

Dept. of Justice/Dept. of Homeland Security/FBI/IRP Solutions

COMBINED TIMELINE

October 1995: The Federal Bureau of Investigation (FBI) first deployed, the Automated Case Support (ACS) system to be its investigative database.

The Automated Case Support (ACS) system-maintained records related to the FBI's investigative, intelligence, and administrative activities. ACS consisted of three applications: Electronic Case File (ECF), Investigative Case Management (ICM), and Universal Indices (UNI). Upon approval, an electronic copy of a paper document is uploaded to the ECF. Metadata about the document is maintained in ECF, and metadata about the case is maintained in ICM, and index records are entered into the UNI application. Subjects and references related to the case were entered into the UNI application.

September 2000: The FBI announced the "Trilogy" program, intended to modernize the bureau's outdated [Information Technology](#) (IT) infrastructure. The project had three parts:

Part 1. Purchasing modern desktop computers, printers fax machine and all other related devices for all FBI offices.

Part 2. Developing secure high-performance WAN and LAN networks, and modernizing the FBI's suite of investigative software applications. The Transportation Network Component would provide secure local area and wide area networks, allowing agents to share information their supervisors and each other.

Part 3. The User Applications Component, which would ultimately become the VCF, staked out the most ambitious goals. First, it was to make the five most heavily used investigative applications – the Automated Case Support system, Intel Plus, the Criminal Law Enforcement Application, the Integrated Intelligence Information Application, and the Telephone Application – accessible via a point-and-click Web interface. Next, it would rebuild the FBI's intranet. Finally, it was supposed to identify a way to replace the FBI's 40-odd investigative software applications, including ACS.

The first two goals of Trilogy were generally successful, despite cost over-runs. Replacing the Bureau's Automated Case Support (ACS) software system proved difficult. It had been developed in-house by the bureau and was used to manage all documents relating to cases being investigated by the FBI, enabling agents to search and analyze evidence between different cases. The project was originally scheduled to take three years and cost US\$380 million. ACS was considered by 2000 a [legacy system](#), made up of many separate [stovepipe](#) applications that were difficult and cumbersome to use. ACS was built on top of many obsolete 1970's era software

tools, including the programming language [Natural](#), the [ADABAS](#) database management system, and [IBM 3270 green screen terminals](#). Some IT Analysts believed that ACS was already obsolete when it was first deployed in 1995.

Bob E. Dies, then the bureau's Assistant Director of Information Resources and head of the Trilogy project, prepared to launch the initial plans in 2000 for a replacement to ACS and several other outdated software applications.

2001: Larry D. Depew's appointment to the FBI's VCF team was an auspicious start to what would become the most highly publicized software failure in history.

June 2001: A [cost-plus](#) contract for the Trilogy software aspects of the project was awarded to [Science Applications International Corporation](#) (SAIC) for software, and the hardware and network aspects were contracted to [DynCorp](#). Dies was the first of five people who would eventually be in charge of the project. All three Trilogy software components was originally intended to be deployed in mid-2004, and was originally intended to be little more than a [web front-end](#) to the existing ACS data.

September 2001: Robert Mueller was appointed Director of the FBI replacing Louis J. Freeh, just one week before the [September 11, 2001 attacks](#). The attacks highlighted the Bureau's information sharing problems and increased pressure for the Bureau to modernize.

October 2001: Robert J. Chiardio advised Mueller on software he dubs the Virtual Case File and brings Larry Depew aboard.

December 2001: The scope of VCF was changed with the goal being complete replacement of all previous applications and migration of the existing data into an [Oracle database](#). Additionally, the project's deadline was pushed up to December 2003.

2002: Virtual Case File (VCF) was a [software](#) application developed by the [United States Federal Bureau of Investigation](#) (FBI).

January 2002: FBI received an additional \$78 million to accelerate Trilogy.

February 2002: Joint Application Development planning sessions began; Sherry Higgins, hired.

July 2002: Wilson Lowery, a former IBM executive, who retired after 30 years with the company joined the FBI at the request of Director, Robert Mueller because he "wanted to do something to help" after the Sept. 11, 2001, terrorist attacks. The FBI was in the process of implementing the largest IT reengineering effort in the agency's history, including linking 22,000 agency computers into a single network. Read full article: <http://www.govexec.com/technology/2003/06/ex-ibm-executive-leads-fbi-technology-overhaul/14348/>.

August 2002: Matthew Patton was hired by SAIC, as a Security Engineer.

October 24, 2002: SAIC broke its programmers up into eight separate and sometimes competing teams. One SAIC Security Engineer, Matthew Patton, used VCF as an example in a post on the [InfoSec News](#) mailing list regarding the state of federal information system projects in response to a Senator's public statements a few days earlier about the importance of doing such projects well. His post was regarded by FBI and SAIC management, as attempting to "[blow the whistle](#)" on what he saw as crippling mismanagement of a [national security](#) -critical project. Patton was quickly removed from the project and eventually left SAIC for personal reasons.

