprise customers, to expand its addressable market and fend off global competitors.
- The company needs to take a strong stance with respect to CPaaS, including extending the breadth and depth of its APIs, to keep pace with competitors and further enhance its customizations and verticalization capabilities.
- Additional partnerships and unique partner programs and tools (e.g., Centrex migration, mobile network integration) can further solidify RingCentral's presence in the region.
- RingCentral must not lose sight of profitability goals as it pursues aggressive growth.
- It must continually seek new ways to differentiate itself and offer ever-greater customer value as competitors leverage their unique capabilities to capture UCaaS market share.
- More flexible solutions packaging and pricing can help RingCentral address more customer use cases.

Sangoma

INNOVATION

- With its acquisition of Star2Star and NetFortris, Sangoma now has multiple UCaaS solutions that include Switchvox Cloud, Business Voice / Business Voice+ and CommUnity.
- Switchvox Cloud is a single-site, multi-instance solution best suited for businesses that prefer a private UC solution, hosted and managed by an expert third party. Switchvox is also the premises-based solution for customers that still prefer this deployment model.
- Business Voice+, with its unique hybrid cloud architecture, finds strong appeal among businesses with elevated reliability and site survivability requirements.
- The CommUnity target market runs from small businesses up to multi-location retail.
- Sangoma continues to sell each UCaaS solution into its original channels. Considering that pure-cloud solutions will be the UCaaS growth driver, Sangoma will need to position a lead UCaaS platform to the market so it can focus its resources appropriately.
- Sangoma's UCaaS portfolio also includes PBXact Cloud and Fonality, which are based on first-generation cloud technologies and will not be actively promoted going forward.
- Video conferencing, contact center, team collaboration, desktop as a service, CPaaS, packaged applications, notifications and alerts, fax, call recording, voice-optimized SD-WAN, premises-based telephony systems, gateways, SBCs, phones, and headsets further augment Sangoma's communications solutions portfolio.

GROWTH

- Over the years, Sangoma has increased its size considerably through strategic acquisitions, including those of Dialogic, Digium, VoIP Innovations, Star2Star and NetFortris.
- Star2Star has followed a steady growth trajectory over the years. It provides Sangoma with a robust recurring revenue stream and access to a large and diversified partner network, which can help Sangoma expand further among mid-market and enterprise customers.
- NetFortris brings to Sangoma 60,000 users on several different pure-cloud and hybrid-cloud platforms, as well as access to a large reseller network and comprehensive MSP offerings, allowing Sangoma to access customer profiles that it had not had access to before.
- Sangoma's Switchvox and PBXact platforms have over two million deployed UC seats, the vast majority of which are currently deploying premises-based solutions and can be migrated to next-generation cloud services.
- Sangoma's presence in over 100 countries around the world provides opportunities for the company's expanded UCaaS portfolio to address untapped customer needs in less mature market. Differentiated capabilities, such as free professional installation and money-back guarantees provide customers with convenience and peace of mind, which are critical factors in driving customer acquisition.
- NetFortris's managed network and security services create opportunities for Sangoma to increase average revenues per customer and boost overall revenue growth.

FROST PERSPECTIVE

- Sangoma's value proposition is augmented by built-in disaster recovery capabilities via automatic backup and failover, analog line backup, numerous redundant points of presence, redundant phone carriers and redundant Internet connections, which ensure greater service reliability.
- To ensure success going forward, Sangoma needs to rationalize its UCaaS portfolio, as well as clearly position its different UCaaS offers for different customer use cases.
- It must also capitalize on its global presence to tap into new markets and better serve multinational businesses.
- To gain appeal among new customer segments, Sangoma may need to accelerate solution enhancements. Advanced collaboration tools and multi-channel contact center are likely to enable the provider to address customer communications and customer-care needs more holistically.
- Sangoma can benefit from more actively promoting the value of its differentiated SD-WAN and CPaaS capabilities, which boost cloud services quality and business impact.
- Sangoma's broad managed services portfolio is likely to appeal to mid-size businesses looking to optimize solution and vendor management. IT must promote its one-stop-shop capabilities to differentiate from UCaaS specialists and other point solution providers.
- Sangoma's UCaaS solutions can also find continued traction among highly distributed (e.g., retail) organizations.
- Other growth opportunities include Direct Routing for Microsoft Teams and greater focus on verticals and frontline workers.

