

Why Online Consumer Video Tools Are Unsuitable For **Enterprise Use**



Introduction

The purpose of this whitepaper is to highlight some of the issues and limitations of using online consumer tools for enterprise and corporate video applications. Using YouTube and Vimeo are great to reach your intended and not so intended audience, but there are some fundamental areas that are not optimized for enterprise video needs.

The whitepaper will summarize the current state of consumer video tool use with respect to marketing, communications and training within large corporations. Specifically how,

- Cloud technology has provided a new level of scalability and redundancy,
- Uploading and transcoding of video content is time consuming, requiring dedicated and optimized infrastructure,
- Storage and archiving of video content is fundamental to video management strategy,
- Review and approval process is as important as managing content and video creation,
- Security is paramount when considering the value of video assets and their use



The Growth of Video

- **200-300%** improved click-through rate for videos in comparison to email (Forrester Marketing)
- **80%** of all Internet traffic will be video traffic by 2019, currently it is 67% (Cisco)
- **70%** of leading brands say video is the most effective form of content marketing, (Website123)
- **64%** of potential customers are more likely to buy a product after watching relevant video (ComScore)
- **60%** of senior executives would rather watch a video than read text (Forbes)
- **20%** year on year growth in business Internet traffic, (Cisco)

Your customers, stakeholders and staff want information fast and in a form that can be easily understood. Video is now the tool of choice for enterprise businesses around the world. Video is core to content and strategic communication across all industries and has become the most receptive form of communication when conveying product/service relevance and value. From product tours, promotions, explanations, demonstrations, training (how to), user stories to customer testimonials – the use of video is diverse and expanding.

Ultimately, there has been an upsurge of video across the Internet, where 100s of hours of content (user generated content (UGC), commercial or premium content) is uploaded every second on some of the largest online video platforms (OVP) and video hosting sites in the world. For the purpose of this whitepaper we are not going to discuss the myriad of OVPs. Therefore, we will focus on video hosting and online consumer tools and why these tools are not designed for managing enterprise video libraries and content.

From a business point of view, video creation is conservatively increasing 20% year on year. Many of these online consumer video tools were originally designed for sharing video to anyone who had a suitable Internet connection and mainly for entertainment purposes. The requirement of managing business video production and content is changing at a dramatic rate and hence other platforms have been developed to service the needs of the professional content creator and distributor.

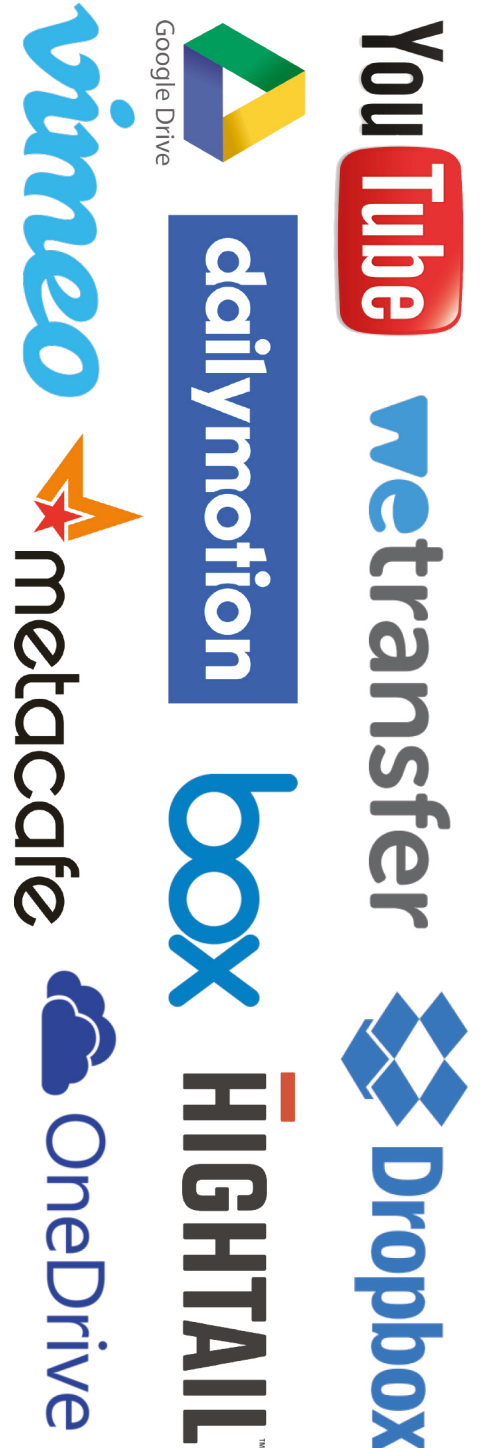
The tool requirements for consumers and businesses are similar, but not the same. This whitepaper highlights some of the subtle differences that should be considered when deciding which online video platform to use for business and commercial videos.