November 2002: SAIC and FBI agreed on baseline requirements; Patton leaves SAIC.

December 2002: The Bureau asked the [United States Congress](#) for increased funding, seeing it was behind schedule. Congress approved an additional \$123 million for the Trilogy project.

2002: Federal Spending - (Top 100 Recipients of Federal Contract Awards for FY 2002) - <http://www.fedspending.org/fpds/tables.php?tabtype=t2&year=2002>

2003: DynCorp, one of the largest government contractors in the Washington, D.C. area and its subsidiaries were acquired by a competitor, Computer Sciences Corporation (CSC) in El Segundo, California and one of the world's largest information technology consulting companies. DynCorp remained the parent of its existing subsidiaries, including DTS and DynCorp International LLC, and CSC became their ultimate parent.

CSC in acquiring DynCorp, a private company that provided information and security systems to government agencies, added \$2.3 billion to its annual revenue, for a total of \$13.7 billion. Government contracting then made up 40% of that total, up from about 30%. The deal came as the federal government was increasing technology spending to support the fledgling Department of Homeland Security.

August 2003: According to IRP Executives, DHS initiated contact with their office, requesting IRP Solutions to conduct a [web demo](#) of its CILC software in their Washington, D.C headquarters.

August 2003: Traveled to Washington, D.C. IRP Solution Executives met with Scott Davis of Department of Homeland Security. Mr. Davis contacted Steven W. Cooper, Program Manager for DHS CEE Initiative Working Group (Consolidated Enforcement Environment Initiative Working Group which was responsible for reviewing software that would enable various agencies to share information).

September 2003: GAO reports that FBI needs enterprise architecture.

October 2003: Law Enforcement Technology, A Cygnus Publication, gave IRP Solution's Corp. a front-cover billing with header: IRP Solution's Corp. Modern Investigation Life Cycle Software, article inside publication was written by, Clinton Stewart:

<http://www.scribd.com/doc/155870649/20031001-LawEnforcementTechnology-CILC-Article>

October 17, 2003: Steven W. Cooper, DHS Program Manager for CEE Initiative contacted IRP Solutions Corporation. (Consolidated Enforcement Environment Initiative Working Group was responsible for reviewing software that would enable various agencies to share information). IRP Solutions contacted Steven W. Cooper back to coordinate a meeting/demo.

October 2003: Web demo conducted for Steven Cooper of IRP's CILC software solution product. (CILC – Case Investigative Lifecycle Software)

October 24, 2003: Mr. Steven Cooper provided IRP Solutions with high-level requirements and concept document. Mr. Cooper stated that these documents are for IRP Solutions "Eyes Only" and not for dissemination outside of company.

November 5, 2003: Mr. Steven Cooper scheduled a face-to-face presentation for IRP Solutions' executives to present to the Consolidated Enforcement Environment (CEE) Working Group in Washington D.C. for November 13th.

November 13, 2003: IRP Solution's Executives, traveled to [Washington, D.C.](#) and met with Consolidated Enforcement Environment (CEE) Working Group to demonstrate CILC software product before the DHS Consolidated Enforcement Environment Initiative team (DHS, FBI, Secret Service, Federal Air Marshals, Immigration and Customs Enforcement, TSA, U.S. Coast Guard, and Deloitte). According to IRP, DHS then provided the company with "Eyes Only" documentation so the company could begin working (without a contract) on software to meet certain "Law Enforcement scenarios." Mr. Steven Cooper provided IRP Solution w/a sample Operations Plan.

November 20, 2003: IRP Solutions requested a follow-up meeting with DHS during the week of 12/8/03 - 12/12/03. No meeting was ever scheduled due to scheduling conflicts at DHS.

December 2003: Zalmi Azmi becomes acting CIO. Despite development snags throughout 2003, SAIC delivered a version of VCF. The software was quickly deemed inadequate by the Bureau, who lamented inadequacies in the software. SAIC claimed most of the FBI's complaints stemmed from specification changes they insisted upon after the fact.

January 6, 2004: IRP Solutions contacted Mr. Steven Cooper (DHS) via email to get an update and schedule additional follow-up meetings.

February 1, 2004: Police Law Enforcement Magazine, published an article about IRP Solutions' Case Investigative Life Cycle, written by a 25 year police veteran, Bob Davis:

<http://www.policemag.com/channel/technology/articles/2004/02/software-spotlight.aspx>

February 1, 2004: IRP Solutions and Mr. Steven Cooper exchanged emails. DHS still not in position to schedule a follow-up meeting.

February 18, 2004: IRP Solutions contacted Paul Tran (DHS) and Steven Cooper (DHS) to inform them that IRP Solutions would be in Washington D.C. for the DHS Industry Forum. They were also informed that IRP executives would be available for a follow up meeting with Consolidated Enforcement Environment (CEE) Working Group during that week.

