

eBook

Definitive Guide to Enterprise Video

IBM Watson Media



JUST PRESS PLAY

By instinct, we know that it's better to show than tell. [See for yourself](#) why enterprises are expanding their use of video.

Video's influence in society, especially online, is hard to ignore and is projected to make up as much as 82 percent of all Internet traffic by 2021.¹ Its use expands beyond entertainment as well, with 81 percent of executives describing online video as an effective tool for communicating work-related information.² Technology has made it simple to broadcast video to much of the rest of the planet, even from a device that fits in a pocket. Video can also be narrowcasted to an authorized or paying audience, live or on demand. As a result, [Frost and Sullivan](#) notes enterprises now create more video in one day than Hollywood creates in a year.³

There are many different goals that organizations are achieving with video, and this guide makes them easy to review. Learn how quickly enterprise video is growing and look over the business case for investing in a solution. See the requirements for a video platform that can scale and evolve easily as your needs change. And learn from leading best practices.



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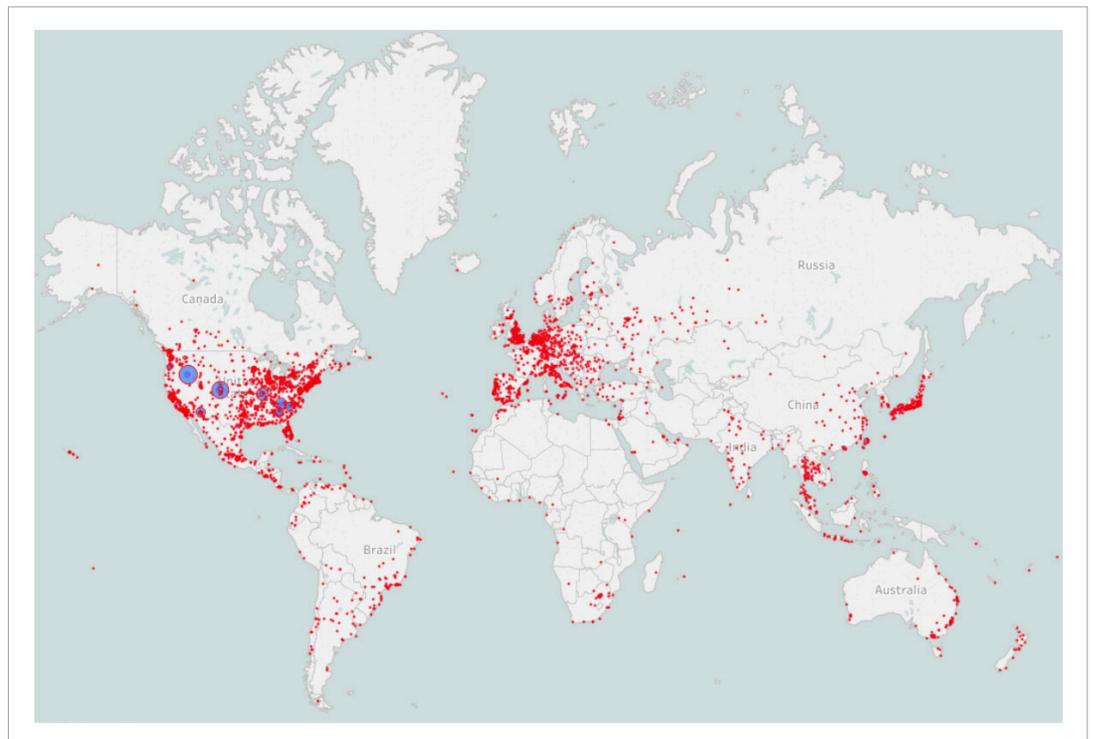
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WHAT IS ENTERPRISE VIDEO?

Enterprise video encompasses on-demand video assets as well as live video broadcasting, with both leveraging streaming protocols. Enterprise video solutions provide capabilities to create, manage, publish, and distribute video to viewers both internally (corporate communications) and externally (marketing communications).

Enterprise video is not the same as video conferencing, nor is it a replacement for it. However, it can extend the reach of traditional video conferencing, which requires that participants are in a room with special conferencing equipment. In contrast, enterprise video is “one to many.” Online viewers can comment, answer polls and submit Q&A questions to the presenter, but they are not on camera and do not verbally participate. This is an important distinction.

Use cases for enterprise video vary broadly, but a key to understanding enterprise video is its scalability. The size of the viewing audience can extend into the millions, and viewers can be spread globally. The power of enterprise video is massive.



These viewers were attracted to a major company's live video product launch.

WHAT YOUR ORGANIZATION CAN ACHIEVE WITH ENTERPRISE VIDEO

Engage

- **Unify and align employees internally** by reaching out with streaming town halls and all-hands meetings to any device anywhere, authenticated by single-sign-on (SSO) access.
- **Enable division, group, and team** video meetings, strategy sessions, salons and lunch n' learns.
- **Reach external audiences and scale quickly.** Offer financial results and investor briefings using live video, enabling them to be clarified with charts, graphics, and pre-recorded videos.
- **Hold a media event** via live video while a moderator fields media questions through a Q&A module, enabling added control.



SolarCity enables 15,000 employees with town halls, training sessions and webinars with interactive live video.

