

Agile Project Management and Data DevOps

The modern best-practice for delivering data solutions¹ is to use (1) agile project management principles (such as Scrum or Kanban) and (2) agile development operations known as DevOps.

Agile projects aim to broadly apply the tenants of agile manifesto, that have been stated as favouring²:

- Individuals and interactions over processes and tools
- Working software over comprehensive documentation
- Customer collaboration over contract negotiation
- Responding to change over following a plan

DevOps, on the other hand, is a set of practices intended to reduce the time between committing a change to a system and the change being placed into normal production, while ensuring high quality³.

Both these approaches need to be enabled by both a delivery team and an adequate infrastructure investment in hardware and software tools.

Usually, the delivery team will carry certifications on the use of a given software tool which can accelerate development. Preference should be given to technologies that are widely available and that the local industry supports in being able to provide fresh skills to support.

The typical roles and responsibilities for such a team are outlined below:

Data Delivery Team Typical Roles and Responsibilities

Role	Responsibilities
Product Owner	<ul style="list-style-type: none"> • Primary stakeholder for the project from the client side • Responsible for the vision of the project and communicating that to business and development team stakeholders.
Lead Technical Architect	<ul style="list-style-type: none"> • Experienced in delivering end-to-end data solutions • Effectively communicates with clients and it able to explain project direction to both business and technical stakeholders • Articulates a high-level technical design, architecture and approaches • Overall responsibility for solution data model • Prescribes accelerators and frameworks (such as auditing and package templates)
Project Manager / Scrum Master	<ul style="list-style-type: none"> • Planning and coordinating the team using agile principles • Managing the execution of user stories and related tasks • Removing any blockers that may affect the development team
Business Analysts	<ul style="list-style-type: none"> • Responsible for requirements gathering • Interface between business and development team • Drafting user stories (As I, I want, So that...) • 1st line responsibility for user acceptance testing (UAT)
Financial Analysts	<ul style="list-style-type: none"> • Development of value based financial management models
Data Developers	<ul style="list-style-type: none"> • Develop extract, transform, load (ETL / ELT) packages • Develop SQL-based business rules and logic • Configure OLAP analytical cubes used for business user consumption

¹ For instance, data warehouses, business intelligence and data science statistical and machine learning models

² Agile Manifesto <https://agilemanifesto.org/>

³ Bass, Len; Weber, Ingo; Zhu, Liming (2015). *DevOps: A Software Architect's Perspective*

(ETL, SQL, Report, OLAP)	<ul style="list-style-type: none"> • Configure dashboards and produce visualisations • Produce visual insights from presentation level data • Align to the technical architecture (such as audit frameworks and implementing technical controls)
Testers	<ul style="list-style-type: none"> • Develop SQL test scripts to “reverse formulate” business rules and logic • Cross-check the warehouse for consistency • Responsible for fault finding and troubleshooting of data issues before they become a problem to business • Unit tests are the control used for ensuring data quality.
Data Scientists	<ul style="list-style-type: none"> • Provides statistical and machine learning expertise to find pattern in data that can profit the organisation. • Need to work in the context of operationalising analytical models, where appropriate.
Database Administrators	<ul style="list-style-type: none"> • Responsible for administering and optimising database queries • Handles deployments to testing and production environments

It is advised that the team needs to work using modern business requirement gathering and source control tools (like Jira and Git) that support DevOp practices.

Business stakeholders can start seeing a return on investment once everyone gets the ‘game-plan’ and works toward a common goal as a single unit.

Proposal / Call to action

Ilion are looking to help financial services organisations optimise their return of investment in data centred around financial products and services. Our executive team have extensive experience in financial analysis for banks, credit risk and stress testing and data management. We see a overlap in these areas that provide a sweet spot for a return on investment made.

When you are working on your next financial analytical undertaking, please don’t hesitate to call us. We would be happy to help to find a solution that is optimal for your organisation.



Contact Details:

Peter Gross
 Director: Data Management
 Email: peter@ilion.co.za
 Mobile: +27 (0)83 388 1674