February 19, 2004: Mr. Paul Tran (DHS) replied that he would coordinate with the Consolidated Enforcement Environment (CEE) technical team to check on availability for a meeting.

March 2004: Arbitrator finds that of 59 problems, 19 were FBI changes to requirement and 40 were SAIC errors.

March 10, 2004: IRP Solutions' executives met with members of the Consolidated Enforcement Environment (CEE) Working Group technical team in Springfield, VA. The meeting included Paul Tran, Bill Witherspoon, and Gilbert Trill. During the meeting the Consolidated Enforcement Environment (CEE) team stated that they were coordinating a Pilot Project for an intelligence gather/info sharing solution.

March 24, 2004: Dir. Robert Mueller testified to Congress that the system would be operational by the summer, although this seemed impractical and unlikely to happen. SAIC claimed it would require over \$50 million to get the system operational, which the Bureau refused to pay.

April 2004: The FBI completed the first two components of Trilogy. Among other improvements, the FBI has improved its IT infrastructure with new desktop computers for its employees and has deployed a Wide Area Network to enhance electronic communication among FBI offices and with other law enforcement organizations. However, despite additional funding the FBI had received to accelerate Trilogy, the first two phases of Trilogy were not completed any faster than originally planned.

May 2004: The Bureau agreed to award the Virtual Case Files to SAIC and pay \$16 million extra to them to attempt to salvage the system. The Bureau also brought in [Aerospace Corporation](#) to review the project at a further cost of \$2 million. Meanwhile, the Bureau had already begun talks for a replacement project beginning, as early as 2005.

May 2004: The VCF project saw a quick succession of three different Chief Information Officers (CIOs) come and go before Zal Azmi took the job, which he held until 2008. The FBI had only two certified IT Program Managers. Read: <http://www.fbi.gov/news/stories/2008/september/azmi092408>.

May 13, 2004: Paul Tran (DHS) sends IRP Solutions an email stating that he had just gotten out of a meeting in which the Consolidated Enforcement Environment (CEE) team voted on COTS (Commercial Off The Shelf) products and that Consolidated Enforcement Environment (CEE) Working Group would continue to evaluate IRP's CILC (Case Investigative Lifecycle Software) solution. It was on their list for next round of evaluations.

May 25, 2004: Paul Tran (DHS) contacted IRP Solutions and stated that the team had not released the meeting schedule due to the team being tied up with Directorate and Bureau level presentations.

June 2004: FBI asked SAIC to develop Initial Operation Capability (IOC) for \$16.4 million; FBI contracts Aerospace Corp. to evaluate the VCF.

June 22, 2004: Paul Tran informed IRP Solutions that he had schedule conflicts. Tran asked Bill Witherspoon to coordinate meeting/demo.

June 29, 2004: Bill Witherspoon (DHS) contacted IRP Solutions by phone to coordinate a web demo.

July 2, 2004: IRP Solutions conducted web demo for Bill Witherspoon.

July 8, 2004: Bill Witherspoon contacted IRP Solutions' executives to inform them that IRP Solutions was scheduled for another demo with Consolidated Enforcement Environment (CEE) Working Group. Meeting scheduled for 7/15/04. Meeting scheduled to be held at the Chester Arthur Building in Washington D.C.

July 15, 2004: IRP Solutions conducted demo of "CILC Federal Trusted Web Enabled" solution for Consolidated Enforcement Environment (CEE) Working Group in Washington D.C. Meeting attendees for DHS included: Steven W. Cooper, Bill Witherspoon, Gilbert Trill, Delice Richards, L. Porcaro, Chris Pathe (Lockheed Martin Corp), Shankar Krishnan, George Muller, and Paul Arthur. IRP Solutions' Team included: Gary Walker, David Banks, and two other executives. Steven Cooper got pulled out of the presentation during the latter part of the presentation, but the technical team continued.

July 16, 2004: IRP Solutions sends "Thank You" emails to Steven Cooper and Consolidated Enforcement Environment (CEE) Working Group.

July 17, 2004: Steven Cooper sends IRP Solutions a "Thank You" note. In addition, Cooper stated that he wanted to schedule a meeting so that he could see what he missed when he was pulled away from the 7/15 demo.

July 20, 2004: Chris Pathe (Lockheed Martin) sends "Thank you" email to IRP Solutions. Pathe also suggested that IRP Solutions ensure that attendees to presentations sign NDAs to protect Proprietary info that is presented.

July 22, 2004: Bill Witherspoon (DHS) contacted IRP Solutions and requested pricing estimate. Gary Walker provided pricing estimates to Witherspoon via email for CILC/Windows (\$5.3 million) and CILC/Unix (\$7.4 million). (CILC – Case Investigative Lifecycle Software)

July 26, 2004: Bill Witherspoon contacted IRP Solutions and requested pricing estimate for CILC Federal Trusted. IRP Solutions forwarded a pricing estimate to Witherspoon via email (\$125 million).

August 6, 2004: IRP Solutions contacted Bill Witherspoon to inquire about scheduling for a joint DHS/DOJ meeting.

