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# Navigating the Convergence of Consumer and Business Video Conferencing

A Frost & Sullivan  
White Paper

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## INTRODUCTION

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Enterprise video today stands at an exciting crossroads of consumer and enterprise solutions. As the worlds of consumer and business communications blend more closely together, walking the line between the two has become top of mind for users and IT decision makers alike. Never has this trend been more pronounced than now, as consumerization increasingly breaks down the walls between business and consumer use.

In a recent survey of IT staff and end users who have deployed Google Apps at the office, two-thirds of the IT respondents and 58% of end users said they are willing to spend their own money on technologies that will make their work lives easier and/or more productive.<sup>1</sup> This represents a huge shift in how communication applications will be deployed and used, and will have a big impact on what “enterprise” IT looks like in the future. Savvy IT and business leaders must have a clear-cut vision to enable applications that foster effective collaboration and meet the growing employee desire to “get the job done” or users will get a multitude of their choice of tools anyway.

Advances in video technology and availability of video capabilities on almost all personal devices have led to the democratization of video. The growing appetite for video usage by consumers opens a new world for Business-to-Consumer (B2C) applications where businesses can leverage the power of video conferencing to increase their reach and effectiveness.

The shift to next generation endpoints and infrastructure solutions is bringing down the barriers to adoption. Leading edge organizations are using video for both internal as well as external video conferencing, with little or no CapEx investment, no bulky hardware to manage, and no new devices or endpoints to purchase. As a result, several new applications and use cases are emerging to enable video everywhere.

This paper discusses the evolving trends and use cases in B2C video conferencing and the imperative for IT to provide agile communications that foster varied interactions with customers. This paper also discusses the growth opportunities emerging from the convergence of consumer and business video conferencing and presents one vendor’s approach to address them.

## MARKET SHAPING TRENDS - CONSUMERIZATION AND THE ERA OF USER-DRIVEN IT

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The lines between consumer and business video are increasingly blurred. Built-in video cameras on laptops, smartphones, and tablets have turned everyday devices into video conferencing endpoints, leading to ubiquitous video capabilities. Applications such as Google Chat, Google+ Hangouts, Skype, and Facetime have found inroads among business users. The proliferation of consumer video, combined with Bring Your Own Device/Application (BYOD/BYOA), has made video communications a way of life for business professionals and consumers alike.

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1. “State of the Google Apps Ecosystem,” Frost & Sullivan. A Frost & Sullivan Research in Conjunction with the Cloud Alliance for Google Apps, February 2014.

*The lines between consumer and business video are increasingly blurred. The proliferation of consumer video, combined with Bring Your Own Device/ Application (BYOD/ BYOA) trends, have made video communications a way of life.*

In recent years, the demand for video conferencing among businesses has increased significantly as companies seek greater productivity, faster decision making, and savings on travel costs. Consider the following stats from a recent Frost & Sullivan survey of North American decision makers that drive home the value of video conferencing as a critical communications tool.

#### Exhibit I: Video Collaboration - Growing Workplace Transformation



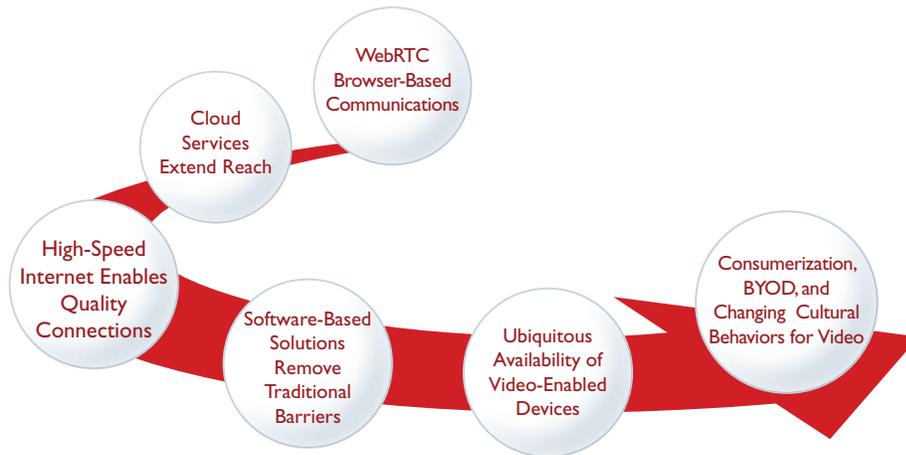
Source: Frost & Sullivan Survey, "North American CXO Investment Plans for Communications and Collaboration Applications"

Despite the growing demand for video conferencing, its usage so far has remained restricted. Complex solutions, high costs, network requirements, and lack of interoperability kept video conferencing in the past largely confined to "controlled" environments for intra-company use or B2B communications using select service providers' inter-exchange services.

