

A dark, high-contrast, close-up photograph of HVAC fan blades. The blades are arranged in a circular pattern, with some in sharp focus and others blurred in the foreground and background. The lighting is dramatic, highlighting the metallic texture and the curved shape of the blades. The overall tone is industrial and technical.

waylay

DATA SHEET

Waylay For HVAC Vendors

INTRODUCTION

HVAC vendors are collecting data from internet-connected heating and cooling systems in more and more customer homes and customer sites across the globe. In fact, at 19% CAGR, the global market for smart HVAC systems is [expected to hit 25 billion USD by 2023](#).

But the majority of HVAC organisations are still finding it difficult to understand the business benefits that IoT technologies can bring. [This study](#) has shown clarity around the business benefit as the second main reason why IoT projects stall in pilot phase, after the high cost of scaling.

Most of the use cases that vendors are busy with today revolve around collecting the data from the HVAC systems, displaying it on internal or external IoT dashboards and mobile apps. Some vendors are also analysing long-term HVAC usage data to identify areas for product improvement.



There is little to no operational use however of IoT data in the context of customer service or field support. This is primarily because of the gap between the IoT systems managing the connected HVAC systems and the enterprise's back-end IT systems. For example, legacy customer support and NOC systems cannot handle raw IoT data themselves, you would first need to pre-process it, extract what's meaningful to your support teams, get it ready in the right format before finally redirecting it through to your backend support systems.

Waylay provides a powerful data orchestration platform that automates the interactions between IoT and IT. HVAC vendors use Waylay to improve the ROI from their IoT investments by putting IoT data from their connected HVAC systems to operational use. By making IoT operational, teams start to see immediate benefits in improved customer service, optimized field support, better resource allocation and lower operational costs.

USE CASES

Put your smart HVAC data to operational use.

Use IoT data to drive immediate operational improvements

Predictive maintenance (condition-based maintenance)

Analyse historical HVAC data to predict future failures and estimate when maintenance should be performed.

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BUSINESS BENEFIT: Condition monitoring can improve uptime. Dispatching intervention technicians at the right time instead of periodically can reduce costs.

Automation of support tickets

Create support tickets in your preferred support software in an automated way, by correlating known fault codes with HVAC sensor data.

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BUSINESS BENEFIT: Proactively creating a ticket before the customer calls your helpline can improve customer satisfaction and lead to better SLA compliance.

Root-cause analysis prior to the field intervention

Analyse the root cause of an issue signalled by the customer by using historical data from the affected HVAC, before dispatching field engineers.

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BUSINESS BENEFIT: Better root-cause analysis can reduce site visit time and improve first time fix rates.

Log processing during the field intervention

Analyse faulty HVAC data by processing log files uploaded by the technician while on site, from offline machines or from additional data sources.

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BUSINESS BENEFIT: Batch processing on site can help the engineer validate fault resolution before signing off the work order.

Track process adherence for outsourced field support technicians

Automatically process raw data in batch and provide next best-action recommendations to your technicians, while tracking their process adherence.

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BUSINESS BENEFIT: Providing outsourced field technicians powerful tools avoids costly mistakes.

FEATURES

Waylay offers a complete set of tools for in-depth real time data analysis. Our tool set helps you achieve better customer experience through faster innovation cycles, faster time to market and high operational scalability:

- **Data processing for both connected and nonconnected HVAC systems**

With only 10% of real-world HVAC systems connected to the internet, improving the business value of IoT solutions means accounting for the business's nonconnected base as well. Waylay supports both **real-time stream processing** of data from connected HVAC systems and **offline batch processing** of data uploaded from offline HVACs.

- **Business rules engine**

HVAC data and the analytical insights derived from it can only generate business value if they are transformed into actions. With Waylay's patented IoT rule engine you can implement heuristics and apply advanced business logic to the HVAC data to drive fully automated actions on external IT, cloud systems or the HVAC itself.

- **Time series analytics**

Soon after your HVAC systems go online, vast amounts of data become available. And wherever there is big data, data science follows. Waylay's time series analytics designer helps your data scientists bring their algorithms to production faster and reduce the number of false positives.

- **Integration with back-end IT systems**

Making IoT operational is based on opening up permanent two-way communication lines between the IoT system and your line-of business applications. With Waylay you can get IoT insights to the right stakeholders in your company through off-the-shelf integration with systems like ticketing, field support, CRM and more (Salesforce, ServiceNow, Atlassian, Trello etc.)

- **Alarm management**

An essential function of IoT applications is the use of alerts and notifications. Waylay provides an alarm management module that enables you to create rich alarm handling rules, with four severity levels and operator workflow for administrators.



REFERENCE CASE

How a vendor of connected boilers improved customer service with Waylay

An HVAC vendor has 15,000 internet connected boiler systems installed at commercial customer sites such as supermarkets and restaurants. They have a support contract for them with minimum quality guarantees. The vendor is using an IoT platform provider for device management and data visualisation. Meanwhile, the vendor's field operations and customer support teams are managing incoming support queries via the Salesforce service platform. These teams were operating in isolation from one another and lost out on tremendous opportunities for process improvement.

With Waylay, the vendor has succeeded in putting IoT data to operational use for a number of use cases:

1. **Automated support ticket creation based on fault code correlation**

Support tickets are now automatically created within Salesforce as soon as the live fault code is received, without any human intervention. The operations team no longer needs to passively wait for customers to call and can pick up the issues at the right time.

BUSINESS BENEFIT: Customers are happy with the faster response times and proactive support.

2. **Condition-based maintenance intervention**

Service intervention cases are now created in Salesforce based on advanced anomaly detection on actual usage data from the boiler systems themselves

BUSINESS BENEFIT: Shorter resolution times and avoidance of unnecessary field interventions

3. **Improved root-cause analysis of HVAC failures** - the support team is now better qualified to reply to customer calls, as IoT data is made available to them to perform better root-cause analysis using IoT log files, before field interventions are scheduled.

BUSINESS BENEFIT: Reduced time on customer premise, better insights into technician performance and improved customer satisfaction.

Learn more



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