August 11, 2004: IRP Solutions spoke with Bill Witherspoon and got an update on the status of the Confidential Informant module, which had been passed to Paul Arthur's group for review. Review of federal look and feel had not happened yet. Witherspoon and Trill still needed to schedule something. Also, Witherspoon stated that Cooper had tasked him with setting up the joint DHS/DOJ meeting. He was still planning the meeting.

September 14, 2004: DOJ and DHS released a Request for Information ([RFI](#)) for the Federal Investigative Case Management System (FICMS). [FICMS](#) was intended "to create a single point of access to all law enforcement information and to allow for easy sharing of case data among federal agencies."

September 17, 2004: IRP Solutions receives a confirmation of registration for FICMS (Federal Information Case Management System) Industry Day.

September 28, 2004: DOJ and DHS hosted an (Federal Information Case Management System) "[Industry Day](#)" at Aerospace Corporation in Reston, VA to provide an overview of FICMS and answer questions from industry participants. IRP Solutions' executives were among the industry participants.

October 2004: The Aerospace Corporation's generally negative report was released.

October 20, 2004: Joint meeting were coordinated and scheduled for October 28, 2004 with USCIS (US Citizenship and Immigration Services) and DOJ Case Management working group. At Bill Witherspoon's request, Gary Walker sent a meeting agenda to Cooper and Witherspoon for upcoming Case Investigative Life-Cycle (CILC) Federal demonstration.

October 28, 2004: IRP Solutions attended a joint [DOJ/DHS](#) meeting to present and demo CILC software's utility for FICMS in their Washington, D.C. headquarters.

November 12, 2004: David Banks had a couple of teleconferences with companies that were seeking to partner with IRP Solutions. Companies interested included: CSC, Unisys, SAIC, Deloitte, and EDS. (Note: Acronyms are the well-known company names.)

November 30 & December 30 2004: IRP Solutions received email/phone call inquiry from Laura Leidig of SAIC in Herndon, VA. Seeking partner for the FICMS (Federal Information Case Management System) project.

December 4, 2004: David Banks and Gary Walker in New York. Met with Deloitte and CSC. Both were looking for partnership agreements.

December 7, 2004: Witherspoon requested two price estimates; (1) Case Management without Confidential Informant (\$93.5 million), (2) Confidential Module only (Windows - \$5.3 million, UNIX - \$7.4 million).

December 2004: [IRP Solutions provided](#) DHS with cost quotes for its CILC product for inclusion in DHS's 2005 budget exercise. (Note: DHS's "budget exercise" probably references DHS building a draft FY 2006 budget. It's highly likely that other vendors also submitted quotes to DHS as part of the RFI/RFQ process).

January 2005: Field trials of IOC began; Aerospace Corp. delivers its report. The [Washington Post](#) wrote, "in a 318-page report obtained by The Post under the Freedom of Information Act, [the [Aerospace Corporation](#)] said the [SAIC](#) software was incomplete, inadequate and so poorly designed that it would be essentially unusable under real-world conditions. Even in rudimentary tests, the system did not comply with basic requirements, the report said. It did not include network-management or archiving systems—a failing that would put crucial law enforcement and national security data at risk".

January 2005: Former, FBI Director, Robert Mueller had to go in front of a congressional hearing to address failure of the Virtual Case Files.

January 18, 2005: Letter sent from Gary Hillberry to John Smith (FBI) stating that IRP Solutions had a viable Law Enforcement product.

January 19, 2005: IRP Solutions spoke with Bill Witherspoon via phone and was told that DHS was tied up with Inauguration activities so they won't be able to get back to the review process until after those ceremonies. Also, he need to get with FBI, as part of the review.

February 2005: Final Office of the Inspector General's report on Trilogy comes out; in a devastating 81 page audit, Glenn A. Fine described eight factors that contributed to the VCF's failure. Among them: poorly defined and slowly evolving design requirements; overly ambitious schedules; and the lack of a plan to guide hardware purchases, network deployments and software development for the bureau: <http://www.studymode.com/essays/Fbi-Virtual-Case-File-1321088.html>.

February 3, 2005: Former, FBI Director, Robert Mueller goes on record stating they will having a working product within one year: <http://www.cnn.com/2005/US/02/03/fbi.computers/>

- **1st quote from article noted above:** “Whatever his decision, Mueller told Senators he believes FBI Agents will have the software they need within one year.”
- **2nd quote from article noted above:** “In the meantime, the FBI is continuing to explore with outside consultants the prospecting of purchasing commercially available off-the-shelf software (COTS)”.
- **If FBI had failed miserably with VCF and was in the process of scrapping the project completely, how can FBI Director, Robert Mueller be so confident that they will have a working product in place, within a year? The answer come next.**

February 9, 2005: The FBI raided IRP Solutions’ headquarters in Colorado Springs, CO with 21 FBI Agents (2:1 ratio of FBI Agents to employees working in the building on that day.) Search Warrant presented stated they were there for financial records. FBI Agents were in the building all day and left without financial records. Instead, during the entire raid, the FBI throughout the building imaging all of IRP Solution’s computers, hard-drives, network servers and taking all of the developer’s notes that pertained to IRP Solution’s CILC software. Search Warrant said IRP was “purportedly” developing software.

