

# Welcome to our Seminar

## Empowering the Future of Housing



Making it Easy to work **Securely, Anywhere, Anytime**



# Southern Data Core

A hub 'n' spoke solution using MS Fabric

**Robert Stewart, Head of IT Service Strategy**

**25 November 2025**

CREATING  
COMMUNITIES  
**TOGETHER**

# Introduction

- ⦿ We are nearly 3 years old
- ⦿ We have 80,000 homes
- ⦿ We're the outcome of two sets of earlier mergers & acquisitions
- ⦿ 2 years+ to “integrate” to have one of everything
- ⦿ We are now transforming Southern Housing



# Our journey in Tech terms



- SHG was essentially in Azure and SaaS.
- Optivo was hybrid with its core systems on prem.
- Now we are Azure and SaaS (with 1 on prem to go)
- 2 of everything, now we have 1
- But still have not fully sorted out our data
- Both HAs had MRI HE (aka Orchard) and Dynamics
- However, our usage and data models were significantly different
- Financial market pressure brought the merger forward
  - Day 1 plan became focused on what had to be achieved.
  - Everything else was parked





Two problems we are trying to solve



# Problem 1 – Improve our Data Quality & Governance



With mergers and acquisitions, it feels like our data is accumulated and stored in layers.

Our data management & governance was patchy and weak. **It is not now**, but there is still lots to do.



# Problem 2 – Complexity vs. Operational needs



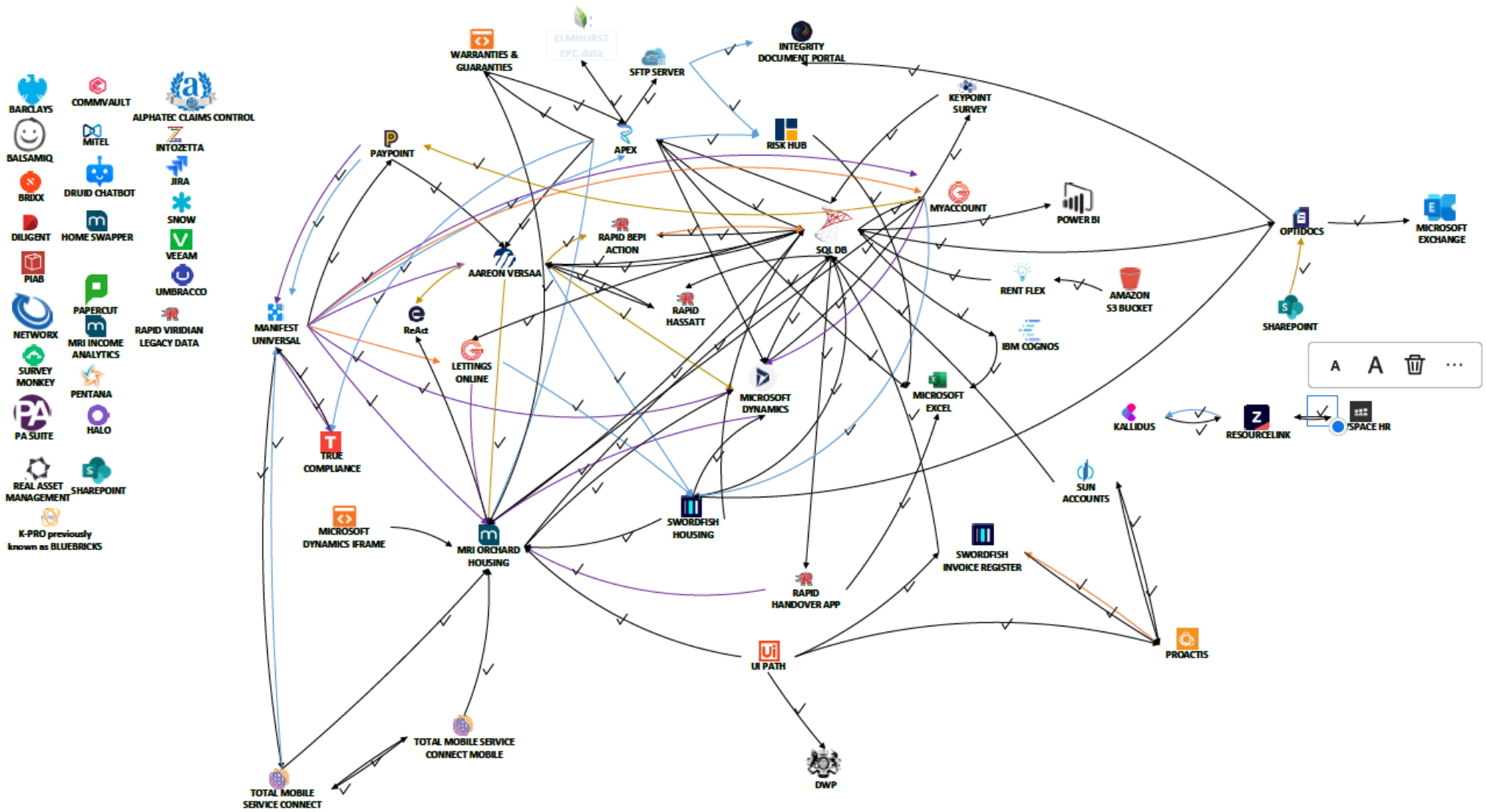
- We had 2 of everything (nearly)
- At least 2 different ways of working and data models
- Some system reviews favoured Optivo & others from SHG
- Lots of point-to-point integrations and interfaces
- Too many in the middle or caching databases
- It became more challenging when integrated
- It's complex and it works, but very few understand how
- It stifles innovation and make insight very hard







Optivo



# Question



So what did we get when merged?



