

Why modularity is crucial for your digital transformation strategy in 2022



In this guest blog post, Boris Glushkov from our case management partner Canalix (a GoPro company) explains the concept of modular digital transformation and showcases the benefits it can bring with a case study from a recent UK government project.

Read it to understand:

- The advantages of modular digital transformation
- The vital architectural practices and technologies that enable modular transformation
- Migration strategies to minimize disruption for the business and customers
- How jobtimizer can help public sector organisations make the transition
- How a regulatory agency in the UK is benefitting from a modular approach

How does modularity work in the context of digital transformation?

Modularity can be explained as the extent to which a complex system (such as an inspection management system within regulatory agencies) can be split into separate sub-systems of processes. Imagine separating a regulatory agency's activities into smaller modules such as resource scheduling, document management, case management, booking job appointments, customer self-service, etc.

Approaching an extensive digital transformation project could be divided into two primary modus operandi: a **rip-and-replace** or **modular digital transformation**. These two approaches offer different ways of thinking about digital transformation. The "full-stack" transformation replaces entire legacy systems with new ones. In comparison, the modular digital transformation approach allows us to identify specific areas that can be transformed to realise the most benefits more quickly.



Breaking down a complex system into smaller entities helps with a system's digital transformation in a couple of days?

- 1) Modularity allows modules to be connected in new ways with better value and long-term productivity optimisation effects.
- 2) Modularity makes transformational improvements possible in an isolated area that improves the entire service provision, without being constrained by the complexity of a full-scale digital transformation project.

The success of digital transformation projects

Digital transformation delivers many benefits including increased productivity, cost-effectiveness, improved customer service, new ways of service provision and resilience - during recent times the latter has proven to be especially important in the public sector. But why do some digital transformation projects fail whilst others succeed? Certainly, one of the key success criteria of any digital transformation project is the approach. A modular digital transformation project brings quick and significant wins, which is a solid basis for the future development of any transformational project.

What can CIOs and other functional leaders do to improve the odds of successful digital transformation?

Having a sound vision of the outcome of a digital transformation project is crucial for its success. The idea must be clearly defined: increased productivity, automated business processes, or addressing technical debt. And then, priorities need to be set. Among the universal priorities in almost every digital transformation project are:



Streamlining operational insight to make better decisions



Identifying cost reduction opportunities to save money



Reducing manual work to decrease errors



Improving analytics to deliver better insights



Improving customer service

Do we transform these priorities all at once or step by step?

We can have a strategy with a clear vision and priorities, but the strategy's success may still vary depending on our approach. For example, achieving all the goals with a full-stack digital transformation holds a higher risk for the project. Implementing and moving to a new system can also have a significant impact on an organisation's day to day operational activities. Breaking the digital transformation project up into different modules, with specific objectives and goals, allows a more focused effort. Early wins can serve as building blocks, laying the foundation for the success of the follow-on transformation when new modules are eventually added.

In addition to delivering cost savings, reducing processing time and improving resilience, another significant advantage of the modular approach is the reduced time to delivering value. Identifying an area that can deliver quick results helps to combat inertia and builds momentum for change. Demonstrating early success via the modular approach helps sustain support for digital transformation at the leadership level because it gains the trust of both peers and leaders.

Why opt for modular digital transformation approach in 2022?

A traditional full-stack digital transformation project can take significant effort, resources, and substantial financial investment, with the risk of achieving an outcome with mixed results. The time taken to demonstrating value can also be significant if a “rip-and-replace” approach to upgrading systems is taken. Today technology has evolved to allow for a more sequenced approach to development. Organisations can take advantage of technologies focused on quickly delivering on single, high priorities for their business whilst also pursuing a long-term plan to build on transformation projects.

Case study: Making optimal resource-constrained schedules with inspection scheduling module

The following client case study demonstrates the impact and advantages of modular digital transformation. This journey starts with a client who adopted Jobtimizer - [resource scheduling software](#) that allowed our client to create optimal inspection schedules with minimum travel time between inspection jobs, hence dramatically improving utilisation of scarce and costly resources. How did their journey pan out?

The problem

Our client is a national regulator in the UK with a limited pool of inspectors for inspection checks. The resource-constrained situation led to overtime, overbooking inspector’s schedules, and an imbalanced workload that affected productivity. The increased workload and the limited number of inspectors also began to negatively impact customer service with prolonged customer waiting times and cases taking longer to resolve. That’s when the regulator identified the need to transform their work processes to improve their key performance indicators.

