THE ROLE OF THE BUSINESS ANALYST
IN A DEVOPS ENVIRONMENT

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## The Dev Challenge

### The Problem

In the 1970's technology was cheap enough to allow businesses to invest more in IT solutions. The common way of working in this fledgling environment was for the software engineers and the business to collaborate directly to define and craft the solutions.

A common problem that projects experienced was with the quality and accuracy of the product being developed. The requirements that were discussed between the engineers and the business were often misinterpreted leading to costly re-writes, negative impacts to budget and project schedule and a product that did not realise all the original benefits.

### The Birth of the Business Analyst

A solution to this problem was to create a role that bridged the gap between the business and the technical teams. An effective Business Analyst (BA) was able to understand the scope of the project, build solid relationships with the project stakeholders to effectively elicit the requirements, model the current and target processes and communicate the business and system needs. This all needs to be done in a language that the business can understand and that the technical teams can use to develop.

This set of skills fed into methodologies that allowed the project to help monitor the progress and success of the project by allowing it to track its completion within the allotted timeframe and budget. It also mitigated the risk of expensive rework by providing a distinct period of time to fully elaborate the full breadth of work that addressed the project scope.

## The BA Challenge

### Industry Perception

As the role became more established so did common methodologies for delivery. To this day models such as Waterfall and the Unified Process have become standard ways of delivering a project and fit well with hierarchical command and control frameworks that IT departments and organisations often work in. The analyst is given a distinct period to define their requirements, during which time they deploy a myriad of skills to allow for the accurate definition of the requirements and assessment of the most suitable solution. They present the options, give the pros and cons of each and define the requirements in a way that allows the business to have confidence that what's been documented defines their needs and allows the project to move to the next distinct phases, namely solution design and implementation.

Even though Business Analysts have firmly demonstrated their value to the IT profession the focus on defining the requirements up-front may have caused the role to be type-cast. Other disciplines may see the analyst as a 'non-technical' role that works with the business stakeholders in a silo or one that works well with the business but less well with the many technical parties in the project. In addition, because a Waterfall project often requires a period of many months to fully document the requirements the analyst may also be seen as a role that works slowly and focuses on writing long, exhaustive documents to define the solution. Even worse is the risk that some analysts themselves may perceive their job beginning and ending with the definition and sign-off of the requirements.
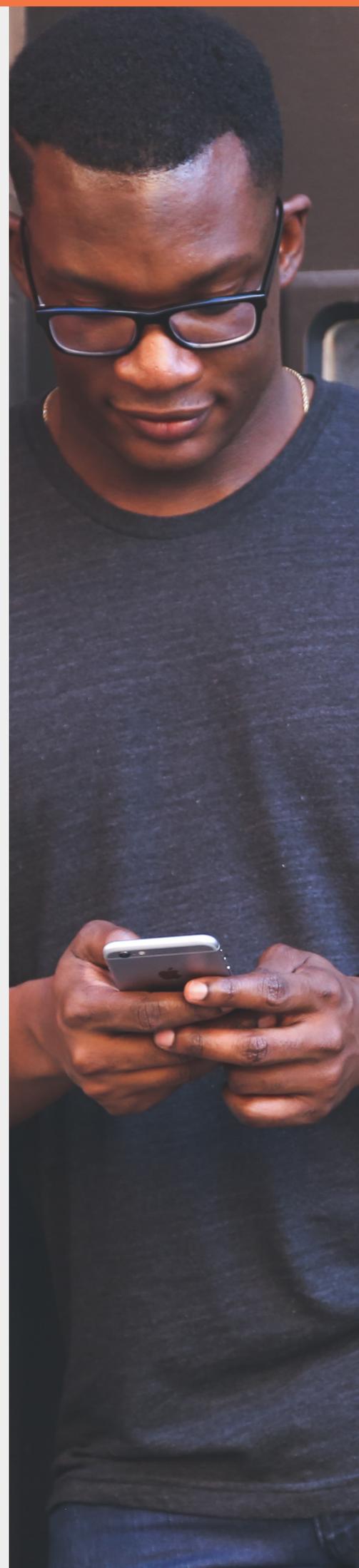
## The advent of DevOps

### DevOps Culture

DevOps has been adopted by many organisations as a way to break down the silos that are naturally caused by the distinct phases of a more linear, sequential approach. It encourages close collaboration and transparency between the whole project team by developing a shared culture of change. This helps the organisation, who naturally gravitates to the side of stability, understand and adopt rapid, continual change and also helps the technical members understand the importance of helping to embed and support the changes that they are developing. Empowerment of the team is key to this culture with the hierarchical command and control project structure is replaced with self-organisation of the team.

