Succeeding with Embedded Video

Vidyo.io streamlines communications across industries

Let's Face It

Let's face it – technological improvements have enabled impressive gains in productivity, but they have dehumanized the experience of interactions between people. Whether you're closing a sale, assisting customers, or collaborating with colleagues, most activities that once involved face-to-face interactions have been replaced by email, texts, and other digital technologies.

Efficient? Yes. But it's face-to-face conversations that improve customer relationships, strengthen bonds, and create differentiated services. Yet the digital revolution doesn't need to play out as an either-or scenario. Interactions with customers, colleagues, and business partners can leverage digital technologies and be face-to-face. For example:

- 50% of millennials regularly use their smartphones for video calls
- 65% of consumers would like to interact with their healthcare professionals over video channels
- 20% indicated virtual visits would be compelling enough to change providers.

The same applications that streamline internal and external processes can be enhanced with powerful video communications capabilities, and it isn't even difficult or expensive.

The past few years have seen the emergence of embedded communications in mobile and web applications. Using communications platform-as-a-service (CPaaS), developers with no previous experience in video technologies can add real-time communications into apps that weren't designed to support them.

From Uber to Airbnb, Facebook to WhatsApp, CPaaS has had many high-profile successes. However, most of these CPaaS successes center around voice and text messaging

technologies. Why not video? Historically, video was too complex, unreliable, and required significant infrastructure investment. This is no longer the case. Today, the same successful model extends to video services. CPaaS can turn digital interactions into personal and productive face-to-face interactions.

Video calls have steadily become more popular and a part of our daily lives. Grandparents use video to talk with grandchildren, and millennials use it with social and messaging apps. Yet business communications are still largely voice and textual. It's odd, particularly as webcams have proliferated along with smartphones, tablets, and laptops – a video-capable endpoint is always at hand in the workplace.

Video is also still new among CPaaS providers. Often, if it is available at all, it is treated as an afterthought, powered by limited and free technologies. But there is a provider that uses video as the centerpiece of its CPaaS portfolio. That provider is Vidyo, with its vidyo.io CPaaS offering.

The Video-Calling Conundrum

Prior to CPaaS, embedding any kind of communications into applications or workflows was anything but straightforward. Companies needed developers who were not only skilled in various programming languages, but also savvy with real-time communications protocols. Enterprises also needed to build out telephony infrastructure.

The use of video has obvious benefits, yet many organizations are reticent to deploy it. The top reasons cited for not implementing video[1] are:

1. The lack of a clear use case
2. Business priorities
3. Concerns about technology limitations
4. Cost

Specifically, many organizations fear that a significant investment in data center and networking resources will be required to ensure a quality experience. Rather than build it, they avoid it.

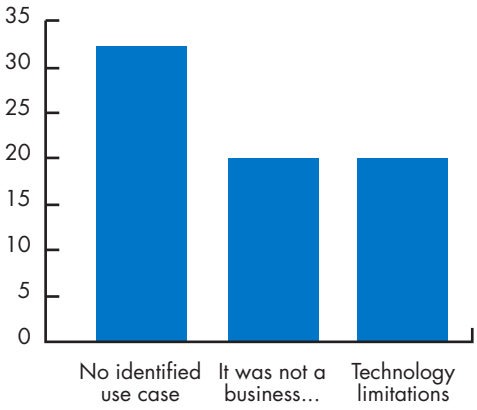
CPaaS overcomes these hurdles by outsourcing the infrastructure to the CPaaS provider. The CPaaS provider builds and maintains the infrastructure, maintains the development environment, and delivers the open APIs and SDKs that make embedding communications a snap.

