

Tech Transformation - Phase 4

Subscriptions, Memberships and Charities

Strategic Architecture Pivot for Subscriptions, Memberships and Charities

Context

Phase 3 of Tech Transformation focused on designing a new tech architecture for a key service EScoco offers its clients: the Single Customer View. Focusing on this area was deemed a low risk approach with the highest financial returns. Having successfully completed a first proof of concept, it has become increasingly apparent that there isn't such a strong appetite in the market for the SCV service to justify further investment into it.

With the recent acquisition of Gordon & Gotch by Intermedia, priorities have also shifted and it has now become paramount that EScoco works towards the goal of becoming CRM-agnostic.

We are now going to pivot the focus of TT, to continue exploring building a new architecture; one that can support our core business area (subscriptions), as well as new potential markets (memberships and charities); while eliminating at the same time EScoco's over reliance on Myriad.

This is the perfect opportunity to strategically realign EScoco for the way forward.

Objective

The broad objective of this new phase of TT is to design a new architecture that will ultimately eliminate EScoco's over reliance on Myriad, with goal to become CRM-agnostic.

A new Data Flow for Subscription, Charities and Memberships

Data Flow for the SCV service

The data flow supporting the SCV service takes data from the initial data source(s) and - through an API - pass it to 'the Crane'. The Crane is an ETL engine, a tool that Extract, Transform and Load data, in this case into a Mongo database. From this database, the data is then transferred to any SCV platform.

Myriad (or other data source) > EScoco API > ETL engine (Crane) > Mongo > API > SCV

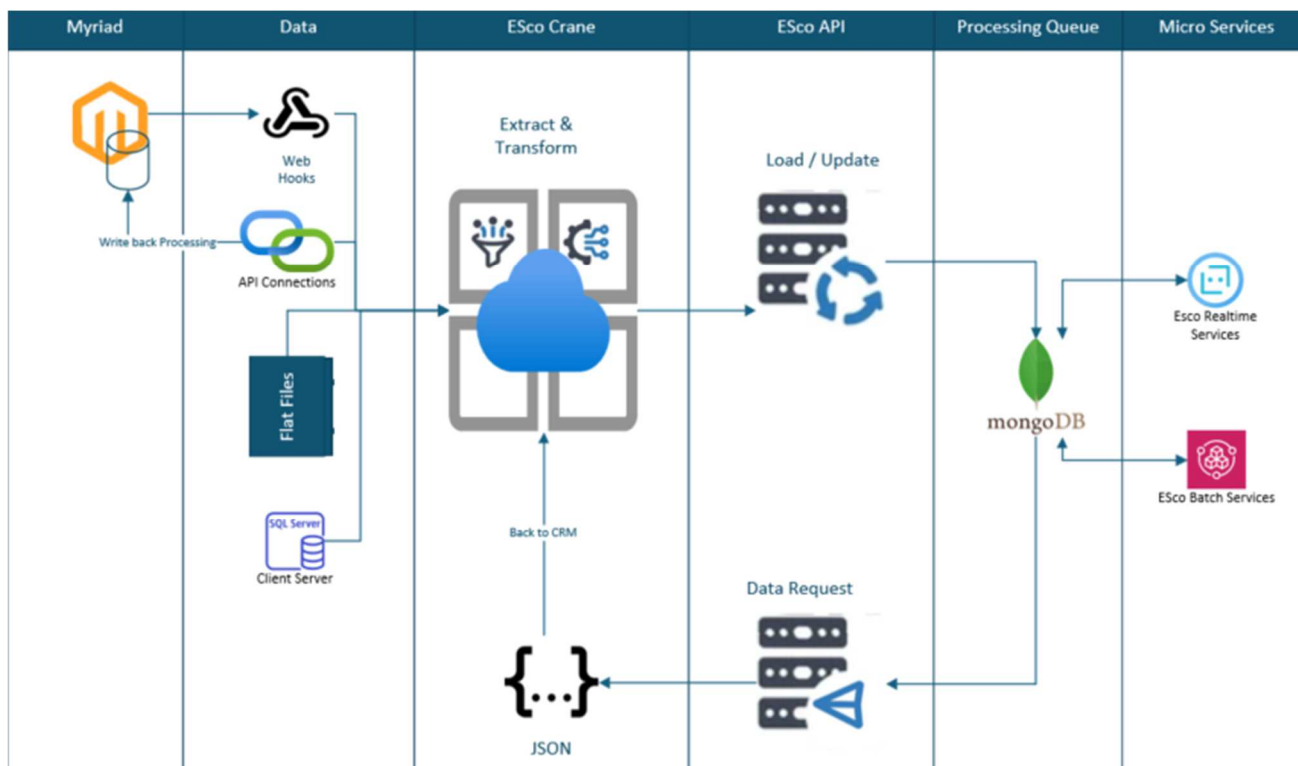
Opportunities for improved data flow, architecture and processes

The shift of focus allows us the chance to build on the original proof of concept for the Crane, to improve existing processes, tools and the overall architecture.