# Answer: Digital Spaghetti



# In fact, it is more like this



Apps  
& DBs



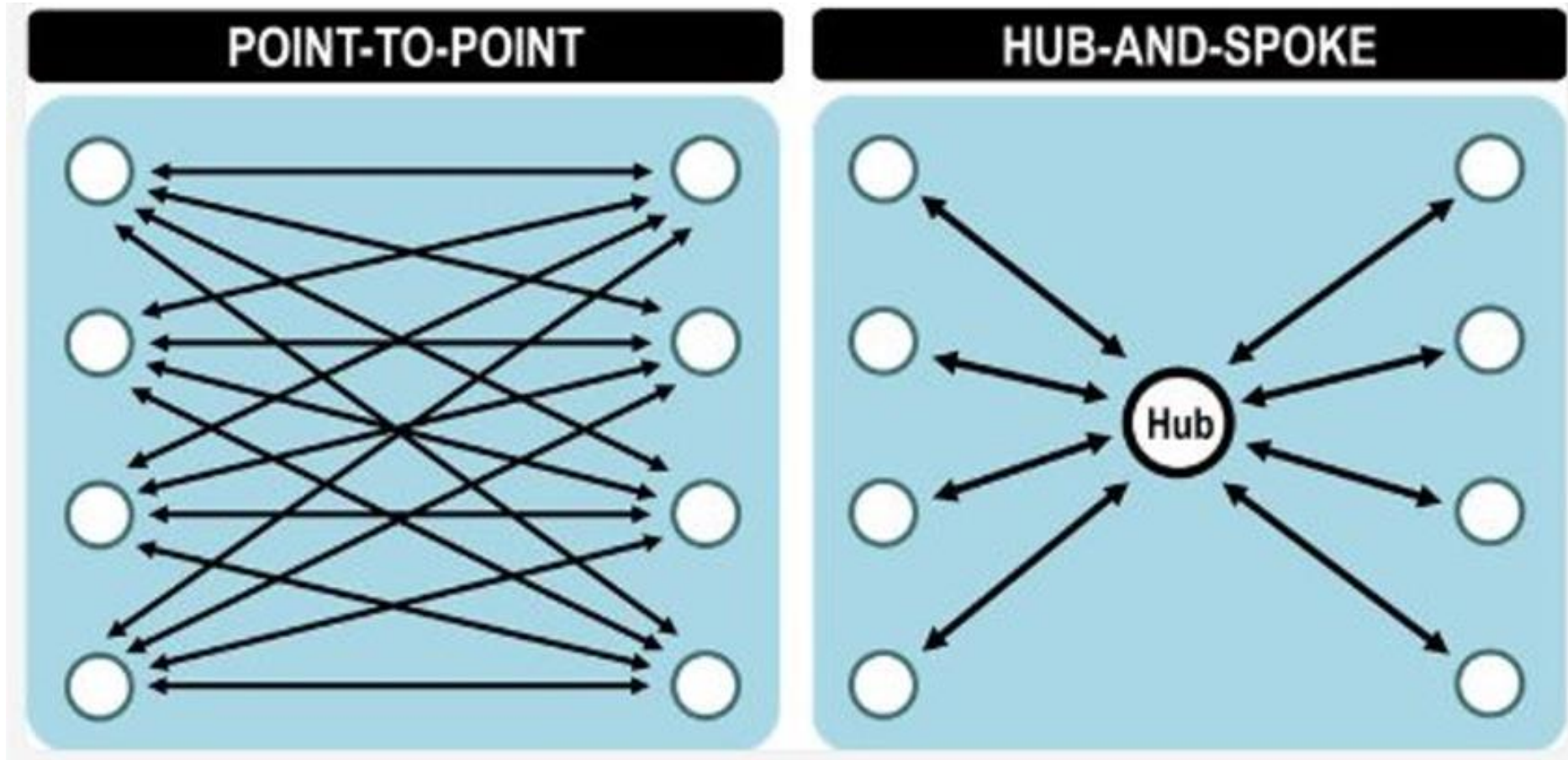
Our solution

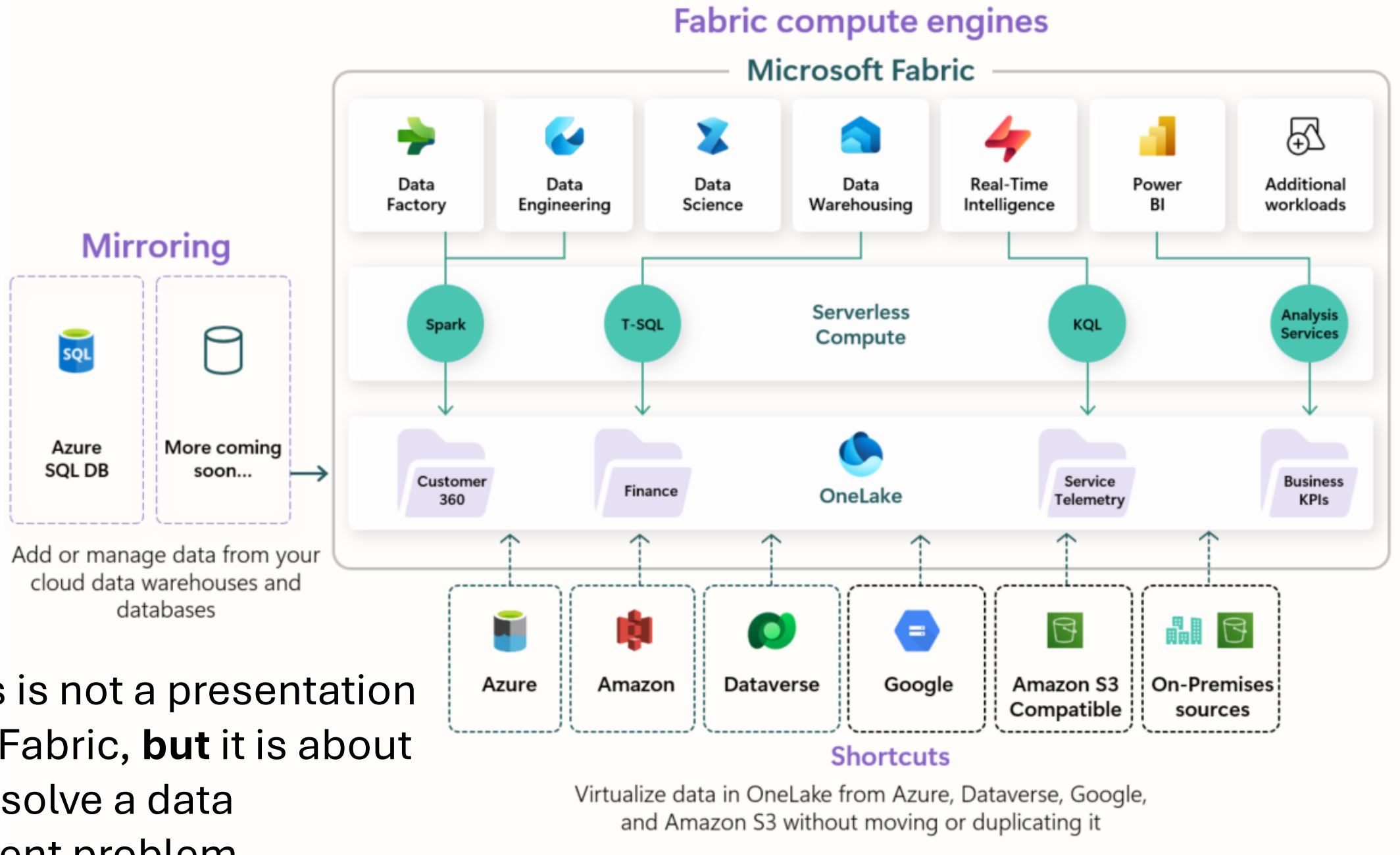


Replace the “spaghetti & meatballs”  
With a Hub and Spoke solution



