



Simplifying the Recording and Streaming of Rich Media Presentations

A White Paper

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Answering a Persistent Question

Over the last four months, RampRate has performed in-depth research into the recording and streaming of professional presentations. In three separate but related studies, RampRate conducted over 70 interviews with enterprise, university and government customers on issues related to digital video and audio usage. The research included the needs, drivers and inhibitors for integrating rich media (digital video and audio) and digital visual elements (e.g., electronic blackboards, design schematics) into online presentations, not as separately-projected elements but as integrated components.

The study results are both encouraging and frightening. The good news is, after several years of slow or no increase in rich media usage, an overwhelming majority of organizations (about 90%) expect a 50% to 150% increase in digital audio and video usage in the next 12-18 months. Several customers said they expect a “10-fold increase” over the coming year. A typical response was given by the IT director for a state government:

“We’re just now starting up, doing three or four presentations a week [with integrated digital video]. I expect it’s going to grow dramatically in the next year, at least 100% but probably more.”

The scenarios driving adoption are the usual suspects, including corporate communications, online training, distance learning, and product presentations. Rich media is used as an integrated component in professional presentations in all scenarios except when replacing closed-circuit TV broadcast (less than 10% of use).

The bad news is, while the volume of presentations with rich digital media is rapidly increasing, the pre- and post-production methods and systems are woefully inadequate. For example, a 60-minute corporate communications video of the CEO’s monthly address often requires ten days of production, including planning the event, shooting the video, encoding the video, synchronizing the PowerPoint slides, adding subtitles and other video elements, and distribution. The director of distance education at a major regional university said:

“We needed to accurately capture what was being done electronically, including the person speaking, the PowerPoint, and the over head demos. We have

four distance learning courses a semester, with 15 classes per course. Scanning, converting, and integrating materials in post-production was time consuming and causes signal quality loss. We need a fast, simple way to capture the presentation as it is done, including the video, sounds, and overheads.”

Why So Hard?

RampRate heard the same question over and over again: **“Does it really need to be so difficult?”** More than a third of those interviewed said they are hamstrung by tight budgets or limited customization experience. They must make do with a digital video camera and a streaming server, accumulating costs in staff time rather than paying for custom software or consultants. Only about 15% of customers have strung together a series of home-grown point solutions with custom code internally developed or supplied by system integrators.

The problem is clear: While more companies are driving to integrate rich media into their communications, they struggle to find a seamless, easy-to-use

and inexpensive system for integrating video, PowerPoint, and other digital documents into those presentations.

Streaming and Recording Help is Here

A new class of products is now available to simplify the creation of rich media presentations. These products can cut the time for production from ten days to near real-time and reduce the costs of per-event production to 10% of the current level.

In this White Paper, RampRate uses findings from recent primary research to:

- Identify trends of rising use of digital media and visuals in professional presentations.
- Highlight the importance of focusing on the whole presentation, not just the video portion.
- Demonstrate the benefits of filling the gaping hole around capture, recording, and re-broadcast of presentations that include digital elements.

The bottom line is to lower cost. With a solution that lowers the per-event costs to hundreds of dollars instead of thousands, the quality of all media-based presentations can reach the imagined potential in the market.

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Integration of Digital Media and Visuals in Presentations

Presentations incorporating rich media with multiple digital visual elements are quickly becoming a core component of corporate life. At the high end, one university with online course supplements has accumulated over 1,260 presentations with rich media in 1.5 years — all of which are made available on demand within hours of being recorded. At the other extreme, the VP of technology at a global oil and gas company is one of the few “no video” users: His organization is maintaining its policy of prohibiting video delivery over the corporate backbone due to network capacity concerns.

The typical situation, though, was captured by the communications services manager at a state government organization. He produces about 15 presentations with rich media components a month, which includes “two to four scheduled presentations per week” (in this case, staff training modules) and “four to ten ad hoc presentations per month, for staff meetings, talks by department leads, and such.” His user base is about 450 people, with a mix of live Webcasts and on-demand recordings. Regarding the size and future of his usage, he said:

“Sometimes we have 20 to 40 viewers live, and 400 watch it later, and sometimes it’s the other way around. My users are getting used to having it... I expect we’ll have a 10-fold increase [in video as part of presentations] over the coming year or so.”

