

Case study:

RetNet.org Migration and Redevelopment (Code-base, Functionality and Infrastructure)

Sida4

The Opportunity

RetNet is the world's leading repository of scientific information regarding genetic eye diseases.

The Foundation Fighting Blindness engaged Sida4 (As 4impact) to re-engineer and port the 1990's-era application tech stack (Visual Basic, on-premise file-based data storage) running on a fragile, single-server environment, into a scalable and modernised cloud solution. Functionality around updating the database and reporting was also restrictive and laborious.

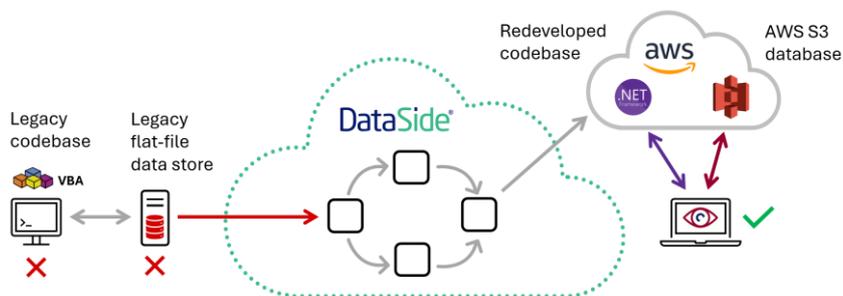
The opportunity was to migrate and redevelop the legacy web-based application to a modern .NET stack, PostgreSQL database, and AWS cloud hosting.

Our Approach

The DataSide* Platform (Data Infrastructure as a Service) was used to dramatically reduce the time required to create the AWS infrastructure and database.

This ensured the reengineered code-base, enhanced reporting and back up automation were all tested and deployed in confidence prior to cut-over.

**DataSide was in Private Beta on the AWS Marketplace at the time this case study was produce (March 2026).*



Key Toolkit

- DataSide (Deployment Platform)
- .NET
- PostgreSQL
- AWS S3, Cloud Front, Cloud Watch
- Analytics
- Security
- Functional and non-functional testing
- Performance testing

FOUNDATION
FIGHTING
BLINDNESS

The urgent mission of the Foundation Fighting Blindness is to drive the research that will provide preventions, treatments and cures for people affected by retinitis pigmentosa, macular degeneration, Usher syndrome and the entire spectrum of retinal degenerative diseases.

NOTE: This project was originally delivered under the 4impact brand and is now represented by their *data enablement and integration* focused sister brand, Sida4.



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Key Outcomes and deliverables:

A fully supported, reimagined web-based replacement platform for the world's leading repository of scientific information regarding genetic eye diseases.

Improved administration and genetic information cataloguing capabilities whilst resolving multiple legacy shortcomings and streamlining the process of uploading new scientific findings into the database.

- Migrated site with reliability and uptime guarantees
- Regular database backups
- New admin interface for RetNet's curators
- Multiple defect fixes to the original site
- Streamlined update of new scientific findings
- Enhanced Client and Community reporting

Key project statistics and success insights.



ACCELERATED INFRASTRUCTURE

AWS ENVIRONMENT
SPUN UP UTILISING
DATASIDE.IO



SCALABILITY ON DEMAND

ELASTIC CLOUD-BASED
DATA INFRASTRUCTURE



ENHANCED REPORTING

ACCESS TO DEEPER
INSIGHTS AND
METRICS



INCREASED RELIABILITY

FULLY MONITORED
SOLUTION



Sida4 and 4impact

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Data. Ignited.
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