

THE FUTURE OF ADOBE CONNECT

In my last blog post, I talked about how Sunet (along with most other NRENs) transitioned from a traditional research network to an operator of a service portfolio *enabled by the network*. In this blogpost I'm going to talk about the future of one of our oldest and most popular services: the Sunet e-meeting service.

TL;DR

SUNET will keep running Adobe Connect but in parallel we now start the process to find an alternative or complimentary service that (at least) can do H.323, SIP, Skype (for Business) and WebRTC and support all the usual integrations such as SWAMID and LTI.

A BRIEF HISTORY OF THE SUNET E-MEETING SERVICE

The first service Sunet ever built (except the network) was the Sunet e-meeting service. In 2007 Google bought a small Swedish company called Marratech. Marratech had VC platform that was very popular among Swedish universities and university colleges. The product was almost immediately canceled by Google (who was after talent to work on their new hangout service). Almost overnight a lot of Sunet customers suddenly found themselves with a gaping hole in their service offering.

SUNET stepped up and introduced connect.sunet.se: a common web based e-meeting platform based on a product which was at the time called *Adobe Breeze*. Breeze was a company recently (at the time) acquired by Adobe that introduced the idea that you should be able to run video and audio conferencing in your browser without having to install any separate clients.

Breeze (later renamed to Adobe Connect) accomplished this by building a full video and audio conference stack in flash which probably seemed like (and indeed probably was) a good idea at the time. After all, flash was in every browser and a lot of the rich media content on the web was flash-based at the time. After the Sunet e-meeting service was introduced in 2008 it has grown (measured by number of concurrent users) each and every year ever since. Still there are problems...

SO WHATS THE PROBLEM?

Adobe Connect is based on flash. To put it mildly, flash is no longer a popular technology among browser vendors. The last few years has seen a number of critical security flaws in flash which has caused browsers to place restrictions on flash designed to make it hard for a flaw in flash to reach out and affect the browser or underlying operating system. Those restrictions are making it harder to use flash for things like online meetings and also send a very clear message to the web: *stop using flash already!*

There are only 4 browsers that count in the world: Firefox, Chrome, Internet Explorer and Safari. Of those 4, FF and Chrome account for almost 70% of all traffic on the web. This means that whatever FF and Chrome does, goes. Should any of these decide to block flash as the result of the next critical security flaw, it is likely the others will follow in quick succession. The small number of browsers and the uncertainties around flash make this a very volatile situation and I believe we should expect flash to be disabled or at least severely limited in most major browsers within the next 12-24 months.

Were it to happen today, this would be catastrophic for our users that rely on Adobe Connect as their primary meeting platform. However, as bad as the flash apocalypse would be, we're already seeing serious signs of wear and tear manifested in decreased quality of video and audio in Adobe Connect – ultimately caused by the fact that flash is no longer a critical component in any of the major browsers.

Flash is like a leaky old dam – each crack in the concrete is scary and hard to patch but is nothing compared to what the flood will look like when the dam finally fails.

REVISITING THE PROBLEM STATEMENT

It seems clear that flash-based systems are not the way of the future and that we will soon need to find an alternative or at least a transition path away from our dependency on Adobe Connect. Before we do that however, we should take a step back and decide what we are looking for in an online meeting platform.

Lets begin by identifying a few key trends that affect online meetings and how they are used and delivered:

1. Skype for Business (aka Lync) is the de-facto standard for intra-organizational VOIP and presence
2. Skype is the de-facto standard for person-to-person or small group meetings
3. WebRTC means conferencing capabilities is easy to integrate into web applications

Given those trends, it is reasonable to ask if Sunet needs to offer an online meeting service at all? The answer lies in analyzing the way in which connect.sunet.se is being used today, which is mainly for two things: distance learning and "ad-hoc" meetings.

Distance learning is clearly the most "advanced" use of Adobe Connect in the sense that educators regularly use a lot of features (like break-out rooms, polls, recording, layout changes and even some custom pods) that simply aren't available in any one single system other than Adobe Connect. This would seem to make moving away from Adobe Connect very hard or even impossible.

