Executive Brief

Enterprise and Broadcasting Video Trends in Europe

Sponsored by: IBM

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September 2017

IN THIS EXECUTIVE BRIEF

Streaming video is on the move and is gradually on its way to becoming the "new normal" for business communications and entertainment. The ways in which we interact with video are more abundant and advanced than ever. Video is everywhere we look, interact, search, and learn, and is embedded in both our personal and business lives. It enriches audio and transforms static visuals into something dynamic and engaging. Driven by BYOD and consumerization trends, people want the same access in their professional lives as they have in their consumer lives to get their work done anytime and anywhere. With video-enabled mobile endpoints in place and enhanced technologies in video compression, network connectivity, cloud storage, and bandwidth optimization, the adoption of video has never been greater.

IDC identifies two main categories of video: video that supports the business and video is the business. This basically divides the market into enterprise video, comprising one-way and two-way streaming, and media and entertainment video which mainly consists of one-way video streaming/broadcasting.

Video Supports the Business

From corporate communications and product launches to training and webinars, video is rapidly becoming a mainstay in the enterprise. Video supports the business by means of:

- **Enterprise videoconferencing.** Videoconferencing consists of two-way video streams, point-to-point, and point-to-multipoint from boardroom telepresence sessions to personal video calling from the mobile device. Two-way videoconferencing is used for face-to-face meetings and to "show and share" tangible items and/or content via applications using dedicated video (telepresence) systems or video-enabled web conferencing using a PC, mobile, or, for instance, interactive whiteboards.

- **Enterprise video (streaming).** The use of one-way video streaming for real-time (live) and on-demand video is an extension of videoconferencing. This type of video streaming can be used internally for webcasts, corporate communications, and training, but also externally – for customer support and marketing communications, for example. In contrast to videoconferencing, viewers are not on camera and do not verbally participate but can only comment or chat via social applications and submit Q&A questions to the presenter.

In this IDC Executive Brief, the focus will be on the growing importance of enterprise video streaming (and video content management) in the enterprise video market. Although videoconferencing can also be done point to multipoint, enterprise video can extend to millions of viewers globally. The reach and power of one-way (to many) enterprise video is therefore immense.

Video is the Business

"Video is the business" applies to one specific industry sector, in this case media and entertainment. Video has no supportive function here nor is it seen as the business-critical application; video broadcasting simply is the business product. This type of video is streamed or broadcast from "one to many" and, like enterprise video (streaming), it has a massive reach and is therefore a very powerful medium. In this line of business or industry sector video streaming/broadcasting is done via various digital platforms such as IPTV, cable, satellite, and online (fixed and mobile) to deliver live TV and video on demand (VOD) as well as video advertising.

FIGURE 1

Video Use Across Markets
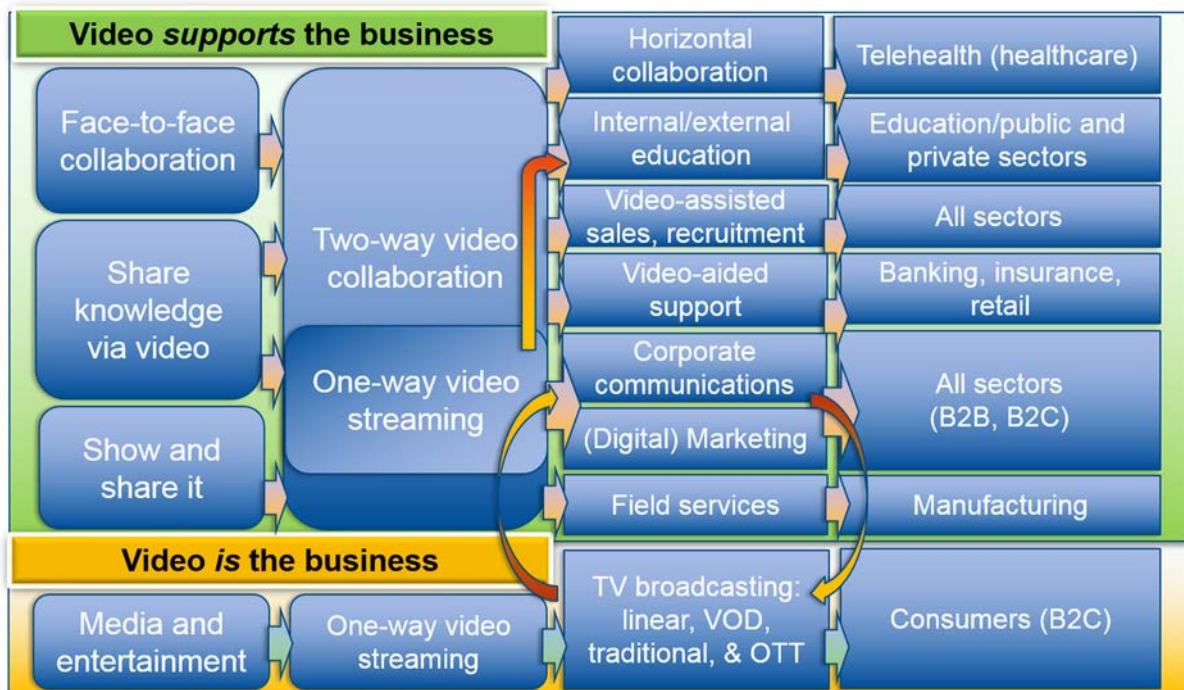
Source: IDC, 2017

