G38 A Distributed System for Human Identification

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The goals of this presentation are to: (1) distinguish between single computer, local network, and internet-scale computer applications; (2) describe infrastructure as a service; and, (3) discuss the success and challenges in the development of an internet-scale human identification database application.

This presentation will impact the forensic science community by presenting a novel method for collaboration on human identification projects. An internet-scale application allows geographically dispersed teams to collaborate efficiently, in a secure environment, with many tools tailored to the unique task of human identification.

In a disaster with multiple casualties, human identification is essentially a database task. Each set of remains must be compared to hundreds or even thousands of antemortem records looking for the best match. A computer database, WinID, has repeatedly shown its value in organizing and filtering records to find the most likely matches between antemortem and postmortem records

While the value of WinID is difficult to overstate, the program has a few limitations that were typical at the time it was written. Most specifically, WinID runs on a single computer or a local network of computers. Large-scale human identification projects depend on a team of skilled professionals to code and evaluate the records. Typically, the entire team must travel to the location of the disaster and work on a small network of computers running WinID.

This presentation introduces WinID for the Web, a distributed system for human identification. Due to WinID for the Web's permanent, web-based infrastructure, a new team or incident can stand up and begin working within minutes. With worldwide reach, geographically diverse teams can collaborate remotely without consuming scarce resources near the disaster site. Images, documents, and database information are seamlessly delivered to distant team members in an integrated workflow.

As WinID grows from a small network of computers to a worldwide identification system, security and data integrity are of paramount concern. WinID for the Web implements state-of-the-art industry-standard techniques for privacy and authentication to ensure that authorized users can constantly access the data they need and others cannot.

WinID for the Web supports teams that cross organizational boundaries. A free, downloadable lite version allows anyone to collaborate. User customizable forms permit teams to experiment with novel techniques or adapt data collection to the needs of a particular incident. Users who object to storing their data on an internet server can set up a local workgroup without dedicated information technology support.

WinID for the web builds on the strengths of WinID. The new, Web-enabled implementation adds additional distributed collaboration and security features to a tried and trusted tool.

Human Identification, Database, WinID