



The Expanded Use of Video in Corporate Learning: Are you prepared?

PRODUCT MANAGEMENT, Skillssoft



Executive Summary

The adoption of video across the Internet and within corporate networks is skyrocketing and we are seeing a significant increase in the use of video as an educational tool in corporate learning. Skillssoft, a pioneer in the field of learning, anticipates significantly expanding the use of video within the product library which may impact our customers' IT organizations. Skillssoft will work corroboratively with Learning departments to understand the impact that video learning is projected to have on the health and growth of their company, and identify appropriate prioritization of technical planning or maintenance activities if needed.

This white paper will help IT organizations to create an actionable plan to prepare to support video-based learning initiatives within their own organization.



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Expanding role of video in corporate learning

Video has been — and continues to be — an essential tool for learning organizations. The scope and volume and creative applications are changing faster than ever. According to Cisco's Visual Networking Index from May 2014, it's estimated that by 2016 over 80% of internet traffic will be online video.¹ Today video is seen as a critical component to an effective learning strategy and is regularly incorporated into instructional coverage from the beginning of the training program. When implemented properly, video learning:

- adds to the learning process by not replacing but rather extending the learning options available to the learner;
- is engaging and can be used to help maintain the learner's interest;
- can improve the speed to competency;
- addresses not only prescriptive learning needs but is also used effectively for performance support or just in time training;
- may be small snippets on specific well-defined topics or rich coverage of both the larger and/or smaller details of a subject;
- is accessible from a variety of platforms including desktop, tablet, smartphone and from within the office, on the road and from home;
- is easily discovered and launched;
- helps learners see how one piece of content relates to an entire subject area;
- can be tracked so learners can record completion of the learning material.

Video as a much larger component of learning is officially here. Preparing for its adoption is the next critical step.

Skillsoft's expanding use of video in courses

As a leading provider of online learning solutions, Skillsoft is an expert in the use of video as a critical component of effective learning programs. Our content library includes tens of thousands of short and long form videos used by millions of users covering a range of disciplines including business, leadership, IT, and desktop applications used by learners in business today. We continually innovate with new forms of content to assist learning organizations in getting the most from their learning spend. And, within our development roadmap, we have plans for more intense and widespread use of video in our courses.

We believe it's important to share this vision as we expect the increased use of blended high definition video and technology may impact the requirements of your IT infrastructure. Given the widespread use of video today, it is likely that Skillsoft's video-based courses will already work within your infrastructure without issue. However, we believe sharing this information with you now, will give you time to make certain critical training initiatives aren't negatively impacted by sudden surprises, such

¹ <http://videomind.ooyala.com/blog/online-video-make-86-percent-internet-traffic-2016>

as bandwidth needs or updated versions of technology. Below are a number of characteristics and considerations that will help practitioners prepare for our next generation learning content:

New Course Characteristics

- We expect many of our new courses in Business Skills, IT and desktop software applications to be almost entirely composed of video (approximately 80% of the overall course duration), as opposed to our existing courses which include a relatively small amount of video.
- Video courses contain the MP4 movie format.
- We anticipate our new high-definition video courses will range from 300-700 MB with some courses exceeding 1 GB. Note: This size is only relevant to customers who opt not to use Skillsoft's hosted solution and therefore must host these courses on their own infrastructure.
- We are currently targeting a maximum bandwidth of 1.2 Mbps for video based learning activities. Non-video course content will display perfectly fine at much lower bandwidths (e.g. 0.5 Mbps).
- Most of the instructional presentation within these new IT and Desktop courses will be presented in video thus requiring sustainable high-bandwidths while the learner completes the entire course.
- We deploy courses via HTTP with progressive download. This solution permits the end user to begin playing a video before it is entirely downloaded to their device. Once enough of the video is downloaded, the course player will start the video for the user and continue buffering the remaining portion of the video as it is downloaded.
- We expect users will have the best learning experience with newer technologies (e.g. devices and browsers). We encourage you to click [here](#) to access our Skillsoft Support Knowledge Base to view system requirements for all Skillsoft solutions.

Impact of corporate learning video on corporate networks

In many ways the Internet has already shifted from text and still images to video. For example, many corporations regularly leverage video conferencing technology to bring employees together for critical meetings or to connect employees with customers for face-to-face discussions.

There is a growing expectation that more learning departments will look to leverage video, and that more learners will want, need and expect to access video content in their skills training programs. The shift will most certainly continue to impact the planning and execution of IT infrastructure but with one important distinction. In this instance, it is not simply an employee watching non-business related videos (think: sporting events through the network), rather it is a learner who must be given the critical training materials they need in order to successfully complete their work for their organization.

Impact to Network Bandwidth

The biggest impact of video on the IT infrastructure is bandwidth. Videos are excellent at conveying significant detail such as facial expression during a business skills vignette or the commands shown on screen while demonstrating software. Yet video, and more commonly high-definition video, dramatically increases both file sizes and demand for bandwidth.

More than ever it will be important for IT professionals and learning and development organizations to partner together in order to understand the learning initiatives and expectations that will be put in place to fuel company growth. How video based learning is expected to be deployed within a company will play a big role in how IT organizations will need to prepare to support the bandwidth requirement. Below are examples that underscore how different approaches to leveraging video based learning can impact network bandwidth quite differently:

On-demand model

In an on-demand environment, learners need access to learning materials at any time in order to perform their increasingly more complex jobs. For example, at any given moment a learner may require performance support from a video about a desktop application and will not have the luxury of waiting until the next time they are in a classroom. In instances such as this, aggregate bandwidth requirement across all users will not likely increase dramatically. It will be important though for IT to understand the volume of video content to be made available, the size of the audience to be supported, the frequency with which users are expected to access the video content, and possibly where the users are located globally.

