

# Devops - Led Infrastructure Transformation for a Leading Medical Imaging Solutions Provider



ATTENTION. ALWAYS.



**aspire**   
SYSTEMS  
*attention. always.*

## THE CUSTOMER

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Our customer is a leading provider of medical image handling and processing, interoperability and clinical systems that seek to advance healthcare. They also provide clinical trials software with end-to-end study support in a single platform and other intelligent health data and analytics solutions.



## THE CHALLENGE

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The customer was striving to optimize its infrastructure and improve application deployment management across their diverse application landscape.

A dedicated resource team was required to set up new environments. And a lot of man hours were spent on application installation and application upgrade testing. This in turn made it difficult for them to deliver new software applications and features at a pace and quality that could keep up with their business needs.

They were in need of a hassle-free automated development environment that would make these processes faster and more flexible and provide their clients with optimal availability and performance.

# THE SOLUTION

Aspire's solution involved setting up automated infrastructure provisioning and application deployment processes for their apps.

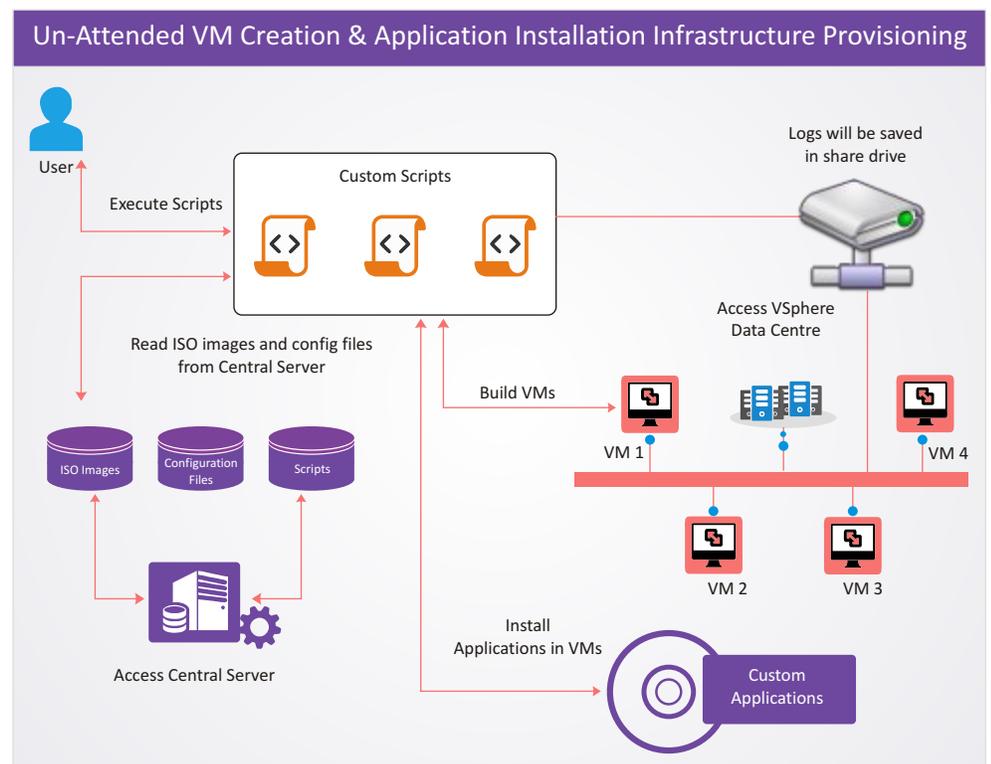
Aspire's solution involved setting up automated infrastructure provisioning and application deployment processes for their apps. As a result, they could build environment on the fly and perform application upgrade path testing without any obstacles.

The scope of the initiative included the following:

## Automated VM Deployment and Application installation

We created a simplified and user-friendly VM input excel sheet for spinning up new VMs. A Shell script was also created to read the name of the target operating system from the input sheet and trigger the corresponding OS installation. Furthermore, we provided a PXE boot option to help the testing team store OS ISO images in the centralized repository. Our scripts will fetch the correct OS from the list and install it without user intervention.

For carrying out post-installation tasks such as applying VM configurations, creating partitions and installing applications, we created a Perl script. The user can simply trigger the post installation script and it will carry out the required tasks. An email alert is triggered to the users once the tasks are complete.



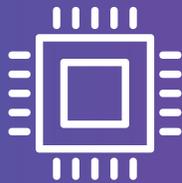
## Automated Application Upgrade Path Testing

Their application upgrade tasks were automated using Perl & Shell scripts. Application upgrade consists of four phases; the base OS, Platform and Oracle database needs to be upgraded first in order to upgrade the target version. We created an input excel sheet, where the testing team can fill in their target versions of the application. Our scripts will read the values from the excel sheet and perform the installation/ upgradation task accordingly. All the four phase scripts are written separately and integrated as a chain so that the testing team can execute them separately if necessary; otherwise the user can simply trigger single script to call others.

The fully automated solution reduced downtime for application upgrades from **10 hours to less than 1 hour.**

## Infrastructure as a Code

Committed their entire infrastructure as a code (versionable, testable and repeatable), thus allowing optimized control and monitoring.



VMware vSphere

VMWare VSphere PowerCLI

SUSE

ORACLE

Perl

## BUSINESS BENEFITS



Any new user can spin up new environments on the fly as opposed to the time-consuming manual processes used earlier.

Reduced OPEX by 50%. Optimized costs across data center with minimum initial CAPEX investment.



Completely reduced system outage time.

Shortened lead times for release cycle of new products by 30%.



Self-service capabilities brought to users also drastically slashed IT workload.

## FUTURE IMPACT



By providing them greater agility for faster go-to-market with flexible applications that can change quickly, Aspire's solution would help the customer achieve continuous business operation. It would also build the required level of scalability to match growth. Furthermore, faster addition of new features would give their business an edge and help them achieve marketplace differentiation in the long run.

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## ABOUT ASPIRE

Aspire Systems is a global technology services firm serving as a trusted technology partner for our customers. We work with some of the world's most innovative enterprises and independent software vendors, helping them leverage technology and outsourcing in our specific areas of expertise. Our core philosophy of "Attention. Always." communicates our belief in lavishing care and attention on our customer and employees.

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