



## Chiliad Success Story

### Federal Bureau of Investigation (FBI)

#### Chiliad helps the FBI “Protect and Defend...”

Since 1908, the FBI has been an investigative arm fighting crime and corruption. Since 9-11 its mission has expanded to global terrorism. The FBI's dedication to our nation's safety is reflected by their tireless efforts to gather, analyze, share and store incriminating data, which allows them to prevent a crime, apprehend criminals and defend our nation against terrorism. Only by having their agents at the pulse of information can the FBI insure that the American people are safe.

*IDW is a dynamic system powered by Chiliad Discovery/Alert. As the FBI's IT world changes with new sources of data emerging and new search needs developing, Chiliad Discovery/Alert easily absorbs the new data sources...*

#### The Information Challenge

With technology moving at such a rapid pace, keeping abreast of information is always a formidable challenge. In the wake of the 9-11 terrorist attacks, critics faulted the FBI for their lack of technology to share information with other agencies and jurisdictions. The infamous memo regarding students at flight schools having ties to al Qaeda, written by an FBI agent in Phoenix two months before 9-11, was not seen by Minneapolis FBI agents until too late.

#### CLIENT PROFILE

Federal Bureau of Investigation (FBI)

**Industry**

Government

**Number Of Employees**

>25000

**Environment**

Over 50 separate departments

**KEY CHALLENGES**

- Enable information sharing with over 50 departments and break down stovepipes to connect the dots
- Create a large-scale, multi-agency, multi-user investigative analysis system with a single source of access
- Maintain FBI security requirements and policy guidelines

**KEY BENEFITS**

- Single access point to more than 50 sources of counter terrorism data
- Laser focused search results with global ranking, knowledge fusion, and real-time alerts
- 64,000 times reduction in information processing time



### The Information Challenge Cont'd

Critics further claimed that if the FBI had been able to link this information (Zacarias Moussaoui's flying lesson in August 2001 to the Phoenix memo), the 9-11 attacks might have been prevented.<sup>1</sup> The information, however, was buried in separate stovepipe systems, and at the time no technology existed that would allow the agents investigating al Qaeda to "connect the dots".

Determined to remedy their information access challenges, the FBI resolved to create a large-scale, multi-agency, multi-user, knowledge discovery and investigative analysis solution. Their mission was to use information resources to protect the U.S. from terrorism and to fight crime.

To accomplish this mission, the FBI created the IDW project to provide Special Agents, Intelligence Analysts, and members of the Joint Terrorism Task Forces (JTTFs) with a single point of access over 50 sources of counterterrorism data, including information from FBI files, other government agency data, and open source news feeds, that were previously available only through disparate, stovepipe systems.

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#### Finding the information pulse

Finding the pulse proved to be a daunting task. Traditional search and data warehouse solutions were not capable of unifying the heterogeneous, stovepipe systems without massive and expensive consolidation efforts. The FBI needed information access to both structured and unstructured data as well as the ability to handle massive scale databases - over 50 different data sources with multiple petabytes of data.

The solution would also mandate flexible security capabilities. This would enable alignment with the FBI's data security access rights as well as its sharing policies. Their databases ranged from secret data to un-classed data and authoritative records. They also needed to integrate their Investigative Data Warehouse (IDW) - FBI/JCTTF/NCTC that was a very large-scale operational system with multi-agency users and multi-agency data.

Adding to the data conundrum was the fact that the information was housed in a legacy case management system with over 50 separate databases that con-

tained potentially relevant investigative information. To complete investigations, analysts needed access to all information.

They were using an Enterprise Search product that only supported unstructured data and was unable to simultaneously connect to separate databases. Investigations were very time consuming and heavily reliant upon an agents ability to manually "fuse" data into knowledge. They needed a system that allowed searching and ranking information from all data sources *as if the information was housed in one, centralized information repository.*

#### Discovering Knowledge

Chiliad Discovery/Alert provided the ideal system to solve the FBI's pertinent data management needs and transform the data into valuable information. The Chiliad system was built to handle large-scale databases, plus other disconnected data and repositories, was very flexible and the Chiliad team was also cognizant of the FBI's unique needs. Chiliad's security capabilities allowed each group to control and update its own repository while sharing access with other authorized users. This was a key feature to manage the FBI's information sharing needs. Chiliad Discovery/Alert also boasted batching capabilities that greatly simplified searches and made agents more efficient.

Furthermore, Chiliad's federated search capabilities maintained security in a classified environment as it did not move or merge databases, but simply searched it. This greatly reduced the cost of information access for the FBI as it improves currency of information and reduces network traffic.