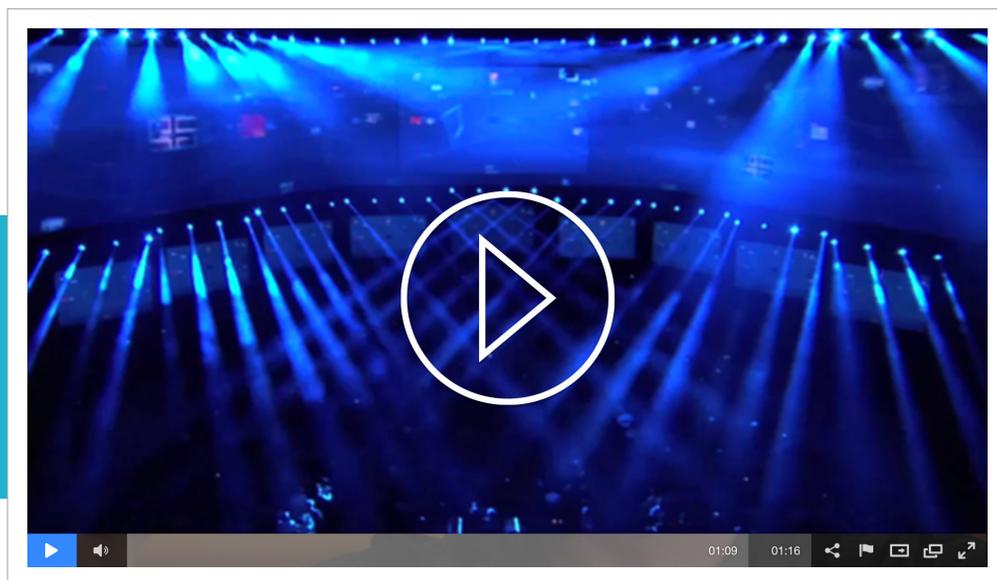
70%
of workers are not engaged, Gallup reports, and video is one of the best ways to connect them.⁴

Sell

- **Tease** a new product by sharing video previews and video blog posts on social media, capturing leads.
- **Launch products** with a live event that can be viewed on demand later.
- **Stream** video sales kickoffs and huddles.
- **Weekly video huddles** enable a global beauty products company to share best practices, demos, role-playing, and sales tips. Novices learn from top performers. Teams react faster to market changes.
- **Update sales reps and customers** with video briefings from subject matter experts, indexed so viewers can quickly find the few minutes they need.
- **Video demos/best practices/tips** guide customers and partners to maximize value delivered and get questions answered.
- **Sell direct** through using clickable video overlays that can allow viewers to be directed to a place to checkout, pre-order, register or conduct other actions to convert.
- **Customer testimonials** enable your prospects to hear directly from their peers.

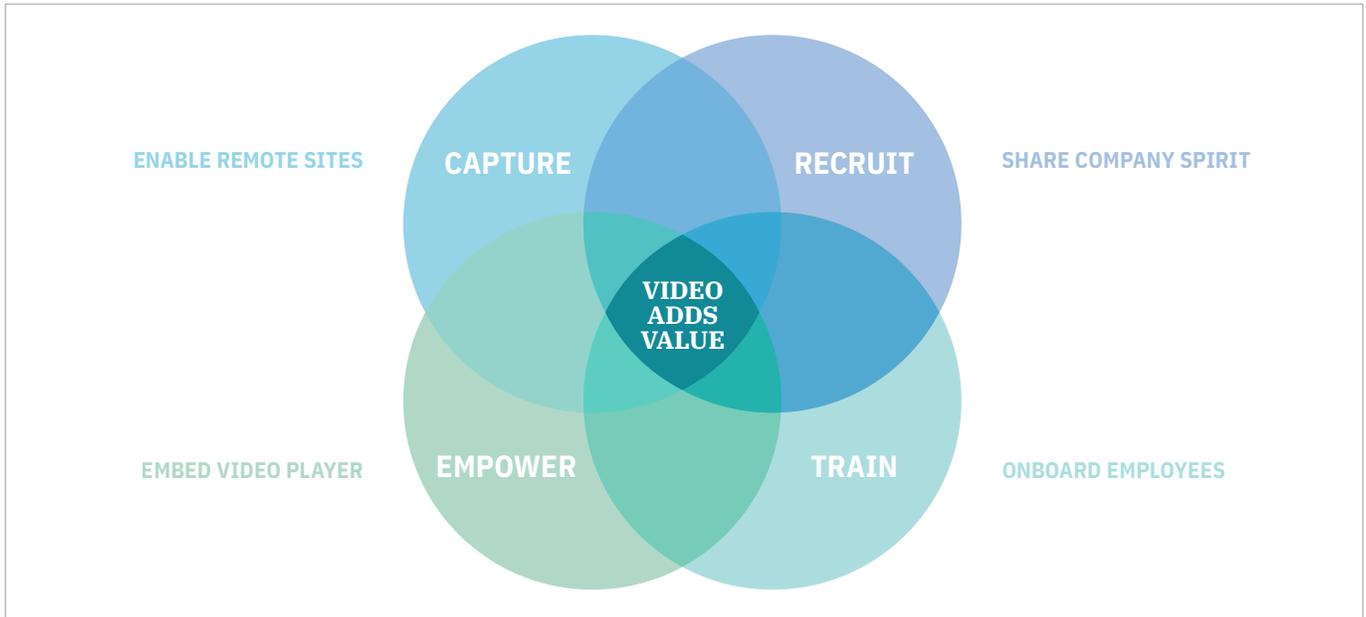
3-5x

More time is spent viewing pages with video vs. without.⁵



Sony Computer Entertainment held a live, online event to introduce its new PlayStation 4 console, and it scaled easily to more than a million viewers.