Note: This was 6 days after Mueller sat in front of a congressional panel to give an account for the wasted millions on the Virtual Case Files. It has been referred to as the worst mark on anyone’s career, who previously have held the position of FBI Director.

February 2005: IRP Solutions attempted to connect with DHS contacts. IRP Solution’s executives were told that DHS had been informed that IRP Solutions was the subject of an investigation and “... to not do business with IRP Solutions...” IRP Solutions made several attempts to contact DHS. All attempts were unsuccessful.

February 25, 2005: Clinton Stewart received a call from Michael Richardson, Advocates Business Consultants, inquiring about purchasing IRP Solutions on behalf of a third party.

February 28, 2005: David Banks and Gary Walker contacted Michael Richardson via teleconference to discuss offer. Mr. Richardson referred them on to Mr. Bill Bumsted. Mr. Bumsted stated that he was not acting on behalf of a third party, and that he did not have a party interested at that point in purchasing IRP Solutions, but was rather inquiring of the current status of the company.

March 2005: The bureau announced it is beginning a new, more ambitious software project code-named Sentinel to replace ACS, expected to be completed by 2009.

March 9, 2005: Former FBI Director Robert Mueller addressed Congress about the failed Virtual Case File software with over \$400 million dollars wasted. But also stated, they will have something available soon.

April 2005: The VCF project was officially abandoned by the FBI in April 2005, while still in development stage and cost the federal government nearly \$170 million. Read article: <http://spectrum.ieee.org/computing/software/who-killed-the-virtual-case-file>

Reasons for failure

The project demonstrated a systematic failure of [software engineering](#) practices:

- Lacked a strong [technical architecture](#) ("blueprint") from the outset led to poor architectural decisions
- Repeated changes in specification
- Repeated turnover of management, which contributed to the specification problem
- [Micromanagement](#) of software developers
- The inclusion of many FBI Personnel who had little or no formal training in [computer science](#) as managers and even engineers on the project
- [Scope creep](#) as requirements were continually added to the system even as it was falling behind schedule
- [Code bloat](#) due to changing specifications and scope creep—at one point it was estimated the software had over 700,000 lines of code.
- Planned use of a [flash cutover](#) deployment made it difficult to adopt the system until it was perfected.

Implications

The bureau faced a great deal of criticism following the failure of the VCF program. The program lost \$104 million in taxpayer money. In addition, the bureau continues to use the antiquated ACS system, which many analysts feel is hampering the bureau's new [counter-terrorism](#) mission. In March 2005, the bureau announced it is beginning a new, more ambitious software project code-named [Sentinel](#) to replace ACS. After several delays, new leadership, a slightly bigger budget, and adoption of [agile software development](#) methodology, it was completed under budget and was in use agency-wide on July 1 2012.

The VCF was supposed to automate the FBI's paper-based work environment, allow agents and intelligence analysts to share vital investigative information, and replace the obsolete Automated Case Support (ACS) system. Instead, the FBI claims, the VCF's contractor, Science Applications International Corp. (SAIC), in San Diego, delivered 700,000 lines of code so bug-ridden and functionally off target that this past April, the bureau had to scrap the US \$170 million project, including \$105 million worth of unusable code. However, various government and independent reports show that the FBI – lacking IT management and technical expertise – share the blame for the project's failure.

May 2005: According to written congressional [testimony](#) from then-Attorney General Alberto Gonzales, the Request for Proposal (RFP) for Sentinel, a FICMS pilot program, “was not made public, but was instead published only to those contractors eligible to bid under the Government Wide Acquisition Contract.” **(Note: The Sentinel project may be the only active FICMS-related federal contract in existence.)**

May 2005: Robert Mueller announces a new software project, called Sentinel.

August 2005: The FBI released the RFP for the [Sentinel](#) program (a pilot program associated with FICMS).

December 2005: Contract for phase one of Sentinel to be awarded.

2005: Federal Spending (Top 100 Recipients of Federal Contract Awards for FY 2005) - <http://www.fedspending.org/fpds/tables.php?tabtype=t2&year=2005>

March 10, 2006: The FBI entered [final talks](#) with one of two vendor teams that bid on the Sentinel project. According to industry sources, the two vendor teams were led by Lockheed Martin and Northrop Grumman.

