



Virtualization Automation & Infrastructure Management

Client Profile:

National Specialty Retailer

Business Challenge

Our client, a leading auto parts retailer, faced significant challenges in automating their virtual machine (VM) image build and lifecycle management. The need to enhance business operations, improve scalability, and strengthen security drove their initiative. However, their reliance on manual processes introduced inefficiencies, increased security risks, and placed a heavy operational burden on the IT team. To address these concerns, the company required a robust automation framework that would streamline VM image creation and lifecycle management while minimizing manual intervention.

Technical Challenge

The primary objective was to streamline and automate the VM image build and lifecycle management process to:

- Boost operational efficiency and IT team productivity.
- Ensure consistency, scalability, and reliability across the infrastructure.
- Strengthen security measures and ensure compliance with industry standards.

Success was measured by reducing manual efforts, enhancing scalability, and fortifying the security posture of the IT environment.

Our Solution

The Keyva team designed and implemented a comprehensive automation solution tailored to the client's hybrid infrastructure. The solution included:

- **Technology Stack:** Integrated Ansible for orchestration, VMware for cloud infrastructure, JIRA for change management and CMDB, Mattermost for notifications, Nessus for security scanning, Packer for image builds, BlueCat for IP address management (IPAM), and GitLab for CI/CD automation.
- **End-to-End Integration:** Connected various tools to automate VM provisioning and lifecycle management to ensure seamless operations and scalability.



- **Agile Execution:** Adopted an agile approach with sprint-based implementation and incorporated regular knowledge transfer sessions to empower the client's team.
- **Customization for Reliability:** Developed custom solution to handle potential system downtimes to ensure high availability and adherence to internal security standards.

Results

The Keyva team delivered an automation solution what provided tangible outcomes, including:

- **Operational Efficiency:** Reduced manual efforts and achieved significant time savings, with an estimated 500 hours saved annually for every instance deployed.
- **Scalability and Security:** Strengthened the IT infrastructure's scalability and security posture, reducing the risk of breaches and ensuring compliance with industry standards. This included running automated CIS scans and achieving compliance with PCI standards.
- **User Empowerment:** Deployed a self-service portal for internal teams to simplify request and management of VM resources.
- **Future Growth:** The success of the initiative paved the way for extending automation to additional teams and environments, including those with stricter compliance requirements for security.

Why Keyva?

Keyva's expertise in automation and infrastructure management enabled the client to transform a manual, resource-intensive process into an efficient, scalable solution. By implementing an end-to-end integrated framework, Keyva not only delivered operational efficiencies but also empowered the client's IT team with the knowledge and tools to manage and expand the solution independently. With a strong focus on delivering long-term value, Keyva continues to be more than a solution provider, we are a trusted partner in driving business transformation.