However the advent of WebRTC probably means that LMS platforms will start to grow integrated distance-learning specific online meeting capabilities. This means that in the long run, online meetings for distance learning will probably take place inside the LMS (maybe as an LTI component) rather than in some external system.

That leaves "ad-hoc" meetings. What does that even mean?

A colleague of mine recently remarked that if you bring 30 people to an online meeting and they each save 3 hours in travel, maybe it should be ok to make each participants to spend 15 minutes making sure they have a working headset (to achieve the common good of a decent meeting experience).

That may be true for some gatherings but looking at how connect.sunet.se is used we see a lot of cases (which I've chosen to call "ad-hoc" meetings) where not even 15 minutes of prep is ok. These may be planned meetings but they often involve users with a wide range of devices, platforms, operating systems, connection types, firewalls etc. The effect is a set of requirements on the technology that more closely resembles that of consumer-style services than "enterprise" or walled-garden situations.

We sometimes see cases where groups of users try some technology that they think will yield a better experience (Lync, H.323 etc) but end up using connect.sunet.se as a fallback because Adobe Connect for all its faults, gets through all firewalls and still mostly works regardless of which platform the user is on. We have seen cases where the only way to have an online meeting was chrome, which installs without administrator privileges, together with Adobe Connect, which escapes the corporate firewall.

As we become more and more accustomed to online meetings we expect them to just work. Part of the success of Skype is the fact that because Skype is successful, most people already have Skype which means for most ad-hoc person-to-person calls nobody has to install a new client. This sounds like a circular argument but is in fact just a positive feedback loop. It is also the reason why Skype can get away with decreased quality over time – because it is still the default choice most likely to work for everyone in a group.

The downside is of course that Skype is often used as a personal tool and using Skype for ad-hoc work calls requires you to mix your personal life with your work life (as manifested by the contact list in Skype).

More than one reader is probably thinking "but what about Skype for Business?" at this point. Skype for Business is primarily an intra-organizational tool. It may be a replacement for your PBX, your VOIP- and definitely for your IM platform but it is not a great tool for inter-organizational or "no prep required" meetings unless you're talking to somebody already kitted out with Skype for Business. Since Skype is not the same thing as Skype for Business the positive feedback loop doesn't spill over from Skype to Skype for Business.

So there is probably a place for a shared online meeting platform that ...

provides a "no prep required" meeting experienced

does not require you to mix work and private life

allows interconnect with other services like Skype for Business

and probably also provides a scalable media engine that can be integrated into LMS platforms

SO WHAT DO WE DO NEXT?

Sunet will keep on providing Adobe Connect as a service while there are customers able and willing to keep using it and it is practical to keep running the service but we need to have alternatives ready to go when the Flash Apocalypse hits. The first part of being prepared is knowing you're at risk. The second part is knowing *what* to do.

So Sunet will shortly begin a tender process for a next generation online meeting platform. Based on feedback and input from the media reference groups and key stakeholders, the product we choose will most likely

have the capability to mix multiple technologies, including H.323, SIP, Skype (for Business) and PSTN
support both studio-style equipment, native and webrtc clients
have all the usual integration support such as APIs, LTI, SWAMID federated login etc
will be able to support "no prep required" meetings including using "side of the bus" friendly URL for meetings

There are at least a handful such products on the market so we feel confident in success.

Sunet will not force anyone to switch to the new platform. In fact we will initially focus on providing the new platform as a complement or alternative to Adobe Connect to those that need it. We do not yet know what the price point will be or even what the price model will look like but we will keep everyone informed via the e-meeting team and their reference groups and of course from this blog. If you are interested in this process, please contact Jan or Peter (or me).

Update 2016-06-12 – shortly after the publication of this blog post a conversation started between SUNET, NORDUnet and some other NRENs in Europe (notably DFN). It turned out that several NRENs have identified the same needs at roughly the same time. This probably means that instead of running a SUNET tender we will participate in a European tender for video services in GEANT. The goals and requirements will remain the same but the bigger volume will probably mean better conditions and lower prices for our customers. Vendors who are interested in learning more should contact Jørgen Qvist <qvist@nordu.net>.

Skriven av



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