Empower



CAPTURE KNOWLEDGE

- **Enable** remote sites to collaborate and update each other.
- **Encourage** field employees to make short videos documenting challenges, tips, and changes in the market.
- **Retain** knowledge by interviewing departing employees on video, indexed so others can quickly access needed insights.

EMPOWER

- **Embed** video players in web pages that show rather than tell.
- **Track** who watched and for how long, helping streamline compliance.
- **Spotlight** employee success, building morale.
- **Bond** new teams after acquisitions or mergers.
- **Crowd-source** videos with “make-your-own” contests.

RECRUIT

- **Share** company spirit and values to attract the right people.
- **Enable** candidates to upload introduction videos along with their resumes.

TRAIN

- **Onboard** each employee and customer with customized video playlists.
- **Illustrate** new policies and benefits.

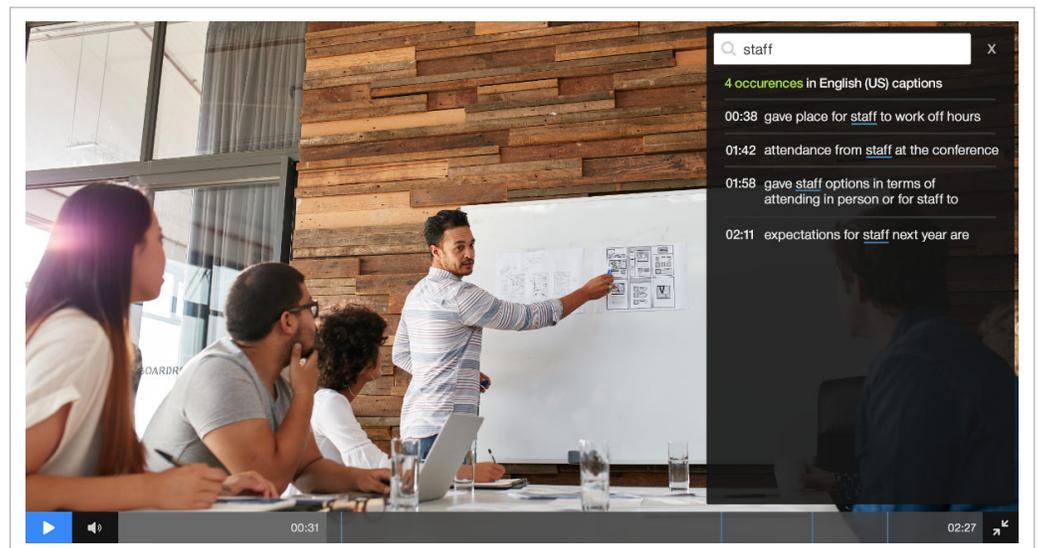
Discover

As your volume of enterprise video assets grows, it becomes increasingly important that your employees are able to find what they are looking for quickly.

- **Automate** the conversion of the spoken word to searchable text through AI capabilities.
- **Caption** all videos to allow employees to watch videos in silent mode. Automated captioning can also be accomplished through AI capabilities.
- **Ensure** player options available as part of the user experience include options to search by keyword or phrase and are able to point the user to the exact point in a video that contains what they are searching for.
- **Consider** integrating your video search with your standard intranet's search capabilities so that search results for video content are displayed along with documents and other assets.

Reveal

- **Analytics** indicate who's watching and what they're seeing in virtually real-time. In addition, you can see how, when and what they're watching, enabling you to optimize results.
- **Learn** which videos lead to the most conversions, helping you prioritize content more efficiently.
- **New cognitive** computing capabilities will lead to new opportunities.
 - a. **Live event analysis** identifies audience reactions by analyzing social media feeds.
 - b. **Scene detection** automatically segments videos into meaningful scenes, making it more efficient to find and deliver targeted content.
 - c. **Speech to text** can turn spoken words into written ones quickly, useful for closed captioning and transcription while generated text can be used to enhance search, even inside of a video.



WHY ENTERPRISE VIDEO IS GROWING FAST

GROWTH IN ONE YEAR

+250%*in volume of video processed.⁶***+100%***In active users watching video.⁶***50%***of executives planned to spend \$100K+ on streaming technologies in 2016 vs. only 29% in 2014.⁷*

DRIVING GROWTH

87%*of executives believe video has a significant and positive impact on an organization.⁸***86%***of employees cite lack of collaboration or poor communication as a reason for workplace failures.⁹***65%***of video viewers watch more than ¾ of a video.¹⁰***2-10^x***higher click rate on ads that engage with video vs. those that don't.¹¹***53^x***more chances of a Google first page result by adding video to a website.¹²***75%***of the workforce will consist of millennials by 2025.¹³***60%***of millennials would rather watch a company video than read a company newsletter.¹⁴***79%***of millennials say they possess video production skills to share at work.¹⁵*

THE BUSINESS CASE FOR ENTERPRISE VIDEO

How can your video initiatives increase revenue, reduce costs, and deliver on multiple business goals? This section will help you start identifying potential ROI.