Most CPaaS providers deliver APIs for text messaging and voice, while video APIs are less common. Many providers simply don't include them in their portfolios, and those that do often

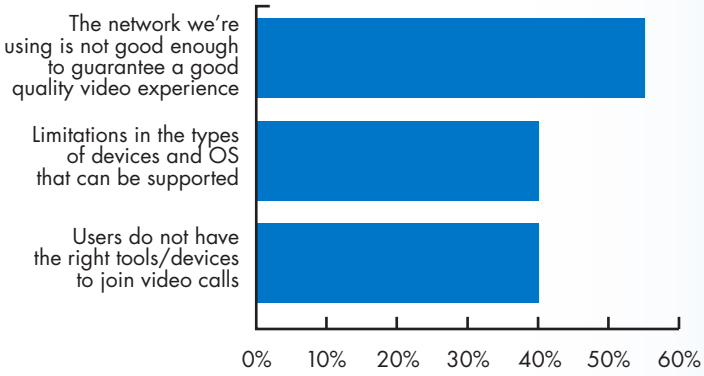
1 Based on a Vidyo-conducted survey of 166 developers across 48 countries, 47% of which had yet to implement video capabilities. Summer, 2017.

Top Excuses for Not Implementing Video

What has prevented you from using embedded real-time video communications so far?



Implementing Video: Top Technical Concerns



neglect them. As a result, many video CPaaS offers are riddled with scalability, reliability, and other issues.

Vidyo.io stands out.

A recognized leader in video technology and enterprise video communications, the company has recently launched an intriguing videocentric CPaaS. The service, vidyo.io, draws on more than 12 years of R&D around enterprise-grade video technology, and it is specifically optimized for embedding video into applications and hardware. It provides video APIs, SDKs, and related development tools for the creation of customized, embedded, video-enabled applications and devices.

Additionally, vidyo.io delivers a set of services that includes:

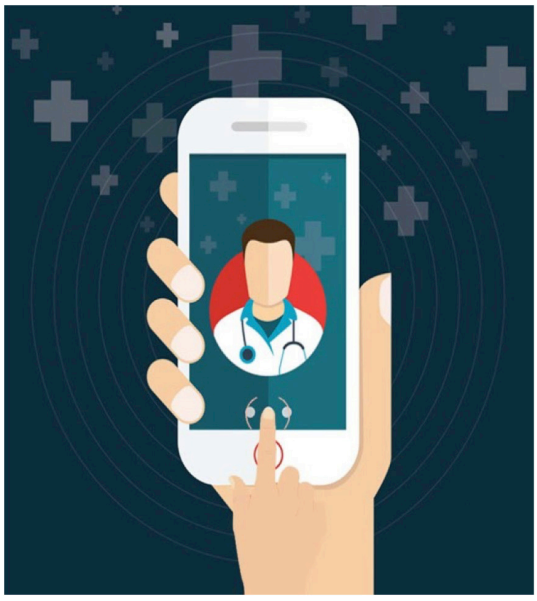
- Support for a wide range of codecs, including Vidyo's own version of VP9 optimized for video interactions (rather than streaming), and plans to support the emerging AV1 codec for streaming
- Support for 4K (ultra high-definition) resolution video, currently unique among CPaaS platforms
- Powerful, scalable video coding (SVC) technology that ensures the highest-quality experience
- Online development tools, sample code, and documentation
- A scalable, highly reliable cloud-based communications service that lets developers outsource the operations of complex communications
- Flexible usage-based cost structure that minimizes upfront costs

Vidyo.io brings cutting-edge video technologies directly and natively into any app without the traditional costs or required expertise.

Vidyo.io Use Cases

But does this pioneering service work? Yes. TalkingPointz attended Vidyo's recent healthcare summit, which included more than 170 customers, partners, and thought leaders discussing and sharing virtual healthcare strategies. Separately, three current customers shared their journey to video and Vidyo.

The conclusion is that vidyo.io can be applied to just about any type of digital workflow in apps and devices, including specialty hardware used in healthcare, financial services, and other industry sectors. The range and diversity of companies embracing embedded video is particularly intriguing. Here's a look at how three different companies intend to use face-to-face interactions to strengthen their services.



Allscripts: A Healthy Approach

For years, video communications have been a cornerstone of telemedicine projects, enabling doctors to meet face-to-face with remote patients who might otherwise be unable to visit an office or hospital. Traditional video-conferencing technology works well for formal consultations and examinations. CPaaS, on the other hand, is considerably more flexible and can embed video into a wide variety of applications and workflows.