Business users now want to extend the benefits of video conferencing to B2C use cases that offer their customers more engaging experiences. And they want to do this with the same level of comfort, ease of use, and anytime anywhere connectivity that they experience using consumer video. As a result, the technologies that deliver video conferencing are evolving to power the next wave of video communications for B2C experiences.

Exhibit 2 depicts several technology enablers that are fueling this transition.

**Exhibit 2: B2C Video Conferencing - Key Technology Enablers**



Source: Frost & Sullivan

**B2C VIDEO CONFERENCING OFFERS NEW OPPORTUNITIES**

Video conferencing adds another dimension in customer interactions and management to offer a stickier user experience and drive sales and productivity.

- **Engaging Communications** – By enabling face-to-face communications through the use of video conferencing and content sharing, businesses can establish a more personal relationship with their customers—an experience that is head and shoulders above basic telephone services.
- **Drive Sales** – High quality interactions with prospects enhance the sales process and also provide upsell/cross sell opportunities.
- **Greater Customer Satisfaction** – Video conferencing can be used to show clear examples of complex procedures for problem resolution in tech support scenarios. Furthermore, agents can make better decisions informed by the caller’s body language and demeanor.
- **Enhance Efficiencies** – Video conferencing allows businesses to access pools of experts. The concept of a single remote expert to provide services, as if they were present in-person, drives cost efficiencies without taking away from the customer experience.

Video conferencing is enabling a host of horizontal B2C applications across the enterprise, such as marketing, sales, HR, and investor relations. Equally exciting opportunities are emerging in vertical use cases. Consider scenarios such as a patient using a hospital portal for physician consultation, a nurse remotely monitoring in-home patients, a virtual loan specialist in a bank or a virtual concierge at a hotel providing remote services, and a consumer enabling interactive video consultation on a retail website directly from the browser. These are just a few examples of the rich world of video-enabled B2C interactions. The opportunities are endless and are only beginning to be explored.

*A patient using a hospital portal for physician consultation, a nurse remotely monitoring in-home patients, a virtual loan specialist in a bank or a virtual concierge at a hotel providing remote services, and a consumer enabling interactive video consultation on a retail website directly from the browser are just a few examples of the rich world of video-enabled B2C interactions. The opportunities are endless.*

*One of the biggest unknowns in B2C video conferencing applications is varying network and bandwidth conditions that exist in consumer environments. For businesses looking to implement B2C video conferencing, a key requirement is to implement solutions that are extremely fault tolerant to varying network conditions. Moreover, interoperability and interconnectivity with varying devices has become a table stake.*

### Exhibit 3: B2C Video Conferencing – Growing Opportunities

<div style="background-color: #003366; color: white; padding: 5px; margin-bottom: 5px;"><b>HEALTHCARE</b></div>  <ul style="list-style-type: none"> <li>• Telemedicine - patient to physician consultation</li> <li>• Home care and remote patient monitoring</li> <li>• Remote expertise for specialty services like Telectroke, Telemental Health, and Telesurgery</li> </ul>	<div style="background-color: #003366; color: white; padding: 5px; margin-bottom: 5px;"><b>FINANCIAL SERVICES</b></div>  <ul style="list-style-type: none"> <li>• Mobile banking</li> <li>• Video kiosks</li> <li>• Remote experts and loan specialists</li> <li>• Insurance - damage appraisal and claims servicing</li> <li>• Wealth management for high net worth clients</li> </ul>	<div style="background-color: #003366; color: white; padding: 5px; margin-bottom: 5px;"><b>EDUCATION</b></div>  <ul style="list-style-type: none"> <li>• Online video -classrooms</li> <li>• mLearning (mobile learning) - rich content that can be consumed anytime, anywhere</li> <li>• Parent/teacher interaction in K-12 environment</li> <li>• Online admission interviews</li> </ul>
<div style="background-color: #003366; color: white; padding: 5px; margin-bottom: 5px;"><b>RETAIL</b></div>  <ul style="list-style-type: none"> <li>• In-store video kiosks for customer service</li> <li>• Video-enabled online customer support</li> <li>• Sophisticated self-service solutions</li> </ul>	<div style="background-color: #003366; color: white; padding: 5px; margin-bottom: 5px;"><b>MANUFACTURING</b></div>  <ul style="list-style-type: none"> <li>• Foster open innovation - gather ideas beyond company walls</li> <li>• Virtual customer focus groups</li> <li>• Product launches</li> </ul>	

