Department of Housing

"Inspection System"
SharePoint and Biztalk
- Case Study

Overview:

Customer profile:
The Department of Housing seeks to build better communities and enable all Western Australians to have a place to call home.

The Department provides public housing for those in need, when in need; affordable land and housing opportunities for those on low-moderate incomes; assists with housing finance through Keystart; provides rental assistance; and provides government employees in regional areas with quality homes so that they can deliver the necessary services to their communities.

Business situation:
The Department conducts home inspections and maintenance reports of their properties to ensure they are meeting current standards in health and safety for their tenants. Their old system used a Personal Digital Assistant to record the result of the inspection, however, the PDA devices no longer meet the Department of Housing's expectations in terms of ease of use and fast data transfer into the line of business systems. Consequent to the time consuming and unstandardized process; the data was inconsistently captured or not maintained by the inspectors.

Solution:
Connected Systems was engaged to implement a solution designed around BizTalk, SharePoint and the Department's existing line of business systems. The solution manages the flow of information between line of business systems, mobile devices, and SharePoint, allowing seamless integration between the systems.

Benefits:
- Easy to use and efficient data entry using mobile devices
- Supports remote and offline (with synchronisation) updates to the system
- Facilitates writing and management of reports
- Improved compliance towards the clients
- Uniformity in the delivery of the solution
- Standardisation of the procedures

"It's interesting how certain solutions can improve morale. The new system is intuitive and leads people to perform better jobs and feel more motivated. Managers at multiple levels, not only those directly concerned, can have more insight, more visibility on how their staff operate. It made them think about what to do to improve things."

- Majid Bassiri,
Manager ICT Business Systems,
Department of Housing.

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The situation:

In order to complete housing inspections and maintenance reports in the field, the Department of Housing's officers were encouraged to use a Personal Digital Assistant (PDA) to collect data during their inspections. For instance, they would evaluate the cleanliness of the rooms, the pertinence of the tenancy contracts, and more generally, the quality of the dwelling as a whole, and capture this information with the PDA.

The PDA application stored the inspection captured data on the device and the maintenance and/or repair needs of the home were then transferred from the device to the Department's line of business systems. Maintenance orders were then scheduled and the booking of the maintenance tasks and subsequent follow-up inspections flowed through to the maintenance contractors. The data from these PDA devices was also able to be formatted and displayed into a printable report. A well-updated line of business system is essential for tracking, managing and maintaining the safety and compliance of the homes.

However, the PDA's were problematic and their adoption was less than optimal in the business; some officers used them, whilst others printed out paper forms and filled them in manually. This meant that officers had to transfer the data into the line of business system to ensure the follow-up of any maintenance was captured. Western Australia is a very large state, and the different regions of the Department had different ways of working; the many free-text options within the PDA system made it difficult to centralise and standardise data capture which flowed through to inconsistent reporting. The system led to a confusing huddle of disorganised, sometimes obsolete data creating misleading duplicates.

"It took officers a long time, and there was clearly a serious inefficiency in terms of user utilisation and satisfaction. Basically, everyone had their own way to approach the same problem."

The solution:

Following the investigation about the causes of the issues mentioned above, the Department of Housing decided to abolish the use of PDA's and replaced them with a fleet of iPads as the new data collection device. This provided all officers with a single, user friendly, and easily portable device and was one of the ways to standardise and facilitate report writing. In addition, the new device could take photos and associate the images with the inspection; something that was not possible using the PDA solution.

The introduction of the new device required a new back end system and a coexistence solution was necessary to make sure all the systems were kept in play and the new iPads could be phased in.

The Department of Housing partnered with several suppliers to provide them with all the different points of actions that needed to be taken. Connected Systems was responsible for creating a SharePoint solution to manage the inspections, and used BizTalk to integrate the messaging between the devices, SharePoint and Line of Business system to allow the automatic update of information.

The project took a total of 18 months, 9 of them dedicated to the continuous testing and rapid modification of the prototype. During those 9 months, lots of requirements changed, especially how the data was displayed in SharePoint.

"During the preview test period, lots of requirements changed, and Connected Systems needed to adapt to the new user needs. Along the whole process, Connected Systems partnered not only with the Department of Housing, but also with the different suppliers to ensure a smooth transition to the new system."