# We needed Hub 'n' Spoke





**Sorry**, this is not a presentation about MS Fabric, **but** it is about using it to solve a data management problem

# Southern Data Core (SDC)

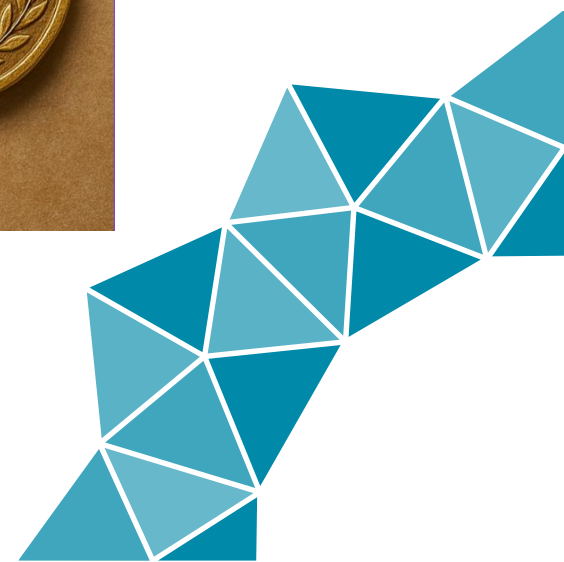


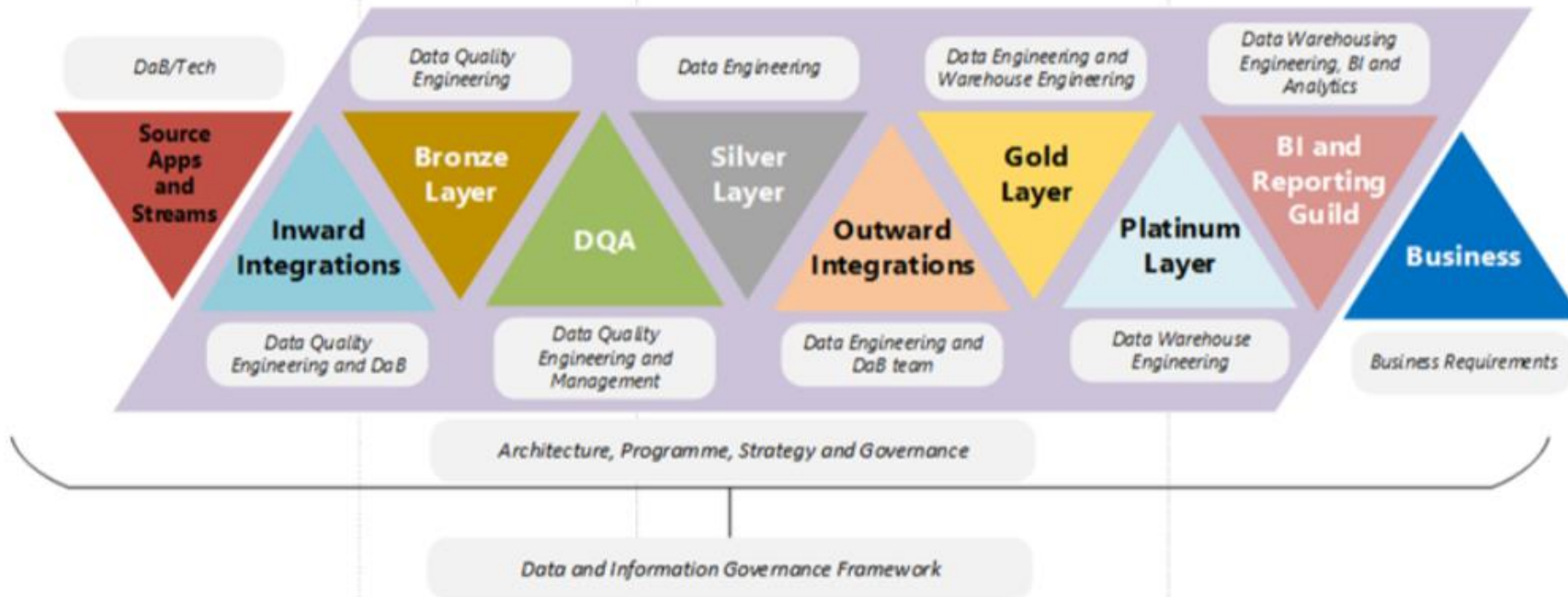
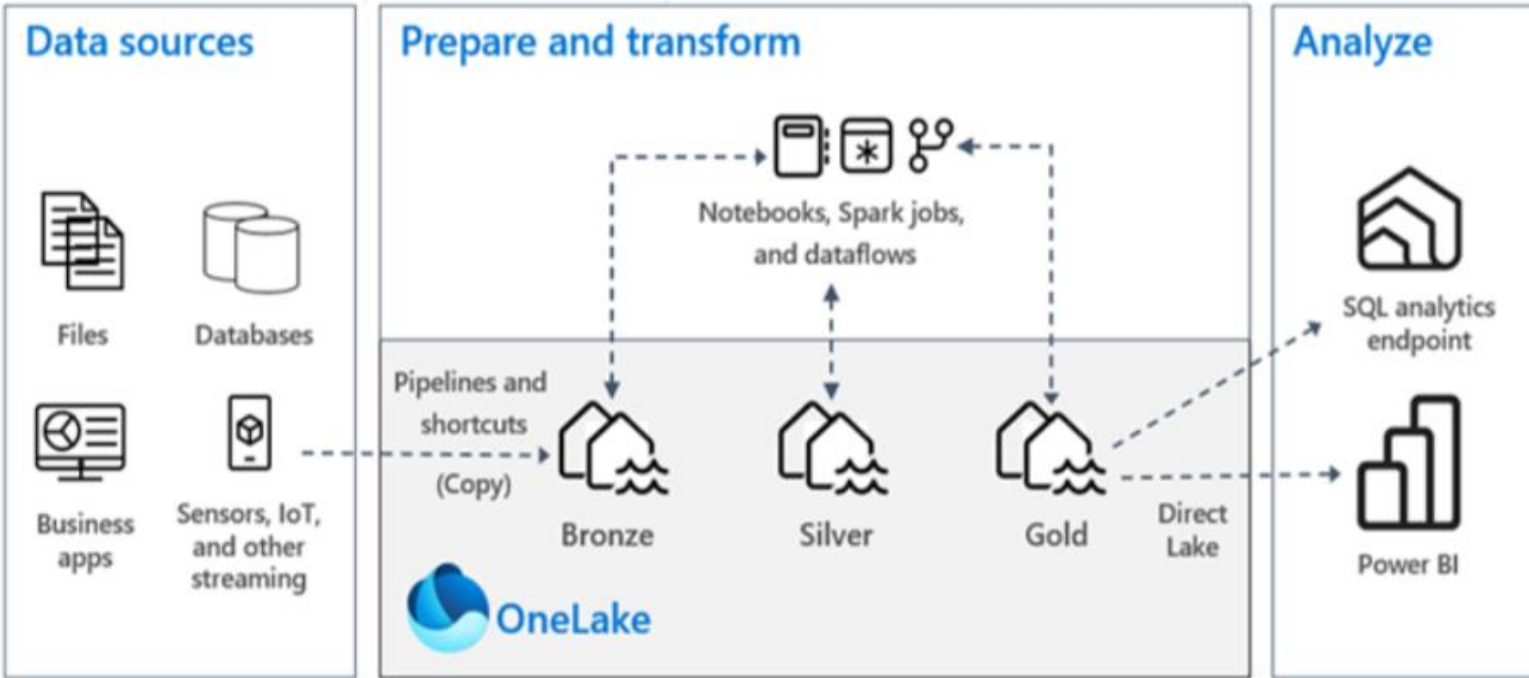
- ⦿ 3-year programme to replace the spaghetti
- ⦿ Hub 'n' Spoke solution for:
  - ⦿ Integration
  - ⦿ Data quality management
  - ⦿ Information production
- ⦿ Solution underpinned by MS Fabric
- ⦿ Has a Medallion Architecture
- ⦿ But it's not just a reporting solution



