

CASE STUDY

integral
delivering the complex

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Containerisation delivered smoothly for NTI

As a business that embraces digital technology and has shown continual growth across four decades, NTI's operations rely heavily on a diversity of digital systems, programs and applications.

As it seeks to continue that growth into a fifth decade, NTI faced a number of opportunities to transform its systems to support future growth. For example, the systems it had built and evolved over the years needed to advance to deliver on identified future strategic objectives effectively. Further, whilst NTI currently prefers to maintain their own systems and data centres, NTI wanted to explore options for potential cloud migration in future.

Broadly, the varied requirements of the pre-cloud generation of applications that underpinned NTI's operations meant there were opportunities to improve:

- business efficiency
- operational responsiveness – particularly with regards to timeliness, technology and visual uplift
- system administration capabilities
- support for the critical enterprise core software platform on which so much of its systems rely.

THE CLIENT:

The specialist insurer protecting Aussie transport and logistics businesses

NTI is an Australian success story. Growing from a small business named R&G Insurance Consultants, NTI has, over almost five decades, become Australia's leading transport, equipment and logistics insurer.

NTI itself was formed in 1986 when local insurers AMP, Sun Alliance, General Accident and QBE came together as equal joint shareholders. National expansion followed and today NTI is Australia's foremost specialist insurer.

The current NTI shareholders are IAG's CGU and Suncorp's Vero, two of Australia's largest general insurers.

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THE CLIENT:

NTI has enjoyed this growth through always putting people first.

Its business DNA can be summed up as:

- Customer service
- Innovation in digital delivery
- Excellence in claims
- Internal expertise
- Focus as a specialist in its niche markets.

It is the focus on digital innovation that led to Integral and NTI working together.

THE TEAM:

NTI established an internal project team tasked with assessing application platform products.

THE CHALLENGE:

NTI first adopted containers in 2017, leveraging the power to assist with new machine learning modelling techniques. NTI built a fit for purpose, container management platform during that period but as the value and opportunities of containers became obvious NTI needed to implement an enterprise level management platform.

The NTI project team identified several key areas to focus on during their evaluation of various containerisation platforms. Finding a balance among these key aspects would be the central challenge in selecting the right platform.

Key aspects:

- Increasing agility by removing traditional manual environment provisioning roadblocks
- Finding time savings through achieving faster turn-around
- Driving value through pursuing ROI, feature and function and ability to scale
- Improving documentation so that the system is easily supported, and knowledge is easily shared, thus reducing dependence on any single resource
- Increasing flexibility in order to accommodate the diversity in application portfolio and the business's developing needs
- Delivering aggregated logging whilst respecting associated (access) security
- Supporting automation - particularly with regards to CI/CD and pipelines
- Leveraging existing investment in highly capable enterprise storage provisioning infrastructure
- Boosting HR benefits through ramping up skills, increasing staff retention and ensuring career progression

What is application containerisation?

Application containerisation is a virtualisation method taking place at the operating system level. Many of the specialist applications used by financial institutions require specific operating system environments in which to run and many other applications require different ones.

Containerisation gets around this conflict to enable them all to operate within the same overarching Operating System. In other words, multiple isolated applications that are running on a single host are accessing the same OS kernel.

The benefits of containerisation include:

- Higher operational efficiency
- Increased security
- Simplicity of maintenance
- More comprehensive reporting



INTEGRAL / NTI APPROACH:

NTI selected Red Hat OpenShift Container Platform, after a review by internal team, assisted by Integral.

Since 2014, NTI has invested heavily in an undergraduate engagement program, aiming to develop future IT leaders by solving real world business problems, from early stages of university life. Undergraduate programs provide prospective employees with real life skills (technical, business and people) in leading brand name organisations completing meaningful/real life work.

In this instance the NTI undergraduate intake of 2017/18, NTI and Integral specialists were tasked with evaluating commercial platforms. Integral executed a Proof of Concept on small systems to evaluate the platform. Integral has worked on several of these initiatives and has had exposure to the issues that comes with experience on the identified Red Hat's OpenShift platform and the lessons we have learnt while conducting similar work for other clients.