TPx**INNOVATION**

- TPx's flagship offering is UCx, a feature-rich hosted IP telephony solution based on Cisco BroadWorks. The recent integration of Cisco Webex with the existing UCx solution considerably enhances the user experience with advanced collaboration features.
- TPx Communications differentiates from other UCaaS providers as a leading managed services provider, delivering unified communications, managed IT, and managed connectivity to 25,000 business, not-for-profit, and government customers across the US.
- The company's ability to innovate is somewhat limited by its leverage of a third-party call-control platform. However, TPx has enhanced its solutions portfolio through internal technology development and acquisitions to overcome this limitation.
- TPx Communications' increased focus on automation as service; an improved, more integrated self-service portal; and the potential launch of a multi-channel contact center and vertical solutions can significantly enhance TPx's appeal to businesses.
- TPx Communications is looking to further enhance its voice-enablement capabilities for Microsoft Teams Phone users with the launch of Operator Connect services, which will complement its existing Direct Routing services and provide more options to businesses.

GROWTH

- TPx Communications has maintained a steady growth path over the years.
- One of the main growth drivers for the company has been the ability to deliver hosted voice and SIP trunking services on the same platform and effectively enable hybrid telephony environments.
- Strong focus on custom solution design, white-glove implementation, onboarding, training, and lifecycle management helps deliver a superior customer experience and drives adoption.
- TPx Communications has experienced rising demand for remote-work enablement during the lockdowns; however, it also reports project delays due to economic uncertainty.
- A broad solutions portfolio including SD-WAN, managed networking, managed endpoints, and SIP trunking services provides a one-stop shop to businesses and positions TPx Communications favorably versus less diversified UCaaS providers.
- TPx enterprise voice services for Microsoft Teams are likely to create opportunities for the provider among the growing Teams customer base.

FROST PERSPECTIVE

- TPX Communications can capitalize on its broad portfolio to increase ARPU and deliver excellent customer purchase and ownership experiences.
- It must leverage and promote its full suite of products to deliver an end-to-end managed IT solution consisting of voice and collaboration services with QoS and application installation, monitoring, and maintenance to create a comprehensive, outsourced IT product unique among service providers.
- It must continue to enhance the UCaaS offering to better compete against leading voice-only providers.
- It must promote installment billing for desktop phones, switches, routers, and installation/professional services fees, which enables customer adoption during crises such as COVID-19.
- TPx Communications must explore opportunities to create tailored solution bundles for different verticals to address specific vertical use cases.
- Direct Routing and Operator Connect services for Microsoft Teams can help TPx deliver value to Teams users looking for robust voice services. It must seek to differentiate in the Microsoft Teams ecosystem with services that fill gaps in Microsoft's portfolio, as well as through creatives services packaging and pricing. It can also leverage its robust professional and managed services expertise to help customers properly manage their Teams environments.
- TPx Communications must continue to enhance its IT admin capabilities to enable customers to monitor and manage multiple TPx services via a common portal and shared reporting and analytics.
- TPx Communications must position as a trusted advisor that can support multi-vendor communications environments to differentiate from UCaaS specialists that are more likely to seek to compel businesses to standardize on their communications solutions.
- TPx Communications may need to consider international expansion to better serve large, multi-national organizations and tap into the growth opportunities in less mature UCaaS markets.

Verizon

INNOVATION

- Verizon stands out with its well-diversified UCaaS solutions portfolio designed to meet the full spectrum of customer needs. Verizon One Talk, a highly differentiated mobile-first solution appeals to businesses of all sizes. HCS-based UCCaaS enables Verizon to target global, distributed enterprises with unique customization needs. Cisco Webex, including the option to deploy with MPLS integration, is a modern collaboration suite for mid-market and enterprise customers.
- BlueJeans, Contact Center Hub and Webex Contact Center further enhance Verizon's cloud collaboration portfolio.
- Verizon is partially dependent upon its technology partner Cisco for technological innovation, but it differentiates with creative packaging, tailored professional services, robust network capabilities including 5G, and leverage of AI and IoT.
- Conscious of Microsoft Teams' increasing popularity among businesses, Verizon is providing calling plans and PSTN connectivity services to Microsoft Teams Phone users via the Direct Routing, Operator Connect and Operator Connect Mobile programs. With the recently announced Verizon Mobile for Microsoft Teams, Verizon was the first provider in the North American market to join the Microsoft Operator Connect Mobile program and provide a true mobile solution for Microsoft Teams users.