Reach internal audiences to:

Gather all-hands or a large group easily, improving productivity and minimizing costs.

- ✓ **Streamline meetings:** avoid commute/travel time _____ # people x _____ avg. hours saved x _____ avg. hourly salary and/or _____ avg. travel cost avoided = \$ _____ total savings.
- ✓ **Half a million dollar savings** achieved by a furniture manufacturer operating in over 100 countries, by training sales teams via streaming video each month.
- ✓ **Six-figure annual savings** are achieved by a national company that narrowcasts an annual stakeholders meeting, avoiding travel costs.
- ✓ **\$25,000 per employee per year** is what an organization gains when saving an hour per day for an employee who costs \$100 per hour in salary/benefits.

Gain a faster time to market/greater agility

- ✓ **Unify teams quickly** on vision and plans, answering questions via a Q&A module. What's a day faster to market worth? Or a day faster resolving a critical issue?
- ✓ **\$6.5 million in daily revenue** is at stake with a global company's major product. Its CEO used a video all-hands meeting to pivot the product team on one day after a major market change, avoiding potential losses.

Reach external audiences easily to increase sales or brief the media or investors.

Compare two different strategies:

- ✓ **\$180K** was one company's trade show budget for a 20'x20' booth and 15 staff to work a 4-day convention. They were able to interact with about 5,000 attendees out of 40,000.
- ✓ **\$50K** is what a manufacturer spent to live-stream a product intro and promote it with online advertisements. This attracted 15,000 unique viewers for an average 16 minutes each. That's 3x more prospects for less than 1/3rd the budget of the trade show strategy above.

Ask an IBM Watson Media solution expert to [advise you on potential ROI](#).

Your enterprise video platform should:

Be easy to use

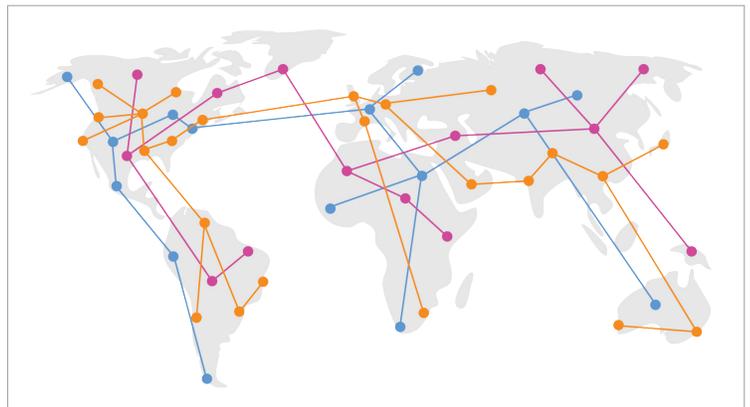
- Cloud-based so it deploys easily, with faster time to value.
- Minimizes training required for users.
- Supports both live and on-demand streaming.
- Easy management of channels and on-demand videos.
- Supports chaptering so each segment can be indexed.
- Reducing complexity for people producing videos as well as those using by ensuring a consistent user experience across all video use cases.

Scale automatically to reach external audiences with resiliency

- Reach up to millions of users, because a **software-defined content delivery network** manages interactions between major commercial CDNs as needed, globally and on the fly.
- The multi-CDN capability analyzes performance data and fails over between CDNs if potential issues are detected, maximizing resiliency.
- Pay only for what you use. Avoid having to predict audience size or pay too much or too little in advance.
- Includes an option to offer pay-per-view if desired.

Avoid internal network bottlenecks

- Many employees watching a video at one location can choke a network. A virtual **enterprise content delivery network (ECDN)** manages streams to avoid bottlenecks.
- Ensure proper unicast and/or multicast setup is configured for live streaming to work properly on your corporate network.
- If streaming across a sizeable number of regional offices, ensure multi-tier capabilities are available. This allows you to further reduce the traffic load on the network by bringing in a single instance of the stream to each internet gateway.
- Consider edge caching capabilities that will cache video on-demand content at the edges of your network to minimize impact on your corporate network.



A multi-CDN setup manages connections between CDNs automatically to maximize uptime.

