Chapter 14
The FBI Sentinel Project

Leah Olszewski
Troy University, USA

Stephen C. Wingreen
University of Canterbury, New Zealand

EXECUTIVE SUMMARY

In 2000, the United States Federal Bureau of Investigation (FBI) initiated its Trilogy program in order to upgrade FBI infrastructure technologies, address national security concerns, and provide agents and analysts greater investigative abilities through creation of an FBI-wide network and improved user applications. Lacking an appropriate enterprise architecture foundation, IT expertise, and management skills, the FBI cancelled further development of Trilogy Phase 3, Virtual Case File (VCF), with prime contractor SAIC after numerous delays and increasing costs. The FBI began development of Sentinel in 2006 through Lockheed Martin. Unlike in the case of Trilogy, the FBI decided to implement a service-oriented architecture (SOA) provided in part by commercial-off-the-shelf (COTS) components, clarify contracts and requirements, increase its use of metrics and oversight through the life of the project, and employ IT personnel differently in order to meet Sentinel objectives. Although Lockheed Martin was eventually released from their role in the project due to inadequate performance, the project is still moving forward on account of the use of best practices. The case highlights key events in both VCF and Sentinel development and demonstrates the FBI’s IT transformation over the past four years.

DOI: 10.4018/978-1-4666-3619-4.ch014
The FBI Sentinel Project

ORGANIZATIONAL BACKGROUND

The United States Federal Bureau of Investigation (FBI), headquartered in Washington, D.C. and established in 1908, is an investigative organization whose mission is driven, more than ever, by intelligence. Essential to intelligence is information, some of which the FBI provides on its website, as stated here, to clarify its mission. With over 33,000 permanent employees, the majority of them in support roles, the FBI has 56 field offices based in larger U.S. cities, over 400 resident offices throughout the U.S., and more than 60 international embassy-based locations. The FBI focuses on ten specific tasks in its overall mission to protect the United States from damage to its national security, primarily via terrorist and foreign intelligence threats, and to sustain and enforce federal criminal laws. As well, the organization supports other domestic and international intelligence and law enforcement agencies and partners. The FBI falls under the U.S. Department of Justice (DoJ) and reports to both the Director of National Intelligence and the Attorney General. During fiscal year 2010, the FBI had a total budget of approximately $7.9 billion, an increase of at least $500 million over 2009’s budget. FBI Director Robert Mueller requested a 2011 budget from Congress of $8.3 billion which will be utilized to address national security threats, major crime problems and threats, program offsets, reimbursable resources, and operational enablers.

SETTING THE STAGE

In July 2001, the FBI’s Assistant Director of Information Resources Division explained to a Senate Judiciary Committee that the FBI, although it had invested greatly in state and local law enforcement agencies information technology systems, had not made significant IT improvements to satisfy the basic investigative needs of its own agents and analysts, and the needs of national security. And, in fact, he testified the FBI had not made any “meaningful improvements” in information technology since at least 1995 (Dies, 2001). The events of 9/11 occurred only a few short months later, and highlighted the need for a redesign of the FBI information systems. Therefore, in order to correct issues, such as outdated hardware and software, reduced network connectivity, and non-existent applications for information storage, the FBI, in partnership with several defense contracting companies, began development on the Trilogy project in 2001.

Four years into the project however, over budget and behind schedule, the FBI terminated Trilogy during its third and crucial phase, virtual case file (VCF) development. Initially, neither the FBI nor the prime contractor, SAIC (Science Applications International Corp.), took responsibility for the failed project. In the
Applications of Artificial Neural Networks in Economics and Finance
www.igi-global.com/chapter/applications-of-artificial-neural-networks-in-economics-and-finance/184358?camid=4v1a

Two Rough Set-based Software Tools for Analyzing Non-Deterministic Data
www.igi-global.com/article/two-rough-set-based-software-tools-for-analyzing-non-deterministic-data/111311?camid=4v1a