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## Taser Builds Cisco-Based Data Warehouse

Built on Cisco's Unified Computing System, the cloud-based virtual data warehouse stores police videos for evidence.

By Charles Babcock, [InformationWeek](#)

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Taser International, the supplier of a stun gun device for police forces, is seeking to become the supplier of a video cam that can be worn by police officers as they conduct investigations. At the end of a shift, the camera is locked into a docking device and the video uploaded to an online storage service, Evidence.com.

The cloud-based virtual data warehouse of Evidence.com will need to store video from different police agencies in a reliable, secure manner, with no danger of digital video evidence being lost in the event of a system failure. The warehouse is being powered by new blade server and network fabric, and Cisco's Unified Computing System. Taser Chairman Tom Smith foresees thousands of global law enforcement agencies making use of it.

Smith said state highway patrols and other agencies already make use of video systems in their patrol cars. The system is only good for recording events directly in front of the patrol car, such as during a traffic stop. But when disputes over an officer's conduct arise, the officer "is acquitted 96% of the time" when there is in-car video evidence available. Because of that, Smith believes that a more flexible video capture system will be widely used by police officers and come to be relied upon as evidence in court.

"It's almost like an additional shield of safety. It reduces complaints, and when complaints arise, it gives officers a higher degree of vindication," he said in an interview.

The Evidence.com data warehouse captures video in a 30 second loop from a videocam worn over an officer's ear. It starts recording continuously when the wearer pushes a button that tells it to come out of its loop mode. Officers would start filming when they confront a situation to which they have been called or are in the process of apprehending a suspect.

The video cannot be downloaded from the camera device for editing by anyone; it can only be uploaded through the docking station and stored in Evidence.com over an encrypted link. At that point, a backup copy is made. The video can then be accessed by a police evidence officer, who can download a copy, create an edited "director's cut," etc. but the raw footage remains unchanged and under lock and key as a primary source.

Smith said Taser realized the value of video evidence in incidents in which its Taser shock gun was used and added a videocam to its device that captures evidence in incidents where the gun is used. At other times, however, the evidence it collects "is mostly of shoetops," he said wryly. Taser has sold 35,000 units of the model. To collect evidence in incidents when the gun is not intended for use, the officer must still draw it

and point it at the subject, a filming technique with obvious drawbacks.

Yogesh Saini, Taser's senior VP of global Internet services, and his team established the video upload system and data warehouse for Evidence.com in 98 days, using two chassis of Cisco blade servers moving video over 10 Gb Ethernet. Sixteen Xeon 5500 ([Nehalem](#)) blade servers are loaded on the chassis. A selling point to Taser was their capability to host 384GB of memory, needed for dealing with large amounts of video, Saini said.

The servers run VMware ESX Server virtual machines at a ratio of 15 to one per physical server, each capable of sustaining the bandwidth and data movement required to move high volume video. Cisco Nexus 7000 Series switches are part of the data handling system. The Evidence.com warehouse was built using an IBM storage area network.

Evidence.com will charge \$5,700 per officer over a three year period to use the videocam system. The average eight hour shift results in two hours of video capture, or 2-2.8 GB of data. Each agency will decide how long it wishes to retain the data.

Any shooting incident involving a police officer typically costs his department \$250,000 to \$300,000 in evidence collection, said Smith. A videocam system that collects easily retrievable video evidence during the incident is likely to offset some of that cost, he said.