

Improve Mobile Workflows with Embedded Video Communications

Embedding video APIs into cross-platform mobile apps can boost customer and employee productivity, effectiveness and satisfaction.

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Video communication, when added to existing mobile apps, accelerates workflow in business-to-business, business-to-consumer and internal apps. It boosts efficiency and improves end-user satisfaction. Not only that, but it's also quite easy for app developers to add video capability to Apple iOS, Android and Web applications using stable, mature, reliable application programming interfaces (APIs). We will examine use cases for mobile video communications and see how they demonstrate value for the business—and the end user. We will then provide guidelines for choosing high-return apps to enhance pilot projects. Finally, we will look at the VidyoWorks™ technology that enables mobile video communications functionality, either between two people, or among groups of people.

MOBILE VIDEO IN THE REAL WORLD

Nothing beats face-to-face communications for rapid, efficient exchange of information among people. Have a question about a product? Ask a customer service representative from inside a shopping app. Want to know what hurts? Medical apps can enable a doctor or nurse to engage in conversation with a patient while making eye contact, listening to the patient's tone of voice and observing his or her body language. Diagnosing a problem in heavy equipment in the field? Field technicians can talk directly with experts—and show the damaged part. Settling an insurance claim

for property damage? Don't make the distraught homeowner take photos or fill in forms—link him to a claims adjuster via video, all from his own tablet. Video will not only increase customer and employee satisfaction, but it will also improve efficiency and speed workflows.

Business-to-consumer: A Dutch insurance company uses mobile apps to enable its customers to accelerate claims management. By using the VidyoWorks APIs, the company built video communications into the tools and processes used by claims adjusters. Claims adjusters use Vidyo to communicate directly with customers, often right in their own homes. Customers can chat with the adjuster, and then show their property damage using a smartphone or tablet camera.

“We have doubled the number of damage assessments we can perform on a daily basis, and we are now able to serve more people across our territory,” says the company—and this does not take into account the increased customer satisfaction due to a quicker response to a claim, and the more personalized service delivered to the customer. The insurance company found the video-enabled communications service to be far more personal than a phone call, and more cost efficient than sending claims representatives out to visit customers.

Internal technical support: A global farm equipment manufacturer uses Vidyo-enhanced technology to boost the productivity of its field technicians. Say an industrial tractor breaks down; the usual practice is to send an engineer to the site to repair it. A mobile application provides the technician with a tremendous wealth of technical information, from manuals to diagrams to diagnostic checklists. When needed, video technology within the app lets the field tech consult directly with remote experts, who can assess the equipment through the camera. This not only

speeds the resolution of the problem, satisfying the end customer, but it also improves the productivity of the field technician. In some cases, the video-enabled app can also eliminate the need for repeat visits or for sending more specialized repair crews to the job site, thus saving considerable time and money.

Remote partners. Very remote partners: A health organization in Alaska uses Vidyo's visual communications and collaboration technology to connect thousands of health care practitioners with hundreds of thousands of patients in more than 200 locations across the vast state. The organization's mandate encompasses every city and village in Alaska—more than 700,000 people across 660,000 square miles. The solution embeds VidyoWorks APIs within applications running on PCs, Macs, laptops, tablets and smartphones, providing real-time, high-definition video consultations and even clinical examinations to patients who would otherwise have no access to healthcare.

FIVE FACTORS FOR CHOOSING A PILOT VIDYOWORKS PROJECT

Embedded video communications can offer benefits for all types of mobile enterprise applications—business-to-business, business-to-consumer and internal operations. How best to realize the benefit? Adding video communications as a “version 2.0” or “version 3.0” feature enhancement for existing software is often the fastest way to bring this technology into the organization. Because the workflow is already defined, it can be easy to find ways to enhance and optimize that workflow with video.

Upgrading an existing app is also a safe, easy and cost-effective way for developers to explore the VidyoWorks APIs, and for business managers to experiment with the technology. In many organizations, this may be an optimal path for leveraging video-

enabled workflows for the first time, compared with designing, approving, funding, building and deploying a brand-new application around video technology.