March 16, 2006: The FBI Thursday, announced that Lockheed Martin Corp. was awarded the lead spot in the bureau's \$425 million project to build an information management system called Sentinel, which will Web-enable systems that include records management, workflow management, collected item and evidence management, and records search and reporting. Read full article: <http://www.crn.com/news/channel-programs/183700605/lockheed-martin-leads-way-for-fbi-sentinel-project.htm>

Members of the Lockheed Martin - Sentinel team included:

1. BAE Systems
2. Noblis
3. SI International
4. The Aerospace Corporation

June 25, 2006: Gary Walker wrote a letter to FBI Director, Mueller requesting an intervention and expedition of the FBI investigation asserting that IRP Solution executives would be exonerated. Gary's letter was sent back to the local FBI in Denver, Colorado; no response received from Dir. Robert Mueller or FBI Denver office.

2006: Federal Spending – (Top 100 Recipients of Federal Contract Awards for FY 2006) – <http://www.fedspending.org/fpds/tables.php?tabtype=t2&year=2006>

February - March 2007: First grand jury convened. Colorado Springs Fellowship Church members, who worked at IRP Solutions were called to testify. Grand jury did not indict IRP Solution Executives, came back with “No Bill”.

October 7, 2007: Criminal Investigation Textbook, 8th Edition – Authored by, Wayne W. Bennett and Karen M. Hess – Published. Textbook pages 19 & 20 references IRP Solutions of Colorado Springs, Colorado and its Case Investigative Life Cycle (CILC) software and its robust capabilities: <http://www.scribd.com/doc/164130759/Criminal-Investigation-Textbook-Published-2007>

Note: This publication was published two years after IRP Solution’s business was raided by 21 FBI agents in 2005.

October 9, 2007: IRP Solutions contacted Bill Witherspoon. Witherspoon stated that DHS was no longer prohibited from speaking with IRP Solutions.

October 12, 2007: IRP Solutions sent Bill Witherspoon an email to schedule a meeting.

October 18, 2007: Bill Witherspoon sent a response email back to IRP Solutions stating that he was tied up with contract negotiations. He stated that he would contact IRP Solutions in the next week.

October – December 2007: IRP Solutions made many attempts to contact Bill Witherspoon; no success.

July 2, 2008: IRP Solutions sent Bill Witherspoon an email requesting a meeting. No reply.

November 1, 2008: The Police Law Enforcement Magazine, published an article titled, IRP Solutions’ CILC software is an Information Manager. IRP Solutions’ Case Investigative Life Cycle software is much more than just a case management tool, article written by David Griffith: <http://www.policemag.com/channel/technology/articles/2008/11/information-manager.aspx>.

March 9, 2009: Gary Walker sent another letter to FBI Director, Robert Mueller; same request for intervention as in 2006; No response received from Director Mueller.

May 2009: Second grand jury convened. Only one witness is called to testify, FBI Agent Robert Moen.

June 2009: IRP Solutions’ executives were indicted.

Fall 2009: The FBI began noticing that development tasks were not closing on time, and costs were exceeding planned levels.

March 2010: Complaints about problems with performance, usability, and network security during a pilot test caused the FBI to issue Lockheed with a partial stop work order to allow Lockheed to address the problems.

FBI Director, Robert Mueller revealed that the FBI brought in two outside entities to help uncover the cause of the problems, which included Mitre and Booz Allen Hamilton. Those reviews uncovered more than 10,000 deviations from the FBI's accepted software development practices, in addition to other problems.

While not making excuses, Mueller chalked the problems up partially to the project's long development time. "When you have a project that was laid down in concrete four or five years ago, [with] technology changes, business practice changes, and complexity changes, one can expect some minor delays," he said.

2010: FBI CIO, Chad Fulgham due to impatience, decided took take Sentinel back from Lockheed Martin to bring back in-house for completion.

Under the hood of the Sentinel program included:

5. EMC's – documentum document mgmt. software
6. Oracles' – Databases
7. IBM's – WebSphere
8. Microsoft's – SharePoint
9. Entrust's – PKI Technology

April 2010: FBI director Robert Mueller faced [a grilling from Congress](#) on how, when, and at what this all-important project would be completed.

September 30, 2010: IRP's CILC software was evaluated by independent software forensics firm (Califorensics). Califorensics found that IRP's CILC software was not vaporware and ...contained many notable features, making it a functional product for the intended consumer, Law Enforcement.

October 21, 2010: A benchmark test of Sentinel pooped out. The FBI Inspector General, in a [2010 report on Sentinel](#), cited "significant issues and concerns."

October 21, 2010: The Standish Group reported that around 30% of IT projects will be cancelled. Around 52% of projects will cost 189% of their original estimates. Only 16% were completed on-time and on-budget. In larger companies, the news is even worse only 9% of their projects came in on-time and on-budget. There are many real time failure cases of software, and the numbers of such cases are moving positive. Any kind of software that is being developed, needs some basic and core techniques which can't be replaced and are indispensable. Read full article: <http://spectrum.ieee.org/riskfactor/computing/it/fbis-sentinel-project-in-bad-shape-as-ig-claims-or-now-okay-as-fbi-management-claims>

December 2011: Department Of Justice, Officer of Inspector General released an audit of Sentinel. Read full report: <http://www.justice.gov/oig/reports/2011/a1208.pdf>.

