INDUSTRY
Pharmaceuticals

HEADQUARTERS
Northern Ireland

WEBSITE
www.almacgroup.com

OBJECTIVE
Almac needed to reduce the time frame for processing clinical trials from 12-14 weeks to 6 weeks, while guaranteeing the quality of trials from start to finish.

SOLUTION
Almac implemented V Realize Automation to enable the automation of the infrastructure, the platform and the software.

ORGANISATIONAL IMPACT
- System automation enabled Almac to meet its targets of reducing time to production from 12-14 weeks to just two weeks
- Automation has resulted in a great reduction in the number of quality incidences, bugs and misconfigurations, through a repeatable, high quality cycle.
- IT team productivity has increased as more of the trial process could be handled by the business, reducing reliance on IT for help
- Reduced time to market enabled patients to access the medication they needed much more quickly

ALMAC

Almac Group brings vital medicine to market faster with VMware vRealize Automation

Almac Group is a full service pharmaceutical company, headquartered in Northern Ireland and with facilities in the UK, US, Singapore and Japan. With more than 4,000 employees worldwide, it supports the global biopharmaceutical industry with drug development activities from clinical trials and services, through to improving efficiency in the development of new medicines.

Almac Clinical Technologies is a division of the business which provides critical software for drug development and trial supply management, enabling its customers to manage all key components of clinical trials including screening, randomisation, dosing, drug supply/inventory management, patient tracking and clinical outcomes assessments.

The Almac Group needed to increase the quality and performance of its clinical drug trial software, which is used by 18 of the top 20 pharmaceutical companies across the world, whilst speeding up the delivery time of a new version of this application to its customers. Almac worked with VMware Premier Partner Triangle, based in Ireland, to deploy VMware vRealize Automation, transforming its traditional development and delivery approach from manual through to complete automation. Automating its systems in this way has meant that Almac has been able to meet its targets of reducing time to market for new software from 12-14 weeks, to just two weeks. Ultimately this has enabled drug trials to start more quickly, enabling more rapid patient feedback and the faster development of new drugs for sick patients.

Business challenge

Almac Clinical Technologies, part of the Almac Group, provides software to manage clinical trials and supplies for Almac Group's global pharmaceutical customers, ensuring optimal inventory and efficient supply costs throughout drug studies. In managing these trials, the software enrols and randomises patients, and enables the management of patient kits to its customers.

Getting the drugs from the production environment through to the patients as quickly as possible is one of the biggest business objectives for both the Almac Group and its global pharmaceutical customers. The trials that Almac supports involve thousands of patients, last several years, and span across multiple geographies. Therefore, the speed, efficiency, reliability and scalability of its clinical trial software is critical to achieving faster trial times at such a large scale. Typically, the process of getting the drug from customer PO through to the patient was between 12 – 14 weeks, but the Almac Group was looking to reduce this time period to six weeks.

Andrew Hillis, Group Head of Information Services, Almac Group explains: "Our clients include 18 of the top 20 pharmaceutical companies in the world. Our software supports the development of drugs which are urgently needed by sick patients on a global scale. Quite simply, if our software does not work, patients do not receive the right drugs at the right time."

In order to achieve this level of quality, the Almac team had already begun the process of updating and rewriting significant parts of its software, but it also needed to address the underlying infrastructure which supported the smooth running of its main applications.

"The nature of our work in supporting clinical trials means it's absolutely vital that we have as few quality incidences as possible. VMware's vRealize Automation has enabled us to increase productivity and improve the quality and speed of our trials, benefitting both Almac and patients across the world."

Andrew Hillis, Group Head of Information Services, Almac Group

"The infrastructure which supports our applications is just as critical as the solution itself. As well as rewriting the software, we took a holistic approach to the supporting infrastructure, addressing our approach from our private cloud set-up in our data centres, through to the automation processes across the platform," continued Hillis.

"One of the biggest challenges we faced was the time in which we needed to make these changes and deliver newer versions of our software to our customers; the business already had a marketing campaign in place to promote our new solution externally, and our customers were coming to expect slicker and more reliable solutions. Historically, we had taken a more traditional, waterfall approach to development, but this manual approach simply couldn't give us high enough levels of assurance around the speed and quality of deployment we were looking for."

The solution

The Almac Group needed a solution which would enable it to increase quality, reduce errors and speed up the delivery time of new products to its customers. To this end, the Almac Group began moving towards a fully automated approach to development: "We looked at the major vendors in the marketplace, which we could see were VMware and Microsoft. We went through a procurement process and we believed that VMware had a better story to tell. We were already using VMware very successfully at the hypervisor level and there was more evidence of VMware's automation solution being used effectively across the market."

VMware vRealize Automation automates the end-to-end delivery and management of infrastructure, platform and software, providing consistent delivery and management of IT services, reducing time-consuming, error-prone manual processes and accelerating application deployment time. The Application Services component of VMware vRealize Automation also automates application provisioning in the cloud including deploying, configuring, and updating the application's components and dependent middleware platform services on infrastructure clouds.

The Almac Group realised that achieving

this transformation from traditional development processes towards an entirely manual approach on its own would be difficult, particularly with such tight timescales. At this point, it turned to Triangle, a Premier VMware partner, which had the technical expertise required to assess Almac's current technology set-up and suggest the best approach for implementing VMware vRealize Automation.

Donal Byrne, Head of Automation at Triangle Computer Systems explains: "Almac's main objectives in approaching us was to help them to implement the automation solution and to speed up their own deployment and testing processes in delivering the application to their business-users, and ultimately their end-customers. We started with a small proof of concept and then built on this towards production, engaging closely with their technical teams."

"We could see that Triangle had worked on a number of similar projects in the past with great success, and the team had the confidence to guide us through the implementation as efficiently as possible. We were also working with a brand new VMware release, but Triangle's close relationship with VMware and access to technical experts meant that they were able to spot and work through any challenges with the deployment quickly and effectively," said Hillis.

Business benefits

Automating its systems in this way has meant that Almac has been able to meet its targets of reducing the time to production of software from 12-14 weeks, to just two weeks.

The guaranteed quality brought by automation has impacted the business significantly, eradicating the number of quality incidences associated with its software. The Almac Group places a huge emphasis on the quality of its products due to the length of its sales cycles; which can span from one to five years. It's critical that it has the best quality products to bring to market. "When we relied on manual processes, every event was managed slightly differently, and we were much more open to human error," said Hillis. "A different pairs of hands and eyes would come into play and things would go wrong. Now we have a repeatable, high quality cycle.

This has also led to a dramatic fall in the number of quality incidents, bugs and misconfigurations, ensuring that we have a far stronger product to go to market with."

Automation has also resulted in significant time savings. The development team now has the ability to provision the platform on demand, without approval of procurement. This has reduced provisioning time from four weeks down to a couple of hours. This benefit is ultimately passed on to the patients because the once trial is ready, patients can be enrolled much quicker and drugs can get to the patients in a much shorter time frame.

Future plans

Currently, Almac operates across more than 100 countries, but there is tremendous opportunity for growth into new regions. By taking an automated approach, Almac now has a consistent and cost effective method for developing and delivering its applications to new markets. "As we enter new markets, we will need to consider our capabilities around delivering our applications quickly and efficiently, without the cost and delay of building new infrastructure in each region. Through VMware's vCloud Air network, we have the potential to move our workloads to new markets through the same automated approach we have already been taking; enabling us to meet local data sovereignty requirements where necessary," concluded Hillis.

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