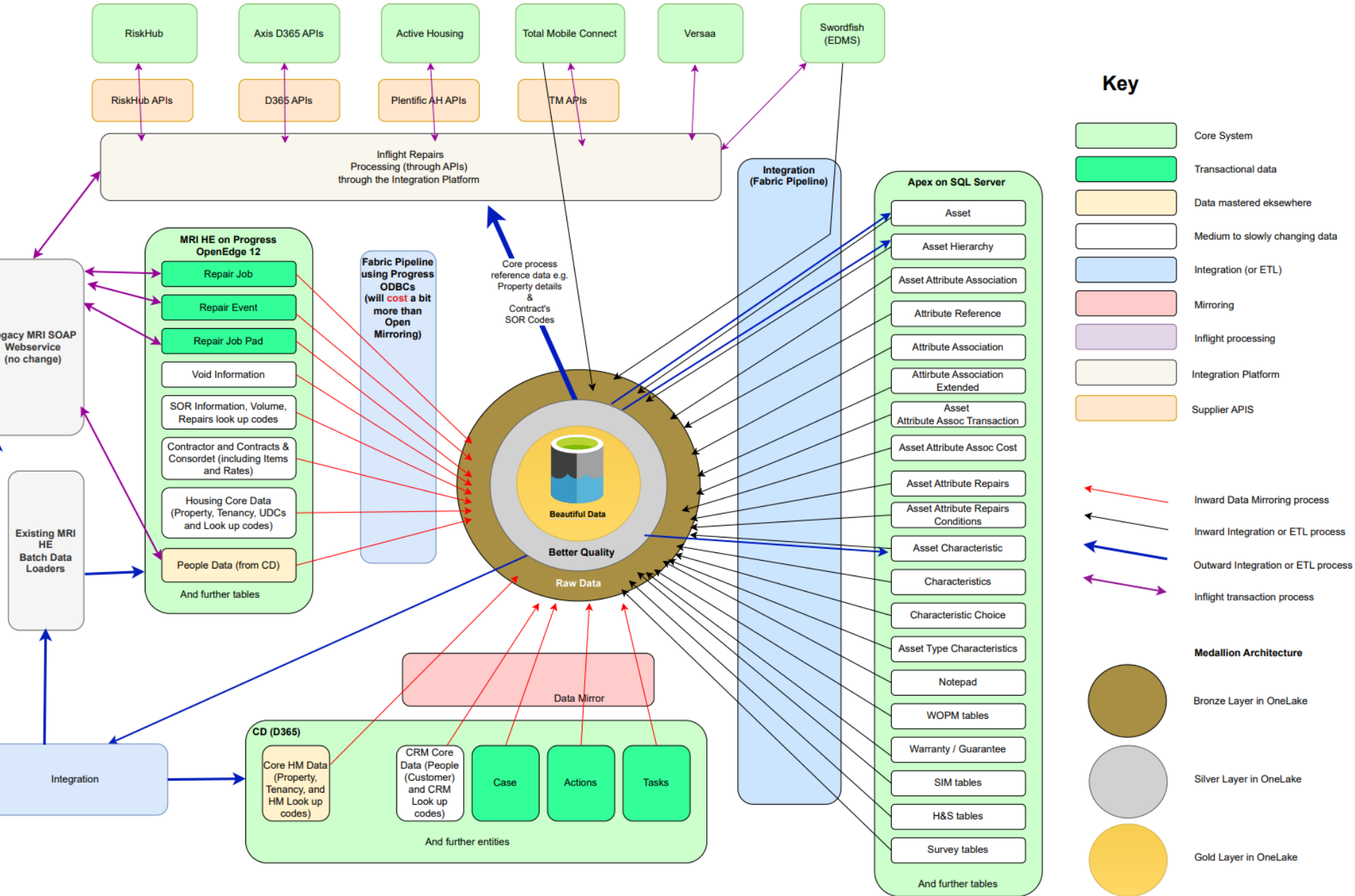
# Medallion Architecture

- ⦿ Bronze Layer – Raw Data
- ⦿ Silver Layer – Validated Data
- ⦿ Gold Layer – Enriched Data





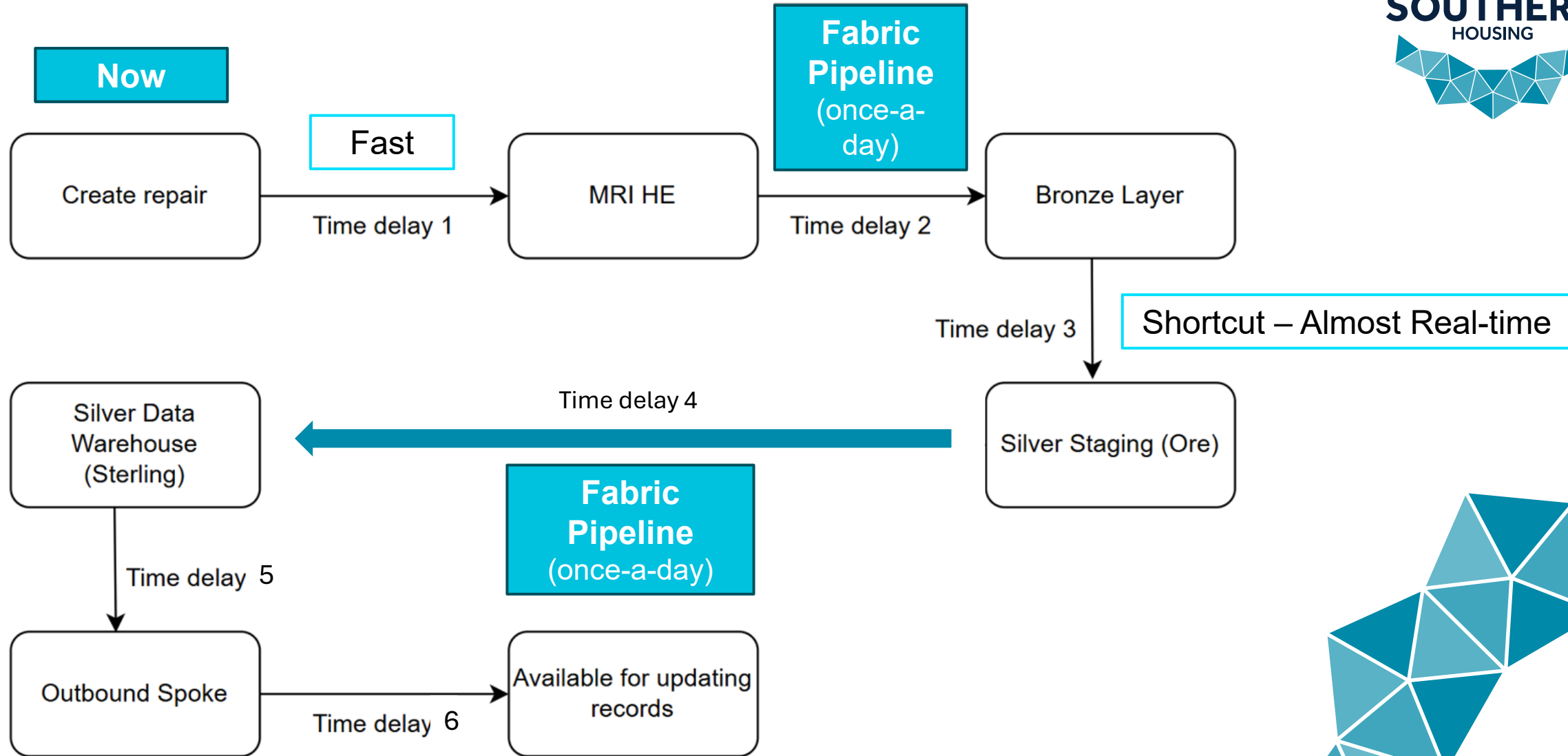
# SDC Repairs Build using Mirroring and MRI HE Legacy WS and ADF