March 28, 2012: FBI CIO, Chad Fulgham demonstrated Sentinel for an outsider review. The test failed and the agency was forced to upgrade Sentinel's computer hardware. In a test last fall, 2011 the system bogged down and crashed, the result of inadequate processing power. So the FBI had to purchase three powerful Oracle Exadata appliances--one for production, another for backup, and a third for development and testing to fix this problem moving forward. - <http://www.informationweek.com/applications/fbis-new-sentinel-system-exclusive-look/d/d-id/1103649?>

March 30, 2012: Read outsiders, John Foley's [review of the system](#).

April 13, 2012: Chad Fulgham left the FBI and went to work for Lockheed Martin, VP of Information Systems.

July 1, 2012: Sentinel was made available to all FBI employees, which was a major achievement. Mueller, in a written statement, called it "an important step forward" for the FBI. The FBI completed Sentinel under budget, after 6+ years for \$425 million of the \$451 million budgeted for project.

FBI's Sentinel Project: 5 Lessons Learned:

<http://www.informationweek.com/applications/fbis-sentinel-project-5-lessons-learned/d/d-id/1105637?> ; Published 08/02/2012

1. Private sector expertise is valuable. The first step in Sentinel's turnaround was the recruitment of a private sector IT executive, Chad Fulgham, to oversee it. Mueller brought in Fulgham, a former Senior VP of IT with brokerage firm Lehman Bros., as CIO in December 2008. Mueller said Fulgham's business experience would "fit well" with the FBI's needs. It wasn't long before [Fulgham hired Jeff Johnson](#), also a former Lehman Bros. Technologist, who is now the FBI's CTO.

2. Agile development gets things done. The next big shift in strategy was Fulgham's decision in September 2010 to [wrest control of the project](#) from prime contractor Lockheed Martin and use agile development to accelerate software deliverables. The thinking was that a hands-on, incremental approach would be faster because functionality would be developed, and adjustments made, in two-week "sprints." The FBI missed its target date for finishing that work--September 2011--but it credits the agile methodology with ultimately getting the job done.

3. Commercial software plays an important role. Sentinel is based in part on commercial software, a fact that's often overlooked because of all the custom coding and systems integration involved. Under the hood are EMC's Documentum document management software, Oracle databases, IBM's WebSphere middleware, Microsoft's SharePoint, and

Entrust's PKI technology. Critics who say that Sentinel would have gone more smoothly if only it had been based on off-the-shelf software seem unaware that, in fact, it is.

4. Agile development is cheaper, too. Sentinel came in under its \$451 million budget. The caveat is that the FBI's original cost estimate for Sentinel was \$425 million, but that was before Fulgham and Johnson took over, and they stayed within the budget they were given. The Inspector General might quibble with how the FBI accounts for the total project cost, having pointed out in the past that its tally didn't reflect the agency's staff costs. But the FBI wasn't forced to go to Congress with its hand out. Agile development wasn't only faster, but also cheaper.

5. Don't deploy new software on old hardware. The FBI learned that lesson the hard way in October when the system, during a four-hour test involving 743 users, suffered [two outages](#). The agency made the mistake of running the test on legacy hardware, which it was forced to upgrade prior to a broader rollout. That caused a delay just as the IT team was approaching the finish line.

July 1, 2012: Jack Israel, former Chief Technology Officer of the FBI quoted in Fierce Government IT on FBI Sentinel and federal IT development shortcomings. Sentinel, called a troubled case management effort, cost \$501 million.

August 1, 2012: Jeff Johnson offered the first public demonstration of Sentinel this week at FBI headquarters. Sentinel is "arguably the most important application at the FBI," and agile development turned out to be the right way to complete it.

September 7, 2012: Interim Report on the Federal Bureau of Investigations (FBI) Implementation of the Sentinel Project; U.S. Department of Justice, Office of the Inspector General; Report 12-38: <http://www.justice.gov/oig/reports/2012/a1238.pdf>.

PHILADELPHIA POLICE DEPARTMENT (PPD)/IRP Solutions

COMBINED TIMELINE

2002: IBM won the \$4.7 million contract to computerize the department's records, according to a Technically Philly review of the contract. IBM would develop a system that would automate three kinds of records: investigative reports, filed during every criminal investigation, property receipts and search warrants. IBM hired a subcontractor to carry out the contract, a Salt Lake City, Utah-based company called CRISNET.

2004: CRISNET successfully launched one part of the system that digitized the process that the department uses to generate some 250,000 investigation reports filed every year.