The presentations themselves typically include three elements: (1) a featured speaker, whose image is captured with digital video and streamed to viewers; (2) PowerPoint slides that are prepared by the speaker; and/or (3) schematics, design templates, or other digital visuals from desktop applications. In some instances, live chat or phone-in questions are permitted and integrated into the presentation in real time.

The research showed five key application scenarios:

- General presentations
- Training and distance learning
- Executive and cross-company communications
- Public broadcast of special events
- Knowledge exchange and capture

The Rise of General Presentations

One surprising finding of the research is that **customers build and operate streaming and recording systems in order to create general business presentations**. That may sound obvious, but it is a major shift from just 18 months ago when customers funded rich media-based

presentations only for specific scenarios, such as distance learning, corporate communications or product launches.

This research indicates that media managers take orders from anyone and everyone, on any topic, for any group. Generally, they are frantically processing a backlog of events and presentations that may originate with the CEO, the VP of training, the sales manager, or the network administrator.

That finding is significant because it highlights two critical differences in today’s market from a year ago. First, customers have reached a level of maturity where they use presentations with rich media as a general business tool as opposed to specific vertical or functional solution. Second, customers require rich media solutions that (a) are flexible enough to serve a range of scenarios and situations and (b) can move from quickly from one scenario to the next.

Video is an important and increasingly necessary presentation element, but advanced customers know that a video of a talking head is not sufficient for effective communication.

The Video is Not the Presentation

The other major finding from the research is that **the video is not the presentation**. Since 1999, much effort has been expended to address the technical hurdles of capturing, integrating, and distributing digital video over IP networks. Research from two years ago indicated that these concerns caused customers to focus only on the difficulties and challenges of the video element when integrating rich media into presentations. Also, presenters and media groups alike would proudly stream a talking head by itself, ignoring the other parts of the presentation because the “magic of movies” had them focused on only the rich media portion.

This current research proves that customers now know that a video of a talking head is not sufficient for effective communication. A single screen view of a speaker conveys only part of the information. A full, compelling presentation must include frames for other documentation and data.

The elements outside of a video of the presenter behind a podium takes the form of PowerPoint slides, but it can also include handouts, overhead projections, whiteboard drawings, illustrations from Visio, spreadsheets from

Excel, or other software applications. Some vertical industries also have more specialized elements that must be included, such as electronic blackboards for education, CAD drawings for manufacturing and design, and pitch materials for advertising and marketing.

Figure 1 shows a typical “screen shot” of a fully featured presentation. It includes the streaming video of the presenter, the synchronized PowerPoint slides, and hyperlinks to other sections of the presentation. It could also include, instead of hyperlinks, a live chat section, or other graphics related to the topic under discussion.



Figure 1: Sample Screen Shot of Rich Media Presentation

Cumbersome, Time Consuming Production and Publication of Rich Media Presentations

It is fairly straightforward to focus a camera on a speaker and record a video of a presentation. However, producing a complete presentation — converting the speakers’ slides into JPEG files, synchronizing slide changes with video, inserting diagrams and images into the flow, laying in transcriptions and subtitles, and associating documentation with the video — is costly and time consuming. Consider this comment from the principal multimedia design engineer at an aerospace firm:

“Groups are starting to design their own digital media presentations but there is no corporate technical direction. We need to align everyone in the same direction.”

Another interviewee, the director of technology and telecommunications at a regional college system, is also frustrated with the time and expense necessary to integrate various digital elements into a presentation:

“Our biggest inhibitors are number one, finding partner institutions to work with [on production], and two, doing the work.”

Stream servers can move the video out to an audience almost instantly, but the majority of interviewees reported that it takes anywhere from *two* to *ten days* in post-production in order to format and produce a complete presentation. That is a significant amount of time, particularly if the information itself is time-sensitive (an earnings call, a critical corporate announcement). The other considerations are cost-related.

Professional production personnel are not cheap. Professional editing suites are too expensive and overkill for most organizations in terms of feature/functionality. The most common is the Avid Workstation, which runs in the hundreds of thousands of dollars and requires specialized training and experience. Newer rich media authoring suites are rapidly gaining favor, but have a steep learning curve (Adobe, Macromedia) or limited feature sets (Microsoft Producer).