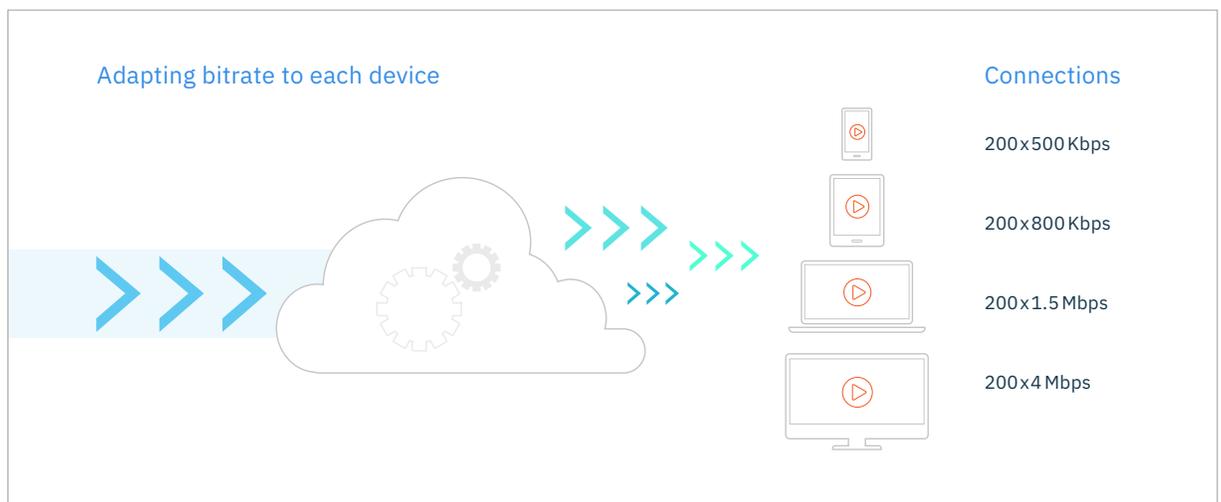
Your enterprise video platform should: (cont.)

Help meet security needs because it:

- Integrates with an existing corporate directory to authenticate viewers.
- Offers support through single sign-on (SSO), two-step email verification or whitelisting.
- Encrypts contents and protect streams even outside the network.
- Enables domain restriction so only desired locations can view.
- Supports role and group-based access by video/channel for additional control.
- Reveals exactly who watched and when, for auditing purposes.

Use adaptive bitrate streaming

- Cloud-based adaptive streaming optimizes connections for every device.



Integrate efficiently with social media

- Viewers should be able to reach out to social networks to promote what they're watching quickly and easily.

Share your broadcast with your followers!

Your custom message:

LIVE NOW at <http://ustre.am/1xX1c> come and check it out!

Share on:

84

Share

Your enterprise video platform should: (cont.)

Provide AI capabilities

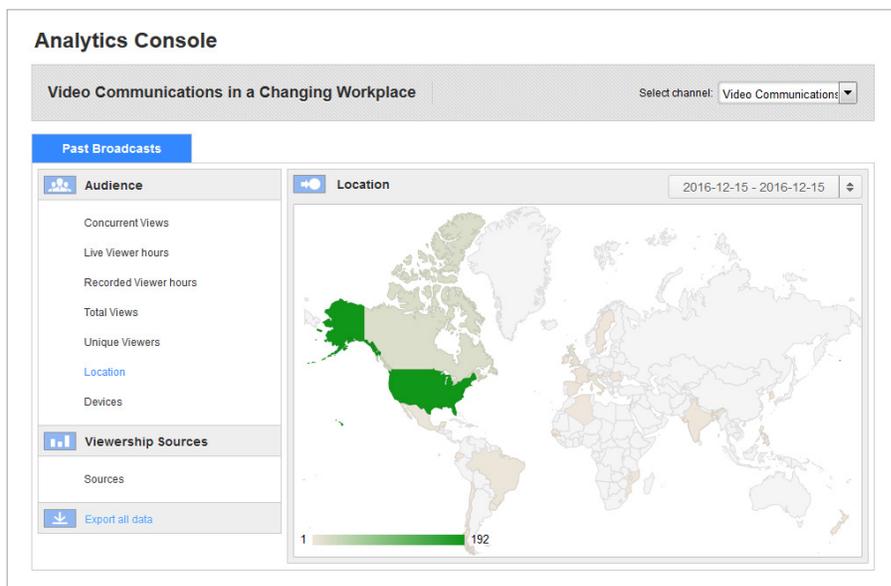
- Automate conversion of speech to text.
- Provide automatic closed captioning capabilities.
- Provide an editor to easily correct any mistakes made by automatic captioning.
- Offer advanced analytics capabilities such as image recognition and theme detection (see analytics section below).

Provide useful analytics and reporting

- Learn about viewers with real-time analytics for live or recorded content.
- See views by location, domain, device, and operating system.
- Provide additional AI options such as image recognition, visual scene detection, natural language understanding, tone analysis, and social sentiment analysis.

Have appropriate live phone and other support. Questions to get answered include:

- What are the hours for getting live phone support?
- Is a customer success team available to provide analytics, insights, advice, and post-event reporting?
- Is there email/chat support?
- Are there FAQs, a user community, knowledge base/support articles?
- Are managed event services and consulting services available?
- Does it offer optional services to help with API connections to other systems?