There are numerous consumer online video platforms or video hosting sites, ranging from Youtube, Vimeo, Dailymotion, Metacafe and many others. Also, there are simple file transfer and file synchronization tools like Dropbox, Box, WeTransfer and Hightail are designed to move, backup and synchronize any file type where there is very little awareness of context type.

More recently these platforms have been looking at ways to monetize content using context based advertising and premium subscription. Where the former is the preferred or dominant revenue model. Technically, there isn't anything wrong when using these sites and services. Online video platforms, i.e. YouTube and Vimeo, are good for providing channels to market as they are known to a very large potential viewer base. But there are some challenges in using them especially when working with professionally created content that requires more integrated video management, various levels of access protection and the ability track specific usage.

When effectively used, video gets to the point (depending on the production value and message) more quickly than any other medium. It is not recommended to remote store videos and treat the online tools as simple repositories as there is a higher value in knowing what is available and how the videos can be repurposed. Video needs to be quickly searched and referenced for continued use and this requires a deep understanding of context, through existing and additional metadata.

The problem has been compounded by the massive growth in video content and consumption. In-house or externally produced business video content needs a video platform that can consolidate and scale to an expanding library of videos used for communication, education and promotion. Scale, controlled accessibility, assured quality and fast access to content is paramount when professionally representing a business.



Cloud

Over the past few years, cloud platforms have matured to handle a wide variety video sources, with adaptive streaming, and the ability to choose a wealth of free or paid content. With many consumer or prosumer video platforms, the main focus has been providing maximum variety, accessibility for a huge number of viewers and the ability to upload content easily. Wide distribution isn't necessarily the prime requirement for enterprise and business, especially when orchestrating a marketing campaign or training program in a timely and referenceable manner.

Online video consumer tools were not originally designed for business and enterprise, especially where monetization of content is through pre-video advertising, floating advertising or video subscriptions. Most of the cloud platforms have been designed for the public and general consumption. The majority of content is created by individuals for entertainment purposes. Business videos need to be presented in a clean and controlled way. Otherwise there is a risk of a viewer missing the message via other distractions, i.e. advertising and banners.

File sharing sites like Dropbox, Google Drive and OneDrive are ideal for backup and sharing of general files, documents, photos. Unfortunately, they are not optimized for bulky video content, both in storage and during uploading or downloading. Specifically many online consumer video tools only provide search based on file or video name and there is use no advanced meta search when deep searching large libraries.

When working with a large video library it is not practical to simply use file name or video name search without the use of file and folder name conventions. Ideally, additional meta is used to define a precise search criteria that is based on many different metadata fields.

The main benefit of this advanced search is granularity and having the ability to find relevant clips or videos quickly. Also, projects can easily ring-fence/associate groups of videos for processing and use. Advanced and deep search capability is very important when dealing with a specific set of videos relating to a client, department and customer profile.

With advanced search capability, there is also a requirement to have in-situ viewing and preview of video. Advanced search effectively makes the process of handling large volumes of content very intuitive to users. Other consumer video tools, in particular, online file sharing, require you to download before viewing as there is no proxy version of the video clip.

Sharing and organizing video content is a convoluted process, which requires significant management and doesn't scale to large number of collaborators in comparison to professional online video platforms. Producing and creating video content is a highly collaborative process and there is a need for efficient ways of managing, reviewing and distributing content during the production process. Collaboration is very important when videos are produced within organizations where many different contributors requiring access for technical accuracy, legal compliance and creative input.

Fundamentally, cloud-based file sharing and synchronization platforms have no real awareness of the type of file uploaded, especially when working with video files. Some solutions do provide previews of files, but this is dependent on a limited number of file types supported albeit images or documents. Video content is more challenging as there are many different file types and codecs used for both finished and in progress content. One major benefit when using enterprise and professional video tools is an awareness of many different video formats and codec (video encoding and decoding approaches).

