



CLIENT SUCCESS STORY

OPENLANE Migrating VMware VMC Instances to AWS Cloud-Native Services

In mid-2022, OPENLANE, a leading digital marketplace for used vehicles, received a directive to evacuate its on-premises data center by a set deadline. To address this, OPENLANE migrated its application portfolio, primarily hosted on VMware, to VMware Cloud (“VMC”) on AWS as a tactical stop-gap measure. Over the next three years, OPENLANE transitioned from VMC to AWS cloud-native services. OPENLANE’s strategic move to cloud-native AWS services focuses on meeting operational, security, and governance requirements through Infrastructure as Code (“IaC”) technologies. Sierra-Cedar worked with OPENLANE to design, deploy, and manage its Oracle PeopleSoft applications into this new cloud-native framework.

Challenges Faced with VMware VMC

While VMware’s VMC service on AWS addressed OPENLANE’s urgent migration needs, it also presented some long-term challenges, particularly for those managing the PeopleSoft technology stack. The cost of running VMware on public cloud infrastructure proved significantly higher, with no operational benefits compared to on-premises. Though VMC served as the most efficient option for meeting the data center evacuation deadline, it was primarily a stop-gap rather than a modernization solution. As OPENLANE began to explore more advanced automation and modernization strategies, including leveraging Infrastructure as Code (IaC), the limitations of VMC became more apparent. These factors reinforced OPENLANE’s decision to transition to cloud-native solutions and partner with a service provider with application experience capable of navigating the complexities of automation and cloud modernization.

- 01 **Cost Increases:** Running VMware on public cloud infrastructure increased costs. AWS native services offered similar or superior server, network, and storage virtualization options at a more competitive price point and greater deployment flexibility and scalability.
- 02 **Application Operations Inefficiency:** Due to competing business priorities, OPENLANE’s PeopleSoft administration team had to focus more on infrastructure and OS maintenance, delaying updating PeopleTools and PUM images. While VMware VMC provided the necessary infrastructure, this focus on maintenance over updates impacted system performance and prevented the timely adoption of new application features.
- 03 **Need for Infrastructure as Code Capabilities:** As OPENLANE transitioned from VMware VMC to AWS cloud-native services, there was a growing need to develop Infrastructure as Code (IaC) capabilities to automate infrastructure deployments and streamline application operations in AWS. This shift was driven by the company’s broader strategy to enhance automation, improve operational efficiency, and support long-term scalability within the cloud-native environment.



AWS Solution:

Migrate VMware Instances to AWS EC2 Instances and Cloud-Native Services

After evaluating multiple AWS migration service providers, OPENLANE selected Sierra-Cedar, an AWS Advanced Consulting Partner, due to its expertise in PeopleSoft applications, flexible engagement model, and experience with IaC tools. The partnership was further supported by AWS’s Migration Acceleration Program (MAP), which provided valuable financial assistance by covering approximately 30% of the migration costs.

Migration Approach with Agile DevOps

Sierra-Cedar applied its FlexOps methodology, grounded in Agile and DevOps principles, to guide the migration in two phases. Initially, Sierra-Cedar was engaged to assist with designing and planning the migration strategy. In the second phase, Sierra-Cedar and OPENLANE partnered to accelerate code development and build automation features for OPENLANE's PeopleSoft environment, leveraging Sierra-Cedar's experience to improve efficiency and streamline operations in AWS. You can find more about Sierra-Cedar's FlexOps methodology at <https://www.sierra-cedar.com/aws-vmware>

Benefits Realized

OPENLANE achieved great immediate and long-term benefits with this project, including:

- ✓ **Improved Operations Automation:**
Adopting IaC tools enabled OPENLANE to establish a more consistent method for applying changes, such as patches and updates. While full automation of tasks like environment refreshes is still in progress, the move towards IaC has already contributed to reducing manual effort and improving system stability.
- ✓ **Accelerated Migration to Cloud-Native:**
Sierra-Cedar's expertise supported a swift migration to AWS cloud-native services. Custom accelerators addressed specific application and operational needs, while SRE team collaboration and application team training facilitated a smooth transition.
- ✓ **Cost Savings:**
OPENLANE anticipates a 50% reduction in costs compared to its VMware VMC expenses, supported by AWS's funding programs that provide resources for exploring additional services.
- ✓ **Improved Governance and Security:**
The transition to AWS cloud-native services, supported by IaC, has laid the foundation for enhancing governance and security at OPENLANE. Although the segregation of duties between the Site Reliability Engineering (SRE) team and application teams is still being refined, efforts to clearly delineate responsibilities are underway to create a more controlled and secure operational environment.

Conclusion

OPENLANE's migration from VMware VMC to AWS cloud-native services, with Sierra-Cedar's guidance, addressed critical PeopleSoft operational challenges and positioned the company to leverage AWS's innovative cloud services. This migration has improved cost efficiency and operational agility, as well as providing OPENLANE with a strong foundation for ongoing digital transformation.



Partnering with Sierra-Cedar was a crucial decision for OPENLANE. Sierra-Cedar's expertise in AWS migration, along with its understanding of our PeopleSoft environment, aligned well with the needs of our project. The flexible engagement model and Sierra-Cedar's use of Infrastructure as Code (IaC) tools enabled a smooth transition to AWS cloud-native services. This project would not have been possible without Sierra-Cedar's guidance and support from AWS through the MAP program. They played a key role in our success."

Alicia Kinsey, Senior Manager of Financial Business Systems, OPENLANE