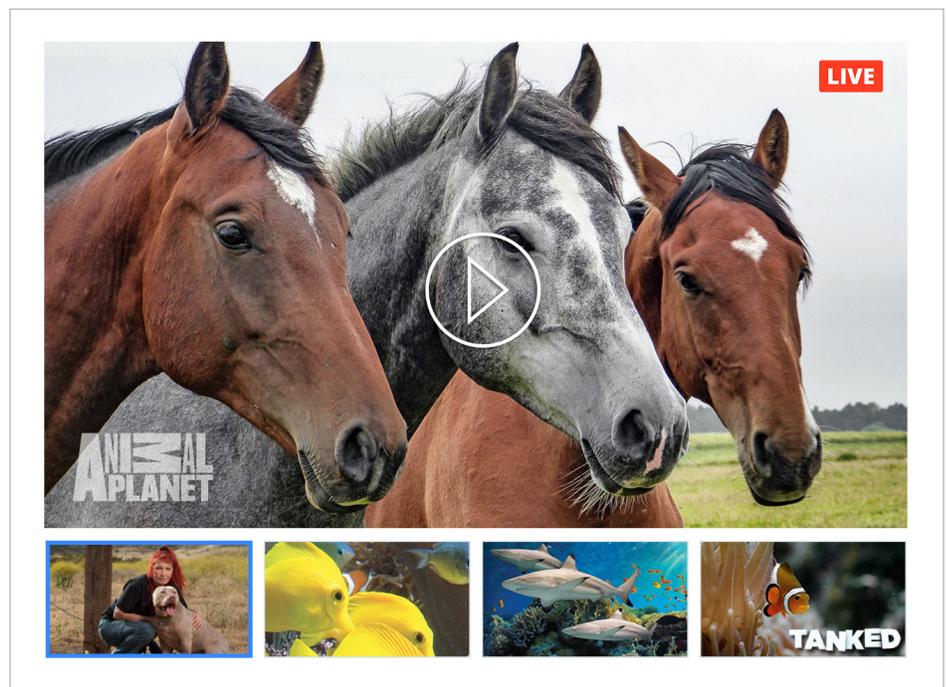
The ability to drill down on performance helps optimize results.

HOW APIs EXTEND AN ENTERPRISE VIDEO PLATFORM

APIs can add a variety of capabilities to an enterprise video platform, such as enabling the interface to be branded or player to be customized. The following examples relate to APIs for [IBM's enterprise streaming solutions](#).

- **Fully brand your platform** using the white label capabilities of the [Broadcaster API](#). Create and manage your own channels, publish videos to the public or choose to make them private.
- **Customize your player layout and features** with the [Player API](#).
- **Integrate live and recorded video feeds** into a fully customized experience within your native application, such as a mobile app or Roku channel, using a [Player Software Development Kit \(SDK\)](#).
- If you're a hardware manufacturer, you can **build cameras and encoders** that have a direct connection to IBM Video Streaming by using the [Certified Broadcasting Device API](#).

Tips to enhance content



A video player can be customized with the Player API to achieve a dynamically changing multiview like this.

BEST PRACTICES FOR VIDEO STREAMING

Video is about extending human communication. The following suggestions will help you capture content that has the most impact.

I. Authenticity counts

Encourage people on camera to be authentic. In general, the more un-rehearsed and “real” a speaker is on video, the more likely the listeners are to pay attention.

II. Free yourself

Video communications offer a medium to escape traditional corporate demeanor while staying within your company’s culture guidelines. It’s good to let loose and be yourself and even get creative in your communication style to capture attention.

III. Be brief

The fewer minutes or even seconds you require, the better. Frequent short video communications may be more effective than fewer longer ones. A sales force, for example, might learn more from a daily 30-second video than weekly 3-minute one.

IV. Don’t skimp on production

Since today’s video platforms are capable of automatically adjusting the quality of the video stream depending on the connection speed and device the viewer is using, don’t be afraid to make your video high quality. Get the best HD camera and audio equipment you can afford.

V. Avoid background noise

Consider potential background sounds on any set such as air conditioning, door slams, or computer/phone sounds. A trick with the air conditioner is to turn up the thermostat to prevent the system from turning on temporarily, possibly giving you enough time to record. Another audio trick is to ask someone to count down silently with five fingers instead of spoken numbers. If the stream goes live early, viewers won’t hear the countdown.

VI. Invest in a teleprompter—or not

A teleprompter can be a valuable time-saver for experienced presenters. Newer presenters however, might find it difficult to look natural and camera-friendly when using a teleprompter, so consider the experience level of your presenter.

VII. Lighting is critical

Professional quality lighting can make your video, and poor lighting can break it. There are many lighting options at varying price points. Overall, avoid dim light. Be sure your subject is facing a light source and [try these tips](#) for any lighting budget.

VIII. Sound check

To enhance audio quality, put a mic on your presenter or get a direct feed from the

public-address system, if one is available. Make sure every mic has new batteries, and have backup batteries available. If you're using a mixer with multiple inputs, rehearse and make sure the correct mic is muted or on at the right time.

IX. Use lower thirds

Most video edit systems let you showcase the presenter's name, title, and other relevant information in a graphic on the lower third of the screen. This adds value for the viewer.

