

Case Study

Improving Proactive Maintenance in Local Government



Client Background

The local government's Engineering and Asset Management (EAM) Fleet provides functionally aligned vehicle, generator and plant services that empower internal clients to deliver a competitive and cost effective service by adopting a market oriented approach. EAM Fleet Management is responsible for planning and maintaining all departmental vehicles (1194) and utilising time- and usage-based maintenance strategies. This involves monitoring accumulated mileage, hours of operation and condition assessments of the fleet. Proactive and reactive maintenance work orders are then generated accordingly via the SAP ERP system.



Key Challenges

A proactive approach to maintenance is important as it anticipates and resolves underlying problems relating to mechanical failure before occurrence. This reduces overall maintenance costs and environmental damage, increases safety and maximises useful vehicle life. A fleet with 98% schedule compliance is also eligible for RTMS and ISO accreditation. In order to improve on proactive maintenance activities, the following concerns needed to be resolved:

- Business processes for proactive maintenance were lacking.
- The function to identify and schedule vehicle services ahead of time was not implemented on the SAP ERP system.
- As a result, current procedures to create proactive work orders were manual, tedious and time-consuming.
- Multiple users created proactive work orders resulting in inconsistent data entries, leading to proactive maintenance being a low priority.

Value Add

- By improving proactive maintenance within the fleet, the Asset Care Centre (ACC) has minimised the number of potential failures ahead of time.
- This results in more vehicles on the road, allowing the local department to provide an efficient and reliable service with minimal downtime resulting from defective vehicles.
- Business process training and implementation of standards increases work output, resulting in the improvement of schedule compliance.
- The ACC assisted with automation of proactive maintenance in SAP, improving data velocity and work order accuracy.



The number of processed proactive work orders increased by 103% YTD benchmarked to the previous financial year. The fleet schedule compliance improved by 17% from 82% - 99%. Automated maintenance plans were configured for 211 vehicles. A planning section was established to manage Work Planning and Control activities.

Pragma Intervention

- **Establishment of a Planning Division within Fleet**
 - The two assigned planners are solely responsible for the planning and scheduling of vehicles.
- **Development of Proactive Maintenance Business Processes**
 - These processes are being used by the Planning Division and provide some guidance and structure for creating proactive work orders.
- **Development of an Excel-based tool for Planning and Scheduling**
 - This tool provides an automated alternative to the SAP ERP system as an interim solution. The tool identifies and reports on vehicles due for servicing either based on time or usage, and provides a standardised format for creating notifications based on the user input.
- **Facilitation of SAP configuration for Planning and Scheduling**
 - The AC engineers are facilitating configuration on SAP for the automated generation of proactive work orders going forward.

Tools and Technology

- SAP R/3: Work Order Reporting
- Visual Basic for Applications



Microsoft Excel

- Business Processes for Proactive Maintenance

