



# Lighting a FIRRE in the Fight Against Fraud

State of Florida  
Agency for State Technology  
&  
Department of Economic Opportunity

**Category: Improving State Operations**

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## **Executive Summary**

The Reemployment Assistance Information Technology (IT) Program at the Florida Department of Economic Opportunity (DEO) recognized an ever-increasing trend in suspicious claims being submitted for payment. Battling fraudulent claims after the fact was becoming more and more problematic, with difficulties in tracking down claimants and recovering funds already paid.

In response, DEO designed, developed and implemented the Fraud Initiative Rules and Rating Engine (FIRRE) using a proactive approach to identify and stop fraudulent claims before they are paid.

The goals for the new system included:

- Real-time information;
- Triggers that would provide early detection;
- Modular and scalable architecture that could work with massive amounts of unstructured data;
- Metrics and analytics indicating a high degree of accuracy; and
- it had to be superfast

Using the dynamic, data driven, rules-based analytics engine, DEO has stopped over 106,000 fraudulent claims, resulting in over \$446 million in cost prevention since implementation in January of 2014.

## Concept

When two IT team members at DEO recognized an alarming trend of suspicious claims being submitted for payment, they rallied to create ways to combat fraud. It began in the early stages as a manual process, which focused on the tracking of abnormal and suspicious trends. The initial approach involved starting small.

A base team was established, consisting of five analysts. Within a 24 hour period, the team was already starting to detect claims that were of concern. This had an instant impact and the team went on to find several thousand fraudulent claims in the first few months.

This motivated the team to think big.

The team was adept at flagging suspect submissions, but they knew they needed a more automated solution.

The goals were mapped, and the short list of objectives was daunting. They wanted:

- Real-time information;
- Triggers that would provide early detection;
- Modular and scalable architecture that could work with massive amounts of unstructured data;
- Metrics and analytics indicating a high degree of accuracy; and
- it had to be superfast

How fast? The team wanted an architectural design that could pull data, analyze it, and provide results in no more than a tenth of a second. If this could be achieved, it would be great for the state, great for claimants, and great for businesses. The team was driven to succeed.

And succeed they have. DEO is rapidly identifying fraud patterns, and has optimized the approach in receiving and processing claims. DEO received a grant in October 2013 for \$1.7 million from the federal Department of Labor to prevent improper claims.

In a very short time, the team's manual approach was redefined into a dynamic, data driven, analytics engine that has stopped over 106,000 fraudulent claims, resulting in over \$446 million in cost prevention.

Transitioning to an automated analytics engine required the team to get creative and partner with great local resources such as the computer science department at Florida State University. They helped the state team identify and recruit resources who knew the tools.

It was not long before the team had a system that could look at complex, unstructured data, identify relationships, and bring back relative and useful content. The engine identifies fraudulent claims through multiple approaches. Initially, there were only a few business rules and has since grown to use more advanced rules with a variety of data points. The team does stress that it is not just about the technology. The team blends technology with the intelligence of the claims analysts who truly understand the process. By marrying the technology with the human element, DEO is identifying new and creative business rules based on what the perpetrators are doing. Additionally, the department works closely with businesses that are quick to notify the department when recognizing indicators. The success is found in the collaboration.

The alarming amount of fraudulent claims being found suggests an organized crime element is involved. DEO is tasked with protecting the State of Florida's resources. It is in everyone's best interest and it is taken very seriously.

## **Significance**

Today, DEO is recognized as a national leader, overseeing one of the most complex and successful fraud identification engines in the public sector. Other states are collaborating with DEO as they discover and correlate patterns found in unemployment filings. In addition, DEO is collaborating with other Florida agencies that provide public assistance benefits to create solutions for data sharing. For DEO, they focused on creating a solution that was both fast and responsive.

The significance of the accomplishment goes far beyond the millions of dollars in cost avoidance for businesses facing unemployment claims. As a state agency initiative, it has inspired other initiatives within state government.

## **Impact**

DEO's ability to identify and avoid payment of claims, rather than identifying fraud after the payment has been made, not only achieves cost avoidance for the claim amounts, but also reduces time and effort spent in trying to recover claim payments. Additionally, the rules-based model can easily be adapted for other similar business functions to streamline design and development of other fraud identification systems.

Reference links:

<http://www.ast.myflorida.com/doc%20library/2015%20Technology%20Florida.pdf#page=22>

(from “Technology Florida” publication, in collaboration with  
<http://learningforlife.fsu.edu/>)

The State Excellence Award for Leadership (SEAL) Award from the National Association of  
State Work Force Agencies: [http://www.naswa.org/assets/utilities/serve.cfm?gid=BF2146B3-  
C284-4757-8DD0-73CC967D50E8](http://www.naswa.org/assets/utilities/serve.cfm?gid=BF2146B3-C284-4757-8DD0-73CC967D50E8)