ENTERPRISE VIDEO — VIDEO SUPPORTS THE BUSINESS

The enterprise video market is very interesting because it is a market in motion, one that has made huge progress and been through several hype cycles over the past few decades. But as cultural and technology barriers have diminished, video has now become culturally integrated into the fabric of many business processes and communications.

Adoption Trends for Enterprise Video in Europe

In 2016, IDC's European telecommunications and networking team conducted a survey to understand the attitudes, concerns, and plans of qualified network and telecom decision makers across Western Europe. The enterprise communications survey (ECS) identifies organizations' priorities around enterprise communications services, including telecommunications, network services, cloud, and collaboration (such as video).

IDC's ECS results show that companies of all sizes are serious about investing in video nowadays. More than half (51%) of businesses are using video solutions and services today and 36% indicate plans to deploy video within the next three years. The highest adoption of enterprise video solutions is in France, (65%), Spain (65%), and the U.K. (60%) (see Figure 2). Italy has the highest percentage of companies that plan to use enterprise video solutions within one year (38%).

FIGURE 2

Video Adoption by Country
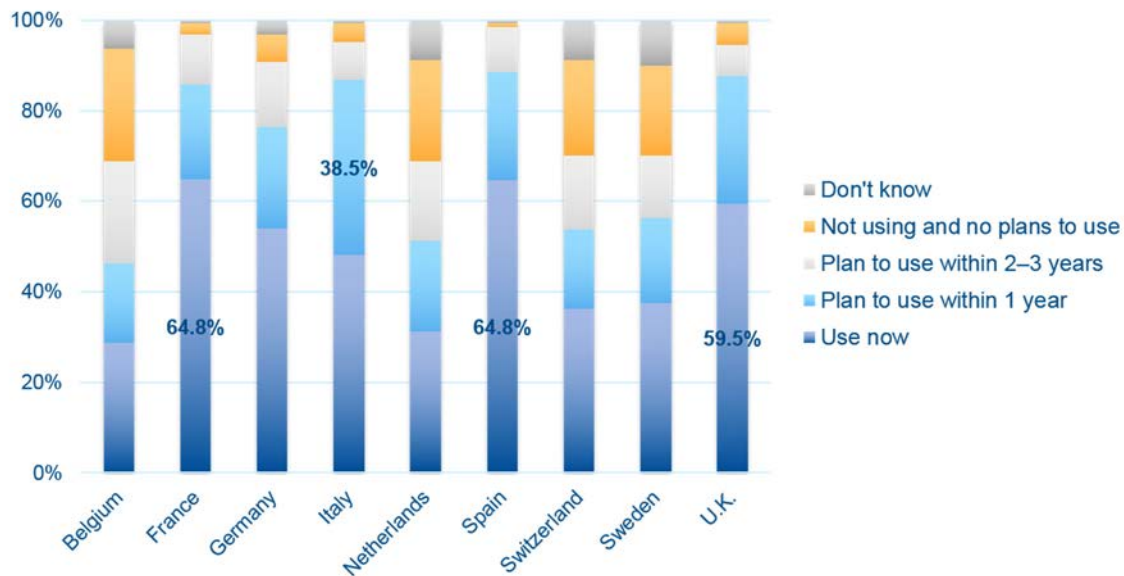
Source: IDC, 2017

Other findings are:

- Video adoption is highest in manufacturing (60%), financial services (56%), and business services (50%). The 1,000+ company size segment has the highest adoption but the 50–249 company size segment will grow faster, being the largest (41%) to deploy video within one to three years.
- Currently, 35.4% of video solutions are still owned and managed in-house. Compared with other deployment models, video as a service (VaaS) was indicated by the highest number of companies (45.9%) as the video deployment model to invest in within one to three years.
- Video has moved beyond boardroom (group video) to personal use on PCs and smart devices. Video on personal (and mobile) devices like the PC (58%), tablet (49%), and smartphone (53%) continues to increase every year while there seems to be less use for dedicated video systems.
- Video calling and streaming outside firewalls to customers and other stakeholders is increasing – 56% is for internal use and 44% is for external use.
- Service providers' IP-VPN (21%), Ethernet WAN (20%), and do-it-yourself IP-VPN (internet-based) (17%) are the most suitable WAN technologies for videoconferencing and streaming.
- Drivers of video collaboration are a reduction in travel costs (76% extremely/very beneficial), increased productivity of meetings (73% extremely/very beneficial), increased

time to market, and enhanced cross-border/cultural collaboration and customer relationships (68% extremely/very beneficial).

