



## Customer Success Story

### Analytics and automated decisioning

#### AT A GLANCE

**CUSTOMER:** INTERNAL

REVENUE SERVICE

**INDUSTRY:** GOVERNMENT

**LOCATION:** WASHINGTON, DC

**CUSTOMER SINCE:** 2011

#### About the customer

The Internal Revenue Service (IRS) employs the Return Review Program (RRP) as the frontline system for detecting fraudulent returns. The RRP is used to assess risk or fraud such as, but not limited to, identity theft, schemes, invasion, or failure to report. Some activity is criminal and some activity is not. The RRP was introduced into the IRS in 2009, and TechBlue was first contracted by the IRS in 2015 for the RRP project.

The RRP could be considered more of a platform/system/architecture, rather than a product. Think of RRP as a system that uses multiple products including Oracle, Greenplum, SAP, JBoss Application Server, and Tableau. The FICO Blaze Advisor Business Rules Engine constitutes the main decisioning and disposition logic in the assessment process.

#### Challenge

The IRS had established Service Level Agreements (SLAs) and was failing to meet them. Specifically, the SLA related to the number of returns processed fully without error in specific timeframes was troubled with performance issues. The IRS initially engaged TechBlue to improve the quality and performance of the SLAs within the RRP. Some performance issues were due to design and others were simply a result of less-than-optimal solution architecture.

*TechBlue evaluated vendors and potential commercial off-the-shelf software solutions (COTS) to construct the engine of work that needed to be completed by the IRS.*

#### Our role

IRS initially engaged TechBlue in 2015 for the RRP project to assess and improve the quality and performance of RRP, and this project was called the Blaze Advisory Services project. TechBlue served as a subcontractor for the Blaze Advisory Services project.

TechBlue was later contracted by the IRS to serve as the Blaze Advisor *Subject Matter Expert*. TechBlue is the Prime Contractor for this project. TechBlue supports their needs for prototyping, consultancy, and all tasks related to Business Rules Engine management.

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The goal of these efforts is to assist in providing a blueprint for a dependable and performant system. This has the future benefit of ensuring a better design that utilizes proven system components and design, and thus, results in less risk of the system failing to meet the overall intended outcome. Also, this researching and prototyping will eventually yield higher quality processing results, which will help to more effectively identify cases with a likelihood of fraud and identity theft.

TechBlue's original deliverable was a written synopsis of clarified suggestions and actions. To accomplish this, TechBlue interviewed RRP-centric development individuals to contribute as an author to the Business Rules Engine logic. The team also tracked analytics and raw data to determine how data flowed architecturally. Lastly, TechBlue turned this information into results for the client and showed how Blaze Advisor can be made to be more reliable and accurate in performance.

#### Process

1. Identify business rules
2. Support RRP Technology Vision by identifying architectural risks and providing options with pros/cons to help reveal risks
3. Assess and document how data flows
4. Write engineering documentation
5. Provide assistance with ensuring that the Foreign Account Tax Compliance Act – Withholding and Refund program (FATCA W&R) meets fraud detection compliance needs
6. Work with ES team to develop architecture prototypes with technological software stack, test and ensure performance, and document

#### Results

The system was able to perform with the process efficiency necessary to meet the client's SLA (Service Level Agreement). Another resulting benefit came from the development of a prototype for alternative system architecture. This prototype used in-memory caching software as well as an enhanced mechanism for data retrieval from the Greenplum database. The outcome of performance testing with the newer, prototyped architecture

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proved to yield processing speeds that were over 500 times faster than the existing version.

The RRP remains a core IRS system and TechBlue's continued role is to provide advice and guidance to help the IRS continue efficient performance of the RRP.

Think it's time to learn more about what we can do for your company? Contact us.

+1 (800) 432-8473

[info@techblue.com](mailto:info@techblue.com)

[www.techblue.com/contact](http://www.techblue.com/contact)

Our approach to services is based on knowledge gained from performing in consultative roles for over 30 years, and the smarter, faster, better concept is a direct result of our successes. Our knowledge, coupled with a service-oriented approach based on teamwork, collaboration and consultation, provides our clients with trusted advisors that work toward meeting objectives.

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