## Current approach

- Relies on known tech:
  - Fabric Pipelines instead of open mirroring
  - Legacy SOAP Web-services
- Legacy MRI Integration with no roadmap, however SH can continue to develop their own SOAP Web-services.
- Less third-party support in the event of problems

# Minimising Time Delays (creating a repair)



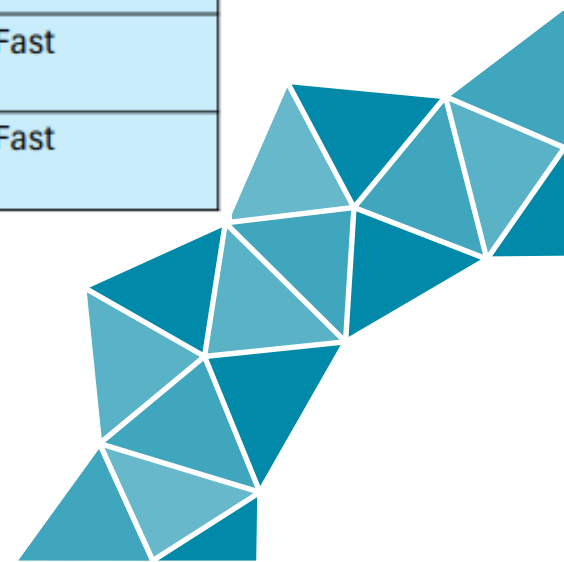
# We are still working things out



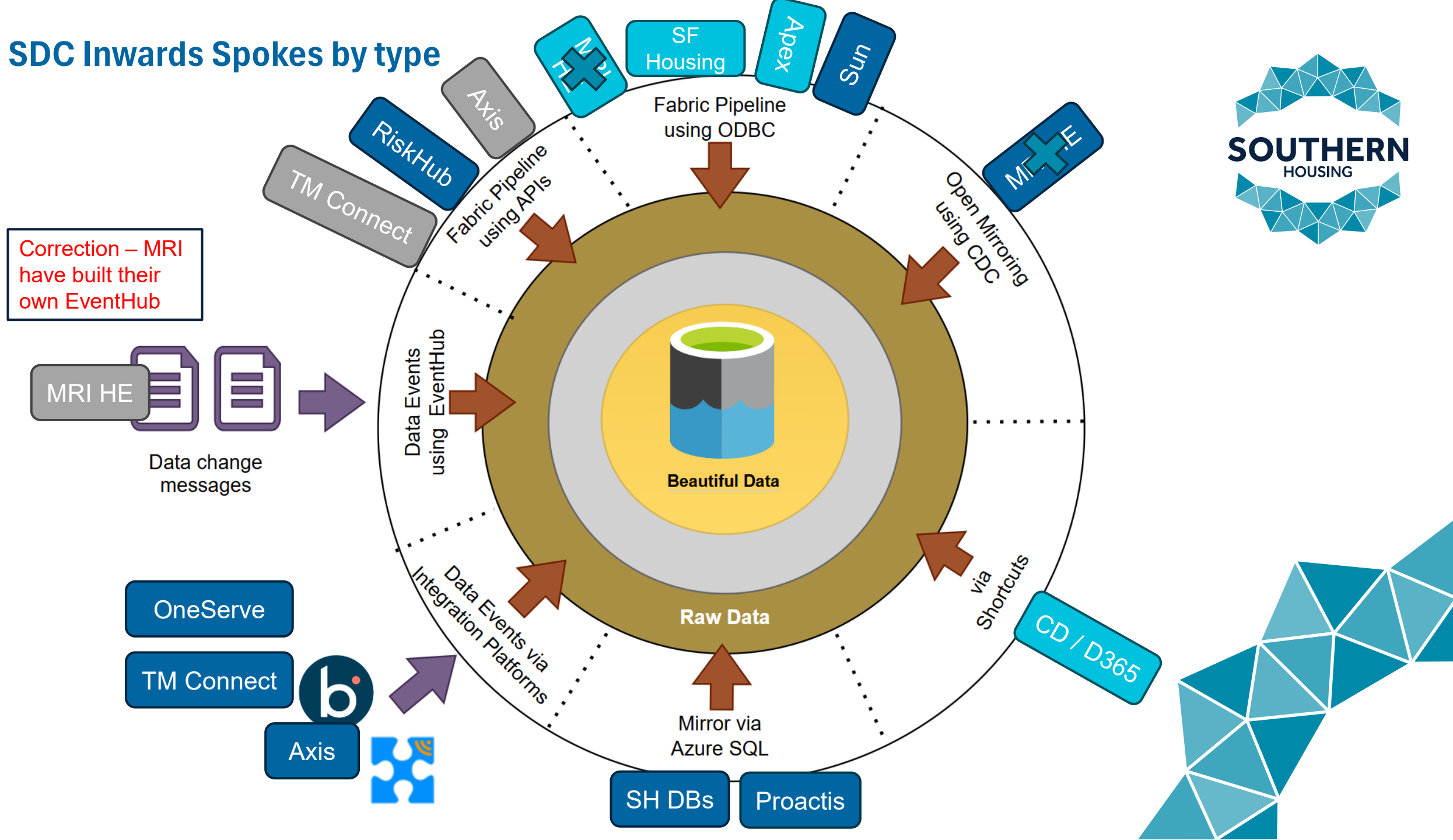
	Steps		Infancy		1 year old		2 year old	
Time Delay 1	Person	MRI HE	Typing	Real-time	Typing	Real-time	Typing	Real-time
Time Delay 2	MRI HE	SDC Bronze	Fabric Pipeline	Once-a-day	EventHub or CDC or Pro 2	Almost real-time	EventHub or CDC or Pro 2	Almost real-time
Time Delay 3	SDC Bronze	Silver Staging	Shortcut	Almost real-time	Shortcut	Almost real-time	Shortcut	Almost real-time
Time Delay 4	Silver Staging	DQ Processing	Method not decided	?	Method not decided	?	Method decided	?
Time Delay 5	DQ Processing	Silver Data Warehouse	Method not decided	Once-a-day	Method not decided	Several times-a-day	Method decided	?
Time Delay 6	Silver Data Warehouse	Outbound Spokes	Outbound SQL Views	Fast	Outbound SQL Views	Fast	Outbound SQL Views	Fast
Time Delay 7	Outbound SQL Views	Available for updating	REST APIs; SQL	Fast	REST APIs; SQL	Fast	REST APIs; SQL	Fast