X. Be ready for studio and field setups

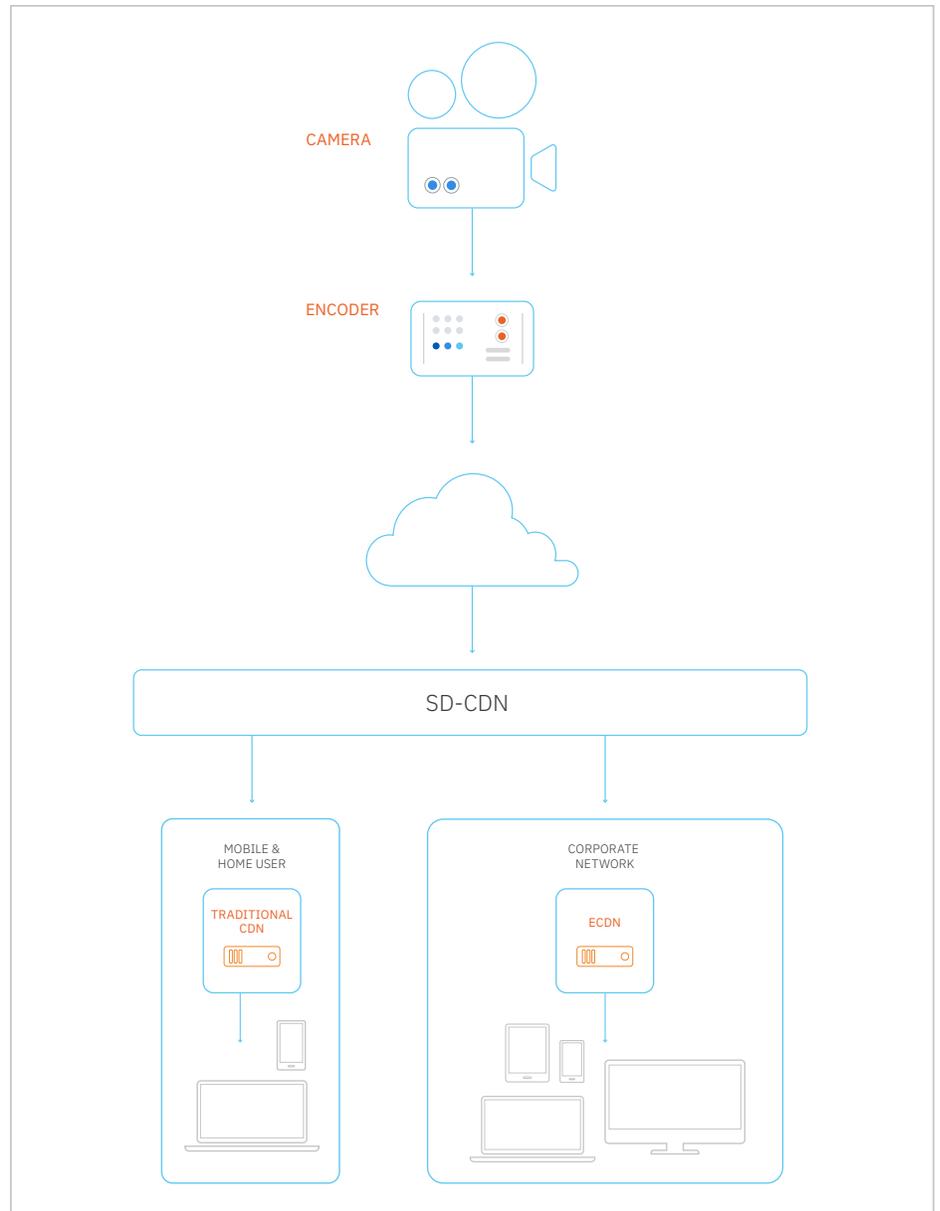
You may have a studio setup for more formal video streams such as company all-hands meetings. It's important also to have a [portable setup](#) that can enable any individual to deliver or record a stream right from a desk in the field. The setup might consist of desktop lights with simple diffusers, a decent microphone, and an HD webcam. Along with your video platform, this is all you need to stream from anywhere.

Tips to enhance video quality

- I. To protect production quality, **test early and often** using actual equipment, location, and subject matter. If this is not possible, get as close to actual conditions as you can in advance, and do final testing on site as well.
- II. **Test network bandwidth** at your broadcast location to reduce buffering, especially for HD live streaming.
 - Upload speed should be at least double the bitrate planned for the broadcast.
 - Have a minimum 8 Mbps upload speed when planning a 720p HD broadcast.
- III. **Optimize picture quality** by choosing an enterprise video platform that enables adaptive streaming, with cloud encoding that creates multiple, adaptive bitrates to support different devices and connection speeds.
- IV. **Use recommended settings** from your streaming provider. IBM Watson Media recommends the following, with more details [here](#).
 - H.264 Video Codec
 - AAC Audio Codec
 - 2 Second [Key Frame Interval](#)

GLOSSARY: UNDERSTANDING STREAMING VIDEO

Video is bandwidth-intensive. A good streaming solution compresses and manages the rich video signal to minimize network load while maximizing picture quality for each device, even when hundreds or thousands of viewers watch from one location. Several terms in the diagram (and more) are explained in the glossary.



The cloud-based software-defined content delivery network (SD-CDN) detects home and mobile users and, using adaptive bitrate streaming, delivers bit rates appropriate for their devices while able to change delivery methods using quality of service (QoS) algorithms to try to improve the end user experience. It also can stream to an enterprise content delivery network (ECDN), which enables many users at one location to view a video simultaneously without choking the network. See the terms above in the glossary that follows for further details

Glossary:

Advanced Audio Coding (AAC) audio codec is lossy, meaning it compresses in a way that reduces audio quality. However, it offers better compression and increased sample frequency than MP3.

