

CASE STUDY: ASTRAZENECA

Discovering new levels of agility with multi-cloud self-service and DevOps automation.



AstraZeneca is a global, science-led bio-pharmaceutical business that delivers innovative and life-changing medicines used by millions of patients worldwide. Operating in over 100 countries, with hundreds of projects in its pipeline at any given time, the company focuses on the discovery, development and commercialization of prescription medicines primary for Oncology, Cardiovascular, Renal and Metabolism and Respiratory Therapy.

IT PROFILE

AstraZeneca operates one of the most robust hybrid IT environments in the bio-pharmaceutical industry. Arguably one of the busiest and brightest in the business, the company's enterprise IT organization oversees more than **16,000 virtual and physical servers** and **2700 applications** across **27 global locations** spanning on-prem infrastructure and multiple public cloud providers including AWS and Microsoft Azure.

“Our agility and performance with Morpheus surpassed all expectations. Service delivery used to take 80 hours per server end-to-end, but now we can provision 30 servers at a time in 27 minutes start to finish. We couldn't have realized this level of automation with a traditional CMP.”

CHALLENGE

AstraZeneca's Global Infrastructure Services (GIS) division acts as the centralized architecture and engineering team to support the huge volumes of IaaS and PaaS requests coming from seven key business units.

Like most industries today, bio-pharmaceuticals is a segment where time is the enemy. Speed is the currency of competitive differentiation and as such the GIS leadership is under constant pressure to deliver more value in less time. After analyzing processes, the team determined that developer requests for resources took an average of 80 man-hours to fully deliver in a production ready state because of manual handoffs and approvals across systems and teams.

- Requester provides build details
- Network Services team request IP addresses
- IAM Services group creates DNS records
- OS Support team provisions first three stages
- Servers added to patching and monitoring
- Protection adds job, then configure and test
- Completion of qualification and compliance
- QCS team review and final approval

The company was simply growing too quickly to continue with this type of bottleneck. The GIS team knew that unless they introduced additional automation and orchestration to streamline their processes, it could hinder future delivery times to their internal clients.

SOLUTION

After realizing the legacy approach to automation wasn't cutting it, AstraZeneca decided to look for a more innovative and agnostic approach. The search led them to both traditional players and emerging technology vendors including Morpheus Data.

During the Proof of Concept (PoC) phase, the results were immediate! Less than 24 hours after starting their implementation, the GIS team was able to enable push-button provisioning of new instances to their VMware ESX cluster using the Morpheus multi-cloud management platform.



Today, Morpheus automatically orchestrates every ServiceNow user request across AstraZeneca's compliance, networking, access, quality and control, operations and capacity management tools and platforms. Server builds are fully automated and standardized across on-premises and public clouds. The entire service delivery process takes a mere 27 minutes with the previous, labor-intensive manual process having been replaced by a few automated steps available from a SysAdmin friendly GUI or a Developer friendly API.

The increase in deployment speed not only enables AstraZeneca to compete more effectively in market, the GIS team has significantly reduced operational costs.

TECHNOLOGIES INVOLVED

The Morpheus deployment brings together a number of technologies and automates workflow seamlessly.

Key integrations and applications include:

- **Clouds:** VMware, AWS, Azure
- **ITSM:** ServiceNow
- **Config. Management:** SaltStack
- **Web:** Apache, Tomcat, JBoss
- **DB:** Microsoft SQL, Oracle
- **OS:** Windows, CentOS, RHEL, OEL
- **Identity:** Microsoft Active Directory
- **Networking:** InfoBlox and Cisco ACI



RESULTS

Since adopting the Morpheus platform, AstraZeneca's deployment efficiencies have continued to skyrocket while keeping up with constantly changing business demands. In 2017, the company focused on working smarter through increased automation. In 2018, the focus is on working faster.

Benefit highlights include:

- **Greater developer agility.** End-to-end deployment times improved by 177x with the orchestration automation capabilities of Morpheus.
- **Rapid and straightforward deployment.** Started provisioning new machines within 10 minutes of installation and fully deployed in production worldwide in less than 90 days.
- **Unified orchestration from ITSM to CI/CD:** Single point of service request via ServiceNow plus SaltStack integration to deploy agents and manage highstate.
- **Increased workforce productivity.** Completed deployment phase of a nine-month infrastructure transformation project nearly six months ahead of schedule.

ADVICE FOR OTHERS

From design to proof of concept and throughout the life-cycle, the team recommends working hand-in-hand with your orchestration vendor especially when challenges arise.

"That's when companies know they are truly partnered," according to one team member. "Morpheus' questions helped us evaluate our issues in a way we were not even aware of. The work benefited both teams, and this type of trusted partnership is critical when you're dealing with something as integral to IT as multi-cloud orchestration."



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