November 2004: Motorola signed an agreement to acquire Crisnet, a records management systems developer in Salt Lake City. Motorola said Crisnet has developed software applications for law enforcement, justice and public safety agencies since 1984. Its software applications also are used for tasks ranging from automating department workflow to analysis of community crime patterns. Read full article below:

http://www.forbes.com/feeds/general/2004/11/04/generalcomtex_2004_11_04_up_0000-262501-bc-us-motorola.html?partner=yahoo&referrer=

December 17, 2008: Email received from Lorelei Larson, Chief Investigator, City of Philadelphia Office of Inspector General addressed to David Banks regarding how Amy Kurland, Inspector General of Philadelphia responded to an IRP Solution meeting with Lorelei and her team. Ms. Kurland was working on scheduling a meeting with the Mayor's office.

December 23, 2008: Email received from Lorelei Larson addressed to David Banks with Inspector General's Offices forms attached for electronic conversion into the CILC application workflow.

2009: CRISNET completed a second part by implementing a system that allowed cops to send relevant paperwork to the District Attorney's office through a digital system. Project Manager Tom Olson, his team and global IT consulting firm Ciber, which had also been retained, were unhappy with the rest of CRISNET's work and ***never implemented the property receipt system, though it had been finished. The search warrant system was also forgotten.*** Read full article:

<http://technical.ly/philly/2012/11/13/philadelphia-police-typewriters-technology/>

January 6, 2009: Email received from Lorelei Larson addressed to David Banks with an attached list of city departments/agencies for inclusion and configuration into the CILC administration software module.

January 12, 2009: Email received from Philadelphia's Deputy Mayor of Public Safety, Everett Gillison addressed to David Banks thanking him and informing him that he is looking forward to how the CILC search warrant module can integrate well with the IT (Information Technology) plans for the Philadelphia Police Department.

January 8, 2009: Email received from Dan Heitzer, Deputy Chief Information Officer for the City of Philadelphia addressed to Lorelei Larson, Amy Kurland, Inspector General, and Allan Frank, Chief Information Officer, City of Philadelphia regarding Mr. Frank looking into providing the necessary funding for the IRP Solution's initiative.

January 16, 2009: Email received from Lorelei Larson addressed to David Banks talking about the excitement of the OIG staff about the CILC solution.

Email received from Shonique McCall, the assigned Project Manager for IRP's delivery of CILC to the OIG's office.

February 10, 2009: Emailed Cliff Baumbach of First Judicial District of Philadelphia regarding a demonstration of the completed search warrant software for the City.

February 12, 2009: IRP Executive, David Banks sent email to Cardenas with copies sent to Gillison, Dave Lawrence, Court Administrator, Dan Heitzer, Michael King, Information Security Chief for the City and IRP Executive, Gary Walker. Email communicated completion of the search warrant module per IRP's offer to Deputy Mayor Gillison and that IRP Solutions was ready to deliver to the City and was awaiting the City to provide server and required infrastructure needed for installation.

February 18, 2009: FBI interview with Gery Cardenas.

February - March 2009: City of Philadelphia on the verge of purchase and install of IRP Solutions', "Search Warrant" software when Assistant United States Attorney (AUSA), Matthew Kirsch tells Philadelphia Inspector General Amy Kurland that IRP Solution's executives was soon to be indicted. The City of Philadelphia canceled both of IRP's engagements with the Philadelphia Police Department and the Philadelphia Inspector General's Office after AUSA Kirsch's conversation. IRP Solution still couldn't pay business debts due to Government Interference with Philadelphia.

IRP Solutions had made a strategic decision to offer their baseline search warrant module as part of a promotion that would ultimately result in cross-selling of other modules. David Banks sent a letter of introduction to Everett Gillison, Philadelphia Deputy Mayor of Public Safety regarding the Search Warrant promotion.

About the time when IRP Solutions was about to close business with Philadelphia Police Department for the Search Warrant module, Cardenas informed David Banks that he had been handed some negative information regarding IRP Solutions in the form of a Gazette Telegraph article about the FBI raid on the company. The Gazette Telegraph article directly impacted IRP's ability to close business with the Philadelphia Police Department and ruined positive relations where once again, IRP Solutions could not generate revenue to satisfy its financial responsibilities to staffing companies and other vendors.

Due to the FBI and U.S. Attorney's Office in Colorado releasing information to the press about the raid, the Government's theory became a self-fulfilling prophecy about IRP Solutions not intending to pay its financial obligations and empowered the Government to continue a vindictive campaign against IRP Solutions. The company completed customization of Pennsylvania's Search Warrant form into the CILC Search Warrant module and emailed Deputy Mayor Gillison and Gery Cardenas that it was ready for delivery per IRP Solutions' offer to the City.

Cardenas wanted IRP Solutions to work with IBM to deliver the software. IRP Solutions was hesitant to work with IBM because of the competitive and political repercussions, but agreed to speak to IBM Representative, Stephen Simon and their team.

June 2009: IRP Solutions' executives indicted three months later.

November 2012: The city of Philadelphia is still in negotiations with IBM and cannot comment on the contract, said Deputy Police Commissioner John Gaittens, who has overseen the project. It's still unclear if the city will implement CRISNET's property receipt system. ***As for the search warrants, detectives will have to wait for a new system.***