



VENDOR PROFILE

Vidyo Drives Innovation in the Embedded Video Communications Market

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IDC OPINION

Vidyo is an enterprise videoconferencing vendor with solutions based on software and applications, being one of the first videoconferencing vendors to understand the market shift from hardware to software. With a software platform that allows business-grade videoconferencing to be embedded into applications, workflows, and hosted unified communications (UC), Vidyo is a leader in the rapidly growing video platform-as-a-service (VPaaS) market. IDC considers the numerous OEM relationships Vidyo has developed with business partners since the company's inception – partners that license Vidyo technology for powering their video collaboration offerings – as a strength of the company. We also think Vidyo's innovative adaptive video layering (AVL) technology and software approaches to delivering videoconferencing have been key in spurring the company's relatively rapid rise in the enterprise videoconferencing market over the past several years. A potential strength we see is its early leadership in the nascent video platform-as-a-service market, utilizing a cloud-based development platform for embedding its video technology with business processes and applications. Vidyo claims a broad deployment of embedded real-time video across a range of use cases. Vidyo sells under its own brand while also powering services offered by others. It has dozens of partners that license Vidyo technology for powering their video collaboration offerings. Partners announced in the past 12 months include Genesys, NCR, Mitel, West, Xiaomi, Verint, NICE, GENBAND, Alibaba, and ServiceNow. IDC considers the partner ecosystem as a key strength of the company. Further:

- Vidyo has been through several rounds of venture funding over a span of several years, including a strategic investment from customer Kaiser Permanente in late 2015. Vidyo indicated that it delivered its strongest financial performance in 2015 and is investing in innovative new areas of research – such as application programming interfaces (APIs) and embedded video communications, WebRTC, and the use of its video technology in digital transformation projects and Internet of Things (IoT) devices.
- As Vidyo is a privately held company, it's been difficult to accurately quantify Vidyo's financial performance in the worldwide enterprise videoconferencing market as the company does not discuss financial performance. The primary reason why we have recognized Vidyo as a "Major Player" in *IDC MarketScape: Worldwide Enterprise Videoconferencing Equipment 2016 Vendor Assessment* (IDC #US41304916, June 2016) is that IDC criteria require quantifiable data from a vendor regarding financial performance, to justify, for example, a move to "Leader" status in that research.

IN THIS VENDOR PROFILE

This IDC Vendor Profile examines and analyzes Vidyo, a major player in the worldwide enterprise videoconferencing market. Data and information for this profile have been gleaned from IDC participation in briefings with company executives and product managers across the enterprise video collaboration domain, and additional insight includes perceptions of the vendor from a number of industry sources.

SITUATION OVERVIEW

Company Overview

Vidyo is a privately held, venture-backed company founded in 2005 and headquartered in Hackensack, New Jersey. It has 12 international offices, about 300 employees currently, and over 5,000 Fortune 500 and SMB customers. Telehealth, video banking, government, and unified communications as a service (UCaaS) are the largest of Vidyo's vertical markets. The company partners with over 300 resellers globally. Its private funding comes almost entirely from investors such as Kaiser Permanente Ventures, Menlo Ventures, Rho Ventures, Sevin Rosen Funds, QuestMark Partners, and Juniper Networks.

Vidyo pioneered the first software-based videoconferencing architecture and offers a range of video endpoints (e.g., group and desktop systems, mobile devices, smart glasses and other wearables, custom clients, and IoT devices) and infrastructure equipment (e.g., routing, management, interoperability, stream, and record solutions). Software enables the vendor to more easily add upgrades and support for new video technologies (versus vendors that are more reliant on hardware). Vidyo offers high-quality cloud/hybrid and on-premises solutions, a full WebRTC offering, and an intuitive video platform as a service for developers.

Company Strategy

Vidyo's strategy "connects the world" by "video enabling" any application or idea. Vidyo focuses on markets where "quality matters," including its core markets in healthcare, financial services, government, and enterprise-class companies. Vidyo provides an innovative, interactive video communications platform and technologies at web scale. Its cloud-based service (i.e., VidyoCloud) and enterprise solutions deliver high-quality, resilient experiences over mobile or public networks, plus enterprise-grade security on a highly scalable platform.

The company has effectively helped move videoconferencing from the confines of the boardroom by offering an alternative, affordable, and scalable technology that delivers cloud-based, hybrid, and on-premises video communication solutions to the market. It is viewed as a leader in the nascent embedded interactive video communications market and offers a broad range of video-enabled customer use cases. Vidyo enjoys many OEM relationships with partners that license Vidyo's technology for "powering" their video collaboration offerings. The company owns over 120 patents associated with its proprietary video technologies.

Customers have benefitted from Vidyo's software development kit (SDK) and application programming interfaces since the company's inception through customized and branded development. Customers like Bloomberg have deployed a fully customized, branded video communications system called "Nexi," which is available to over 18,000 employees worldwide for increasing productivity and team collaboration and reducing time to delivery against the company's corporate initiatives.