The Enterprise Video Market is Growing

As mentioned, the enterprise video market is driven by two submarkets that are closely related but are still considered distinct – the videoconferencing market and the video streaming/content management market.

As demand for videoconferencing and collaboration continues to grow, cloud-delivered video offerings will be a key contributor to this growth with many SMBs and enterprises finding video from the cloud attractive due to flexibility, scalability, and having insufficient resources to invest in hardware solutions. For enterprises with an existing infrastructure, vendors and service providers will continue to provide a hybrid approach with the best of both worlds and offer a mixture of customer premise equipment (managed) and industry-specific application services from the cloud.

With video-enabled mobile endpoints firmly in place and network connectivity increasing, the need for live and recorded video content will continue to grow quickly. Easy search and access to videos on consumer sites such as YouTube, Vevo, and Vimeo has led enterprise users to expect the same video experience with similar easy access on any device. Discovery, search, and analytics related to video content and managing all types of video watched from different devices/endpoints has become a top enterprise priority for businesses and will further drive the need for sophisticated video content systems and services. IDC expects the video content management market hardware, applications, and services revenues in Europe to reach just under $520 million in 2017 and grow to around $859 million in 2020.

Delivery capabilities for the majority of enterprise video streaming and content management providers have improved substantially. While some providers focus on infrastructure and content delivery networks (CDNs) to deal with scalability and WAN optimization, others focus on expanding their cloud-based offerings delivered in a software-as-a-service (SaaS) model. Similar to enterprise videoconferencing, video streaming and content management capabilities are increasingly offered as a hybrid cloud solution to leverage existing investments while enjoying cloud-delivered benefits like scalability and no capital upfront investments. In addition to vendors that mainly focus on video streaming and video content management systems like IBM, Qumu, Brightcove, and MediaSite, there is an increasing number of videoconferencing and unified communications and collaboration (UC&C) providers showing a greater appetite to upscale their existing services portfolio with video streaming and content management capabilities.

Customers Can Build Their Own Applications

As communication technologies are converging and the market is evolving to a platform economy and one of increasing coopetition collaboration, vendors are starting to embrace the platform-as-a-service (PaaS) market. With video PaaS web developers can easily embed real-time video into a mobile app, a website, or a business process. Video PaaS is an open source, API-driven approach to building (video-enabled) communication applications and a growth opportunity for collaboration vendors going forward. The video communications platform-as-a-service market consists of a patchwork of individual use cases and specialized applications. Some of the segments are consumer oriented such as customer service and telehealth; others are strictly business-to-business, such as video-based field technician support. The video PaaS opportunity is not limited to a single solution for a specific industry need. Rather the opportunity is to enhance existing B2B or B2C interactions via a uniform visual platform whereby the fundamental platform proposition is to enable developers to build anything they want on it.

APIs are important because web developers have little experience with the demanding needs for quality and reliability in real-time communications. Video PaaS removes the burden of worrying about the underlying infrastructure and connectivity, and adds functionality that satisfies developers and inspires them to do their best work. Using the API platform, developers can quickly test and develop communications applications and move speedily from concept to production stages. The video PaaS market is gaining momentum. It is still a relatively small market but growth is expected to be rapid, driven by compelling applications for virtual face-to-face meetings and the ease/cost efficiency of cloud APIs. Video-assisted sales, field technician support, and interactive broadcasting will be the first breakout markets. Success in those applications will be significant market developments.

VIDEO BROADCASTING — VIDEO IS THE BUSINESS

The video broadcasting market (where video is the business) belongs to the world of TV, media, and entertainment. The pay TV market is an important part of this industry and in many respects the pay TV industry has witnessed a long period of sustainable growth and development around the world. Historically, traditional pay TV providers have had limited competition, being the only available pay TV provider in a certain area and/or because the main competition for TV content was a limited selection of free-to-air broadcast channels.

Today, the industry's traditional competitive advantages are starting to erode. This is especially the case in the U.S. but also in the more advanced markets in Europe. The digitalization of TV coupled with the proliferation of broadband and the growing importance of IP technology for delivery as well as content creation are among the main disruptors of the traditional pay TV landscape.