Benefits:

The new system improved the Department of Housing's time and cost efficiency in many ways:

- Easy to use and efficient data entry using mobile devices
- Supports remote and offline (with synchronisation) updates to the Department's core system
- Facilitates writing and management of reports
- Improved compliance towards the clients
- Uniformity in the delivery of the solution
- Standardisation of the procedures

"We had great feedback and lots of praises: people were picking this up very quickly and the direct data transfer through BizTalk made it so much easier and faster for our officers. Thanks to this, we were able to already perform inspections that were due for next year."

Partnering with Connected Systems:

This is what the Department of Housing has said about partnering with Connected Systems for the delivery of both their SharePoint platform, and the integration of BizTalk:

"I have a good working relationship with Connected System's team: the guys are competent and dependable, it's easy to communicate with them, they're always there when we need them, there's no hesitation in contacting them at all. I have confidence in dealing with them, and I don't feel like I'm going to be left high and dry. We also feel they enjoy working with us too...It's a two way street, and that is when partnership works best. They understand business issues as well as the technical side of things.

When you get multiple vendors involved in the same project, you tend to expect some uncomfortable moments. With Connected Systems, we felt they were hands on and not afraid of collaborating with other suppliers we're dealing with. Their top priority has always been to get things done."

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Manager ICT Business Systems,
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Connected Systems

Connected Systems is a technology-consulting organisation who specialises in providing innovative technological solutions to meet the needs of customers both today and into the future. Specialising in Branding, Application Development, .NET bespoke development, SharePoint technologies and BizTalk solutions, we offer our customers tailor made, easy to use solutions to help increase productivity using the latest Microsoft technology.

We pride ourselves on developing solutions that assist our customers with obtaining rapid return on investment.

Founded in 2006, Connected Systems is an Australian company. As a Microsoft Gold Partner, we're focused on building our solutions on the Microsoft platform, which is the common architectural foundation that allows customers to integrate and share all IT assets and resources. This means customers can not only react to events, but they can also proactively manage their IT environments to pursue new business opportunities quickly and respond to market dynamics more effectively and competitively.

We pride ourselves on delivering solutions on current technology and endeavour to stay at the forefront of the Microsoft technology curve. We are committed to providing our clients with the competitive edge they need to "make the difference" to their business.

Our aim is to provide our customers with fit-for-purpose solutions that clearly add value to their organisation. Connected Systems is dedicated to providing value added technology consulting and development expertise; this ranges from strategic planning, design, development and testing and commissioning of the system. We also offer support services.

We work smart and leverage our depth of expertise in strategic planning, application development and systems integration to ensure the best possible solution outcomes for our customers. We work collaboratively with our clients to either take on the responsibility of the project (through fixed price engagements), and we also work well where there is a sharing of responsibility for the decisions and direction a project may take (time and materials).

As well as our specialist areas of development regarding Microsoft technologies, Connected Systems has extensive experience in many non-developments, consultative based service offerings – for example, ICT Strategic Planning. We offer and have performed strategy consulting, analysis and governance consulting for some of Australia's largest private and public sector organisations.

For more information, contact us today!
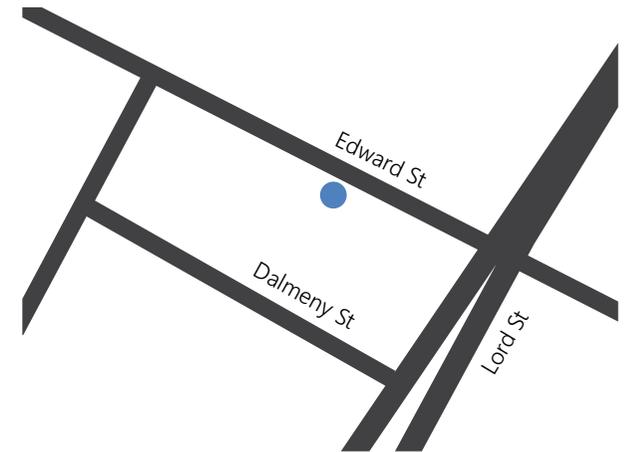
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