MacStadium

App Dynamics & Orka Platform
Cool in a Crisis

About AppDynamics

Founded in 2008, AppDynamics is an application performance monitoring suite that helps users create better digital experiences for customers and employees. Their suite of applications, built on an enterprise-grade platform, accelerates digital transformations to drive customer engagement and operational efficiency. AppDynamics' APM capabilities provide visibility into every line of code and important transactions across multi-cloud environments. Other features include end-user monitoring, infrastructure visibility, and business performance monitoring.

> " Builds are on a clean agent every time, completely reproducible. "

Before MacStadium

Before MacStadium, AppDynamics had been running Mac minis on-premise in San Francisco. Issues ran the gambit, including network instability, builds that would alter the machine state, and disk space filling up. The developers were unhappy. Additionally, all of the Mac minis used for app development were bare metal and managed by different teams. Every time an issue arose, a different department handled it - and it was difficult to figure out who was responsible for what. It was time for a change.

A new team was formed with the goal of centralizing the management of build and release engineering functions. One of the leaders of this team, Craig Hall, was tasked with managing the system, which meant standardizing and updating the underlying infrastructure.

Things were moving in the right direction, but the build and release team was still managing bare metal, which was a headache. One piece was still missing

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Who:
Powered by Cisco, AppDynamics is a market leader in application performance management (APM) and AIOps, helping their customers manage complex, multi-cloud environments

Situation:
Self-hosted Mac minis experienced network instability and power outages; Builds altered the machine state and maxed-out disk space

Solution:
Move from on-premise bare metal to an ephemeral macOS build environment using Orka Platform virtualization and orchestration

Impact:
Completely ephemeral builds and no more infrastructure-related broken builds and disk space issues, reducing build times up to 20%

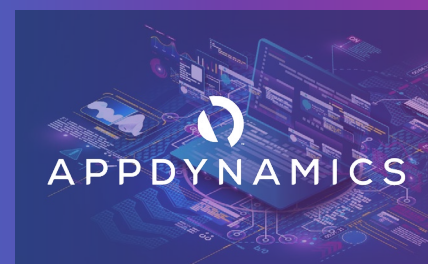# App Dynamics &
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- a virtualization platform that could be easily implemented across the entire organization. With this new team, and team members across the globe, a more streamlined way of working together was formed, and with that, a vision for virtualization began to appear.

"The AppDynamics team needed a way to get off of on-premise hardware. Based on our research, MacStadium was the standout leader," said Craig Hall, Build and Release Infrastructure Manager at AppDynamics. "After a conversation at KubeCon, we realized MacStadium had Orka, which fell in line with our strategy to provide ephemeral agents for our build environment, as we were already doing in Windows and Linux."

Overheating Leads to
Orka Platform Overhaul

AppDynamics had been experimenting with hosting iOS development in a MacStadium private cloud since 2018, running VMware on their bare metal minis. After a conversation at KubeCon in 2019, AppDynamics made the decision to switch to Orka Platform in early 2020. For the new, unified team at AppDynamics, moving from VMware to Orka Platform had distinct benefits. Orka Platform is the first and only solution for virtualizing and orchestrating macOS in a cloud environment and uses Kubernetes, which AppDynamics had been already using for two years. Familiarity with Kubernetes along with the simplicity and scalability of Orka Platform made switching from VMware to Orka Platform a no-brainer.

However, before they could begin using Orka Platform, the AppDynamics team knew they needed to streamline some day-to-day operations and get their CI/CD pipeline flowing smoothly. While this was happening, the COVID-19 pandemic struck, sparking unforeseen challenges. New employees could not be onboarded in cities like Bengaluru, India, where a nationwide shutdown meant nothing, including a developer's MacBook, could be delivered to a new employee.

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Craig Hall
Senior Manager,
DevOps Build & Release
AppDynamics

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"Because **Orka Platform is easy to use**, AppDynamics was up and running by the end of the day."

In the midst of juggling the many issues that arise from a pandemic, onboarding a completely new team, and managing a newly remote workforce, another crisis struck. Hall lost access to his entire fleet of Macs in San Francisco for more than seven hours when an air conditioning failure caused the data center to overheat. Without access to his pipelines or builds, Hall decided to spin up four Orka Platform machines ahead of schedule and integrate them into their TeamCity pipeline. Thankfully, the MacStadium team was fully operational during the pandemic and was able to assist AppDynamics in getting their Orka Platform environment deployed earlier than expected. Because Orka Platform is easy to use, Hall was able to get things up and running on Orka Platform by the end of that day.

"I was able to take that really bad situation that I had no control over, quickly implement a solution, and send reassurance up through the executive chain. I said, 'Look, we did this with Orka Platform by the end of the day'," Hall said of his Orka Platform overhaul. "It was like, 'We won. We did it.'"

Impact on AppDynamics

By shifting their builds to Orka, the team at AppDynamics was able to restore connectivity quickly to resolve an immediate need, but the long-term value was obvious. Orka gave AppDynamics the virtualization layer they needed, the ability to scale their build infrastructure efficiently - but perhaps most importantly, gave them accessibility from anywhere in the world, at any time,

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with off-premise hardware they'd been looking for all along. Massive downtimes due to power outages are a thing of the past and builds are running smoothly now that Orka is in the picture.

Conclusion

Since migrating to Orka Platform, AppDynamics' builds are now running completely ephemerally. With Orka Platform, things like disk space issues and broken builds due to infrastructure are no longer a problem. Orka Platform has brought simplicity to the build and release team at AppDynamics.

"Our builds will no longer need any cleanup steps, potentially saving 20% from the build time," said Hall. "Our engineers won't have to re-run their builds due to infrastructure issues, saving them so much time. We no longer need to maintain long running boxes or deal with issues like network connectivity or problems with heating and cooling. Now the builds are spun up on a clean agent every time, completely reproducible."

Learn how Orka Platform can help your business at **macstadium.com/orka**. Get in touch today.

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