Source: Frost & Sullivan

### THE IMPERATIVE TO PROVIDE ANY-TO-ANY CONNECTIVITY

Technology advancements are pushing the bounds and reach of video conferencing from immersive telepresence suites and conference rooms to desktop and mobile devices, allowing for rich communications all the way from the consumer in the field to the corporate boardroom. The impetus for this transition has been an influx of user-driven devices, which have led to multiple entry points for video. Furthermore, the emergence of WebRTC is promising to connect consumers to businesses instantaneously from web applications.

Frost & Sullivan research forecasts that the number of organizations providing BYOD support will grow from 64% in 2013 to 79% in 2018. According to the same research, it is extremely likely that more personal (or personally liable) mobile devices will access enterprise IT resources than corporate owned (or corporate liable) devices within the next few years.<sup>2</sup>

One of the biggest unknowns in B2C video conferencing applications is varying network and bandwidth conditions that exist in consumer environments. For businesses looking to implement B2C video conferencing, a key requirement is to implement solutions that are

2. Frost & Sullivan, "Bring Your Own Device (BYOD)—Key Trends and Considerations," June 2013.

extremely fault tolerant to varying network conditions. Moreover, interoperability and interconnectivity with varying devices, including legacy video conferencing systems, has become a table stake. The onset of mobility and BYOD demands that users should be able to use their device of choice to connect with anyone over any network. And they must be able to do this effortlessly and reliably. As a result, businesses must find new ways to provide agile communications that can adjust to customers' varied devices, infrastructure, and networks.

## THE VIDYO SOLUTION

In recent years, newer approaches to video conferencing have removed the traditional barriers related to complexity and costs, while offering flexible and more attractive pricing and deployment models.

Vidyo has been at the forefront, leading the transition from hardware-based, expensive, network-dependent solutions to software that enables high-quality video conferencing over any device and network. By leveraging its patented VidyoRouter™ architecture, built on H.264 Scalable Video Coding (SVC)-based compression technology, Vidyo dynamically optimizes performance for each endpoint over any IP network.

Vidyo's software-driven approach extends its reach into simple and high-quality B2C video conferencing. Its core software architecture has enabled Vidyo to power large-scale deployments encompassing both B2B and B2C applications for desktops and mobile devices over any network, including congestion- and packet-loss-prone Internet and wireless connections. Moreover, its VidyoWorks™ platform allows organizations, system integrators, and software developers to video-enable applications and workflows. This unique approach is making B2B and B2C video conferencing a reality for Vidyo customers.

## CUSTOMER EXAMPLES AND USE CASES

### Health Care – American Well

*The Company* – American Well has been in business for eight years to offer software, services, and access to complete telehealth services. Its mobile and web service connects doctors with patients for live, on-demand video visits over the Internet and handles all the administration, security, and record keeping that modern health care requires.

*The Goal for Video Conferencing* – To extend the reach and accessibility of quality health care services to all citizens and to make it as pain-free as possible, American Well partners with health plans, delivery networks and pharmacy chains to enable telehealth care services. Its video conferencing services allow patients to connect live and on-demand with primary care and specialty physicians, as well as other clinicians, from their homes or workplaces. Providers are able to review the patient's clinical information, discuss symptoms, diagnose, and prescribe medications over a video conference.