Other high-profile Vidyo customers include CERN, Bloomberg, Philips, Ricoh, Xiaomi, NCR, and Samsung, among others. The Vidyo platform powers UCaaS players like Alibaba, Fuze, Mitel, West/InterCall, NTT Communications, and others. Google has partnered with Vidyo since 2009 on Gmail Video, Hangouts, and now as codeveloper of the scalable extension for WebRTC VP9.

Product Strategy

Vidyo.io is the company's video platform-as-a-service offering, which makes its video technology, security, and scalability available via a simple and consistent API for developers to "video enable" their applications. Vidyo.io provides simplified APIs for developers and reduces the time to market for deploying embedded video applications. The company currently deploys some of the largest videoconferencing networks in the world and offers the same level of scalability in a "pay as you grow" model to enable companies to support video chat when they launch their applications.

Vidyo's patented VidyoRouter architecture and VidyoWorks development platform/APIs can deliver a mobile experience on smartphones, tablets, and desktops over any network and on any device. Vidyo has greatly impacted the way people collaborate and communicate by unifying global and mobile workforces and driving new embedded video use cases within applications, workflows, and emerging IoT devices. Vidyo's platform and APIs are being used by enterprise customers, service providers, and ecosystem partners for "video enabling" applications in areas such as healthcare, financial services, and government.

Vidyo's infrastructure strategy entails leveraging the company's intellectual property and expertise to build lower-cost videoconferencing infrastructure and highlighting the following best-in-class capabilities:

- Quality over mobile
- Scalability
- Geographic distribution
- Multiparty conferencing
- Firewall and NAT traversal
- Packet loss and error resilience

Vertical Appeal

The VidyoWorks platform is an attractive choice for multiparty customer engagement solutions in retail and video banking – which require hardened platforms and the highest security. Vidyo is a telehealth market leader and is integrated with the top electronic health record (EHR) systems. More than 50 million patients worldwide have access to Vidyo-enabled healthcare from leading providers, including Kaiser, Mayo Clinic, Partners/Mass General, UPMC, Mercy, American Well, Anthem Blue Cross/Blue Shield, and United Healthcare.

Six of the top 25 banks in the world have selected Vidyo, as have credit unions and five of the largest banks in their respective countries. Vidyo technology powers video use cases including consultations with wealth managers and mortgage and real-estate advisors, as well as general banking services available to all banking customers through contact centers. Vidyo technology also powers NCR ITMs for two-way video interactions, kiosks, drones, and robots. In addition, Vidyo provides the technology for video banking applications for top financial institutions around the world.

The IT arm of the U.S. Department of Defense – Defense Information Systems Agency (DISA) – has replaced its legacy videoconferencing infrastructure with Vidyo as the videoconferencing backbone and purchased 500 million minutes of capacity per year. The company "video enables" the Genesys omni-channel customer experience, as well as service provider, social media, and education applications. Alibaba has embedded Vidyo technology in its DingTalk business hosted UC service, which is available to over 1.5 million business customers.

Product Portfolio

A key component of Vidyo's software-based collaboration platform is the company's VidyoRouter infrastructure architecture, which can reduce an organization's infrastructure requirements and associated costs. Instead of transcoding at a centralized bottleneck (i.e., the MCU), the VidyoRouter directs an optimized video stream to each videoconference participant while conserving bandwidth. For more capacity, physical or virtual VidyoRouters can be added to the network. The patented VidyoRouter architecture enables Vidyo's intelligent adaptive video layering technology to dynamically optimize the video for each endpoint by leveraging H.264 scalable video coding (SVC)-based compression technology. This approach eliminates higher-cost hardware MCUs while offering error resiliency and low latency rate matching. In addition to H.264 SVC support, Vidyo also supports the H.265 and VP9 standards for processing and compressing video streams.

Vidyo's room-based offerings include the VidyoRoom HD-2, VidyoRoom HD-3, and VidyoRoom SE – all capable of supporting up to 4K UHD resolution in multiparty videoconferences. In detail:

- The VidyoRoom HD-2 is ideal for huddle rooms up to medium-sized conference rooms and supports dual screens.
- The VidyoRoom HD-3 supports up to four screens and is ideal for special use cases where flexible screen configurations are needed.
- The VidyoRoom SE is a software-based room system allowing organizations to get the same high-quality user experience while using their own off-the-shelf hardware.

VidyoCloud service (i.e., Hosted VidyoConferencing) calls are powered by the same Vidyo technology as its on-premises solution – utilizing dynamic network adaptation to deliver continuously optimized video with changing network conditions. This optimizes the video quality by dealing with fluctuations that often occur over unmanaged networks, such as the public internet and wireless. Local instances of Vidyo Server technology can be deployed on-premises to provide network WAN optimization. In this hybrid deployment model, Vidyo traffic is localized on-premises and off-premises to minimize latency and reduce the number of video streams that need to traverse the enterprise WAN connection. The result is a cloud-based video communications system that delivers scalable, high-quality video for enterprise collaboration. VidyoCloud can support Vidyo endpoints in calls at up to 4K resolution (3,840 x 2,160), based upon endpoint specifications, available bandwidth, device computing capability, and device display resolution. Third-party H.323- and SIP-based endpoints can support up to 1,280 x 720p resolution on VidyoCloud.