Pay TV operators are now experiencing challenging times that are characterized by little to moderate growth (even a decline for many cable operators in Western Europe) in pay TV revenues, intensified competition, and business model disruption. According to IDC's European pay TV forecast, total spending (linear TV and VOD) was $44.5 billion in 2016 and this is expected to grow at a very modest CAGR of 1.6% to reach $46.6 billion in 2020. Further stagnation of the European pay TV market is primarily caused by the decline of the cable pay TV market and digital terrestrial pay TV (at a CAGR of -2.5% and -1.8% respectively), representing a third of the pay TV market today.

An Evolving Ecosystem

In the meantime, we have seen new players and new services enter the market. Broadband quality and availability has improved in such a way that consumers have access to a much wider choice of content. This ranges from free video content (e.g., YouTube, Vevo, and Vimeo) to OTT TV services from OTT entrants such as Netflix and Amazon that retail premium TV and film content directly to consumers. In addition, telcos have entered the pay TV market with their IPTV and their own OTT TV services, and leading content and channel providers that were once exclusive providers to the pay TV industry have started to target consumers in a much more direct way with their "direct-to consumer" OTT services. Content creators like HBO and Disney, to name a few, are also going direct to market with their own OTT services. It is clear that all these drivers are impacting the ecosystem, its players, and business model.
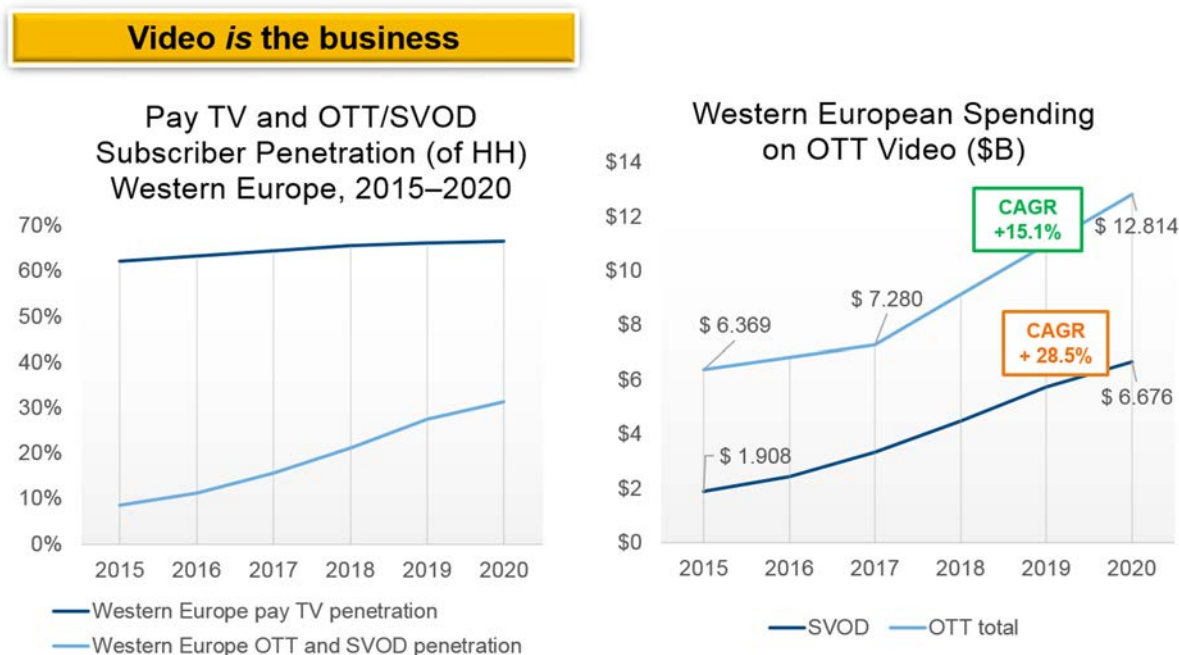
FIGURE 3

