assetDNA CASE STUDY

Inspection Rounds And Proof Of Presence

ROYAL AUSTRALIAN NAVY LHDSPO

Project Scope

Software, Tablet, Mobile App Design & Development + Barcode & RFID Tagging + Technical Services.

Technologies

Microsoft.net, C#, ASP.net MVC, Windows Mobile, SQL Server

Services

Business Needs Analysis + Develop System Architecture & Technical Requirements + Software & Mobile application Design & Development + Testing + Training, Handover, Transition Services + Project Services

Solution Highlights

Better quality data – electronic data capture eliminates manual errors & alerts for unexpected entries

Ensures compliance – auditable trail of who, what, where & when

Physical proof-of-presence – HF RFID for every compartment

Flexible, user-defined environment

Role-based security & permissions

Increases staff productivity – system enforces efficient inspection routes

Cost savings – maintenance can be triggered on condition rather than time

Powerful reporting functionality for better decision-making

Vessel-wide view of all operational assets

Introduction

Relegen's asset intelligence solution – assetDNA – has been adopted by the RAN's LHDSPO to facilitate the electronic capture & management of real-time operational data from technical rounds & watch-keeping events on-board the Canberra Class Amphibious Assault Ships [LHD's].

Business Challenges

The LHD is the largest & most advanced vessel to be inducted into the RAN. When it comes to ensuring technical integrity & operational readiness, the quality, integrity & currency of data is critical. The number of assets & significant rounds distances [6km] also demands highly-efficient rounds & inspections, which must be discharged at frequent intervals to ensure vessel safety, compliance & seaworthiness at all times.

Project Overview

LHDSPO appointed Relegen to assume program management responsibilities for the development & deployment of an automated inspection rounds application.

This system was to be highly-flexible & cater for any rounds type [e.g. electrical, mechanical, security] & utilise mobile hardware [vs. fixed] due to confined space issues.

The program demanded excellent project & stakeholder management, business needs analysis, functional requirements specification, application design & build, user-acceptance testing, training, handover/transition services, technical support & more.

Solution Benefits

The implementation of this application gives the LHD's a ready-infrastructure for managing the assets on board more productively, safely, securely, & cost-effectively.

As part of the implementation, ship compartment locations were tagged with a HF RFID for proof-of-physical-presence, providing an electronic, data-driven auditable time-&-attendance record for demonstrating compliance.

Technicians in the field have access to the right data at the right time in order to resolve issues quickly.

Additionally, increased productivity from electronic data collection frees up on-board resources for other mission-critical tasks.

Ship's staff are able to make better decisions, such as providing for maintenance based on asset usage & condition, rather than time elapsed, with less exposure to risk.

Conclusion

This application was based on Relegen's successful FFG TDMS project and incorporated new technologies. The ultimate objective is to ensure data in LHD, RAN & ADF systems is always accurate, up-to-date & reflective of the real-world. This provides stakeholders with the data required to make better decisions that balance operational requirements with the technical integrity of its significant asset base.