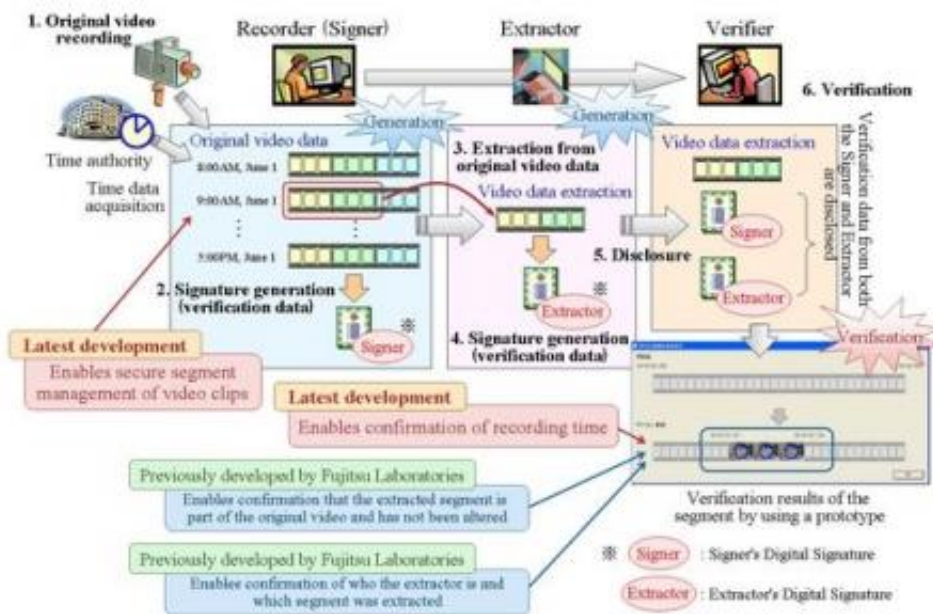


Fujitsu Develops New Technology that Ensures Authenticity of Digital Video Clips

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Overview of new practical-use technology that ensures authenticity of digital video clips.

Fujitsu Laboratories announced today the development of the world's first technology that makes it possible to ensure that digital video data recorded over long time periods and then stored and managed in segments, or clips extracted from the video, are actual parts of the original video and that the segments have not been falsely manipulated, while at the same verifying the time that the video data was recorded.

This new technology makes it possible to ensure that when portions of video - such as from 24-hour surveillance cameras - are public disclosed, that the video data segments have not been tampered with.

Details of the new technology will be presented at the Information Processing Society of Japan's Computer Security Group (CSEC) conference to be held in Fukuoka, Japan from July 24 to July 25.

In recent years, surveillance cameras have gained wide use in stores, factories, and streets for security and to facilitate quick resolution of crimes, traffic accidents, and other incidents. Cases in which video images from such cameras are utilized as evidence are rising rapidly. While digital storage of video data is convenient, it is easy to manipulate the data. This has led to a growing demand for proof that video images have not been tampered with, when they are used as evidence (also referred to as digital authenticity of video evidence). Furthermore, in order to protect personal privacy, it is also necessary to ensure the digital authenticity of video data extracted from the original data.

Fujitsu Laboratories pioneered the development of the world's first technology that ensures that a single video file has not been falsely manipulated even when a portion of the video is extracted as a measure to protect privacy, while also ensuring accuracy in regard to who extracted the video and which segments were extracted. By utilizing this technology, it is possible to ensure the digital authenticity of video data while also maintaining privacy protection.

For applications such as surveillance cameras, where images are captured over long periods of time or 24 hours a day, there is a need for technology that maintains the assurance of digital authenticity of video data - including the time that the data was digitally recorded - while making it possible to divide video data into multiple segments that are several hours long, and store and manage that data.

In order to meet the aforementioned technological challenges, Fujitsu Laboratories developed the world's first technology that makes it possible to securely store and manage clips of digital video recorded over long time periods while ensuring when the data was recorded.

With the new technology, data that ensures the continuity of video segments (verification data) is associated and linked with each video segment, and is managed along with the time stamp. Even when video is stored in segments, this technology makes it possible to ensure the continuity of the video data segments by ensuring that no data has been erased or tampered with, thereby enabling secure subdivision and management of long-duration digital video that is enabled for digital verification.

This new technology enables secure storage and management of segments of long-duration video. Moreover, the technology makes it possible to extract only the desired portions of the video which for example can be used as evidence from surveillance cameras or for public disclosure, without invading privacy.

In addition to applications in the surveillance market for storage, archiving, and utilization of video, Fujitsu Laboratories is also targeting applications in the video verification/tracing business, such as enabling detection and tracing of tampered portions of video.

Source: Fujitsu Laboratories

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