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Time-based model

When videos are used for compliance, certification, or other special programs with specific timed deadlines for hundreds or even thousands of users, the aggregate bandwidth requirement will likely increase. An example of this would be a corporation that requires a large portion of its workforce to complete a specific compliance course at the end of a quarter. We know that most of these learners will wait until the last minute to complete their course and therefore place a very heavy demand on their intranet over a relatively short period of time. Likewise, many corporations send out reminders to learners to complete required training, causing spikes in bandwidth demand unless the cadence and audience size of these messages is carefully managed.

Classroom model

Some organizations still drive portions of their learning initiatives through learning centers or classrooms. In such instances, there is a physical location with a known number of desktops and seats that must be allowed to access the video learning. In this situation it should be much more straightforward to calculate the aggregated bandwidth requirement. For larger organizations, IT departments should quantify how many learning centers must be supported, and where they are geographically located.

These three examples underscore how important it will be for the IT professional to work closely with learning and development in order to understand exactly how video-based learning will be used so that they can plan for the appropriate level of support.

Configuration impacts

The introduction of video to the IT infrastructure will impact on both the network and the various access device configurations.

Device configuration

For performance and resolution reasons, Skillsoft will leverage industry-standard technologies for our new video courses to deliver the best video-learning experience. This may be a challenge for organizations that leverage older technology and devices or even lock down their configurations in order to guarantee support for internal business software needs. Often legacy technology has to stay in place longer in order to support software that is deemed essential or even critical to the business or for security purposes. Customers are encouraged to view our system requirements as they are made available to ensure they appreciate which versions of hardware and software are required to support the most compelling learning experience for their learners.

Network configuration

Today some IT infrastructures opt to fully block certain formats of video like MP4, MPG, or SWF to maintain some level of control over how much bandwidth they need at any given time. This can help control costs and also ensure there is enough network bandwidth available at any given time to support mission critical data that moves on the same infrastructure. Skillsoft will deliver video content exclusively through HTTP with progressive download. We do not anticipate that customers will need to modify network configurations to support this.

Video hosting requirements

The shift from courses with very little video to courses composed almost entirely of high-definition video will result in an increasing course size significantly. These increases could impact you in the following ways:

Storage and backups

If your deployment involves hosting these new Skillsoft courses on your own infrastructure, you will need to assess your ability to store and backup these larger course files, depending upon the size of the library you license.

Distributing

If you distribute courses locally you should assess your ability to store these larger course files on media that can be easily distributed.

What should you do to prepare

Given your business and the proliferation of video on the Internet it is likely that you already have an adequate network infrastructure in place. However, if you haven't already done so, please, consider:

Audience Support

Which areas of your business will work with video-based learning?

- Will video-based learning be made available to every employee all the time in order to provide real time performance support? If so, identify how many individuals will be impacted?
- Do you have different business units that may need differing levels of video-based learning support? If so, how many employees are impacted?
- Which geographic locations will you support with video-based learning and how many employees are in each geographical location?
- Will only specific departments be supported with video-based learning? If so, which departments and how many employees are in each department?
- Do you have any dedicated classrooms that will use video-based learning for educational purposes? If so, how frequently will these classes be run, how many employees will attend these classes and where are they located?
- Do you have remote users that you need to support who do not have network connectivity of any kind? If so, how many disconnected learners will you need to support and where are they located?
- Will time based programs be run for certain audiences?
 - Will compliance courses be run for specific audiences each quarter?
 - Will classes be run for a defined number of learners on a known scheduled basis and will they be accessing video based learning?
 - Are there any other instances where targeted learning programs leveraging video based learning courses will be run that may result in peaked bandwidth demand?

Network Support

- Assess the demand for access to video based learning from outside the typical corporate office and network and evaluate what that means for bandwidth requirements in these areas:
 - How often will learners access video based learning from the road?
 - How often will learners access video based learning from home?
- Determine the size of the video library that your company expects to deploy so you can assess any storage or backup demands on your infrastructure
- Assess whether any configuration settings you may currently use to manage your network will prevent Skillsoft video based learning

Click [here](#) to access the Skillssoft Support Knowledge Base to view system requirements for all Skillssoft learning solutions.

Device Support

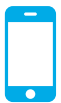
- Evaluate the current device configurations for each audience accessing video- based learning to ensure they have the appropriate configuration to achieve desired performance. This includes understanding browser versions, device performance, memory, storage space, and resolution.

Summary

Video in learning is here. But unlike other forms of video that users often watch on their corporate infrastructure for entertainment, learning videos will be critical to introducing new and improving the existing business skills an organization needs to thrive in today's economy. Understanding the learning needs of your organization and making certain your corporate IT infrastructure and processes are in place to support video in learning should be a priority for your IT professional.

About Skillssoft

Skillssoft is a pioneer in the field of learning with a long history of innovation. Skillssoft provides cloud based learning solutions for customers worldwide, ranging from global enterprises, government, and education to mid-sized and small businesses. Skillssoft's customer support teams draw on a wealth of in-house experience and a comprehensive learning e-library to develop off-the-shelf and custom learning programs tailored to cost-effectively meet customer needs. Skillssoft's courses, books and videos have been developed by industry leading learning experts to ensure that they maximize business skills, performance, and talent development. Skillssoft currently serves over 6,000 customers and more than 19,000,000 learners around the world. Skillssoft is on the web at www.skillssoft.com.



For more information or to learn more,
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