### Agile and the DevOps toolchain

A DevOps team will often use Agile techniques to develop a product in short iterations. The emphasis is put on performing quick periods of analysis followed by a fast development cycle. This allows working software to be provided to the business leading to faster time-to-market and enables the end-users to feed into an effective feedback loop be established to help feed into further requirements.
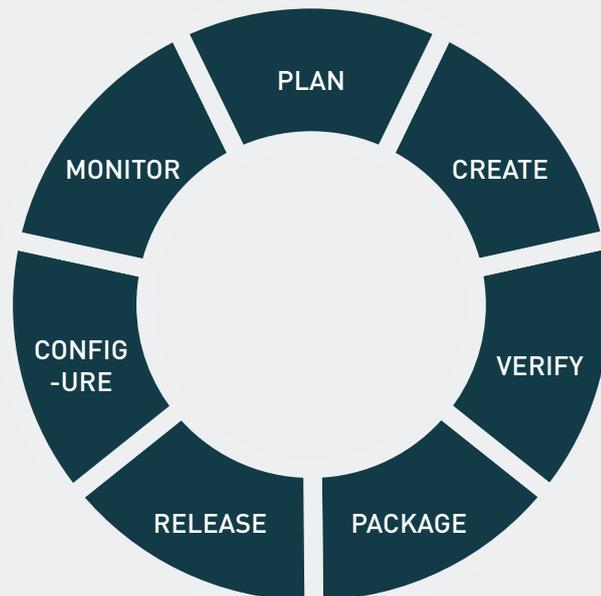


In the DevOps world, each stage of the Agile lifecycle is supported by a series of technical tools to allow for the effective planning, development (Create), testing (Verify), deployment, configuration and monitoring of the product. This toolchain helps the team have predictability when working in this fast-moving iterative way.

To allow this to take place the role of a developer has had to evolve. To support both the development and deployment of code the DevOps developer needs to be able to understand how to deploy and maintain this toolchain. In addition, they are able to work effectively with the business to interpret the business requirement and accurately develop the most relevant solution.with agile projects.

## The Business Analyst in the DevOps environment

## What can the BA offer?

With the focus being on bringing the technical teams closer to the operational and business processes and with an antiquated perception of the Business Analyst to address the analyst may question where they fit in in this evolving world. One way of seeking to understand their place is to look again at the reasons that the Business Analyst role was created in the first place.

## Service to the business stakeholders

Agile methodologies put more emphasis on a single business stakeholder to act as the ultimate owner of the product. The Product Owner's role is one of executive decision maker of what requirements are developed and makes the business directly accountable for the success (and failure) of the product. They are expected to accurately define and prioritise each User Story so that the product is built in a way that allows the highest value items to be produced first whilst crafting an effective Minimum Viable Product to allow for test and learn. This may be a daunting prospect for the most adaptable of people; however, if partnered with a Business Analyst the PO has the ideal person who can help them navigate this new landscape.

## Service to the DevOps toolchain

The Business Analyst can use their skills to help support key processes maintained by the DevOps toolchain. By examining key stages it is clear what kind of support the analyst can provide:

- '**Planning**' stage: Managing multiple stakeholders and eliciting the concise definition of need should be a core skill of any analyst. Typically they will have an excellent understanding of the entire scope of work to be delivered via the requirements. This experience will help them to maintain a holistic view of what has been developed, what still needs to be delivered and the dependencies and risks associated with each requirement at any point in time . If they achieve this they can effectively question the value of each requirement and can therefore help to ensure that the highest value stories are delivered iteratively.

- '**Create**' and 'Verify' stage: The key to developing in parallel the correct features and supporting tests is in the unambiguous definition of the requirements and the supporting central artefacts. With their experience in eliciting and documenting quality requirements, the business analyst can play a very effective role in the process. They can work alongside the PO, the developers and the testers to create and split as needed the requirements and define unambiguous acceptance criteria if needed using techniques such as Behaviour Driven Development (BDD).

  The analyst can also expedite the essential process of ensuring the stories are fully tested and accepted within a Sprint by reviewing the developed requirements against the acceptance criteria prior to being passed to the Product Owner. This can lead to a quicker turnaround to ensure any remediation work is done against the Story in order to be accurately delivered and marked as 'Done'.

- '**Monitoring**' stage: It is essential that feedback is continuously gathered as new features are introduced and the analyst can use their experience of doing this to elicit this information in the 2 main ways. They can use elicitation techniques to most effectively collate feedback directly from the users and can effectively analyse production metrics to understand how the users are using the system. This can then be channeled into subsequent planning stages to help the Product Owner's decision-making, showing which features are popular and should be developed further and which are not.

