B5   Forgotten Forensics: Understanding Risk, Data Loss Prevention, and Incident Forensics in Cases of Unauthorized Access to Dial-In Conference Calling Lines and Voicemail

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After attending this session, attendees will understand the risks associated with dial-in conference lines and voicemail systems, understand cases in which they have been misused, legal implications of such misuse, how to conduct a forensic analysis of these systems, and preventive measures to minimize misuse of these facilities.

This presentation will impact the forensic science community by focusing on areas of digital telephony that are often overlooked by investigators and forensic scientists looking into data loss situations. In the past year, at least one major case involving interception of a call between U.S. and U.K. law enforcement personnel gained a great deal of publicity. Similarly, abuse of voicemail systems by reporters involving both crime victims and celebrities, have shaken the U.K. newspaper industry. This presentation will provide a good basis for understanding and pursuing investigations involving dial-in telephone conference calls and voicemail systems.

In 2012, members of "Anonymous" posted a recording of a conference call between U.S. and U.K. law enforcement officials. While the unauthorized party joined the call and, in fact, recorded it, none of the authorized participants knew this was happening. In another case, an employee who left one employer to join a competitor simply continued, after changing jobs, to dial into regularly-scheduled but highly confidential calls run by the original employer which provided him with valuable competitive information. Both cases resulted in legal action against the unauthorized users. It is believed; however, that conference call bridges as a source of data leakage are not generally thought about by digital investigators or by specialists in the digital and multimedia forensic sciences and often lack even the simplest defensive measures.

In addition, the break-ins to the voicemail accounts of crime victims and celebrities by U.K.-based reporters reminds us that these systems are in almost universal use in both home and business environments, and are often only protected by no more than an easily guessed password. With many systems offering a "mark as unheard" functionality, the potential for abuse is obvious.

In this presentation, attendees will be shown cases in which unauthorized access to dial-in conference call lines (sometimes called "call bridges") and voicemail systems resulted in the loss of highly proprietary, personal, sensitive, and confidential data. The major types of call-bridge and voicemail services will be described, and some of the forensic data that can be available either during a call or in a post-call investigation will be demonstrated. With this study, it is believed that these services are often overlooked when assessing risk and seeking the source of a data loss incident.

Questions to be answered during this session include:
- How are conference-calling lines and voicemail systems abused?
- How do unauthorized persons gain access to these lines?
- Can they also use the conference line for unauthorized calls at the company's expense?
- What investigative and forensic data is available, and how can it be obtained?
- What are the legal implications of this abuse?
- How can conference-call and voicemail users prevent problems, before, during, and after use of these lines?
- Who is responsible for the investigation of cases of this type?

This presentation is suitable for digital and multimedia specialists as well as lawyers, as there are important legal and procedural safeguards that should be considered, particularly in the case of calls involving privileged or highly sensitive information.

The presentation will begin with laying out the technology and the issues. This will be followed by some case studies, and then by both a legal and forensic science review of the problem, investigative guidelines, and ways to prevent misuse or abuse of these important business tools. Ample time will be provided for audience questions and answers and to share participant experience interactively. Participants will be provided with a sample guide for conference call users to enable them to minimize the likelihood of such problems occurring.

Voicemail, Conference-Line, Telephony