The other major challenge: Publishing the presentation once it is finished. When the presentation is ready to be broadcast to the viewers, the production group must “publish” the completed presentation to the audience. If it is only a talking head, publication is as simple as posting the video file to a streaming server. However, as more and more elements are involved, publication becomes more and more complicated. Organizations often must build convoluted, multi-step processes for publishing slides, audio/video, PDF files, and other specialized documents that make the communication rich and meaningful.

Streamlining Presentation Production and Publication

Few presentation solutions address the entire workflow of preparation, production and publication. RampRate’s research found that some areas are well addressed, where other key components still need much work.

Customers Are Content with the Basics

The expected increase of rich media usage in presentations over the next 12 months is largely due to how satisfied many customers are with early pilots to include video in online presentations. As the director of new media at a consumer products company said:

“More people within my company are starting to see video as required instead of optional.”

Interviewees noted several specific advancements that set the stage for wider use:

- *Stable, high quality codecs:* The quality of video element is high. In particular, interviewees noted that Windows Media 9 was “wowing” users with resolution, frame rate, and picture size.
- *Pervasive, easy to use players:* Media players are pervasive and streaming/digital media is widely used. Studies show that 95% to 98% of end-users have experience with video on the desktop.
- *Easy video transmission:* For delivery behind the firewall, nearly all interviewees (over 95%) stream from a central data center location. The bandwidth is available, the transmission is straightforward, and the security implications are minimal.
- *Low overall costs:* The costs of digital media servers and some production suites are much lower than in recent years. As the manager of desktop technologies at an international law firm said,

“We were looking for several years for a good online training option. We talked to content producers, but the costs were astronomical, over \$100,000 just to get started. We came across Microsoft Producer two years ago. We liked that it was free and so easy to use... In 2003, I was able to get the project off the ground for about \$20,000, a huge difference.”

Critical Issues Need to be Addressed

Despite the positive news, there is still much to be done. The unfinished parts can be divided into two areas: Issues that *must* be addressed in order to have scalable and cost-effective production of presentations with rich media, and issues that are *nice-to-have*, in other words, that are not essential but will make life much easier for the production team, the presenters, and the viewers.

Essential but Lacking

The amount of time and effort required for even the simplest of presentations with video will become a major inhibitor on growth of digital media presentations if these four areas are not solved:

- *Smooth, easy video capture and encoding:* The capture process is relatively easy, and the encoding process is also simple, but the movement from one to the other takes a workflow engine and custom scripts,

or else significant handholding on the part of the presentation producer.

- *Simple editing or revision:* The presenters themselves need to be able to adjust and re-work their presentations as long as possible, often up to the moment of the presentation itself (not advised, but not unheard of). Current systems require that the presentation be locked down hours, if not days, in advance. Current systems also are incapable of capturing any variations that may occur *during* the presentation, without stopping the presentation or requiring significant post-production. A presentation production system should be able to accommodate that workflow.
- *Fast integration of video with non-video elements:* As discussed above, the presentation is not only video or only the PowerPoint, but it must include other digital elements, such as CAD drawings, electronic blackboards, and overhead projections.
- *Simple publication of non-video elements:* While today’s streaming servers enable the video portion of presentations to be encoded and streamed in near real-time, more than 15% of interviewees noted they need to be able to publish slides and non-video elements quickly and effectively as well. Some presentations require that large, complex files be distributed in advance, in order to minimize the network impact as viewer volume increases.

Nice-to-Haves

The following features were uncovered during the research as areas that customers would like to have addressed but will not inhibit their increased adoption of video-inclusive presentations:

- *Per-event choice of “near-live” and on-demand availability:* About half of the interviewees said they would like to have their presentations recorded and streamed immediately to the waiting audience. The other half of respondents said they would like to have that option, but plan some post-presentation work, mainly to ensure quality and content meet corporate guidelines and viewer expectations.
- *Anyone, anywhere recording and streaming:* The days of 50-person audio/video teams are gone, and never even existed for some organizations. An ideal system would allow the presenters themselves to schedule, record and publish their presentations – and include the rich media and other digital elements – without requiring an in-room A/V tech from

beginning to end. This point is particularly true for any situation where the presenters routinely and regularly make presentations, such as monthly product reviews, at quarterly sales meetings or conferences, or in classes in education environments.