## Service to the project team

The analyst like no other member of the team is most comfortable playing out-of-position in order to contribute where needed to the success of the end product. Because the analyst seeks to maintain the understanding of the bigger picture it is a current occurrence for Business Analysts to spend periods of their career performing analysis work which is not categorised as 'pure' business analysis. Many analysts will have occupied roles such as system analyst, data analyst or taken on responsibility for areas such as modelling and UI & UX design. This experience provides the analyst with the ability to temporarily fill crucial roles that may emerge during the lifetime of the project to allow the team to continue to deliver effectively and maintain the same level of productivity. For instance, if a project requires an emphasis on data modelling, extraction process, profiling and cleansing the analyst can move into this void to coordinate and support the team's goals.

As previously mentioned, because the analyst has a solid understanding of the requirements and the features currently in development they are able to move into other occupied roles in the team as needed.

For instance, because they have a relationship with the Stakeholders who contributed to the requirements they can effectively fill a role of Scrum Master because they know who to liaise with to unblock issues. Because of their knowledge of the requirements and the business stakeholder's ongoing vision they can act as a proxy for the business (at risk) to make informed decisions when they are unavailable. Their understanding of how low-level requirements contribute to the bigger picture means that they can help suggest and define any further in-depth testing that is needed prior to the release of critical features.

## Is the Business Analyst always needed?

The short answer is probably not. For example, a DevOps team can be used to support Lean Start-Ups where requirements are quickly written and developed to facilitate an environment of continual experimentation using customer feedback to test-and-learn. In this environment failing-fast is a positive outcome and the analyst may not be required to contribute to the project's success.

In addition, some projects may be of small enough size that it is clear what the vision and outcomes should be. Others may have a Product Owner who is proficient or experienced enough to be able to manage their own product backlog and elaborate their own requirements to the right quality and detail.

In general, a named Business Analyst may not be required in less complex projects , but the business analysis processes are still relevant. The more complicated a project is, e.g. with complex database infrastructure, multiple suppliers, dispersed project teams or with limited business stakeholder availability, the more Business Analysts may be of value to a team.

## Embracing the new culture

It is worth noting that most organisations with a heavy digital focus, for example, will have established continuous build, test, deployment and monitoring practices even before the advent of the term 'DevOps'. A lot of these companies, especially with complex needs routinely use Business Analysts as key members of the project team and these analysts will have already embraced the DevOps culture and Agile ways of working.

For the rest of the Business Analyst discipline to be truly relevant in the evolving IT landscape, the analyst community must take responsibility for proving the value that the Business Analyst can bring. They must be prepared to leave behind the silos that act as a comfort blanket and embrace a culture of collaboration and transparency.

Wordy documents can be replaced with highly visual ways of communicating the desired requirements and potential solutions which reinforce collaboration and shared understanding. Above all, they must be prepared to be flexible in their approach when supporting the evolving Product Backlog and must only maintain artefacts that provide clarity and accuracy for the development and operational teams.

Due to the need for the analyst to integrate much closer with the technical teams they will need to be prepared to be open to learning new common languages and ways of communicating effectively with technical parties. One of the most rewarding areas of transitioning to the DevOps/Agile world is being able to draw on their creativity to help discuss problems, craft solutions and take a front seat when collaborating in such areas as wireframing and process modelling more efficient processes, all done in a matter of hours, not months. This closer collaboration can turn a good business analyst contributing what's needed to the project into an excellent business analyst contributing tangible value directly to the success and quality of the end product.

## About the authors:

**Alex Cottrell** has spent his career working in the fields of business analysis and business change and has a genuine passion for Agile delivery methods. He has successfully delivered projects using Agile methodologies for high profile companies over multiple industries including insurance, media, telecoms, government agencies and finance and is a true believer in the value that the evolving Business Analyst can bring in this area.

**Przemyslaw (James) Ciesluk** is an accomplished Senior Business Analyst with over 15 years of experience in Business Analysis and software development. James started his career as a software designer working for consumer electronics companies and quickly moving into the field of Business Analysis. In his time as a Business Analyst James has worked in a number of business sectors including airlines industry, public services sector and Financial Services sector.

## Zurich's Digital Innovation Journey

Zurich's BA team is a highly engaged community with a passion for combining new ideas and ways of working with tried and trusted analysis techniques. Zurich has an increasing focus on innovation in areas such as the digital space and the use of technology to benefit its customers, so it's essential that its BAs are also able to adapt to new ways of working. At Zurich, our IT professionals are empowered to try new things and we believe that "agile" is a mindset, not just a methodology.

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