Case study: Attaché Software

How moving to AWS and automating deployments boosted the growth of a multi-million dollar SaaS Accounting & Payroll Software

In their own words

“base2Services put the tools in place and delivered the automation to support our processes. They architected the infrastructure to automatically scale when needed, implemented best practice security, and provided 24/7 monitoring...being a fast start up is how Attaché runs every day. base2Services have run alongside of us and sometimes even ahead to get us exactly where we want to be.”

Dave Norris, CTO, Attaché Software
A bit about Attaché Software

As one of Australia’s oldest ISVs (1981) Attaché develops software for growing medium businesses that lets them optimise payroll, accounting and operations. Clients can track and store payroll and accounting information on the cloud while meeting security standards and being highly available. Medium-sized businesses in Australia use Attaché when they’ve outgrown entry-level solutions but don’t want the burden of large ERP systems from enterprise providers.

In total, Attaché helps more than 70,000 users run their businesses and pay over 500,000 employees. With over 1.2 million recipients of business documents, Attaché is also one of the top self-service document portal providers in Australia.

What Attaché Software needed

With the massive change of technologies over the last 4 decades, Attaché were adapting their feature-packed desktop application into a multi-tenant web-based SaaS solution, Attaché Online, and adopted a startup mindset to accelerate delivery of new functionality for customers. Before working with base2Services, Attaché’s software ran on an incumbent hosting provider with deployments via shell scripts.

As Attaché’s SaaS product grew in popularity and complexity, the overhead of manual scaling, matching dev environments to production, and ensuring security became unacceptable. Consequently, Attaché began to explore options to move all their hosted services to the cloud, specifically Amazon Web Services. A move to cloud infrastructure was also critical for customer growth. New customers want to test Attaché’s software before they commit.

The challenge was that Attaché’s internal development team didn’t have expertise in AWS deployment and DevOps. Through their initial forays into cloud deployment, Attaché discovered the learning curve was steep and time-consuming, distracting developers from customer focused priorities. They wanted to implement automation to free up the development team and move to an auto-scaling SaaS model to seamlessly scale to changing demands. In addition, security is paramount for a company that deals with payroll and accounting data. Attaché realized they needed a DevOps partner with AWS, automation and security expertise in order to make the transition smoothly.
Attaché engaged base2Services to facilitate their move to AWS. base2Services provides ongoing consultation, optimisation and support for all Attaché’s DevOps and cloud management needs through our proven DevOps as a Service model.

Three priorities were set for the first months of DevOps as a Service:

1. Create an automated CI/CD pipeline to deployment
2. Ensure data security up to industry standards and best practices
3. Auto-scaling, load testing, and high availability of the application, hosted completely off-premise

Over the course of just a few months, our team implemented a 100% cloud infrastructure on AWS, eliminating the need for on-premise servers. The new infrastructure featured self-healing, auto-scaling groups to make the application highly available and reliable. In addition, a CI/CD pipeline was implemented for automated testing, integration, and delivery of builds. Where developers used to avoid pushing changes during busy times of the month for fear of breaking the production application, they now confidently deploy changes in the middle of the busiest working hours.

Crucially, base2Services provides ongoing security expertise. Attaché deals with financial information from thousands of users across the world. This data has to meet security and compliance standards in multiple nations. Most importantly, Australian data needs to follow data sovereignty regulations, meaning the Amazon instances need to be securely hosted in Australia with all security best practices met.

After the initial migration to AWS, we worked with Attaché to evaluate next steps and priorities including leveraging more automation, containerization and microservices. DevOps as a Service continues to provide consulting, enhancements, and new services -- along with 24/7 support. Far from merely being a consulting engagement or a maintenance retainer, our DevOps as a Service provides a true DevOps partnership for Attaché. Together with their team we constantly implement new automation, processes and tools as Attaché’s business needs and priorities evolve.

Key innovations we implemented so far:

- Automated CI/CD pipeline standardizes environments across dev, test, and production using Amazon Machine Images to maintain the same artifact all the way through
- Auto-scaling and self-healable Windows EC2 instances
- Data storage hosted securely on Amazon Aurora for high performance and reliability
- Amazon CloudWatch Alarms, CloudWatch Logs, and Lambda function endpoint monitoring for automated notifications of system problems
- Jenkins CI/CD pipeline with automated testing and build deployment
- Compliance with government regulations and security best practices for AWS
- Data sovereignty compliance: Backups of all EC2 and RDS instances stored in Australia with backup retention policies
- Provided a framework for Attaché to refactor and build out new features at speed using .NET Core containers on Amazon ECS

See the impressive results

- Increased deployment velocity, from once per quarter to daily, reducing technical risk through smaller and more frequent changes
- Planned deployment outages from 2 hours down to zero. All deployments happen seamlessly, so new features reach customers as soon as they’re complete
- Mean time to failure from quarterly down to zero, and average recovery time from 2 hours to instantaneous with easy rollbacks, leading to higher customer and internal confidence
- Reduced onboarding overhead for new clients as new resources are automatically allocated rather than manually configured
- Reduced churn on the development team from 15% down to 2%, leading to lower recruitment and training costs while improving the stability of internal knowledge about the application

6500% increase in deployment frequency
0 planned outages for deployments necessary
87% reduction in dev team staff churn
Get in touch

base2services is a leading Australian Cloud Delivery, Operations and Management company that specialises in DevOps, AWS and cloud-native services.

We provide DevOps as a Service which enables development teams and ambitious organisations to accelerate innovation through automated, highly secure, repeatable and scalable cloud-based solutions.

Contact us today to find out how we can help you.

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