The challenge

The main challenge was identifying the area of operations with the highest odds of delivering quick wins and visible improvements within an existing monolith system environment. The approach they opted for was to follow a long-term upgrade plan and the gradual adoption of new inspection optimisation modules. The primary goal was to ensure that the regulator could take on a sustainable digital transformation path without disrupting existing operations. After careful consideration, the resource scheduling module was identified as the best way to kick start their digital transformation journey.

Why was the modular transformation solution successful?

The key learnings we took away from the success story of Jobtimizer and the implementation of their resource optimisation software were as follows:



Focus on quick wins

Every step of this digital project pointed to clear benefits for the regulator. The resource scheduling optimisation presented new capabilities to the regulatory agency and even improved the conditions for contractor inspection agents. As both stakeholders benefited from using this module, it was easier to achieve buy-in and demonstrate value.



Standardised APIs

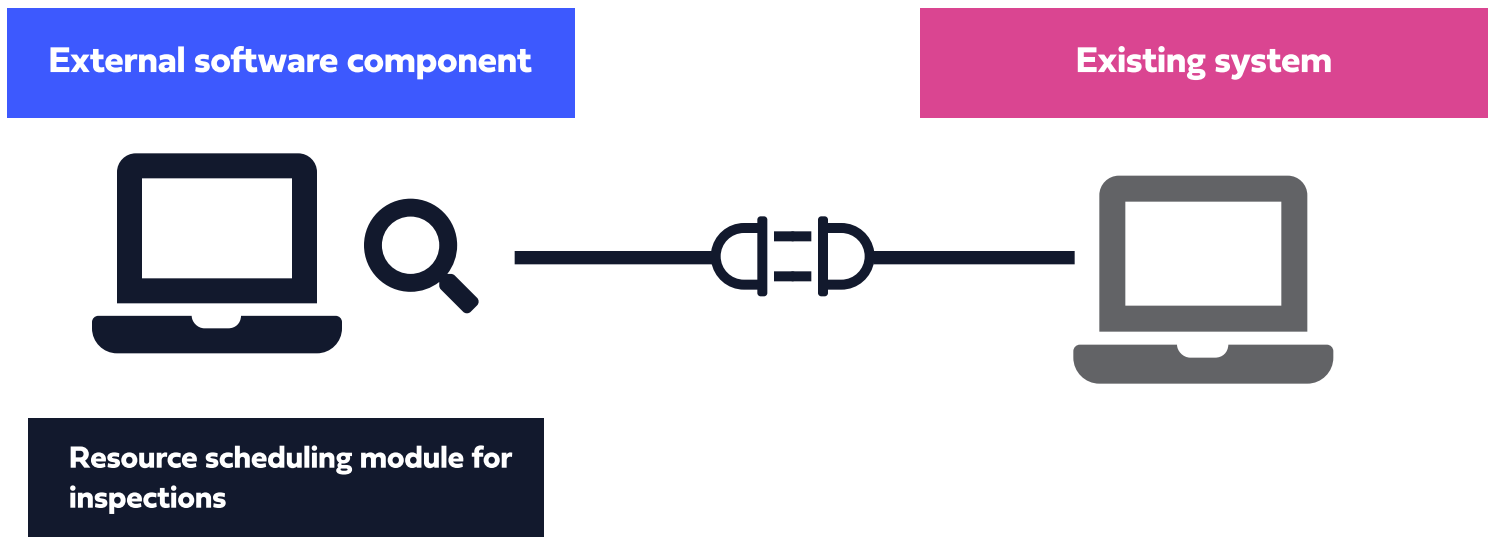
The modular approach works on the basis that after one module is implemented, there will be others that follow. That’s why all modules must comply with sound architectural principles and standards for APIs. This is crucial to ensuring the system’s short- and long-term integrity. Implementing open APIs and ensuring good internal governance can be challenging but is essential. All actors in this process must be aligned to this strategy.



A roadmap with long-term goals

Separate modules can deliver immediate business results, but a roadmap must also include future considerations. Given our experience and expertise gained on a variety of different implementation projects, we were able to identify opportunities to start multiple transformations in parallel. Collaborating with a trusted partner is an excellent way to keep momentum.

Better Resource Scheduling With AI module



Conclusion

In recent years technology has evolved to allow the public sector to use modular services to help them transform their operations with open APIs and cloud services. The sequenced approach of modular transformation enables organisations to precisely tailor, quickly deploy and efficiently manage their work. By adopting a step-by-step modular approach to digital transformation with long-term objectives, organisations can grow with a plan for the future, reduce risk and speed up time to value, and, importantly, always be ready to respond to the next challenge.