*The Solution* – American Well aims to democratize health care by extending its reach to geographies where quality health care doesn't exist. It also aims to serve chronic care patients

*“In order to reach our primary goal of quality health care for all and to change the culture of how health care is acquired and delivered, we needed a solution that is cognizant of all the complex quality, flexibility, scalability, simplicity and privacy requirements of online health care delivery. Vidyo's frame rate adaptation, robust audio quality, tight security, and ability to work across a variety of devices and access points over highly unpredictable network conditions have met all our stringent needs.”*

*Roy Schoenberg,  
President and CEO*

*American Well Systems*

that are too sick to leave their homes and patients that have financial restrictions or need faster service without the long wait times associated with specialty services.

In order to reach its goals, American Well needed a video conferencing solution that met all the complex quality, flexibility, scalability, simplicity and privacy requirements of online health care delivery. Most importantly, due to the very nature of health care, physicians and patients have zero tolerance for failure. The unknowns can range from varying network conditions to a broad range of access points, creating diverse user environments.

American Well leverages the VidyoWorks™ APIs to embed high-quality video communication in its Online Care System. Vidyo's VidyoRouter™ infrastructure makes it possible for providers and patients to have secure, HIPAA-compliant consultations over a standard or wireless Internet connection using consumer-grade devices—from laptops and PCs to mobile phones and tablets. American Well providers can meet face-to-face with patients from virtually any location—physician home offices, medical facilities, clinics, other hospitals—and Vidyo's patented adaptive video and audio technology ensures reliable, natural interactions.

#### **Financial Services – DEKRA**

*The Company* – Dekra is the largest independent loss adjustment and claims handling bureau/agency in Holland. It offers loss adjustment services to insurance companies in Netherlands.

*The Goal for Video Conferencing* – DEKRA was looking for an alternative to physical loss adjusting to save costs, avoid travel and drive efficiencies. In order to accelerate claims management, DEKRA implements video conferencing that allows its assessors to remotely gain a first impression of the damage, regardless of location. Additionally, by sharing images with colleagues for a second opinion, DEKRA increases the likelihood of accurate loss adjustment.

*The Solution* – DEKRA handles about 50,000 claims a year. The traffic in Netherlands is notoriously congested and it can take a long time for assessors to physically travel to the site of damage. By moving to video conferencing for B2C claims handling, DEKRA saves time and costs.

DEKRA's biggest requirement was for a solution that is extremely simple to use by consumers. Moreover, the solution must work across all devices and mobile operating systems under varying bandwidth conditions. By using video conferencing, DEKRA can get all the pertinent information from the consumers within 15 to 20 minutes compared to the hours required for in-person visits. As a result, DEKRA has doubled the number of damage assessments to 10-12 claims a day per assessor, compared to 5-6 claims previously.

DEKRA's i2i video conferencing service is based on Vidyo technology. Consumers can access the application using a smartphone, tablet or laptop computer over an Internet connection.

Dekra leverages VidyoWorks™ APIs to embed high-quality video communications in its mobile client and agent contact center application. When a Dekra agent receives a customer service request, she or he sends an email to the customer with a URL that facilitates a face-to-face

*“We are operating in an extremely competitive market.*

*By using video conferencing we are able to save costs and accelerate the pace of damage assessment and claims processing. As a result, we have doubled the number of damage assessments to 10 to 12 claims a day per assessor compared to 5 to 6 claims previously.”*

*Reginald Vogelzang,  
Manager*

*DEKRA Experts B.V.*

video meeting with a single click. Vidyo's VidyoRouter™ infrastructure provides scalability, security and high-quality video interactions over the public Internet via consumer devices—from laptops and PCs to mobile phones and tablets.

## CONCLUSIONS

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In today's highly competitive business environment, only those companies with an unwavering customer-centric focus will win. Consumers are constantly inundated with information from multiple sources. Businesses that want to rise above the noise must develop innovative ways to create stellar customer experiences that keep the users engaged.

Video conferencing has become a well-established tool to drive rich internal and external communications. Technology advancements and changing perceptions toward video are opening up innovative B2C opportunities, which offer businesses new avenues to create a competitive edge. Smart companies must catch on or get left behind.

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