We will be moving away from building an EScoco data warehouse (stored in Mongo) to a processing microservices queueing system.

*CRM > EScoco API/Webhooks > ETL engine (Crane) > Process Queue System > Microservices
AND
Microservices > ETL engine (Crane) > EScoco API/Webhooks > CRM*





CRM agnostic: the new architecture will be able to handle data coming from a multiplicity of sources: flat file, webhook notifications, direct SQL connections, API integration (JSON)

Introduction of web hooks notifications: these provide a more efficient way of communicating between systems and are now industry standard, especially for larger clients/organisations;

ETL/RTL Engine (Crane): we will have the opportunity to investigate if this is something we should buy ourselves or buy something already developed. This was going to be a part of the Phase 3 investigation anyway, and will continue to be so for Phase 4

Process Queue System: this will reduce ESco's need for large data storage; and at the same time allow to use data in real time (if needed), not just in batches (i.e. books and backs running once a day).

Rationalisation of Microservices: the shift of focus will allow ESco to review and rationalise all microservices (i.e. eCommerce, dispatch, issue run) and will open up the opportunity to 'buy' (vs build) them

Pros and Cons of the new architecture

Pros	Cons
Data integrity will be easier to manage with minimal updates	Going back to discovery
Reduces Cloud Storage Costs	Webhooks require additional development
Simpler data architecture	No immediate ESco data warehouse
Scalable microservices	
Introduces webhooks	
Keeps the work for SCV as a microservice	
Less development in transient data cranes	
Real time data processing where required	
Keeping Batch and time processing	
Easier integrations	



FAQ's

Q: It sounds like quite a significant evolution, are we starting again with discovery / define before we start to develop?

A: Yes, we will go through all the steps for Phase 4, including Discovery & Define

Q: Previously we had clear intervals, do they still apply, or have we got some new ones?

A: Although the previously defined intervals do not apply anymore, we plan on structuring the work in the same fashion, with clearly defined phases, intervals and checkpoints.

Q: The reason we're pushing ahead with this project at pace is to reduce our reliance on Myriad, it would be good to understand how this evolution achieves that.

A: Whilst Myriad will remain the central data store, we plan to create the flexibility for the data store to be in any or multiple CRM systems (i.e. CRM-agnostic) and the focus will be more on system configuration and process control via using:

- A new integration layer (APIs and Webhooks),
- A Process Queue System for real-time and batch data handling (Mongo),
- Modular Microservices that replicate and improve core Myriad functionality

This means we no longer have to depend on Myriad to initiate or complete operational tasks.

The modular, microservices-based design allows EScO to **migrate specific functions** (e.g. payment processing, reporting, fulfilment) off Myriad **incrementally**, without needing a full “big bang” system replacement.

By becoming CRM-agnostic, the new architecture ensures that no future client relationship or operational dependency is tied to a specific platform – including Myriad. This dramatically reduces vendor lock-in risk.

Q: How much of what we're doing is building something ourselves? How are we deciding on what to build and what to buy?

A: We had already agreed to build the integration layers (ESco API) and the Crane reached a proof of concept stage as something to build in-house. The Crane should be discussed and discovered for “build or buy” solution, and will be reviewed within Phase 4 of the Tech Transformation programme. The new architecture opens up opportunities for considering the ‘buy’ option for any microservice; where previously, due to the complex, manual integrations required by Myriad, this wasn't a realistic option.

Q: What might it look like in practice with something like Orbit, or a new eCommerce platform?

A: In the new architecture, both SCVs and eCommerce platforms will be considered as microservices. Thanks to the integration layers, we aim to be able to interact with any system with simple and agile configuration exercises.

Q: What might it look like in practice with a different CRM system?

A: The new integration layers (APIs and Webhooks) will allow EScO to integrate with any CRM system, or even more than one CRM, if - for example - a new client wanted to keep their own.

Q: It would be interesting to know what technology we're thinking of using behind the scenes, for example, are we still using Mongo?

A: Mongo may still be used as a data storage for the SCV microservice, however there may be alternative options available which will need to be explored. Mongo will primarily be used for the Process Queue System. We need to carry out the Discovery and Define phase before being able to confirm further.

Q: What is the data flow when the third party initiate the request for data (for example, A&E on a third-party website, or e-commerce)?

A: A&E will be considered as a microservice and it will likely communicate with the Crane. However, details will be defined in the Discovery & Define phase of this project.