Vidyo Neo is the latest generation of Vidyo's endpoint software. It's available on Windows, Mac, iOS, and Android and in browser via WebRTC. Vidyo Neo brings a modern user interface that streamlines the process-sharing content, scheduling/joining meetings, creation of personal virtual meeting rooms, and others. The WebRTC version of Vidyo Neo provides functionality equivalent to the installed version of Vidyo Neo with the convenience of not having to install software. Vidyo Neo for WebRTC also supports VP9, the next generation of video codec for WebRTC.

Vidyo also provides a full set of APIs that makes it possible to embed real-time multiparty video communications into third-party apps and services. The APIs leverage Vidyo's core technology delivering the highly reliable video communications into web, mobile, and native apps.

FUTURE OUTLOOK

Vidyo sees things such as web/videoconferencing convergence and mobility, cloud, APIs, and business-to-business (B2B)/business-to-consumer (B2C) applications as compelling drivers of the markets in which it competes. B2B and B2C applications in particular require WebRTC capabilities as a baseline requirement. Vidyo provides native WebRTC support for its on-premises, VCaaS, and VPaaS offerings. In addition, all its offerings are VP8 and VP9 ready.

Vidyo understands how digital transformation impacts the bottom line. The company will continue to transform the customer experience by providing high-quality, face-to-face embedded video experience in video banking, business applications, and healthcare.

IDC also expects Vidyo to continue being a leading player in the platform-as-a-service (PaaS) market with its Vidyo.io PaaS offering. Video PaaS makes it easier to embed real-time video into a mobile application, a website, or a business process. Web developers can work in the language of their choice, prototype in hours, and stand up a production run of real-time video in days. There are no up-front hardware and software costs, no contracts or commitments, and no subscription fees. Payment is based on microbilling tied to actual usage. In contrast to traditional video room systems and cloud-based video services, video PaaS is a radical new approach to building communications applications. Its simplicity and low cost allow developers to create potentially millions of niche communications applications.

The VPaaS market is poised for takeoff – driven by applications in video-aided telehealth, field services, education, and social media. IDC forecasts the U.S. video PaaS market to grow from \$44 million in 2015 to \$1.7 billion in 2020, representing a 107% compound annual growth rate (CAGR) (see *U.S. Video Communications Platform-as-a-Service Forecast, 2016-2020*, IDC #US40958616, August 2016).

ESSENTIAL GUIDANCE

Advice for Vidyo

- Being proficient at integrating video with unified communications and collaboration solutions, as well as with commonly used webconferencing applications and collaboration tools such as instant messaging (IM) and presence applications, dramatically increases the value of these solutions and demonstrates to customers a vendor commitment to video collaboration beyond simply deploying video as a siloed application.
- Vendors that can demonstrate business applications and use cases across vertical market segments – such as healthcare, education, manufacturing, retail, and banking – can be extremely valuable partners to customers looking to implement or expand the use of videoconferencing.
- As indicated previously, IDC expects the video platform-as-a service market to experience dramatic growth over the next several years. While Vidyo has seen the most success of any vendor and has the broadest use cases of embedded video, the primary challenge for Vidyo

and its partners is to convince organizations that an API-driven approach to real-time video makes sense. Buyers will need help with bridging the gap between API platform technology and actual use cases and business models. Make it simple for developers to sign up, build, integrate, and activate. Developers should not have to talk to the video PaaS providers to register, explore, and build solutions with the APIs. It should be a completely self-service solution with a safety net available when a customer needs support.

- IDC thinks that Vidyo has done a tremendous job in regard to marketing important aspects of its company strategy, video technology, and product strategy. In fact, we think that Vidyo's marketing execution has been a huge factor in spurring Vidyo's rapid rise in the worldwide enterprise videoconferencing market over the past several years. The company previously provided a quarterly revenue growth percentage to the market as a measure of its growth and success, but it chose to end that practice several years ago under new management. IDC advises Vidyo to consider bringing back at least that metric, or some other useful form of performance guidance for the sake of transparency, to help the market better understand Vidyo's financial performance.

LEARN MORE

Related Research

- *U.S. Video Communications Platform-as-a-Service Forecast, 2016-2020* (IDC #US40958616, August 2016)
- *IDC MarketScape: Worldwide Enterprise Videoconferencing Equipment 2016 Vendor Assessment* (IDC #US41304916, June 2016)
- *U.S. Enterprise Communications Survey, 2016: Videoconferencing* (IDC #US41226816, May 2016)
- *IDC TechScape: Worldwide Unified Communications and Collaboration Technologies, 2016* (IDC #US41179916, April 2016)
- *IDC Predictions 2016: Worldwide Enterprise Communications Infrastructure* (IDC #US40987016, January 2016)
- *Worldwide Enterprise Videoconferencing and Telepresence Forecast, 2015-2019* (IDC #US40701715, December 2015)
- *Worldwide Unified Communications and Collaboration Forecast, 2015-2019* (IDC #US40201615, November 2015)

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