Changed Ecosystem
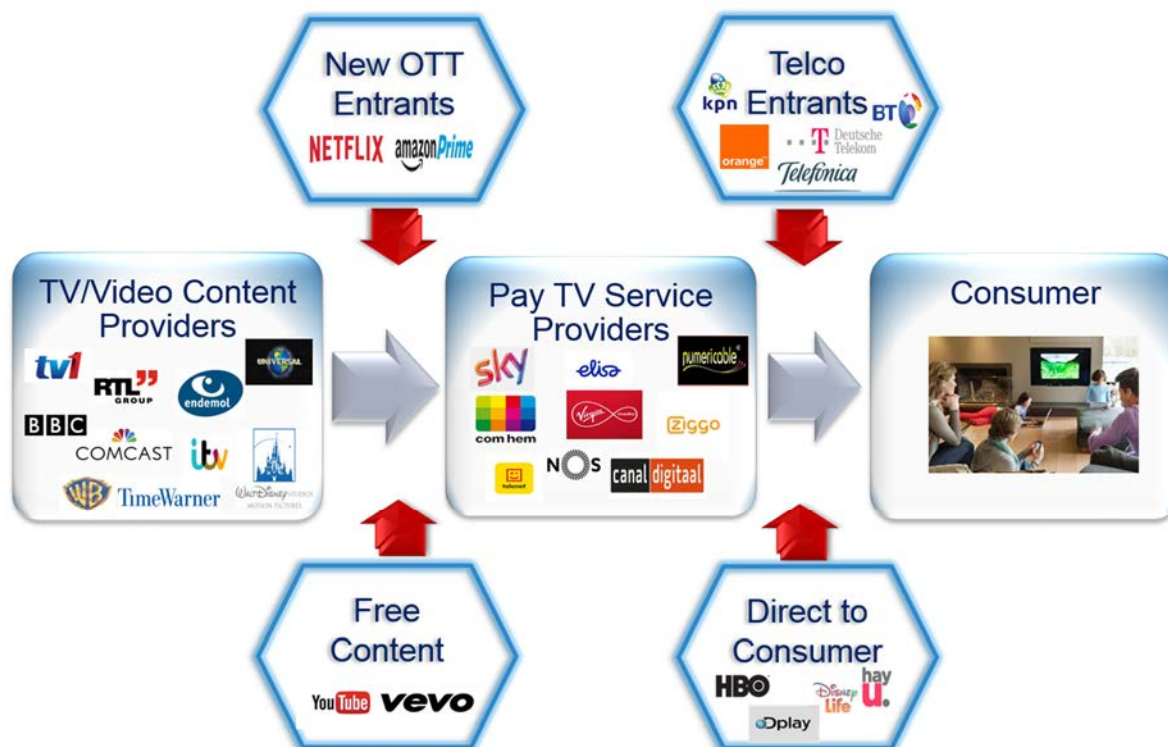
Source: IDC, 2017

In this increasingly competitive industry it is tough for pay TV providers to grow "traditional" pay TV ARPUs. The growing pressure on cost is forcing pay TV operators to look at ways to increase operational efficiency. To maintain and increase the customer base, pay TV providers must be able to understand how to attract new customers and keep existing customers satisfied.

Conversely, the popularity of OTT TV, in particularly premium subscription-video-on-demand (or SVOD) services like Netflix, coupled with the proliferation of streaming set-top devices and sophistication of smart TV capabilities, have paved the way for OTT in Europe. OTT TV is forecast to grow at a CAGR of 15.1% to reach around $13 billion in 2020, with SVOD (there is also transactional VOD and advertising VOD) set to grow at a CAGR of 28% during the forecast period. The penetration rate of OTT TV is expected to grow from 9% to 31% in 2020, while penetration of pay TV will show very slight growth from 63% to 65% in 2020.

FIGURE 4

TV and Video Broadcasting Market

Video *is* the business

Pay TV and OTT/SVOD Subscriber Penetration (of HH) Western Europe, 2015–2020

— Western Europe pay TV penetration
— Western Europe OTT and SVOD penetration

Western European Spending on OTT Video ($B)

CAGR +15.1% — $12.814
$6.369
$7.280
CAGR + 28.5%
$6.676
$1.908

— SVOD — OTT total

Source: IDC, *Western Europe OTT TV Forecast, 2016-2020*, and *Western Europe Digital TV Forecast*

Important factors that determine opportunities and adoption of OTT TV are a country's fixed and mobile infrastructures. Other factors include a country's existing free and pay TV ecosystem, technology push, and adoption of devices (smart TVs, streaming set-top boxes/consoles, etc.), and of course consumer behavior.

Need for Data Analytics and Cloud Technologies

One of the key trends affecting the broadcast industry over the past several years has been the rise of Big Data and the growth in analytics tools that seek to understand the increasing complexity of these consumer behaviors. By leveraging (meta) data analytics and cloud technologies and services, operators can increase viewer engagement, optimize business performance parameters such as operational efficiency, marketing investment, and content acquisition costs, and reduce costs to deliver the ultimate content experience on every device. In particular cloud video services infused with cognitive and artificial intelligence (CI/AI) technologies will prove best to empower broadcasters (traditional and OTT players) to enhance monetization opportunities and maximize viewer engagement through exceptional access to advanced data and analytics.

