Digital Incident Management for Automotive R&D

A comprehensive digital platform to replace a legacy system for a global automotive R&D center, enabling the secure tracking, storage, and management of legal and technical vehicle incident data.

Overview

QBurst delivered a new web application that digitalized the automotive client's incident management workflow, providing a unified platform for tracking vehicle incidents and improving team collaboration.

- **Digital Transformation:** Revamped a legacy system with a modern web application, moving from a manual, email-based process to a unified digital platform.
- **Enhanced Collaboration:** Enabled seamless communication and data sharing between legal, business, and technical support teams, all within a single application.
- **Improved Efficiency:** Provided a secure, searchable repository for incident data, leading to faster issue resolution and increased productivity for all parties involved.

Client Profile

Headquartered in Germany, our client is the research and development center for the world's largest manufacturer of premium and commercial vehicles. The center focuses on research, IT engineering, and product development.

Challenges: Organization-wide Data Silos

- **Manual & Fragmented Workflow:** Incident data was scattered across various systems, requiring manual imports and email-based communication, which was slow and error-prone.
- **Lack of Centralized Data:** There was no single, unified platform to view the entire history and status of an incident, making it difficult for teams to collaborate.

- **Limited Searchability:** Retrieving past incident information was challenging, as data was not consistently categorized or stored in a searchable format.
- **Inefficient Communication:** Teams relied on a mix of emails and phone calls to share updates, leading to communication silos and duplicated efforts.

QBurst Solution: A Modern Web Application

QBurst developed a modern web application designed to digitalize and streamline the entire incident management lifecycle. The application was securely deployed on-premises and built with a robust backend to handle complex data workflows.

Key Aspects

- **Automated Data Import:** A scheduled .NET backend job was developed to automatically import vehicle incidents from the client's SharePoint system, ensuring that data is consistently synced and up-to-date.
- **Unified Collaboration Hub:** The application provides a common platform where all involved parties—from legal teams to technical support—can view and update incident status, attach documents, and communicate with each other, all without leaving the platform.
- **Secure Data Repository:** The application securely stores all incident-related documents and timeline information, creating a comprehensive, searchable history.
- **Integration with Vehicle Data Warehouse:** The system retrieves and augments incident details with information from an on-premise vehicle documentation data warehouse, providing a complete picture of the vehicle's history.

Technical Highlights

- **Modern Stack:** The application was built using a .NET backend for business logic and a ReactJS frontend for a responsive and intuitive user experience.
- **Seamless SharePoint Integration:** The solution ensures a two-way sync with the client's SharePoint system, keeping both platforms in sync with all incident data.

- **Automated Workflows:** Scheduled jobs handle the periodic import of data, and the system automatically raises new incidents, reducing the need for manual review.
- **Secure & Compliant:** Deployed on-premises on a virtual machine, the application ensures data security and adherence to the client's strict security protocols.

Impact

- **Enhanced Productivity:** The ability to send emails and schedule appointments directly from the application eliminated the need to switch between different tools, increasing workflow efficiency by over 50%.
- **Improved Communication:** By providing a common platform for collaboration, the application reduced reliance on email and improved communication between diverse teams.
- **Efficient Data Retrieval:** The enhanced searchability and categorization of incident history enabled users to quickly find past records, which is crucial for legal and technical teams.
- **Streamlined Workflow:** The automated data import from SharePoint and the secure, centralized repository for all incident data resulted in a more efficient and transparent incident management process.