

Pseudo-Streaming to PC and iPhone/iPad Clients for Video Surveillance System

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Abstract—So far video surveillance systems can only stream video data inside a firewall/NAT, which limits the video access to users inside the firewall/NAT and prevents other users on the Internet from reaching these videos. In this paper, we propose a new video streaming system which provides pseudo-streaming of video through firewall using HTTPS. In this system, a camera deployed inside a firewall/NAT records and sends video files to a video server placed on the Internet using HTTPS which is allowed by every firewall. Then, the server saves the files to the storage device and writes the file paths into the database. When a user requests watching those files, the server transcodes the original file into an appropriate format that corresponds to the user's device and bandwidth. All what users need to watch these videos is a browser of PC or iPhone/iPad, this enables non-IT people to use this system easily and effectively. By this means, recorded video files are sequentially sent to clients' terminals (i.e., PC and iPhone/iPad), creating a live pseudo-streaming experience.

Keyword—HTTP, live streaming, security, video surveillance, iPhone/iPad



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