

# Finsight - a new condition based monitoring team



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## Introduction

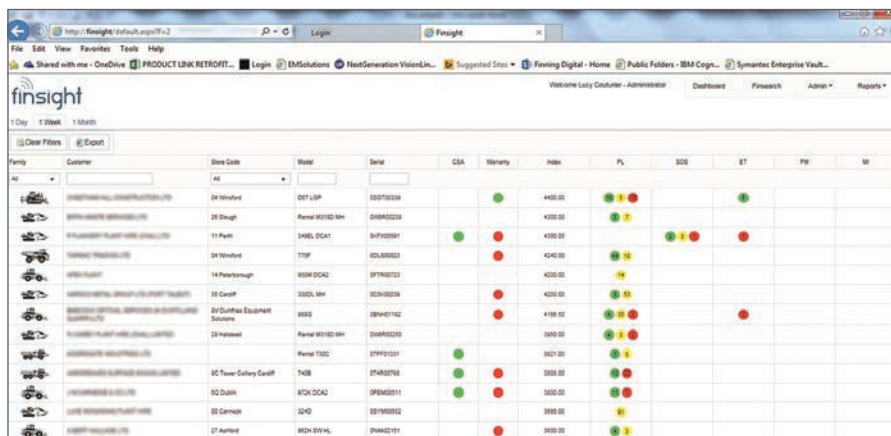
Finning (UK) Ltd is the UK division of Finning International Inc., one of the world's largest distributors of Caterpillar plant, complementary equipment and power systems. Towards the end of 2009, a number of factors motivated Finning to consider how they could support customers in a different, more comprehensive way. The increasing commoditisation of products coupled with challenging market conditions provided substantial motivation, and there was also a desire to focus on customer experience and how long-term customer relationships could be improved.

Finning focused on the challenge of providing condition-based information about machinery and plant status. The question was not just whether or not information could be obtained from a piece of equipment, but rather whether the information available was actually being used at the right time and in the right way.

Customers were facing an overload of data and, apart from the few with the resource and skill-set to deal with it, were becoming increasingly blinded by what they should and should not react to. In addition the information was being provided in separate 'silos' so customers were not always acting on information they may otherwise have done had a holistic picture been presented to them.

## Motivation

Finning identified the need for a new bespoke service that would allow customers to optimize their asset management. Through the proactive, holistic use of all the condition-based monitoring data available, customers would have the ability to minimise their total owning and operating costs.



The screenshot shows a web browser window displaying the Finsight application. The browser address bar shows 'http://finsight.default.aspx?fa=2'. The application header includes 'finsight' and navigation links like 'Dashboard', 'Finsight', 'Admin', and 'Reports'. Below the header is a table with columns: Family, Customer, Size Code, Model, Serial, CBA, Warranty, Index, P, SCS, ET, PW, and SN. The table contains several rows of equipment data, each with a small icon on the left and various colored dots (green, yellow, red) in the 'Index' and 'P' columns, indicating different status levels.

MyFinning Customer Portal

An experienced, technical team has been put in place that is dedicated solely to analysing and interpreting this information. By doing a 'deep dive' into the data, the team is able to identify issues that are currently under the radar but which, through the use of recognised trends, could be identified as likely to cause serious problems in the future.

The team is also tasked with looking into all factors affecting a machine's health and performance costs. As well as component health, other critical factors are assessed such as operator performance, site conditions and equipment history.

## Development

The development of the solution centred around 3 key questions.