Allscripts, a developer of electronic health record (EHR) software, acquired the mobile application FollowMyHealth in 2013. A consumer-first application, FollowMyHealth lets users track and manage their personal health and fitness information as well as engage with their medical provider through secure messaging. It can also store medical history and data, such as immunizations, prescriptions, and test results across providers, making it a truly universal health record.

By integrating its practice management software with the mobile app, Allscripts delivers an end-to-end healthcare solution that increases the value of each. Patients can now use the mobile app to schedule appointments, access lab results, and even consult with their healthcare provider.

With vidyo.io, the FollowMyHealth development team was able to add video calling to both applications to enable secure, contextual interactions between patients and providers.

"Our telehealth offering provides a consistent, user-friendly experience across all the different ways patients and doctors can communicate with each other through video technology," says Sarah Davis, senior product manager at Allscripts.

After successful pilots, Allscripts is rolling out the upgraded service with video calling powered

by vidyo.io. Healthcare providers will be able to present clients with two options:

- On-demand video visits - the patient uses FollowMyHealth to enter a queue for a video consultation on a first-come-first-served basis (available now).
- Scheduled video visits - the patient uses FollowMyHealth to either request or set up a particular time for a video visit (available later this year).

Allscripts anticipates video integration will result in increased app usage, increased patient retention, and fewer appointment no-shows. "With FollowMyHealth, we deliver a simple, seamless communications experience for both patient and provider," says Davis. "With vidyo.io, FollowMyHealth can further improve access to healthcare and ultimately patient engagement."

Circles: The Top Doesn't Have to be Lonely

Circles started to facilitate peer-group mentoring. It built a service designed to foster meaningful discussions among business leaders. The general concept is not particularly new: Executive peer groups have long proven an effective mentoring tool. Most peer groups, however, meet in person and as such are conducted locally. Circles replicates the concept with a virtual twist by connecting executives in similar roles through video.

ALLSCRIPTS:

Allscripts provides healthcare information technology solutions that advance clinical, financial, and operational results. The company strives to connect people, places, and data across an open, connected community of health. Allscripts solutions enable healthcare organizations to analyze and act – right at the point of care – to empower change, improve health, and reduce costs.

CIRCLES:

Circles is on a mission to help people learn. Circles-guided video peer groups foster deeper conversations for impactful continued professional learning and personal growth. Each circle includes eight peers who are carefully matched to pursue shared objectives. The circle becomes a peer mentor group that meets for 90 minutes every other week, in a custom-built, virtual meeting environment with a trained facilitator.

EQUATEL:

Equatel believes healthcare should be a human right, not a privilege. The company has leveraged its telecommunications heritage to expand healthcare to remote communities around the world with insufficient access to healthcare. Equatel's telemedicine infrastructure facilitates remote health consultations and diagnostics in rural communities. Equatel currently has active projects in 21 countries throughout Africa.

Its challenge was developing a technical solution that could allow a group of executives to seamlessly share and consult regardless of location and device. Each group consists of six to eight individuals, who meet for regular 90-minute facilitated meetings. An expert guide launches each circle, but then the technology makes it easy for group members to self-facilitate.

The use of video enables the groups to eliminate distance barriers, organizing peer groups with the best match of personalities, skills, and roles, without restrictions on where individuals are physically located. This is particularly important as peer groups generally exclude direct competitors, so matching executives can be particularly difficult for local businesses.

Replacing in-person gatherings with group video calls can't be distracting. The technology must be essentially transparent to users. This means top-notch image and sound quality, and effective tools for sharing content. The service must be extremely reliable, even under diverse networking conditions, and work across a range of mobile, desktop, and room environments.

After several months in the market, participants began to ask to use the Circles room to run team meetings. Circles has now begun to run workshops that help existing teams connect deeply and learn together, making their meetings more effective and enjoyable.

Discussions take place via Circles' purpose-built app. The service runs in separate facilities but uses vidyo.io APIs for communications. In addition to video services, the application also supports content sharing, chat, and a timer.