The good news is we know we can make the time delays a lot smaller

We are currently, looking at ingesting data from our HMS faster. We have 4 options.



# SDC Inwards Spokes by type

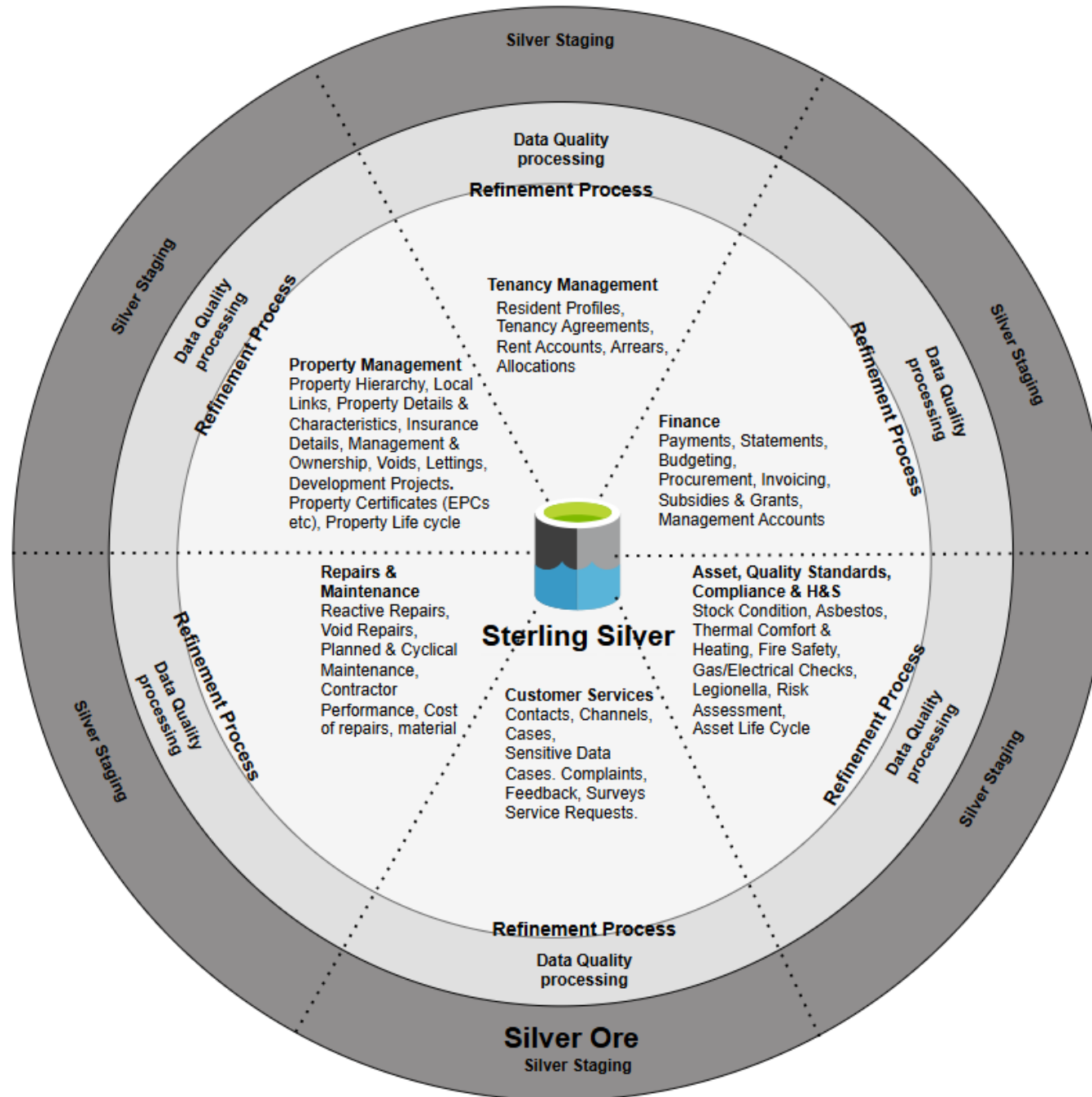


# The Silver Layer

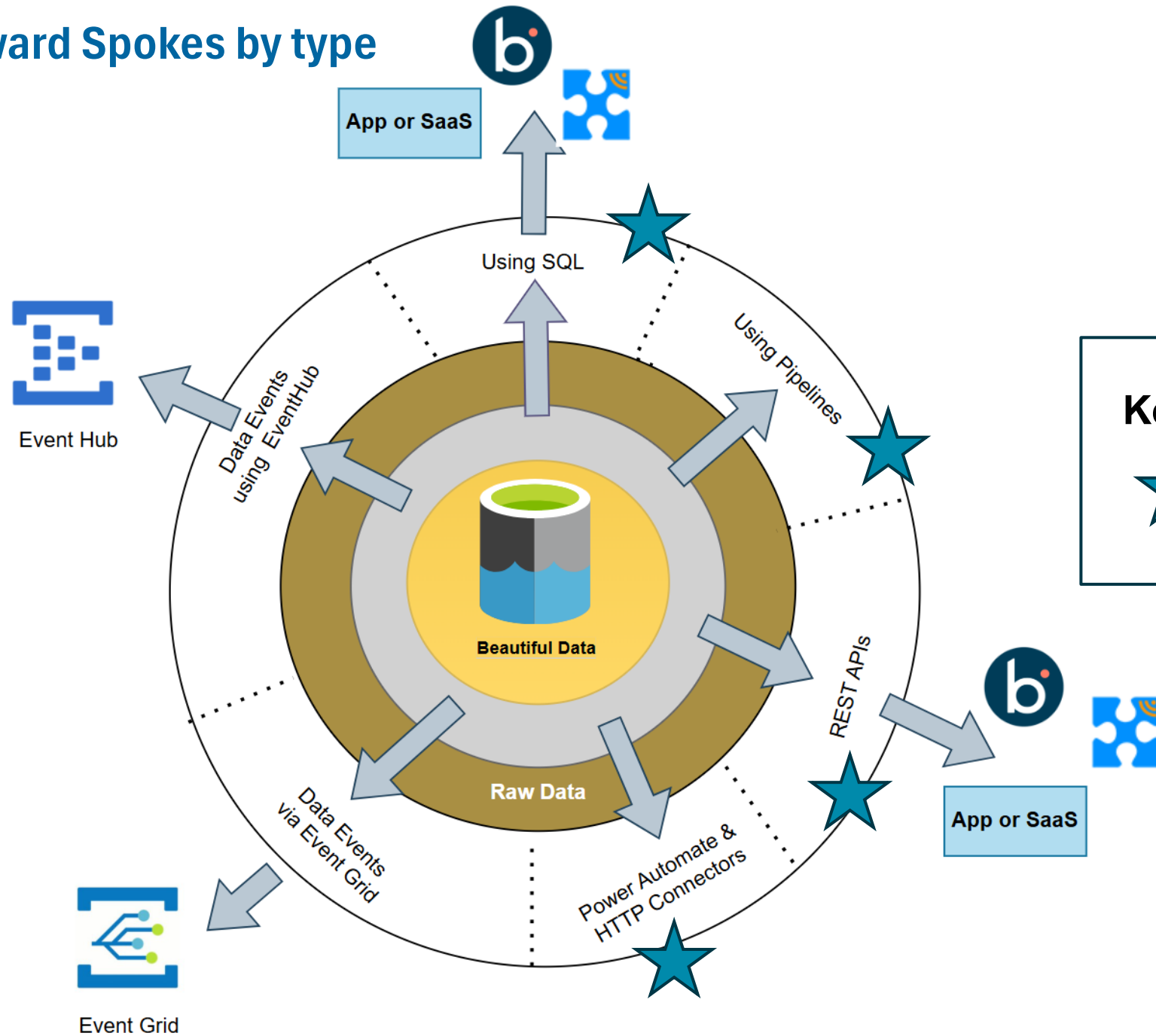
## Refinement



- Other Possible Subject Domains**
- People**
    - Residents
    - Third Parties
    - Students & Keyworker
    - Workforce & Org. Structure
  - Governance & Strategy**
    - KPIs
    - Board Reports
    - Risk Registers
    - Policies
  - Document and Media Store**
    - Photos
    - Certificates
    - Documents
    - Recordings
    - Videos



# SDC Outward Spokes by type



**Key**  
★ = Plan or are using



# What will it give us?

- One source for essential SH quality data & information
- Great simplicity
  - Fewer databases and lower storage costs
  - No spaghetti
- Easier to connect to SH
  - Portfolio of SH REST APIs
- Trusted data source for:
  - App development
  - AI
- Greater control of data subjects overtime
  - Starting with making SDC the master of property data
- Opportunity to reduce our solution stack and costs
  - Will we need a Housing Management System in 3 years time?



# Our known challenges



1. Achieving almost real-time data in the layers
  1. Not really necessary in the Gold Layer (yet?)
  2. And not necessary for all data subjects
2. Applying data quality before outputting
3. Not causing delays to inflight integrations
4. Replacing all the spaghetti
5. Azure's recent partial outages
6. Transformation of our core systems and culture
7. Getting the work done and not being distracted



# What's been achieved or is underway



- Achieved by our Data & BI team with support from Tech.
  - Fabric set-up with the 3 medallion layers, shortcuts and pipelines
  - Live Awaab's Law reporting from SDC (on time)
  - SDC is in people's mindsets who are transforming integration & BI at SH
- Currently working on:
  - Getting more data into SDC
  - Decommissioning Legacy, favouring SDC and reducing costs
  - Transformation projects (Repairs; Lettings & Voids; Residents Online v2)
  - Sort of related because they will need SDC
    - Power Platform Care and Centre of Excellence
    - Copilot Governance and AI Policies
- Help our journey from hindsight to insight and onto foresight



# Thank you for your time

Robert Stewart

Head of IT Service Strategy  
Southern Housing