New video codecs are being released every year to support the change in demands of video. From standard definition (SD), high definition (HD) and ultra high definition (UHD) formats require vastly improved compression techniques. Most online consumer video tools significantly lag the media industry with respect to new codec support. Many of the existing codecs do not support the emerging video formats, i.e. UHD, where there are two standards 4K and 8K and new high efficient codec H.265.

An enterprise-class platform needs to be aware of various video formats, sensitive and fine-tuned for managing commercial video content. Where any of the typical professionally used formats can be read, extracted and transcoded into more durable and portable formats.



Uploading and Transcoding

There are many ways of getting your content onto a typical online video platform, FTP, HTTP and optimized UDP or TCP protocols and they have various advantages and disadvantages. For more information, reference the *Transfer Protocols for Digital Media Workflows* eBook.

Luckily, most consumer tools use bespoke tools to upload content and store centrally. Unfortunately, there are limits, especially bandwidth limits of the tool and potentially the underlying protocol which is not directly exposed to users.

With online consumer video tools, other limitations to consider when uploading video content, are file size and the volume of uploads per week/month/year. As an example, many video hosting sites are limited 10GB per week up to a maximum of 1TB per year. To put this in perspective, seventeen 10 minutes of 1080 25P (MPEG 2 Compressed) high definition video can only be transferred in any one week. This may sound a lot, but when your team is producing training or educational videos on a daily basis, you will easily exceed this limitation and quota.

Also, the volume of content needs to be considered when using consumer tools, in relation to transcoding (converting the original video format into another format that is more durable for distribution). Transcoding is processor intensive and hence the online infrastructure needs to be agile and scalable enough to cater for the demands of transcoding large volumes of content in a variety of different formats.

Why is this necessary? When content is first created it is of the highest quality and considered the first generation. Unfortunately, there is a trade off between quality and portability. Hence, when considering how content is distributed and consumed the original video needs to be converted or transcoded into a form that is durable and robust with variable network conditions across the Internet. Many enterprise tools provide a way to create adaptive bit rate encoding ensuring video playback durability with variable Internet or network quality of service.

Many of the online consumer tools use throttling when transcoding content, especially during peak hours and during simultaneous transcoding. In comparison to enterprise tools, the transcoding engine has been optimized to scale up and down according to demand, while maintaining the quality of service and maximum throughput.

Uploading original video is very time consuming due to the high-quality format used and hence it is equally important to use an uploading tool that uses optimized transit. In simple terms, the protocol used to communicate between web server and client browser is optimized to transfer a large amount of data while fully utilizing your Internet connection. Without any transit optimization, uploads are at risk of stopping mid-way (without the ability to resume) and liable to network sniffing or transit snooping when using protocols like FTP.

When considering an enterprise solution, reliability and optimized uploads are key criteria when selecting a solution. Processing of uploaded content and how content is processed is another key area to review and typically should include industry standard support for various high-quality distribution video encoders (codecs).

Storage and Archiving

There are three main areas of concern when using online consumer tools to store video, 1) know where your content is, 2) optimizing how storage is used and 3) orchestrating access to storage and video content.

Knowing where your content is and how it is stored is a constant challenge when using consumer-focused tools. Your content can be anywhere in the world and stored in a number of datacentres that provide no visibility of how the content is stored. In reality, this needs to be abstracted and the sensitive content may need to stay within the national confines for legal reasons. With online consumer tools, there is no guarantee the content will remain within the jurisdiction of origin or national boundary.

Video content effectively eats storage, especially when copies are not tracked and multiple users are copying content from one folder to the other. Video storage is a challenge when using online storage platforms that have no awareness of duplication. Hence, storage utilization is inefficient and potentially cumbersome to manage.

How content is stored and accessed is another area of concern when using online consumer tools. Especially, when links are sent, without the need to identify who is viewing the content. From a tracking point of view this is an issue especially when many enterprises need to demonstrate an auditable trail of activity for compliance and legal reasons. Traceability becomes more of an issue when video content is automatically created from a vast library of clips or custom assembled videos.