GROWTH

- Verizon ranks among the top North American UCaaS providers and is expanding its presence in other regions.
- Verizon's One Talk saw strong adoption during the pandemic and, along with Blue Jeans and Contact Center Hub, positions Verizon for rapid growth in the era of hybrid work.
- A large geographic footprint allows Verizon to better support MNCs, as well as serve SMBs in new markets.
- Strong SLAs, advanced solution monitoring and management, detailed service reporting and analytics, and unique Adoption Services ensure superior service performance and an end-to-end customer experience that drive growth and customer satisfaction.
- Verizon SBCaaS, Verizon Calling for Microsoft Teams, Verizon VoIP for Operator Connect, and Verizon Mobile for Microsoft Teams are likely to generate additional revenues and expand Verizon's addressable market for SIP trunking and UCaaS in the region.

*Frost Radar™: North American UCaaS Market, 2022***FROST PERSPECTIVE**

- A diversified portfolio of multiple related services (e.g., access lines and Internet access including VoLTE, MPLS, VoIP/ SIP trunking) differentiates Verizon from smaller providers and enables cost-effective service delivery, better quality management, and customer convenience.
- Verizon delivers greater value than most competitors in holistic transformation projects, whereby its UCaaS, cloud contact center, and video collaboration services are part of a broader solution set that includes connectivity, networking, and security.
- The recent addition of BlueJeans and two new cloud contact center solutions to Verizon's portfolio will enable the provider to capitalize on high demand for video meetings and CCaaS, as well as allow it to bundle its UCaaS solutions with robust video and CX services.
- Verizon's mobile communications capabilities represent a strong differentiator and a competitive advantage. One Talk and Verizon Mobile for Microsoft Teams services, as well as potential 5G and mobile office services, position Verizon uniquely among North American UCaaS providers and can help drive growth among businesses using mobile devices as their primary communications endpoints.

Vonage

INNOVATION

- Vonage effectively differentiates itself in the cloud communications space with the Vonage Communications Platform (VCP). VCP is Vonage's microservices-architected, cloud-native platform that enables fully programmable services across voice, SMS, messaging, video, and other channels. Vonage continues to invest in a common orchestration layer to make it easy to deploy and manage applications and API across the platform.
- Vonage Business Communications (VBC) is the provider's UCaaS solution that leverages VCP to unify calling, messaging, video, and integrations with business applications and is supported with AI. As a CPaaS market leader, Vonage also enables unique use cases leveraging their flexible APIs with their integrated communications platform.
- Vonage Meetings is included in the VBC Desktop and Mobile App to deliver the essential video and collaboration features that today's workers require.
- Vonage's vision is to leverage its APIs, CCaaS and UCaaS innovations to turn notifications and transactions into intelligent conversations and enable more effective customer engagement. The integration of Vonage Contact Center (VCC) and VBC captures rich customer data with integrated calling, collaboration and contact center solutions to improve customer experience.
- 99.999% uptime SLA is enabled by SmartWAN, Vonage's SD-WAN solution, providing enterprise-grade redundancy and reliability across global locations. This SLA requires the provisioning of two different circuit types (e.g., private line, DSL, cable or wireless).
- Vonage Open ContactPad embeds a customizable dialer to bring voice and data into key sales, customer service and business productivity applications that employees use every day. By leveraging the Meetings API, users can escalate to video from the dialer.
- In the past year, Vonage leveraged AI and its video APIs to enhance both VBC and VCC so that users can initiate calls or meetings directly from any web-based application via an embedded and customizable dialer.
- It also launched the Vonage Interactive Broadcaster with Experience Composer, which enables developers to create more engaging live events. Vonage also enhanced its Jumper.ai conversational commerce app with new video capabilities and integrations to enable engaging e-commerce experiences.