**Data - how to ensure all the information was received in a consistent, logical way where the most critical machines could be prioritised?**

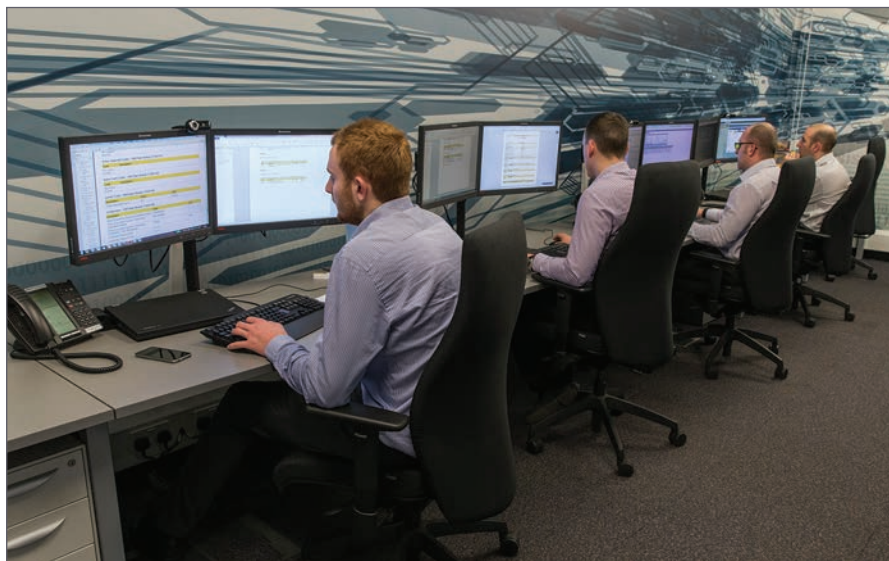
As most of the data required could be obtained directly through API (Application Program Interface) feeds, it was decided that a dashboard-style tool that could be constantly updated would be the ideal

repository. Working with the in-house development team, Finning was able to define how the information should be displayed and what functionality was required so that the new process was as efficient as possible. The new dashboard uses an index rating, whereby every alert and event code received is rated and weighted into a cumulative score, thus allowing the most urgent cases to be pushed to the top of the pile for the condition-monitoring advisor to review. Information can be cleared, monitored and additional notes added, allowing the team to continually learn and improve in their responses.

**People - how should the team be structured, what was the profile of the ideal candidate and how would the team be integrated into the existing business structure?**

With customer contacts already well established in both the sales and service channels, there was concern that adding another option for customers could become confusing and be detrimental to the overall customer experience. The new service was therefore positioned as a centralised back-office function, with recommendations sent to customers via

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The Monitoring team

their usual account managers or service desk. In this way, the existing relationships would not only be maintained, they would be improved with the addition of comprehensive recommendations and advice from the condition monitoring team. It was essential that the advisors were qualified, knowledgeable engineers, so that the customer could be provided with a virtual diagnosis for their equipment, based on the advisors' previous experience and knowledge, rather than just consolidated data.

## **Focus - what information could and should be provided to the customer and how?**

Exactly how the information should be provided back to the customer was vital to the success of the service. Customers needed to be made aware of issues identified as and when they occurred, but an additional part of the service was to provide useful, summarised reports for

more consultative planning. The solution was to link the advisors' dashboard to the customer relationship management (CRM) system allowing information to be sent quickly and effectively to the accountable sales and service representatives. In addition, a bespoke customer portal, MyFinning, was created where regular reports at asset, site and fleet level could be accessed.

## **Results**

In March 2012, after 18 months of development and a pilot phase, the new Finsight condition monitoring team was officially launched at Finning's headquarters in Cannock, Staffordshire.

With a team of five qualified, experienced engineers the service is now offered as an integral, value added part of all Equipment Management Solutions (**EMSolutions**)

Caterpillar **EMSolutions** comprises a number of bundled support packages of which condition monitoring is a critical element. The team now supports some 5,500 machines providing recommendations and advice to customers of all types and sizes across a range of industries. The index-driven monitoring system means that all machines are tracked based on their condition, regardless of customer size, providing a level playing field for all.

## **Next steps**

The Finsight service is an area of continuous improvement and since the initial launch, both the dashboard and the MyFinning portal have been improved upon. Increasing demand from some customers for direct contact with the advisors has brought the 'back office' structure into question, and consideration is being given to adapt to this demand. The exponential growth in connected assets through telemetry, oil analysis, inspections or services also requires attention as does the opportunity to receive additional data as existing sources are refined and new ones developed.