Modernising legacy systems and driving efficiencies through partnership with RPS

Nash Tech.

rps
A TETRA TECH COMPANY
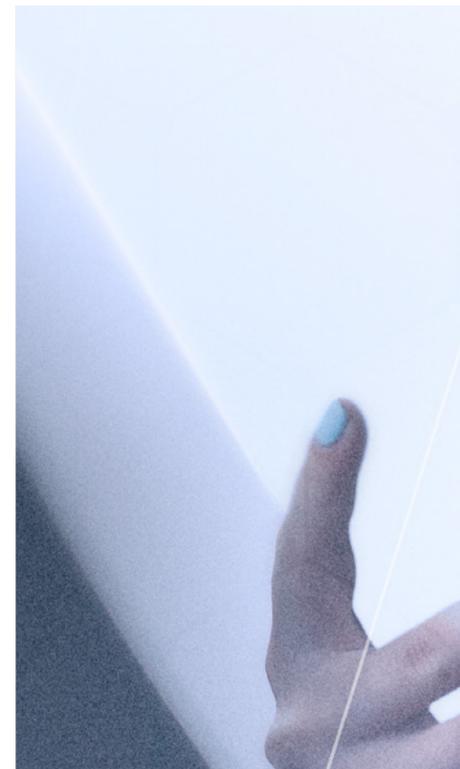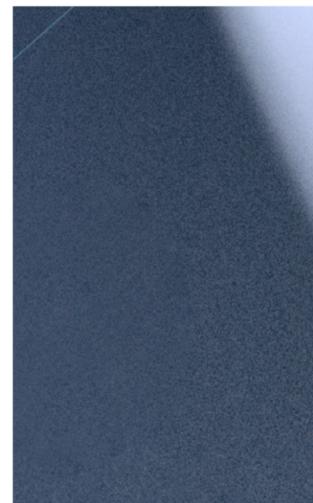
For a better future

Founded in 1970, RPS is a leading global provider of consulting and engineering services. Since its establishment, the company has aimed to create an environmental planning working environment, dedicated to making the world a better place.

Working across twelve service clusters, RPS defines, designs and manages projects that create shared value to a complex, urbanising and resource-scarce world. In 2023, RPS joined Tetra Tech, a leading provider of high-end consulting and engineering services. The acquisition has brought combined strengths and advanced market-leading positions of the company in water, renewable energy, and sustainable infrastructure.

Walking away from legacy burden

A business with a long history, RPS has gone through acquisitions along their journey, resulting in many legacy systems coming together – some of them were developed over a decade ago which has led to knowledge retention issues over time.

> " *People who worked on the system came and went. We only have basically one person that still understands how it was originally built.*
>
> **Frederic Vaeremans**, Chief Data and Solutions Officer at RPS

But, regardless of the people factor, the system itself was already a burden to the business.

"The system was built on an old infrastructure that started to cause all sorts of issues. It became very expensive to maintain."

Realising the need to stop holding on to the age-old system that has grown into unwieldy monoliths, RPS decided that it was time to leave the burden of inefficiencies that have hindered business growth behind by investigating a re-write using the very latest tools and technologies

Unprecedented times led to striking up a new partnership

With an ambition to be free from legacy systems, RPS looked to leverage the capability of their own team, which was in the early stage of forming in Malaysia. However, it was at that moment that the global pandemic struck. Travel restrictions, border shutdowns and countries locked down impacted the original plan severely as it caused difficulty in recruiting and resourcing the right skills.

Ongoing delays in securing resources within their own team led to the decision that RPS needed a helping hand to get this project moving.

With that in mind, RPS approached NashTech and a few other candidates to find the right partner for their digital journey. After thorough consideration, RPS decided to work with NashTech due to the company's proven track-record in the technology area.

> *We wanted to scale up, but we couldn't do it in the original anticipated way. So, we decided to then look for an external partner.*
>
> **Frederic Vaeremans**, Chief Data and Solutions Officer at RPS

Opening up new opportunities

RPS launched BHI, an online multi-platform risk management system, 15 years ago. The system aimed to deliver real-time information, assisting clients with modern demands of legislative compliance. BHI was delivered via a modular approach providing access to online forms which allow users to manage specific compliance requirements. However, after more than a decade, user behaviours and interactions of the old BHI system were outdated and not as user-friendly. Many of the core systems were hard-coded, which was not flexible for form designers or specialists to serve diverse purposes.

As a result, RPS needed a robust and flexible builder tool that helps admin users deliver forms for a range of business areas.

It was also decided that the UI/UX needed to be improved to provide enhanced functionalities that are easy-to-use and seamless for the users.

NashTech and RPS worked together on the 'New BHI' platform, but the plan was not to just simply replace the old system with the new scalable one in the cloud. The power of the partnership has grown much more than that.

As the business grew, RPS quickly recognised that there were many other platforms that could be streamlined and transformed, not just the old BHI system. It was a great step on the RPS modernisation journey to upgrade and migrate the old system to the cloud, using microservices architecture, but it also revealed that the IT modernisation opportunities for RPS are broad.