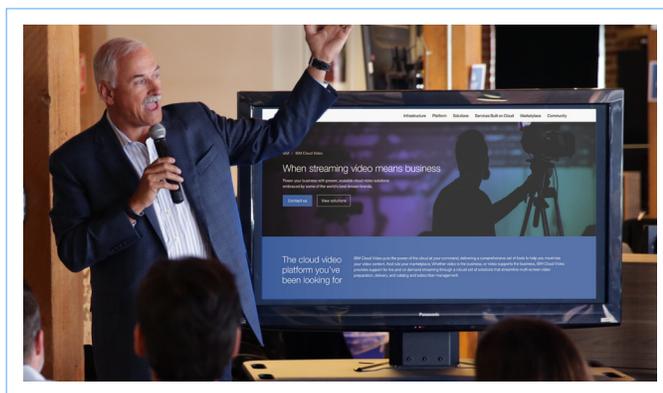
Adaptive streaming generates multiple streams of the same content, at varying qualities of bit rate and resolution, to appropriately serve them to different download speeds and devices.

Aspect ratio compares width to height. The most common are:

4:3 TRADITIONAL TV



16:9 HD



B-roll is alternative footage intercut with the main shot, often to mask audio edits or illustrate the subject being discussed.

Bandwidth describes an internet connection speed.

Bit rate is often the amount of data per second, in kilobits (kbps) or megabits (Mbps).

Codec is a device or program that compresses data to enable faster transmission and decompresses received data.

Compression uses modern coding techniques to reduce redundancy in video data.

Encoder is a software or hardware device that takes live video sources and converts the content to be live-streamed in digital format.

Enterprise content delivery network (ECDN) is a virtual appliance that addresses a key challenge. When hundreds of employees on a local network try to access a bandwidth-intensive, video asset at the same time, they can easily cripple a local network. A virtual ECDN on the network relieves bottlenecks associated with delivering the video asset to single or multiple corporate connections.

Enterprise Video Platform (EVP) provides cloud or on-premises-based capabilities to create, manage, publish, and distribute video to viewers both inside an enterprise (corporate communications) and outside (marketing communications).

H.264 is a block-oriented motion-compensation-based video compression standard, or codec. It is part of the MPEG-4 standards, and is one of the most commonly used formats for recording, compression, and distribution of video content.

Keyframe (also i-frame or intra-frame) is the full frame of the image in a video. Subsequent frames only contain information that has changed between frames, in order to compress video content.

Keyframe Interval is set when the video is being encoded, and controls how often a keyframe is created in the video. The keyframe is a full frame of the image. Other frames will generally only contain the information that has changed.

Over the Top Video Platform (OTT) delivers audio, video, and other media over the Internet without the involvement of a multiple system operator in the control or distribution of content. Many OTT services use set-top boxes so that viewers can watch online video content on standard TVs.

Online Video Platform (OVP) is a service enabling users to upload, convert, store, and play back video content on the Internet. This 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.

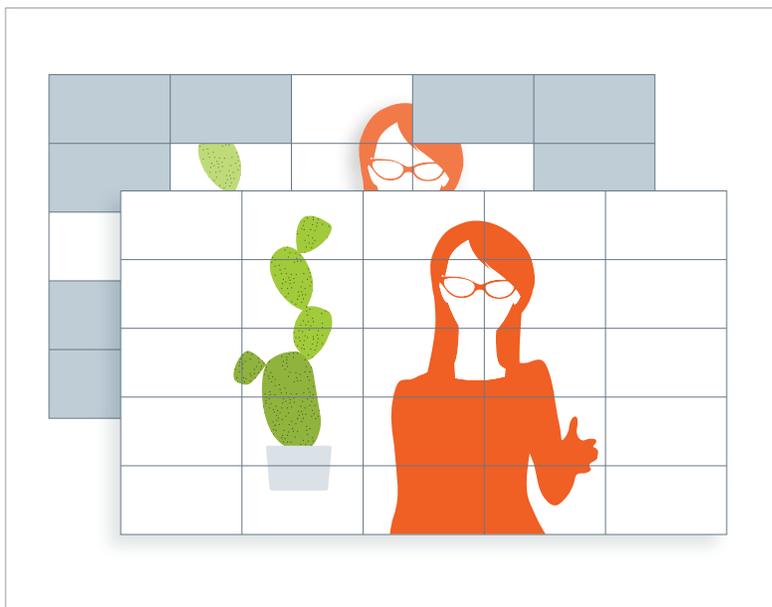
Single sign-on (SSO) access enables a user to log in with a single ID and password to gain access to connected systems or programs without using different usernames or passwords.

Software defined content delivery network (SD-CDN) takes legacy CDNs and creates an abstraction layer spanning across multiple providers to enable increased performance, redundancy and cost optimization.

Transcoding is the process of converting a media file from one format to another. This is often done to make a file compatible over a particular service. Transcoding converts a file that is already digital, while encoding converts an analog source to a digital format.

Video Encoding uses a software or hardware-based encoder to take source content and convert it to a digital format, so it can be live-streamed.

Video on Demand (VOD) is pre-recorded video that is chosen and seen when desired, as opposed to being live.



The keyframe process looks for repeating details between frames and reuses earlier elements to reduce the amount of data needed for video

To see additional terms, visit our continuously updated [online video glossary](#).

CONCLUSION

It's better to be shown than told. Ask for a demo so you can watch what makes a cloud-based enterprise video platform relatively quick to deploy, simple to use, highly reliable, and highly scalable.

[Contact us](#) to learn more or to schedule a demo.

Endnotes

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