WATSA SOLUTIONS

Your IT Enabler

Manufacturing Case Study

Transforming a legacy desktop-based management software into an end-to-end responsive web-based management system

A responsive web-based calibration management software for improved process outcome

PROJECT BACKGROUND

A leading manufacturer of IT and office automation equipment from Oman has a range of electronic equipment for healthcare, consumers electronics, telecom, military, security and many more industries. The calibration labs of the company must calibrate these equipment very precisely as part of their product development and testing process. The labs use a desktop-based utility to manage the calibration. However, the utility needs significant manual intervention and is it tedious to use, often leading to errors and rework. Being a desktop-based utility, it is also difficult to deploy, configure, manage, upgrade and keep it consistent across all machines and deployments. The loss to business due to the inconsistencies, inefficiencies, rework and product returns due to errors is estimated to be a whopping 20-25%.
To mitigate this challenge, the management team wants to set an automated workflow to manage the calibration process for their calibration labs and build a better utility that is easy to deploy, manage and use, so they could improve their quality and efficiency metrics.

THE VATSA SOLUTION

A responsive web-based calibration management software for improved process outcome

Vatsa designed and developed an internal web-based portal to standardize all workflows and calibrations for the company's production team. The tool went beyond just recording the calibration values to helping with the entire calibration process. Vatsa achieved standardization in the workflow with the following functionality:

- Providing the ability for product teams to create calibration template that can be applied to a group of similar equipment along with their respective expected values, validations and ranges
- Identifying and mapping the tools or testing devices to be used for calibrations of an instrument
- Prepopulating the readings into the calibration template and applying the template to each equipment
- Providing the ability to enter the readings against each machine according to its template along with tracking of any changes in values
- Defining the schedule and assignment of calibration to individuals and recording the actual calibration

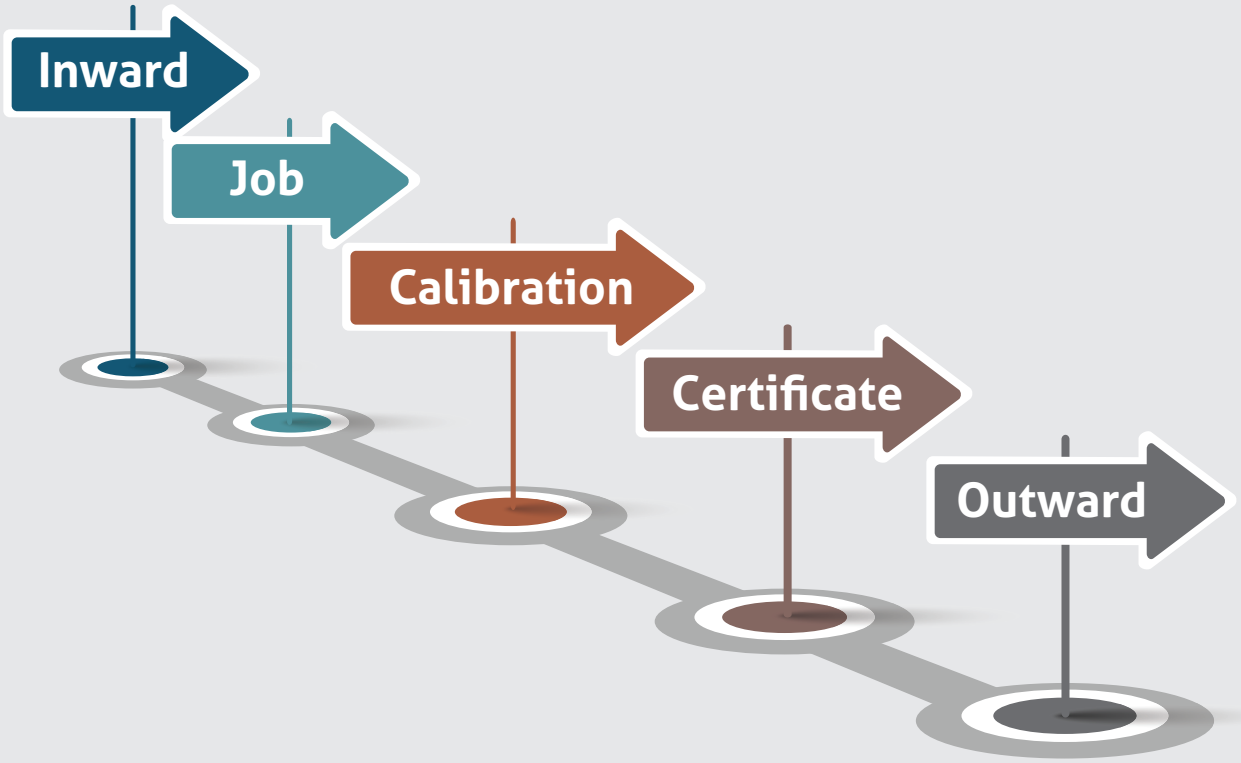
Transforming a legacy desktop-based management software into an end-to-end responsive web-based management system

- Approval or rejection of calibrations and proposing recommendations via the system for the person doing the calibration
- Evaluating the result of the calibration across all devices for reporting and dash-boards to assist managers and leaders in the company

The standard templates created as part of the solution provided all the meta-data measurement type, the master standard, reference standard and standard operating procedure. Also, it defines the number of readings to be taken while calibrating an instrument and whether it is the master instrument that needs to be fixed or the DUC (Device Under Calibration).

CALIBRATION PROCESS

The new web-based system managed the following stages of the calibration process



Inward: (Also known as check-in). If the customer is not present in the system, an account is created on the fly.

Job: A Job is created and assigned to a technician and barcode stickers are printed.

Calibration: Calibration of the equipment is performed according to the calibration template and measurement standards of the equipment.

Certificate: A Calibration Certificate is generated as per the recorded readings and specifications.

Outward: (Also known as check-out). DO and invoice is generated for delivery.

RESULTS

For the calibration lab of the company, the success of their business model lies in their ability to reliably and accurately calibrate instruments manufactured by them as well as other companies. In this project, Vatsa Solutions brought extensive technological expertise and experience working with manufacturing companies to deliver many benefits for the company:

- The company was able to reduce manual errors and rework by over 80%
- Time required for calibration reduced by 30% with the end-to-end management and approval process in the new system
- Significant improvement in quality management and service to their customers
- The improved time-to-market and quality resulted in revenue growth as well as huge improvements in customer mindshare
- Increased transparency for customers of the labs, who are now aware of the status of the calibration of their instruments
- Easy access, traceability and retrieval of history of instruments and their calibration statuses at various points for better management and troubleshooting

TECHNOLOGY AND TOOLS: ASP. Net, MSSQL server, MVC

Microsoft jQuery AJAX Asynchronous Javascript And XML

Interested in achieving similar results for your business? Contact us.

VATSA has grown from being a software service provider company to a complete solution provider for variety of business needs of its customers. At VATSA, we not only help our customers in problem identification and resolution but also provide a unique touch of trust by owning their business situation while we help them overcome it.

We do this through our talented pool of people, impeccable services and innovative solutions. Our commitment to quality and excellence is evident in every assignment we deliver. With our agile work culture and professional ethics, we have built high level of trust in our customers, which has resulted into repeat business.

VATSA SOLUTIONS

Your IT Enabler

Vatsa Solutions Pvt Ltd

www.vsplc.com ▪ info@vsplc.com ▪ +91 20 66291500

C-508, Teerth Technospace, Off Mumbai-Bangalore Highway Baner, Baner, Pune, Maharashtra 411045