**Unlike traditional enterprise search or business intelligence players**, *Chiliad Discovery/Alert searches and globally ranks the results from all distributed databases and source systems as if it was all in a "virtual repository".* Chiliad never moves the data from its existing location thus eliminating huge IT infrastructure and manpower expenses.

Chiliad globally ranks results and provides real-time alerts that are laser focused. Many systems can search multiple databases; however Chiliad is unique in that it delivers superior precision and accuracy through global ranking of all information everywhere. Chiliad empowered FBI agents allowing them to have quick easy access to all investigative data.

**"...the Chiliad powered IDW system is very fast and "is one of the most powerful data analysis tools available to law enforcement and counter-terrorism agents..."**

## Real Knowledge

Chiliad Discovery/Alert changed the way that the FBI accessed, analyzed and managed investigative information. It provided analytical tools to use across multiple data sources providing a more complete view of the information possessed by the Bureau. According to William J. Fox, Director of FinCen, "the FBI had developed IDW as tool to find the most critical pieces of information."<sup>2</sup>

Furthermore, in a nationally televised interview the FBI declared that the Chiliad powered IDW system is very fast and "is one of the most powerful data analysis tools available to law enforcement and counterterrorism agents."<sup>3</sup> It is now the primary database used by the FBI for information-sharing and helps them connect the dots in their fight against terrorism. "Even variations in names and dates, which differ from agency to agency, and country to country, can be searched easily. This means that leaving off the "19" in a year of birth, for example, won't keep the FBI from missing a huge lead."

According to FBI reports Chiliad delivered "processing time reductions for certain tasks from 32,000 hours to ½ hour" (64,000 times productivity increase for agents/analysts).<sup>4</sup> Agents enthused, "it works like a charm."

In addition, according to testimony given to Congress by the Section Chief of the FBI's Counterterrorism Division, the benefits of the IDW "include the ability to efficiently and effectively access multiple databases in a single query."<sup>5</sup> He further declared, "as a result of the development of this robust information technology, a review of data that might have previously taken days or months now takes only minutes or seconds."

FBI officials further noted that "the system can match and cross-link social security numbers and drivers license information and tie disparate data together -- all across hundreds of millions of records."<sup>6</sup> The FBI's IDW now provides Special Agents, Intelligence Analysts, and members of Joint Terrorism Task Forces (JTTFs) with a single access point to more than 50 sources of counterterrorism data, including information from FBI files, other government agency data, and open source news feeds, that were previously available only through separate, stovepipe systems.

Gurvais Grigg, acting director of the FBI's Foreign Terrorist Tracking Task Force applauded the 'real knowledge' that Chiliad delivered with its ability "to be programmed to send alerts to agents on new information; names, Social Security numbers and driver's license details." The IDW is a living system because it is based

on Chiliad Discovery/Alert. As the FBI's IT world changes with new data sources emerging and new search needs developing, Chiliad Discovery/Alert easily absorbs the new data sources without months and months of planning, and new features are always being added to Chiliad Discovery/Alert (such as geospatial search, or faceted search), and the new features work on the existing data in the system. IDW is successful because it works in the real messy world, without requiring a huge centralized gathering and transforming of all data in the enterprise.

## Chiliad delivered:

- **Worldwide enterprise access across secure network backbone**
- **Over 8,000 active authenticated user accounts and increasing**
- **Tremendous volumes of documents and records indexed and increasing daily indexed and increasing**
- **Average of more than one million queries/analysis per month**
- **Multiple intelligence agency data sets**
- **Multiple intelligence agency users**
- **99% high availability and reliability**
- **Flexible security model**

<sup>1</sup> FBI's New Data Warehouse A Powerhouse, WASHINGTON, Aug. 30, 2006 (CBS) Rob Hendin.

<sup>2</sup> Federal Bureau of Investigation - Congressional Testimony

<sup>3</sup> FBI Shows off Counter Terrorism Database, August 30, 2006, Washington Post - Ellen Nakashima

<sup>4</sup> FBI's New Data Warehouse A Powerhouse, WASHINGTON, Aug. 30, 2006 (CBS) - Rob Hendin

<sup>5</sup> Federal Bureau of Investigation - Congressional Testimony

<sup>6</sup> Tech Web: FBI Shows off Counter Terrorism Database, August 30, 2006 - W. David Gardner

For more information on how Chiliad can benefit your organization please contact Chiliad.

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