Simpson
Associates

Building a Foundation for the Future -
Westmorland and Furness Council's
Data Transformation Journey

POV - Microsoft Fabric and Open-Source tool, Splink

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Westmorland
& Furness
Council

Overview

Westmorland and Furness Council - a forward-thinking Local Authority in the United Kingdom, committed to improving services for its citizens through data-driven insights, faced challenges with integrating fragmented data sources and data quality issues, including duplicated records.

Together, Westmorland and Furness Council and Simpson Associates partnered to carry out a Proof of Value (PoV), aimed at establishing a central data foundation, improving governance, and creating a single view of data. Leveraging the power of Microsoft Fabric, Power BI and the open-source tool Splink, this initiative will pave the way for enhanced service delivery and informed decision-making, all whilst maintaining cost-effectiveness.

This PoV focuses on the "Special Educational Needs and Disability (SEND)" requirements, a crucial step towards the council's ultimate data initiative to create a data architecture that can be extendable to cover future use cases, such as "The Single View of the Customer,". This will enable improved service planning, resource allocation, and more targeted support for individuals and communities.

"Based on recommendations from several local authorities, we chose Simpson Associates for their proven technical skills, Microsoft Azure partner expertise and deep understanding of the local government sector. Recognising our Azure knowledge gap for key data initiatives, Simpson Associates delivered a Proof of Value, leveraging Microsoft Fabric, Power BI and cost-effective open-source tools like Splink. They consistently demonstrated an awareness of budgetary constraints."

Lindsey Pickard
Data and Insight Manager | Strategy, Data and Insight

Directorate – Assistant Chief Executive Westmorland and Furness Council

Problem

Local Authority, Westmorland and Furness Council had a clear vision: to establish a robust data governance framework, enhance data transparency, and eliminate data duplication, ultimately leading to a "Single View of the Customer."
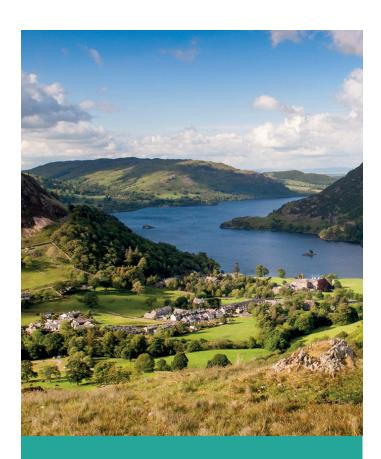
As a crucial first step towards this ambition, the council selected a Microsoft Fabric Proof of Value (PoV) to evaluate its analytical capabilities, with an interest in leveraging cost-effective, open-source tools like Splink for data matching.

Recognising the need for tangible early wins, the PoV focused on "Special Educational Needs and Disability (SEND)" data to create a "Single View of the child". This decision was driven by the readily available and more complete nature of the SEND dataset, promising faster, more impactful results to prove the PoV.

Specifically, Westmorland and Furness faced the need to:

- Centralise disparate data in order to integrate various data types (e.g., video, Excel, databases, images) from siloed systems into a unified platform such as Microsoft Fabric for improved data management.

- Achieve data integrity with reliable integration, higher quality (fewer errors), and automated workflows.

- Improve access to data, information, and advanced analytics via tools such as Power BI, enabling real-time, in-depth understanding as well as laying the foundation for future Artificial Intelligence (AI), machine learning, and predictive analytics initiatives.

- Improve data governance, how data is managed, and its reliability for analysis.

This focused Microsoft Fabric PoV on SEND data represented a practical starting point in Westmorland and Furness Council's journey towards a more robust and insightful data landscape. This PoV delivered a subset of the Families First Programme (formerly Supporting Families), which the authority is working towards. As a Microsoft Fabric Featured Partner, Simpson Associates are well placed to deliver this.

"Their collaborative and flexible approach felt like a true partnership, with shared objectives and support in resolving data information hurdles proving particularly helpful. Their innovative mindset and knowledge transfer are key benefits, which will help us to achieve a single, more insightful, and cost-effective view of child."