Given that Circles is at its core a video app, it's interesting that the developer opted to use vidyo.io rather than build out its own infrastructure. But the company is focused on connecting clients and moderating meaningful discussions. The Circles team concluded that building its own video-conferencing platform was impractical. "Fortunately, when we began development we had the happy realization that cloud-based video platforms would let us build a custom application relatively easily," says Circles CEO and founder Dan Hoffman.

Circles created an application optimized for small group discussions. It uses WebRTC to set up video calls via browsers and uses vidyo.io for back-end services supplementing the WebRTC clients. WebRTC is a set of open endpoint protocols and, combined with vidyo.io, can support a variety of advanced features including multiparty conferencing, security, and recording.

Circles didn't start with vidyo.io. It first partnered with a different provider that struggled to deliver reliable services. Fortunately, Circles architected its application as an agnostic platform, so it could easily transition to vidyo.io. Circles was highly

appreciative of Vidyo's architecture, approach, and scalability: "We want meetings to be magical, not occasions everyone wants to avoid," Hoffman says. "Vidyo.io is helping us make this happen."

Equatel Health: Facing Limited Options

Making modern medical service available in rural areas can be a challenge for any healthcare provider, but it is particularly difficult for those operating in developing nations. Not only are basic check-ups and examinations difficult, but core infrastructure is limited and unreliable.

Equatel Health, a UK-based developer of telemedicine solutions, turned to vidyo.io to help deliver healthcare in underdeveloped areas. It has created medical kiosks, often connected via wireless, cellular technologies. Equipment in the kiosk is available to measure patient vitals and can facilitate vision and hearing exams, blood diagnostics, and even perform ultrasounds. Physicians, for their part, log into a PC to view test results from the kiosk and speak with the patient via video.

To date, healthcare providers have deployed hundreds of Equatel kiosks throughout Kenya, Uganda, Ghana, and other African nations. These are often in villages where there is little or no medical staff available, and where modern health services simply don't exist.

An earlier version of the telemedicine kiosk incorporated traditional video-conferencing software. However, Equatel Health found that setup to be complex and expensive to maintain. Network connectivity is very restrictive, and most video solutions are intolerant of bandwidth and other network-related issues. When designing the second version of the platform, the company switched to vidyo.io and finds the solution easier to maintain, more reliable, and much less expensive.

As with any solution sending medical information, security is of paramount importance. "The kiosks have been designed to send all transmissions, including video sessions, to our encrypted cloud," explains Equatel CEO Elliot Mondrow. "We are dealing with people's lives and private data, so we don't take that lightly."

Vidyo.io Is Well Positioned

Most every industry and most every application can benefit from video calling. For retailers, video drives closer, more personal conversations between customers and sales staff. Insurance companies use it to connect with inspectors in the field and customers filing claims. For financial institutions and business services firms, it is a key way of differentiating from competitors. And video calling is an integral part of distance learning and telemedicine solutions that are revolutionizing the education and healthcare sectors.

Video-capable devices are now ubiquitous. They are in the hands of employees, business partners,

customers, and prospects. Network connectivity is no longer a barrier, with broadband available at work, at home, and on the go. As a result, it's time to free real-time video from the corporate conference room. Every smartphone, every tablet, is a video endpoint ready to enhance conversations and interactions.

What's more, people of all ages are more comfortable with video calling than ever before. Skype, FaceTime, and many other consumer apps have helped popularize it among consumers, while native video in web conferencing, instant messaging, and other applications in the workplace have cemented video's place in business communications.

The time is right for video to supplement a wide range of business and consumer applications. The result is enhanced value, improved relationships, competitive differentiation, and new business opportunities.

It's not just video, but CPaaS that makes this possible. The barriers of upfront capital, time delays, and complexity are eliminated with CPaaS. Developers can cost-effectively and immediately add real-time video into applications and devices – with little or no experience or long-term commitments.

To succeed, developers need to pick their CPaaS partners wisely. When it comes to embedded video, providers are by no means created equal. Vidyo has proven itself in the enterprise market with countless hours of video conferencing among its corporate customers worldwide. Vidyo.io draws on Vidyo's long history of innovation, making its technology available to many more use cases. When it comes to embedding video into business applications, vidyo.io stands out as the premier platform on which enterprises should rely.

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