The key benefit of using online consumer/enterprise class tools is the centralization of content. The differentiation between consumer and enterprise tools is how easy is it to find the right content and the ease in which it can be reused and most importantly tracked - data that shows who is using what resources, where, at a glance for both cost allocation purposes and to provide insight on better ways for teams to work.

Permissions and who access content is another area of importance and potential concern. Most online consumer tools are public and have very basic permissions model, i.e. public or hidden or video specific passwords. A basic permissions model does not provide enough granularity with the range of individuals that need to see content at various stages of production and release. The video content also needs to be integrated with the business logic and consumption life-cycle for maximum return.

Online enterprise tools provide a way to orchestrate and manage every interaction, view and play of video content. The result is security, peace of mind and granular viewer metrics.

The final consideration when using commercial online tools is service uptime and storage redundancy. With a professional online video tool service uptime and redundancy is built into the infrastructure from the ground up.

Review and Approval

Specifically, during the content creation process the progress and development of a piece of work needs to be checked and approved before going onto the next stage. The term review and approval is derived from professional production companies who rely on the review and approval process.

When using online consumer tools the process of review and approval is by default simply not facilitated in many if not all of the common consumer tools. During production of a video, communication is vital in determining that the creative process is on track. Without this mechanism, confirming, checking and approving is an inefficient bottleneck to the creative and production process.

Another important factor when annotating video content is being able to create in-situ comments and feedback that are frame accurate regardless of any video frame rate. Without the timecode accuracy comments may be ambiguous and misinterpreted. Most online consumer video tools don't offer a frame accurate way to annotate, review and approval. In many cases, videos and annotation need to be sent separately either as emails containing video links with email annotation or having to download and send separately. With professional online tools, both video and timecode-accurate annotations are directly associated to speed up the review and approval process.

Other ways to send associated video content is via an email video attachment. Practically, there are limits to the size of a file that can be attached to emails and sending such large attachments is very inefficient for the email server and recipients will experience delays.

Without an integrated annotation, review and approval tool, managing the video approval process is a time consuming and labor intensive task. Especially, when many videos or clips require review. The last key perspective is managing the feedback. If email is used as the mechanism for feedback, again consolidating such feedback may be painful and laborious, especially when there are many individuals involved in the review and approval process.

Establishing a review and approval process for final signoff from key stakeholders is critical to ensure content is correct prior to distribution. Most consumer videos tools don't have this facility which makes the creation of annotations cumbersome and doesn't scale when having to approve many videos.



Security

With high-value video content, security is of prime importance. It may be a new campaign, a new brand release, a new product. Using online consumer tools can inadvertently add risk to videos being distributed at the wrong time without the stringent processes and procedures in place.

Security at all points of access, albeit, upload, download, streaming and viewing is important to ensure that video transfer and use is only by authenticated users. Most systems use Secure Sockets Layer (SSL)/Transport Layer Security (TLS) to protect any video content or other files during transit between the source and online video platform. Typically, 128-bit or higher is used for the video or file uploading or downloading.

Video content that is commercially sensitive needs to be protected against intrusion, copying and misuse. You often hear of many situations where content or information is leaked on the Internet or darknet.

Luckily, both online consumer and enterprise use a variety of security strategies to mitigate the risk of intrusion and unlawful distribution of content. The media and entertainment industry, especially in the film section is very specific about security technology and policies.

At the most basic level, no online consumer tool without an HTTPS encrypted login should be ever used. 256-bit encryption for online login is considered to be the minimum level of encrypted security. Login credentials and passwords should also be stored encrypted whereby even employees of the provider can't get access to your data or video content.

The final level of security to consider is the storage of the data itself. Technically, the best way to ensure accidental or criminal access to content is to encrypt and obfuscate all data or video content. In layman terms, making the files and folders unreadable without the correct access credentials.

Many online consumer video tools don't enforce a rigorous password adoption and users can simply use common words that are easy to guess. With an enterprise or professional online video tool, password complexity is enforced to ensure that password cannot be easily guessed. Time limited passwords can also be enforced as part of the user and administration to safeguard the authentication process.

Ensuring content is encrypted during upload, streaming and download is important to ensure content cannot be sniffed, snooped and reassembled elsewhere. Enterprise and professional online video tools use optimized and secure transfer technology as this is part of the subscriber service level agreement.