The (OTT) broadcasting TV and video market is continuously evolving as new players emerge, all creating more content opportunities for producers and more fragmentation of outlets for audiences. Consumer movement across platforms has changed the way content is made, distributed, and monetized. Everyone now can become a broadcaster. This applies to consumers and communities but also to enterprises that use broadcasting (for instance via a social media tool like Facebook or Twitter) to increase brand awareness by means of video (story) telling, especially a story people can and want to relate to. We have now reached a stage where enterprise video and entertainment video have started to merge. Video storytelling is a brilliant way of using video for digital marketing purposes in a cheap but effective way. In the event of a business requiring video streaming for

internal and external stakeholders, it will not want a platform like YouTube but a more sophisticated and enterprise-grade video platform (intra or extranet) that provides better performance, more features, analytics, and a high level of security.

Other Media and Entertainment Growth Areas

From a media advertising angle, IDC expects online and mobile video advertising to grow at a CAGR of between 20% and 30% in the majority of European countries. Within the online video bucket, mobile video advertising will grow fastest to reach $1.46 billion in 2020. It is clear that the rise of online video has given marketers a collection of new devices and platforms through which to reach consumers – and brands have responded by moving more ad dollars to digital video marketing.

Another interesting and dynamic market is the gaming industry, including AR/VR vendors for which video streaming has become a key capability of service. The streaming of video games has become a phenomenon in recent years. Video platforms such as YouTube and Twitch have become the dominant channels to communicate and share the virtual achievements of people's gaming experience. Many have branched out into branding as well. We see video gaming going from a solitary activity to a totally communal experience, where gamers watch others playing games and can comment and communicate on them. People watch streamers for a whole variety of reasons and the popularity of video streaming will increase.

VIDEO PROVIDER LANDSCAPE

Figure 5 is an overview of the main players in the overall enterprise video (conferencing and streaming) market and the media and entertainment sector. The positioning does not relate to any form of criteria measurement other than the type or initial product and service focus of the market these vendors belong to. Although this is quite challenging due to a possible overlap of capabilities focusing on the enterprise video market and the media and entertainment industry, there are three key categories identified.

The left vertical rectangle includes key video and UC&C collaboration providers – all provide video solutions focusing on videoconferencing/UC&C solutions to be deployed on premise, from a multitenant cloud platform or a hybrid form of deployment. Some of these video providers provide video streaming and capture/recording capabilities but generally do not offer this, including a video portal service or video content management capabilities.

Circled in the middle are video providers that do provide enterprise video streaming services, capture and recording, and video content management/video portals (intranet/extranet) that enable businesses, institutions, and communities to produce and manage the video content themselves and use the platform for distribution. These video solutions can be deployed on premise, from a multitenant cloud platform, or from a hybrid deployment.

In the right top corner of the slide are the video/broadcasting enabling providers that focus mainly on communication service providers (CSPs) such as telcos and cable and satellite operators, and support their networks and delivery capabilities to broadcast TV/video.

FIGURE 5

Competitive Landscape
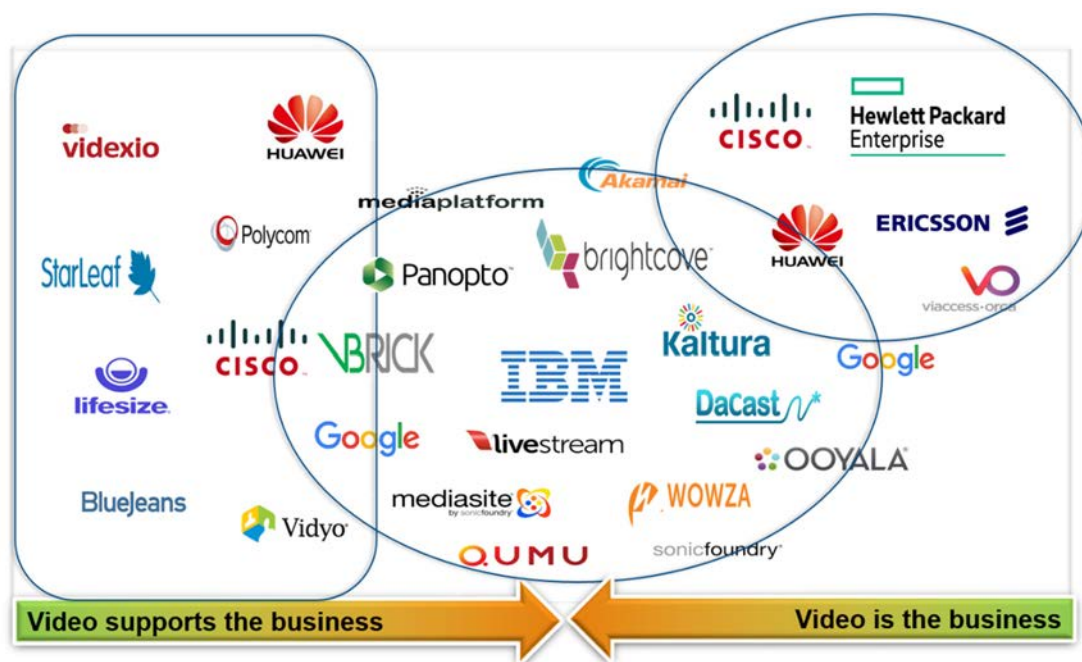
Source: IDC, 2017

NEXT STEPS

The following recommendations should be taken into consideration when seeking the right video solutions, for both enterprise video and broadcasting video solutions and services.

