

Energizing Service Delivery Speed and Agility with Private Cloud Automation



Redes Energéticas Nacionais (REN) is a Portuguese energy sector company holding the concession on the country's two main infrastructure networks: the National Electricity Transmission Grid and the National Natural Gas Transportation Grid. REN is also responsible for the reception, storage and regasification of liquefied natural gas (LNG), the underground storage and transport of natural gas, and is a public telecommunications service provider.

As Portugal's exclusive Transmission System Operator (TSO) it is responsible for the planning, construction, operation, maintenance, and global management of both these grids and associated infrastructures; serving a population of 10 million people. Furthermore, REN is internationalizing its operations with a growing energy presence in South America.



CHALLENGE: SUPPORT GROWTH AND MODERNIZE PROCESSES

REN's significant domestic and international growth coupled with a drive to further improve performance and quality of service lead to them commissioning two new datacentres in 2018 to host the country's critical information and telecommunications systems.

REN's original datacentres were siloed, hundreds of kilometers apart, and focused on Disaster Recovery (DR) as the primary use case. Provisioning new applications or VMs took two to three weeks, involved stitching together disconnected technologies, and was both manual and error-prone.

In addition, a focus on Virtual Machine (VM) provisioning rather than application architecture, a lack of telemetry and analytics, and the understandable difficulties of knowledge sharing amongst distributed employees and contractors gave the team at REN significant challenges as they tried to position themselves for future growth.

Faced with technical debt and legacy processes, REN recognized the possibilities offered by implementing a unified approach to application orchestration and automation. Their new mission was to achieve a single end-to-end workflow with complete visibility to all stakeholders.

SOLUTION: HYBRID CLOUD APPLICATION ORCHESTRATION

The team at REN embarked on a comprehensive evaluation process of multiple cloud management and automation platforms with a focus on both the technical solution and also the business relationship.

REN's ideal platform was a combination of out of the box codeless integrations with the likes of VMware, Nutanix, Microsoft DNS, Cisco ACI, Ansible, and GitLab; and simple customization to provide workflow automation in the absence of built-in integrations.



TECHNOLOGY STACK

Private Clouds

- VMware vSphere
- Nutanix Acropolis

Task Automation

- Ansible
- PowerShell

Backup & Disaster Recovery

Deployment / SCM

- GitLab

DNS

- Microsoft DNS

Networking

- Cisco ACI
- phpIPAM

Log Management

- SIEM Platform

REN's Morpheus proof-of-concept was up, running, and fully deployed in less than a day; largely down to 95% of the technology integrations being available out of the box. The remaining 5% of technology integrations were covered by a simple to use, extensible plug-in SDK.

The REN team found the user interface and reporting ensured transparency and visibility, and that the platform proved reliable and simple to use. The Morpheus team's advice and expertise both during and since implementation has proved a stable foundation for a strong business relationship.

RESULTS: IT LEADING THE WAY AND REDUCING RISK

Previously, knowledge was siloed with team members focussed on their specific area of expertise, whilst now the team is more collaborative and siloes have been eliminated. Morpheus acted as a catalyst for a new way of working and opened the door to different tools and techniques.

Whereas before, infrastructure provisioning could take two to three weeks, now it takes REN a matter of minutes. Business units saw improvements in how IT was delivering application infrastructure both in terms of speed of service delivery and also consistency of deployment.

Given REN's leading role in Portugal's energy sector and the critical importance of that infrastructure to the country; the speed and consistency of deployment, and subsequent transparency and visibility offered by the Morpheus interface significantly reduced risk.



ADVICE AND INSIGHT

Jose Campos, REN's Technical Architect and Project Manager, recently offered these words of advice to another enterprise organization looking to make a cloud management and automation platform purchase.

'It's important for organizations to recognize the benefits of automation. With the right platform nowadays almost all parts of the workflow can be automated - from network provisioning, to VM provisioning, to security provisioning and compliance.'

'The right cloud management platform choice is very important: balance out of the box integrations with extensibility and flexibility because you never know what you're going to run in to.'

'You need to see it to believe it: make vendors clearly demonstrate the value of their technology.'

Ask for more show ... less tell.'

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