Lindsey Pickard
Data and Insight Manager | Strategy, Data and Insight

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Westmorland & Furness Council

Solution

The PoV successfully demonstrated the suitability of Microsoft Fabric as a data platform for Westmorland and Furness Council's analytical needs. Key outcomes included:

Enhanced Data Integration
Data from disparate systems, including the school census, Capita ONE, and Liquid Logic was matched with a high level of confidence, creating a more unified view of SEND data. Annex A lists are now generated automatically to ensure the council is prepared for an inspection and to allow data quality issues to be identified. This single source of truth is expected to help the council build a strong business case for Phase 2 of the project.

Improved Data Quality through Open-Source tool Splink
The Open-Source tool, Splink identified and helped rectify data quality issues, such as duplicate records, proving easy for the team to use from the beginning. It accurately matched records using key fields like first name, surname, date of birth, National Insurance Number, and Unique Pupil Number (UPN). Splink's flexibility allowed tailored model specifications and matching criteria, enabling implementation within weeks and accelerating key outcomes.

Specific Splink models were developed for census data, school data from Capita ONE, and social care data from Liquid Logic, facilitating seamless integration and generation of comprehensive reports on EHCPs, SEND needs, student details, exclusions, attendance, and school history. Significantly improving data quality and efficiency, this integrated approach ensured accurate matching and reporting of student information across all systems.

Foundation for Future Development
The PoV laid the groundwork for future use cases, including a "Single View of the Customer", demonstrating the potential to integrate additional data sources and support a wider range of analytical needs for finance, customer services, management, leadership and more

Empowered data team
Through upskilling and training, Westmorland and Furness council's team gained increased knowledge and skills, enabling them to better manage and utilise their data.

Alignment with Strategic Goals

- The project aligned with the councils' broader strategic goals, which include:

- Better financial management and cost control through streamlined data management.

- More informed decision-making based on a joined-up view of services and performance.

- Improved risk management through easier and earlier risk identification.

- Increased transparency and public trust.

- Enhanced innovation with data analytics and emerging technologies.

"It has been a real pleasure partnering with Westmorland & Furness Council to develop their platform, skills and achieve this first proof of value together – it has had some really clear outcomes in terms of automation savings and data quality issues identified & addressed. "

Tom Hughes
Business Development Director
Simpson Associates

Phase 2 Vision

To realise its ambitious goals of overcoming disparate and siloed data, Westmorland and Furness Council will integrate data feeds from across the council. The initial focus will be on high-risk, high-cost areas such as Finance and HR. This integration is intended to enable better data governance and provide a "Single View of the Customer".
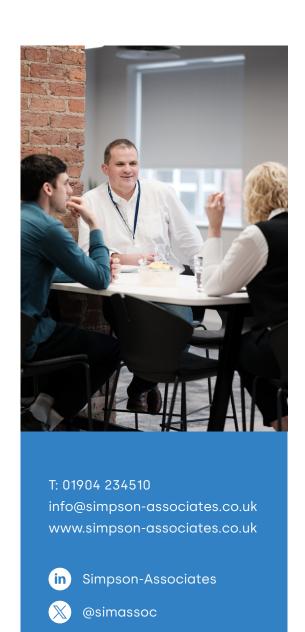
Conclusion

The successful execution of this Microsoft Fabric and Splink Proof of Value demonstrated the effectiveness, accessibility and usability of a data enterprise model, including a robust governance framework and transparency delivered in partnership with Simpson Associates. Leveraging the open-source tool Splink, the PoV effectively matched data from disparate systems, including the school census, Capita ONE, and Liquid Logic, identifying and resolving key data quality issues like duplicate records.

Furthermore, as a direct outcome of this work, Annex A lists are now generated automatically. This proactive measure ensures the council is consistently prepared for inspections and facilitates the ongoing identification and resolution of data quality issues. This marks a significant first step in the council's ambitious data journey and proves that their data strategy initiative was effective in establishing a more unified view of SEND data.

Driven by a clear organisational strategy and recognised as a key corporate priority, this initiative to establish a single view of vulnerable children is a vital step towards a full "single view of the customer" which will include the integration of multiple datasets and a reliable "single source of truth."

This forward-thinking approach underscores the authority's commitment to innovation and their determination to leverage data for enhanced service planning, resource allocation, and more effective interventions for their communities. The success of this initial phase, particularly in integrating complex datasets and establishing proactive monthly reporting, lays a strong foundation for future advancements in their data landscape.

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