Enterprise Video — Video Supports the Business

Before starting the buying journey, it is key for enterprises to translate their business objectives into the right video investment and requirements. It is even more important to define business goals and what type of video solutions can help achieve those goals. Firstly, it is necessary to understand the different types of enterprise video solutions that are on the market. Enterprise video solutions are typically categorized into the following segments:

- **Enterprise video platform (EVP)** provides a single platform for webcasting, event archiving, and management of on-demand media access. This secure repository is used to store internal videos for employee access but can also provide access to a well-defined external audience (e.g., partners or customers).

- **Online video platform (OVP)** is a service enabling users to upload, convert, store, and play back video content on the internet. The service can include a user interface with log-in credentials, a built-in player that can be embedded in a website, and video analytics that provide insights into video performance.

- **Webcasting platform (WP)** is a solution that primarily includes a live presenter and a PowerPoint type presentation feed. Attendees typically include people who registered for the event. The session often includes polling, Q&A, and the ability to download content. Webcasting is used for internal as well as external communications and supports audiences of unlimited size.

Once you have determined the most suitable video solution, you will want to closely look at who will be using the platform and how it will be used. Will video be (or become) a tool to engage, empower, and/or educate an internal audience? Do you require a different portal with a different look and feel for each division? Depending on your industry, you might also want specific viewing analytics. For example, some regulated industries require data that reveals who watched which video and for how long. You might also want to inquire about certification options, or perhaps video is a means to reach an external audience, whether it serves sales and marketing purposes, or to educate and/or amplify experience excellence of customers, for example.

When considering a video platform of any type, it is necessary to consider the impact it may have on your existing network and infrastructure.

The following criteria and options will need to be evaluated:

- **Video deployment.** Enterprise video content management (EVCM) system and software can reside on premise, in the provider's datacenter (multitenant or dedicated cloud), or be delivered in a hybrid model whereby application software (logic) may reside in the cloud while videos are stored on premise. Cloud-based platforms provide the typical benefits of cloud deployment: scalability, no upfront capital investments, and no IT complexity and expertise needed, so therefore easy deployment.

- **Performance and scaling.** The enterprise video portal must be able to deliver video content to global locations via content delivery network (CDN) capabilities. To scale automatically to millions of participants that are dispersed globally, a software-defined content delivery network (SD-CDN) will help to manage interactions between the global CDNs as needed. The SD-CDN can analyze performance data and fails over between CDNs if potential issues are detected and maximize resiliency. Some vendors offer a virtual enterprise content delivery network (eCDN) that manages streams to avoid bottlenecks.

- **Pricing.** There is a variety of pricing schemes related to the scale of the video portal and the level of features delivered. The benefit of cloud enabled video platform services is to provide the option to pay for what you use and avoid having to predict audience size or pay too much or too little in advance.

- **Level of security and access.** It is advisable for an EVCM system to integrate with the existing corporate directory to authenticate viewers and offer support through single sign-on (SSO), two-step email verification, or white-listing. It is also a big plus if it encrypts content stored at rest and in transit. It should also protect streams outside the network and enable domain restriction so only desired locations can view. The video platform should also support role and group-based access by video/channel for additional control and reveal exactly who watched and when, for auditing purposes.

- **Mobility.** To address the needs of a digital workspace and mobile workforce the video platform must be able to deliver the video content to multiple devices. Cloud-based adaptive bitrate streaming (transcoding) optimizes connections to devices.

- **Other features.** There is a variety of features delivered with a video portal/EVCM system. Among the main features are the ability to search, capture, edit, record, and publish the video content. Some video portals provide support for chaptering so each segment can be indexed. In some cases, it is possible to display video content in different ways to different user groups if required.

- **Integration with collaboration applications.** Essential to effective and efficient video collaboration is the integration with (existing) web conferencing, videoconferencing systems and applications, and other communications applications, including social media or vertical-specific business applications. Integration of the enterprise video platform with a UC&C platform will accelerate return on investment rather than a standalone video solution.