GROWTH

- Disciplined M&A combined with organic growth have enabled Vonage to become one of the top UCaaS providers in North America. Vonage continues to focus on international expansion and offers VBC to a growing global customer base.
- In the past several years, Vonage focused primarily on completing, redesigning, and integrating its solutions portfolio.

Frost Radar™: North American UCaaS Market, 2022

- Vonage APIs are growing at robust double-digit growth rates driven by increased demand for new ways to connect with customers during the pandemic lockdowns and the broader, long-term shift to digital customer engagement. The Vonage API Platform will represent a high-growth product line, as well as enhance the value of UCaaS and CCaaS.
- Vonage's application business slowed down as Vonage focused on its own business transformation and refined its offerings and go-to-market strategy. That business has seen steady growth over the past several quarters.
- Going forward, Vonage's success will be determined by its ability to monetize the benefits of VCP and deliver holistic solutions combining CPaaS, UCaaS, and CCaaS.
- Vonage's growth will also be defined by Ericsson's vision for the company and ability to leverage Vonage's capabilities to address expanded growth opportunities.
- Ericsson intends to invest in Vonage's current business—both in R&D and sales and marketing - to accelerate growth in the standalone business for the Vonage Communications Platform comprising CCaaS, UCaaS and CPaaS operations.

FROST PERSPECTIVE

- Vonage must place greater focus on the reseller channel to expand customer reach and accelerate growth.
- Vonage must continue to expand internationally to scale and better serve multinational businesses. Vonage's platform approach and strength in APIs and CPaaS are likely to enable the provider to differentiate from other UCaaS providers with tailored vertical solutions that address the needs of both frontline and office workers.
- Effective leverage of its Jumper.ai acquisition can enable Vonage to further enhance its portfolio with differentiated conversational commerce capabilities.
- VBC integration with Microsoft Teams will help Vonage address the need for robust telephony solutions among Microsoft Teams users.
- Vonage for Microsoft Teams optimizes customer engagement through unified calling, messaging and integrated contact center apps. As businesses pursue digital transformations, Vonage and Microsoft communication and collaboration technologies work together to adapt to the new modern workforce.
- The recently completed Vonage acquisition by Ericsson is likely to create considerable opportunities for Vonage to accelerate both innovation and growth by leveraging Ericsson's larger resources and the telecom operator channel.
- Vonage benefits from Ericsson's 5G leadership and R&D scale that will help to accelerate innovation and build a new set of solutions and services along with a global network platform for open innovation.
- Ericsson and Vonage will invest in the continued growth of Vonage's current business and develop new offerings to create a new value segment from innovation on top of the network.
- The acquisition will help Vonage expand its global reach and create more value for partners by helping bring communications technology solutions to even more businesses, their employees and customers, worldwide.

Windstream

INNOVATION

- Windstream's diversified hosted services portfolio comprises various options that provide the best value for specific customer needs. Its flagship OfficeSuite UC offering is complemented by UCaaS solutions based on Avaya technologies.
- The proprietary OfficeSuite UC platform enables Windstream to innovate at its own pace. Unlike most telcos, Windstream is less dependent upon third parties for technology development.
- Windstream custom-designs and fully manages its UCaaS solutions to deliver unique value to each customer.
- It ensures superior service security, quality and reliability through SASE and SD-WAN service delivery, geo-redundant data centers, and strong SLAs.
- UCaaS, SASE and SD-WAN represent key strategic areas for Windstream.
- With regard to UCaaS, recent enhancements include an improved mobile user and a proprietary cloud meeting solution to complement the existing OfficeSuite UC feature set.
- Recent contact center enhancements, including additional channels, omni-reporting capabilities, outbound calling and tight integration with OfficeSuite, can boost contact center sales as well as make Windstream's UCaaS + CCaaS bundles more appealing.
- Windstream also recently improved its portal and administration capabilities.

