



## HIVE SETS FREE ITS DEVELOPER TEAMS TO DRIVE SERVICE EXCELLENCE IN SMART HOME SECTOR



**CUSTOMER**  
HIVE

**WEB SITE**  
WWW.HIVEHOME.COM

**INDUSTRY**  
ENERGY/SMART HOME

**LOCATION**  
LONDON, UK

### KEY CHALLENGES

- Establish effective monitoring of complex infrastructure
- Be faster to market with new customer services, and quicker to find and resolve issues
- Ensure as-a-service functionality to enable business to scale quickly

### SOLUTION

Deployed Wavefront™ by VMware® ingesting 100,000 data points per second

### IMPACT

- Delivers the scale, performance and observability to support business growth
- Creates a more dynamic development culture, making Hive faster to launch and upgrade new customer services
- Provides the insight to better manage cloud usage, reducing monthly bill by 25%

Hive is the UK's leading smart home solutions provider. It wants to become the center of the connected home and expand internationally. To fully understand the huge amount of data generated by its smart home sensors, Hive works with Wavefront™ by VMware® to analyze and monitor its cloud platform. This insight is driving IT efficiency and creating real-time service difference.

Hive is a supplier of smart home products and services with one million customers in the UK. Owned by Centrica, a major UK energy supplier, Hive plans to become the central control hub for a range of smart home functions, from security to lighting to energy.

### Challenge

The global smart home market is expected to be valued at \$137.91 billion by 2023, growing at an average of 13.61% between 2017 and 2023. Hive, already a leader in the UK smart home sector, wants a piece of this action.

Formed by Centrica, the UK utilities giant, in 2012, Hive aims to transform the way people control their home environments. Hive solutions enable customers to control a range of functions (lighting, energy, security) remotely, and help schedule smart interventions.

Hive's plan is to establish market leadership in the UK's emerging smart home sector, and to begin international expansion. It wants to be able to add new functionality when appropriate.

At a broader level, Hive has the opportunity to change how utilities suppliers engage with customers. By acting proactively on the huge amounts of user data generated daily, it can adopt a more service-led approach. For Centrica, rather than sending monthly paper bills, Hive is an opportunity to create a more digital and dynamic way of serving energy customers.

"From the very beginning Hive has been set up to be innovative and change-driven. We're encouraged to experiment," says Hive's Head of Operations, Christopher Livermore. "We want our developers to be as close as possible to living and breathing, feeling and understanding the customer experience."

For this to work Livermore needed a monitoring platform that could scale, yet be flexible enough to discover granular insight. Hive wanted to monitor not only the performance of its AWS cloud infrastructure, but the very complex and constantly changing patterns of customer behavior.

"We wanted to empower our development teams," he says.

“Wavefront™ by VMware® gives me visibility on where to focus. Where were my big cost centers? Where were my dynamically-changing cost centers? As a result, we’ve managed to reduce our monthly cloud spend by 25%.”

CHRISTOPHER LIVERMORE  
HEAD OF OPERATIONS  
HIVE

#### VMWARE FOOTPRINT

- Wavefront™ by VMware®

## Action

The solution, Livermore explains, came from a conversation with someone in the social gaming industry. He realized this market – where a game’s success can go global in hours, shared many of the same attributes as smart homes: “Rapid change, the potential of enormous scale, and a desire to engage in the customer experience...they had many of the same aspirations as us.”

This led him to Wavefront by VMware, a cloud-native analytics and monitoring platform that provides 3D observability into metrics, traces and histograms.

Wavefront allows Hive to set up alerts, troubleshoot problems with automated anomaly detection, see the real-time impact of production codes, and create meaningful dashboards to monitor overall system health.

“Wavefront came along and gave us graphs and dashboards and put some tangibility around all of these concepts we’d been talking about,” says Livermore. “It then allows us to send alerts to targeted groups of people. We were able to reassure our development teams quite quickly that they would only be receiving information that was relevant to them and relevant to their product.

“The key feature for us is the service-based nature of the Wavefront offering,” Livermore continues. “It scales as we scale.

“We’re sending over 100,000 data points per second to Wavefront. We know that you’d struggle to build a monitoring platform that was that capable, because we’ve tried doing it ourselves.”

## Impact

This ability to scale is crucial. Hive has grown to one million customers in the UK, and plans to expand into Italy, France and the U.S. in the near future. It wants to double its customer count by 2020, rising to five million in the next few years. It doesn’t just want to add numbers, it wants to understand consumer habits.

“It means we can focus on the data in Wavefront rather than focus on the system that’s holding the data,” Livermore explains. “We’ve had situations where we’ve needed to increase the amount of data – maybe to test why the system is behaving in a way that we’re not expecting. We can ramp up the amount of data we’re sending, and we know that Wavefront is going to cope. We’ve thrown some seriously obscene amounts of data at Wavefront and it hasn’t even batted an eyelid.”

The effect has been transformative. Previously, often the first time Hive would understand there was an issue with a service was when a customer made a call to the Hive call center. Now, Hive developers can create a dashboard in Wavefront, test a scenario, adjust and improve, then go into production.

“It’s closed the feedback loop,” he says.

This has also created a cost benefit. With greater visibility of how Hive is using its AWS with both performance and cost metrics in Wavefront, it has been easier to cut overcapacity.

“Wavefront gives me visibility on where to focus,” says Livermore. “Where were my big cost centers? Where were my dynamically-changing cost centers? As a result, we’ve managed to reduce our monthly cloud spend by 25%.”

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## Looking Ahead

Continuous service innovation and engagement are creating a point of difference. Livermore says Hive regularly exceeds the Net Promoter Score of more traditional utilities companies: “Utilities are taken for granted – you flick a switch and the light comes on, no one is amazed by that. But we have an opportunity to add a service layer that really adds meaning.”

Hive’s lighting, energy, and security solutions already allow users to make smart interventions. By adding motion sensors, the next challenge is to build a clear picture of how a home is used.

“We’re very keen to understand how we can deliver more value to customers,” says Livermore. “What can we do with our existing technology that will allow customers to better control their lives or give them more reassurance, or help them get that work/life balance?”