The following five factors can help IT and line-of-business managers identify opportunities to improve a business process with video communications:

1. There is business value in removing barriers.

Think about when the business would work better if people were together face to face, but this is impractical due to distance, time delays in travel, the cost of travel, and scarcity of expert or specialized resources. If it is not cost-effective to bring people together because it would take a long time or a lot of money, or if it's not worthwhile because it would be only a short interaction, this is a prime candidate for video communications.

2. There is too much complexity in coordinating schedules for busy people or scarce experts.

Eliminate the challenges of serial communications with a single face-to-face meeting among the people from wherever they are. It's not always easy to coordinate information, nor is it easy to synchronize calendars among multiple high value individuals. By making it possible to connect on any device, at any time, scheduling and availability become smaller challenges.

3. There is a benefit to improving or investing in human relationships.

Trust is more quickly developed and maintained when there is complete sensory interaction. Email or text chats are slow, flat and unsatisfactory for customers and employees alike, and forms are impersonal. While words and tone are communicated in a phone conversation, seeing a person speak and seeing how someone reacts greatly improves the communication process. Better communication leads to greater trust, better decisions and, ultimately, increases the speed of business.

4. There is a benefit to removing misunderstanding and increasing accuracy. While email communicates content, it does so without any of the emotional cues in either someone's voice or facial impressions. So it is clear that information as content alone does not provide the best way to ensure understanding. Video can improve the interviewing process – with video one is better able to assess the answers because there is a richer set of cues beyond the content of the answer. It can also improve accuracy. When accuracy and precision matter, embed Vidyo into project management and quality control systems to allow contributors to be easily reached at the click of a button to discuss newly submitted work.

5. There is a need to streamline processes by eliminating delays. Look for situations where both self-service automation and relationship-building are important. E-commerce is a good example, where a shop might offer both online shopping and personal high-touch sales support via video. Another would be when the business needs to make quick decisions, such as in medical contexts or field repairs. Communications that lets a doctor see a patient's response in real time can be critical for gauging condition and the efficacy of care.

HOW THIS WORKS WITH THE VIDYOWORKS API AND SDK

The VidyoWorks software platform is mature, stable and safe. It's also embedded into leading technology providers and brands like Google+ Hangouts, the Nintendo Wii U game console and Philips eICU medical diagnostics platform. The VidyoWorks Client and Server APIs are the perfect tools for building mobile apps that embed two-way or n-way video capabilities. The APIs leverage the cloud-based VidyoConferencing™ infrastructure, and can be added into apps using Simple Object Access Protocol/Web Services Description

Language-based Web services that run over HTTP/HTTPS. (These APIs can also be used for desktop and Web-based applications.) All the APIs are optimized for both x86 and ARM processors, are object-oriented and thread-safe, and have high-level functions for video, voice and data.

The VidyoWorks APIs support Microsoft's Windows for desktop and notebook computers, Apple's Mac and iOS platforms and Google's Android 3.0 and higher. There are two primary APIs that would be used in most mobile apps:

- **The VidyoWorks Server API**, which customizes infrastructure components, the pre-call experience and conference recording.
- **The VidyoWorks Client API**, which customizes the in-call video client, including call setup and termination, layout, bandwidth control and content sharing.

The VidyoWorks APIs are designed with a high level of abstractions, so that programmers can focus on application logic and line-of-business requirements. In other words, with the VidyoWorks APIs, developers don't need to become experts in video or video conferencing in order to embed the functionality into their applications.

A detailed paper on the VidyoWorks API architecture can be downloaded from www.vidyo.com/products/extend.

NEXT STEPS: IDENTIFY AND ENHANCE AN EXISTING APP

There are many ways that Vidyo can expand the power of business applications. Whether linking customers to sales or support staff, bringing experts on-site to remote areas or improving internal communications and workflow, video can improve satisfaction, speed business process and lower cost. It's easy for developers using the VidyoWorks APIs/software development kits. Identify a pilot project and dive in.