GROWTH

- Windstream promptly responded to the rise in remote work in 2020 with customer and sales incentives, including free trials and mobility service upgrades, which drove accelerated adoption of its OfficeSuite UCaaS solution.
- Windstream has focused on continuing to support the rise in remote work post pandemic by developing a new meeting solution offering "OfficeSuite Live" and enhancing its administrative tools to support management of remote locations and workers.
- However, Windstream is experiencing considerable churn in its legacy Virtual PBX user base supported on BroadSoft/Cisco and Metaswitch technologies, which is impacting its overall UCaaS seat and revenue market share.
- Future UCaaS success is likely to be boosted by the 'WE will' campaign which demonstrates Windstream's commitment to customer value through high service availability, free professional services, and locked-in prices for the contract duration, and other guarantees.
- Sensitivity: Internal
- Windstream's recently launched international expansion strategy has the potential to expand its addressable market significantly. International presence can also boost Windstream's penetration among larger, multi-national organizations.
- Windstream's increased focus on target verticals, such as healthcare, financial services, and retail can help the provider differentiate from competitors and gain market share in these verticals.

FROST PERSPECTIVE

- Windstream must continue to enhance its UCaaS solutions with more differentiated capabilities, both natively and through integration with third-party productivity, business and vertical apps.
- Windstream can generate additional revenues with tailored vertical and/or frontliner solutions. Windstream must expand its UCaaS presence among mid-market and large enterprises.
- Improved portal and administration, customer success programs, an expanded app marketplace and massive investments in Windstream's IT capabilities are also likely to drive customer satisfaction and loyalty.
- Enhanced contact center capabilities can help Windstream increase CCaaS attach rates to UCaaS sales, which can affect customer lifetime value, as well as customer acquisition and retention rates.
- Promoting the value of its diversified portfolio of centrally managed UCaaS, security and networking services can increase Windstream's appeal among midmarket businesses that prefer one-stop shopping from a trusted managed services provider.
- Windstream can expand customer reach and boost growth rates by expanding its reseller channel, including through white-label partnerships with VARs, telecom carriers and other partners.
- Windstream's efforts to turn its own IT organization into a software powerhouse can help it accelerate innovation, increase the return on its technology investments, and compete more effectively going forward.
- Sensitivity: Internal

*Frost Radar™: North American UCaaS Market, 2022***Zoom****INNOVATION**

- Building on its success in video conferencing and leveraging its robust cloud services platform, Zoom launched Zoom Phone, an integrated UCaaS offering, in Q1 2019.
- Zoom has earned its large business video conferencing customer base by delivering feature-rich yet intuitive user experiences. Zoom strives to replicate the same in Zoom Phone and capitalize on the benefits of providing a single software UI for all communication modalities—meetings, messaging and calling.
- Zoom Phone has received significant enhancements since its launch, which has aided in its outstanding market traction. With a robust, enterprise-class feature set and a customer-driven approach to adding new capabilities, Zoom Phone is bound for success as it addresses the vast majority of use cases.
- In 2021, Zoom launched Power Pack, a Zoom Phone package add-on with continuously enhanced premium features, including a power Call Handling UX, Advanced Analytics and Reporting, and Team SMS.
- Zoom innovation in 2022 was marked by the launch of Zoom Contact Center omnichannel cloud CX services, which leverage infrastructure common to Meetings and Phone and address customers seeking single-source solutions.
- Also in 2022, Zoom launched Zoom Events, an all-in-one platform for creating interactive and immersive virtual events. This solution leverages Zoom’s prowess in video meetings and webinars to address significantly expanded demand for virtual events.
- Most recently, Zoom launched new Zoom One bundles of tiered functionality in Business Plus, Enterprise, and Enterprise Plus licenses. All bundles include unlimited calling, multi-language captions, and the new Zoom Whiteboard functionality. Prices vary based on meeting and cloud recording storage capacity, the inclusion of Zoom Rooms, and multi-language translated captions. Most recent Zoom Phone functionality enhancements include new IP phone call control, Zoom IQ for Sales, QoS dashboard enhancements, cloud/IP phone intercom, 10-participant audio conferencing, and local survivability.

GROWTH

- Zoom is particularly well positioned to address businesses seeking to enable collaborative work environments by leveraging an integrated services suite of cloud PBX, meetings, messaging, and now contact center as well.
- With 4 million seats sold as of August 2022, Zoom Phone achieved more rapid growth than any UCaaS solution in 3.5 years of its commercial availability and now ranks among the top UCaaS providers in terms of installed users.
- Zoom was the first to acknowledge the need for special offerings during COVID-19 lockdowns and the rise in remote work, which drove multifold increases in its installed UCaaS and video customer bases in 2020. Zoom’s considerably increased popularity during the pandemic continued to drive adoption of its various services in 2021 and 2022 to date.