Finally, the security policy of any online video tool should be confirmed in terms of login/authentication, enforced password, secure transit (uploading/downloading/streaming) and encrypted or obfuscated storage. With enterprise and professional online video tools, security is compliance requirement to ensure that subscribers content is protected against unauthorized access and distribution.

Conclusion

An enterprise-class platform needs to be aware of various video formats, sensitive and fine-tuned for managing commercial video content. Where any of the typical professionally used formats can be read, extracted and transcoded into more durable and portable formats.

When considering an enterprise solution, reliability and optimized uploads are key criteria when selecting a solution. Processing of uploaded content and how content is processed is another key area to review and typically should include industry standard support for various high-quality distribution video encoders (codecs).

Establishing a review and approval process for final signoff from key stakeholders is critical to ensure content is correct prior to distribution. Most consumer videos tools don't have this facility, which makes the creation of annotations cumbersome and doesn't scale when having to approve many videos.

Finally, with enterprise and professional online video tools, security is compliance requirement to ensure that subscribers content is protected against unauthorized access and distribution.

As with many online tools, all of these perspectives are a trade-off of capability, consumption, acceptable risk and budget. When working with high-value business strategic content, it depends on which one you want sacrifice instead of another.

[Get in contact with Aframe for more definitive answers to the above questions.](#)



Key Considerations

When considering an online video tool/platform, there are some questions you need to answer:

How much content do you want to store?

The volume of video content you are planning to create/store in the next 12 months. If your requirements exceed 1+ TB of content, then online consumer videos tools or a platform is not suitable for your requirements. Using a professional online video tool or online video platform provides the required scalable and secure storage.

How do you get your video content into the online video tool/platform?

Using optimized transit/uploading of original content is a robust way of ensuring video can be uploaded as quickly as the network can support. Anything other than optimized transit will not be practical with a large number of video assets.

How are your videos going to be approved?

Accurately annotate video content during creation is one of the most important parts of the creative process. It fundamentally enables more creative choice providing a higher quality resultant video. Without these tools finalizing a video is cumbersome and inefficient.

How are your video assets securely managed and accessed?

Make sure that all points of access are secure and apply rigorous encryption of both video content and access.

Which professional video formats do you need to be supported?

There are many different professional video formats and are either specific to the camera used or the final master format. Commonly used master formats are MXF file format using DNxHD and ProRes codecs.

How would you like to measure utilization and viewer metrics?

It is important to appreciate how resources are used during video content creation and how it is utilized. Enterprise-class video tools provide metrics and analytics at the heart of the system, where consumer online video tools don't.

How would you like to be supported?

When working with large volumes of video and content by a variety of users, there needs to be reassurance that if anything does go wrong, you can contact someone. With enterprise-class online video tools, 24 hours, 7 days week support teams are available to resolve any issues. Without a support team, campaign critical videos will not be resolved in a timely manner and this may have a direct impact on revenue.

About Aframe

Aframe is the cloud video collaboration platform and one central location where teams can instantly view, access and work with high resolution media. Aframe drives business efficiencies and dramatically increases the usage and value of media assets. Headquartered in London with operations in Boston, New York and Los Angeles, Aframe is trusted by broadcast, media and corporate organizations worldwide.

Central Video Platform

Aframe is a cloud collaboration platform that provides one central location for global teams and international partners to access and manage high resolution video. Trusted by the world's largest organizations, Aframe is the only solution to combine fast UDP upload, transcoding, metadata support, video player, dynamic search, online review and approval, and analytics.

Media Management & Collaboration

Aframe's central platform helps marketing, promos and reversioning groups take control of their assets and manage them more effectively. With less time spent wrestling with technical issues, teams can be more productive and make more use of assets.

Asset Monetization

Commercial teams can create online catalogs, sales kits and screeners to improve professionalism and customer service. The central cloud platform overcomes the commercial and technical challenges of securely managing and distributing assets to improve partner communications, streamline the sales process, broaden sales reach and ultimately increase revenue.

Production

Aframe reduces the complexity of managing media across all types of production. Cloud-powered workflows means everyone, wherever they are based, has instant access to the content they need from one central place. By reducing the barriers of production, teams can focus on creating the highest quality content and complete productions in record time.

Request a personalized demo for your team
aframe.com/demo