A broader group again including Integral and NTI migrated several existing services onto the platform.

The initiative enabled new ways of working for NTI:

- **Developer onboarding:** In this process, key team members from NTI quickly saw the advantages of the platform in relation to their outputs. More specifically, they also developed a deeper understanding of the improved efficiencies they could achieve by embracing the platform
- **Cultural Change within the team:** The ability for non-technical staff to establish environments for testing based on established templates. Previously, environment enablement was limited by the availability of staff and was complicated with release strategies, environment availability and inability to test hot fixes in isolation
- **Application modernisation journey:** With the migration to cloud a possibility in the future, the OpenShift Platform will allow NTI to continue the application modernisation journey supporting a variety of applications in their work environment
- **Role shift of Infrastructure and DevOps:** Traditional infrastructure and application deployment models are becoming more and more dynamic with lines of demarcation becoming less clear
- **Leveraging existing infrastructure:** Such as VMWare and Nimble storage, to ensure continued ROI

THE SOLUTION:

After undertaking a proof-of-concept on a small group of applications, the project team found that Red Hat's OpenShift platform was the best fit and value for money.

Out of the box, Red Hat's OpenShift platform provides:

- An integrated platform including container host, Kubernetes, and application life-cycle management using your choice of infrastructure
- Greater value from operations and development teams throughout the application life cycle
- More secure, validated container content and services from a wide partner ecosystem
- Faster application development cycles and more frequent software deployments with simpler installations and upgrades, even in air-gapped environments

Once the NTI team decided to adopt the Red Hat OpenShift platform, the project could then move on to acquisition and eventually integrating Red Hat's OpenShift platform with existing systems.

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When you challenge your development teams to: do things better, innovate and transform proven processes and technology, and set your business up for the next 5 years, it is not something you take lightly. Leveraging NTI's internal expertise and innovative culture combined with Integral's specialist consulting team, the initiative resulted in the right choice: **Red Hat OpenShift Platform**.

MARCUS SWEENEY, CHIEF INFORMATION OFFICER

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INTEGRAL'S VALUE-ADD:

Through its work with Integral, NTI could confirm that Red Hat OpenShift Platform was the ideal platform to containerise its application ecosystem and set it up for future growth. What's more, through working with Integral the insurer enabled a consistent implementation approach leveraging best practices to enable the benefits outlined above. The project team leveraged the Integral experience to validate their methods, with specific outcomes being realised by the project in:

- Defining a clear strategy for deployment and rollout of new applications
- Identifying the optimum cluster design for the target future state
- Settling on an approach for migrating the existing applications with as little modification as possible
- Enabling a clear focus for resources - especially regarding automation
- Establishing a CI/CD approach to meet evolving business requirements
- Templating the deployment to remove manual processes

CONCLUSION:

Containerisation Platform Chosen, Implementation Awaits

Containerisation can turn a temperamental and inefficient app ecosystem into a coherent, modern, integrated and cloud-enabled asset to drive future growth. However, to achieve this requires careful selection of the platform and planning of the migration.

With Integral on their side, NTI's own experts were assured they were making the right choice. Integral's partner relationship with Red Hat meant NTI could draw on a deep understanding of Red Hat's OpenShift container orchestration platform to best deliver on early strategic goals and begin making headway on critical business goals.

Need a leader in business and technical solutions?
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into opportunities.

ABOUT INTEGRAL

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Integral is a leading provider of business and technical solutions and services for organisations with complex IT needs.

Established in 2001, Integral operates across Australia and in parts of SE Asia, working with telecommunications companies, government departments, financial institutions or any organisation that has a critical business reliance on information technology.

At Integral, we specialise in delivering the complex, simply.

If your business relies on IT and it's critical to your success, we can help make it simple and provide great outcomes.