Frost Radar™: North American UCaaS Market, 2022

- Rapid international expansion, PSTN connectivity in 47 countries, increasing channel focus, and continued service enhancements position Zoom for high growth.
- Partnerships with telecom carriers, as well as bring-your-own-carrier (BYOC) deployment options, including the launch of its cloud peering Provider Exchange, will expand Zoom Phone's market reach.
- In addition to channel and international expansion, Zoom's growth strategy will rely on driving platform adoption into lines of business and value/solution selling.
- Zoom is also placing a considerable focus on expanding its presence among larger organizations. In Q2 FY2023 it was reported that revenues from customers with 10,000 seats or more grew by 110%.

FROST PERSPECTIVE

- Zoom will benefit from further expanding Zoom Phone's international presence to tap into underpenetrated markets and better serve MNCs.
- Phone, Meetings, and Chat must be continually enhanced to withstand ever-intensifying competition and address the varying requirements of a broader customer spectrum.
- Zoom must continue to enable integration with popular third-party solutions to support unique needs and more effectively optimize workflows.
- Zoom's continued focus on enhancing its channel programs will enable the provider to scale its business through partners.
- Zoom will benefit from further expanding Zoom Phone's international presence to tap into underpenetrated markets and better serve MNCs.
- Market attach rates pairing CCaaS with UCaaS are growing. The functional parity of Zoom Contact Center must be enhanced to better compete as a UCaaS+CCaaS+meetings provider.
- The launch of Direct Routing Services for Microsoft Teams is likely to provide additional revenue streams for Zoom, as well as create land-and-expand opportunities within Microsoft Teams accounts.

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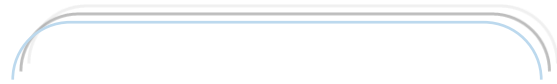
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Next Steps: Leveraging the Frost Radar™ to Empower Key Stakeholders

Significance of Being on the Frost Radar™

GROWTH POTENTIAL



Companies plotted on the Frost Radar™ are the leaders in the industry for growth, innovation, or both. They are instrumental in advancing the industry into the future.



Your organization has significant future growth potential, which makes it a Company to Action.

BEST PRACTICES

Your organization is well positioned to shape Growth Pipeline™ best practices in your industry.

COMPETITIVE INTENSITY

Your organization is one of the key drivers of competitive intensity in the growth environment.

CUSTOMER VALUE

Your organization has demonstrated the ability to significantly enhance its customer value proposition.

PARTNER POTENTIAL

Your organization is top of mind for customers, investors, value chain partners, and future talent as a significant value provider.

Frost Radar™: 2 Major Indices, 10 Analytical Ingredients, 1 Platform

Vertical Axis – The Growth Index:

Growth index 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.

Frost Radar™: North American UCaaS Market, 2022

- **GI1: Market Share (previous 3 years):** Market share relative to its competitors in a given market space for the previous three years.
- **GI2: Revenue Growth (previous 3 years):** Revenue growth rate for the previous three years in the market/ industry/ category that forms context for the given Frost Radar™.
- **GI3: Growth Pipeline™:** This is an evaluation of the strength and leverage of the 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 the 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 the company drive demand and achieve its growth objectives.

Horizontal Axis – The Innovation Index:

Innovation index is a measure of a company's ability to develop products/ services/ solutions that are developed with a clear understanding of disruptive Mega Trends, are globally applicable, are able to evolve and expand to serve multiple markets, and are aligned to customers' changing needs. Key elements of this index include:

- **II1: Innovation Scalability:** This determines whether the organization's innovation(s) is/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 the product portfolio of the company, focusing on the relative contribution of new products to its annual revenues.
- **II4: Megatrends 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.
- **II5: Customer Alignment:** This evaluates the applicability of a company's products/ services/ solutions to current and potential customers (7-year horizon), as well as how its innovation strategy is influenced by evolving customer needs.