Simple and Secure Video Sharing

POPULAR SCIENCE ARTICLE by **Petter Haglund and Kristoffer Mårtensson**

Hard disk drives, USB flash drives and local storage servers are all storage solutions of the past. The surveillance industry is adapting and new and improved solutions are required. With cloud services on the rise, Axis Communications wanted to explore new, simpler ways of sharing recorded video material.

In 1996, Axis Communications introduced the network camera to the world. It quickly became the new camera standard for surveillance across the globe. Since then, the functionality of the cameras and the systems that are used to control them have evolved rapidly.

Axis Companion is one of the software applications developed at the company that can be used to install and monitor your surveillance sites. These systems are also known as video management systems (VMS) and there are many alternatives out there for users that are interested in having camera surveillance. Because of this, the Companion has to stay competitive and up to date which leads them to constantly design and develop new and improved functionalities.

A substantial part of today's development is focused on incorporating cloud services in these systems. The possibilities introduced with cloud services are nearly endless and the current front-runner in the industry is Amazon Web Services (AWS). Cloud-based services for storage, analytics, databases and pure computing power are just a few examples among a total of over 90 different services that AWS offer in their product suite.

One of the core functionalities in a VMS is the possibility to locally export recorded material onto your computer for saving or sharing purposes.

Sharing the recorded material is often done in a physical manner, by handing them over on a USB flash drive to the intended recipient. Generally, this is a very time consuming task for the sender since it might not be a functionality they typically use. Additionally, a common use case is that the intended recipient is the police. Sending a police unit to retrieve the flash drive is both time and resource consuming for the police as well. The people working with the companion felt that there must be a better, simpler solution for this.

Our master's thesis presents the development and evaluation of a cloud-based video sharing solution. This video sharing feature was integrated in Axis Companion and allows the user to share video recordings with an email address. The recipient receives an email containing a link to a media player website where the recordings are streamed directly in the web browser.

After implementing the prototype, user tests were performed in order to evaluate the usability of our video sharing solution. Overall the test results were positive. The testers liked the idea of cloud-based video sharing and felt that it was easy to use, both as sender and recipient.

Cloud-based video sharing is a powerful service that will most likely prove to be a valuable feature in the future of the surveillance industry.