Across the business, although different teams were managing different systems, there was one thing in common – many of them were out of date. Teams were trying to remediate issues with old applications. Not to mention that these legacy systems were executing very similar, data driven tasks, across different departments.

After an initial assessment, it became clear that each department had an element of capturing data, either through forms or paper-based documents, scanning them into data storage systems, analysing or calculating and then presenting it back in different formats, including PDF reports, and sending it to the client.

This caused a lightbulb moment for RPS.

" *...quickly, the penny dropped, and I was saying 'You know, why are we not building a platform of modules that we can stitch together in different ways?' It's like Lego where you can create different things. The blocks themself are fixed but you can do different things with it.*

Frederic Vaeremans, Chief Data and Solutions Officer at RPS

Driving efficiencies and improved user experiences

The strategy was to build the new BHI so that it can serve different purposes. Beyond replacing the old system, the new platform offers more extended and diverse functions and features to the users.

It was halfway through the project that RPS was acquired by Tetra Tech, a global high-end consulting firm focusing on water, environment, sustainable infrastructure, renewable energy, and international development. This translates into the fact that the new BHI platform is not only beneficial to RPS but also to Tetra Tech as a whole.

> " The focus is absolutely making sure we can transition users of the old system, of the old BHI lift and BHI system onto the new platform. That's a priority.
> But there is a lot of opportunity to rationalise our existing applications, save a lot of cost and effort on maintaining a very old legacy system. This new system is like a central system that can serve a lot of purposes. So, we are basically delivering a business process automation platform that happens to replace old BHI but can also do many other things.
>
> **Frederic Vaeremans**, Chief Data and Solutions Officer at RPS, shared his thoughts when talking about the new system that RPS and NashTech worked on together

**Focusing on enhancing the user experience, the new BHI system is now offering self-serve functionalities and features to customers.
The system allows users to create bespoke assessments, tailoring the forms to meet individual needs and requirements.
End users can create reports and manage tickets by themselves.**

Now, as a part of Tetra Tech, the company has witnessed many use cases where the new BHI system can be utilised across the whole business. With its self-serve functionalities, the platform opens endless opportunities and creates a lot of interests from various business units across Tetra Tech in using the new system and creating their bespoke assessments or forms.

NashTech consulted and provided the detailed implementation of the FormBuilder components to make the process of capturing data and reporting easier. By utilising FormBuilder, forms can be customised through drag and drop functionality, components and blocks can also be renamed and tailored to meet individual own purpose. Just like Frederic had envisioned, the new system works in the same way as building with Lego.

"

Compared to the on-premises very old, creaky system, developing in the cloud gives you far more flexibility in terms of being able to scale up resources and speed up things. The new system is created in such a way that you can reuse the components going forward. You don't need to reinvent the wheel all the time. It has become more manageable.

Frederic Vaeremans, Chief Data and Solutions Officer at RPS

Furthermore, to avoid data silos, within the new BHI system, different types of master data such as KPI forms, clients list, location lists, user lists, etc. are all well-connected and have a linkage with each other. This contributes to driving efficiencies in data capturing, reporting and analysing.

Collaboration is significant

Thanks to the partnership with NashTech, RPS not only released their burdens in legacy systems but also enhanced business efficiencies and optimised business operations.

There were initial challenges in communication and setting things up at the beginning of the engagement, but both NashTech and RPS worked hard to bring the teams close together and to learn the best way to collaborate to achieve results.

" At the end of the day, if we hadn't decided to go with NashTech, and continued to try to recruit in Malaysia, we would probably be half a year or nine months behind the schedule.

Frederic Vaeremans, Chief Data and Solutions Officer at RPS

Talking about the working relationship, Frederic stressed, "You're an extension to my team in the sense that you give capacity and bring best practice. It's always good to work with an organisation like you because you have an understanding of what the latest thinking is and the team members we have on the project from your side, in Vietnam, are absolutely excellent."

Thomas van Rompaey, Programme Director added,

" Looking at what we achieved in the new BHI, the professionalism and skill of the NashTech team is an example for me on how a supplier should work together with a client. Whether it was about functional requirements, development or testing, one thing that I always noticed is a positive, constructive way to resolve challenges. And then looking at the actual work, it is and was always on a very high level.

Thomas van Rompaey, Programme Director at RPS

As the business looks ahead, RPS looks forward to strengthening its market-leading position in water, renewable energy, and sustainable infrastructure. RPS plays a leading role in raising awareness on the importance of balancing environmental protection and the welfare of the people living in it. The company plans to break into new horizons with many new anticipated innovative initiatives. For RPS, now as a part of Tetra Tech, the future is looking bright.

We are experts in technology, delivering smart solutions that solve business challenges and create value. Our award-winning teams apply deep expertise and passion to deliver complex IT projects globally.

𝕏 **@NashTechHN**

in **NashTech**

Nash Tech.