- *Integrated content management:* Nearly 90% of interviewees said they do not currently have a content management system. The top reason cited: Current volume does not require it. However, when asked about the growth of the coming year, nearly all of those interviewed anticipated that content management would become a major source of concern in the near future. As the new media director at the consumer products company said,

“That’s a big, big, big issue that we’re going to have to address very soon.”

- *Audience management:* This feature was asked for by the fewest number of enterprise and government respondents (under 5%). Unlike the university segment, where nearly 100% of respondents had an audience management system in place, only a handful of corporate and government customers currently have an audience management system deployed. However, when asked about it as a potential feature, the majority of respondents (about 65%) realized that it would add significant value to tracking the usage and impact of the presentations with rich media.

The Key: Lower the Cost Hurdle

In the final analysis, the main barrier to rapid and wide adoption of rich media presentations is cost – and how to justify that cost. It has been true for all streaming products over the past four years: How does an organization justify an investment in a presentation system with digital video capabilities when general presentations, distance learning, executive communications, or the other top scenarios do not have a clear, concrete TCO or ROI?

About 20% of the interviewees invested in streaming or digital media recording technologies without any economic justification at the direction of a senior executive (CEO, VP of sales, VP of IT). The known but unquantifiable benefits, such as “better communication with employees” and “less travel time for trainers” were rarely calculated. When an ROI or TCO was created, it was back-of-the-napkin or “very round figures,” using broad estimates and soft numbers, such as lost productivity or sales opportunity costs.

Analyze the Cost per Presentation

RampRate recommends that the metric should be the cost per presentation or the cost per event. This number should be calculated using the *fixed costs* of the IT and media production assets and the *variable costs* of the per-event staff time, set-up and tear-down time, storage, encoding resources, and bandwidth delivery costs.

Only three interviewees out of all three studies had a clear understanding of the actual costs for preparing, delivering, and recording presentations with video elements.

Organizations must change their approach and start tracking and monitoring their presentations costs, particularly as the volume of presentations with rich-media elements rises.

The vast majority of organizations RampRate has interviewed have no idea how much it costs them per presentation. This research confirms that, whether or not they are specifically calculated, managers and users historically perceived costs to be thousands of dollars per event or presentation. In the cases where it was tracked, the actual costs are much lower, ranging from \$100 to \$1,000 per presentation.

However, the goal of each organization should be to bring the per-event cost to less than \$100 per presentation. At that level, the quality, impact, and scalability of integrating rich media into presentations takes on a mass-communication level of importance, and can radically change the face of a corporation.

RampRate recommends that the appropriate metrics should be the cost per presentation or per event.

RampRate recommends that organizations start their presentation production analysis by focusing on specific, short time period, such as the costs related to producing rich-media presentations over one month. Choose a month, any month. Make it a priority in order to get a baseline understanding of the specific, exact costs for presentations. That will then be a grounding point from which to start building significant insight into the real costs to any organization.

RampRate Conclusions

Based on three research projects, RampRate believes that customers know what they want in terms of a product to integrate presentations with rich media and other digital elements. Customers may have looked in vain in the past, finding the products available were not fully functional, not designed specifically for the task, or too expensive. Media managers in enterprises, universities, and government have consequently built their own workarounds in order to perform the absolute bare minimum of presentations.

The last 12 months has seen a major turning point. A new generation of full-featured, highly capable real-time, rich media recorders is available. Media producers have developed solid work flows and processes for creating and distributing rich media presentations.

RampRate recommends that the best starting place for any organization is to undertake a focused study to determine the per-event or per-presentation costs. If the answer is greater than \$1,000, then steps should be taken immediately to evaluate new, more efficient approaches for large scale presentation production.

Report Sponsor: Sonic Foundry

Sonic Foundry sponsored one of the three studies used in the preparation of this report and the preparation of this white paper. Founded in 1991, Sonic Foundry (NASDAQ:SOFO) is a provider of rich media communications technology for the enterprise. The company's high-performance Webcasting and Web presentation solutions are trusted by Fortune 500 companies, education institutions and government agencies for a variety of critical communication needs. Sonic Foundry is based in Madison, Wisconsin. For more information about Sonic Foundry, visit the company's Web site at www.sonicfoundry.com.