- **Advanced analytics.** Analytics indicate who is watching, what they are seeing, and how, when, and where they watch (by location, domain, device, and operating system). There are various levels of analytics provided from dynamic to virtually real-time analytics for live or recorded content. Advanced analytics are cognitive and machine learning/artificially intelligent (ML/AI) driven.

- **API-centric platform approach.** APIs can add a variety of capabilities to an enterprise video platform, such as enabling the interface to be branded or the player to be customized. An API-centric video platform as a service offering enables web developers to easily embed real-time video into a mobile app, a website, or a (vertical-specific) business process or application.

- **Support and services.** Key questions will evolve around the level of phone, email, or chat support and services to provide analytics, insights, advice, and post-event reporting. The level of managed (event) services varies by vendor and offering. It is advisable to seek a vendor that offers consulting services to help evaluate the requirements mentioned above or optional services to help with API connections to existing systems and devices.

- **Captioning support.** This type of support is provided through subtitles or closed caption files to help capture what is said in a video and time codes for when each line of text should be displayed. Some vendors use AI technology to automate captioning in combination with administrator support to edit and correct the captions for better results.

In addition to vendors' professional and managed services capabilities it is also possible to reach out to these vendors' channel partners such as value-added resellers (VARs) and CSPs (telcos, SIs, consulting services) that are often certified to advise on these criteria to optimize operational efficiency, ROI, and organizational value.

Video Broadcasting — Video Is the Business

For companies in the media and entertainment industry, requirements for video broadcasting solutions will vary and are subject to the following:

- The company's position in the video broadcasting value chain – i.e., from content creation to aggregation, to distribution of video/TV content
- The type of broadcasting that can be done via linear TV or OTT TV which may involve SVOD or other types, like transactional VOD (TVOD) or advertising-based VOD (AVOD)
- The type of delivery platform that is used – cable, satellite, IPTV, or digital terrestrial by CSPs such as cable and satellite operators or telcos
- Specific media and entertainment services other than basic broadcasting such as advertising, gaming, and/or virtual reality/augmented reality products and services

These characteristics impact the broadcasting video (related) services and technology requirements. Requirements also vary by company size and coverage (local and/or global distribution) and are influenced by European regulatory environments.

Small (often local OTT) video provider requirements will be similar to the video platform requirements of enterprises and entities where video supports the business. The technology requirements of a large CSP like a telco will be substantially different. For one, a large CSP would require greater capacity and include not only corporate network environments but also consumer connectivity.

But overall, basic technology requirements like performance and scaling, security, multidevice and mobility (to provide TV Everywhere), and advanced analytics like AI/cognitive-based analytics are key and of common interest to all companies that broadcast video. Many CSPs find that a cloud-enabled video infrastructure addresses their needs to deliver satisfactory performance and scalability. Pay TV providers will continue to transform the traditional pay TV service to stay afloat

and compete with new OTT TV entrants. This evolution will include better set-top boxes, improved program guides, personalized features, cloud DVR, more multiscreen TV Everywhere content, cross-platform aggregation, and seamless integration with operations support systems and business support systems (BSS/OSS).

Advanced analytics will play a key role in video broadcasters' platforms and architectures. On the operational side, analytics provide insight into delivery and distribution of the video streams, the bandwidth needed, and possible challenges. Performance and reliability are crucial to retain customers' satisfaction and reduce churn. With margins getting lower due to trends like skinny bundling (millennials in particular are less interested in relatively expensive pay TV subscriptions and would prefer a high feature broadband service and an OTT TV service on top), video providers and broadcasters need to improve operational efficiency.

On the commercial side analytics provide insight to enhance investments in which content to buy and at what pricing to sell it for. It provides clarity on how to improve customer engagement and build adjacent revenues (think of video/TV as part of an IoT service or part of advertising or monetizing the customer data in another way). Big Data analytics and cloud technologies can jointly increase the level of security to avoid cybercrime and for customer data privacy and compliance regarding the EU General Data Protection Regulation (GDPR), a regulation by which the European Parliament, the European Council, and the European Commission intend to strengthen and unify data protection for individuals within the EU.

In closing, it is clear video is poised for massive growth, both in markets where video is used to support the business and where video is the business. As the worlds of enterprise video and online video are merging, video will be ever more pervasive and a seamless experience between the workplace and the home. The proliferation of video on mobile devices and increasing user demands for a perfect streaming experience will continue to fuel the need for a video platform that is scalable, secure, and reliable, delivers high performance, and is advanced analytics driven. Recent and future developments in AI and cognitive computing will be most disruptive in the way the technology will further increase the operational efficiency of video platforms and the effectiveness of corporate communications (internal use) and marketing communications (external use). Leveraging these advanced technologies will provide organizations (businesses and broadcasters) with a smart way to be ahead of the curve, which is crucial in today's highly competitive business climate.

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