



Windows Mobile® Customer Solution Case Study



Overview

Country or Region: Australia

Industry: Healthcare

Customer Profile

Royal District Nursing Service of SA Inc (RDNS) is a non government, not for profit organisation providing high quality home and community based health and care services to people living in Adelaide, South Australia.

Business Situation

RDNS was looking for a more efficient and effective way of managing client information and delivering that information to the health and care work at the point of care.

Solution

Working with Microsoft® Gold Certified Partner, Mobilise IT Pty, RDNS deployed a solution that enables health and care staff to access their patient care system on their Windows Mobile-based devices.

Benefits

- Lower costs
- More accurate, timely data
- Improved human resources management
- Better staff satisfaction and client care

Healthcare organisation provides health and care workers with client information on their smartphones

“With real-time access to client and clinical information as they go, health and care workers can spend more time with clients rather than filing paperwork travelling to and from the office.”

Jodie Rugless, Senior Business Systems Analyst, RDNS

RDNS was looking for a more effective way for their 440 nurses, home support and allied healthcare workers to manage client information at the point of care.

Working with Microsoft® Gold Certified Partner, Mobilise IT they developed a solution that enables health and care workers to manage appointments, client demographic and clinical details, order medical supplies, view organisational procedures and enter activity data on their smartphones. All of this information is automatically synchronised with the RDNS backoffice servers as health and care workers go about their duties, enabling office staff to stay completely up to date with their progress. Not only will this solution reduce the cost of an episode of care, it also frees staff up to spend more time with clients and improves the accuracy and timeliness of data.



“The organisation will be able to implement a cost effective solution that leverages our existing technology infrastructure, providing a sustainable competitive advantage that is flexible enough to allow easy modification to meet the needs of our dynamic business environment.”

Glen Winkler, Director MIS, RDNS

Situation

Royal District Nursing Service (RDNS) is a non government, not for profit health and care organisation providing high quality mobile nursing and client care to the people of Adelaide, South Australia.

Their specialist nursing and transition services include wound management, diabetes management, palliative care, continence management, health care for people with disabilities and HIV-AIDS, and dementia management.

Clients are treated primarily in their home as well as in nursing centres located across the metropolitan area. The service also operates a 24-hour Health Call Centre offering immediate response to referrals from hospitals, doctors and the community, and providing nursing advice and information.

In 2008 RDNS was looking for a more effective way for their 440 nurses, home support and allied healthcare workers to manage client and clinical information at the point of care. At the time staff were reliant on paper-based systems and a call centre, which had a number of drawbacks. Firstly data often had to be entered twice, which was time-consuming and ran the risk of inaccuracy. Secondly the costs of phone calls, printing, collating documents and running a call centre were hard to contain. Finally, care-givers were frustrated when they had to wait for call centre staff to respond to their queries.

To remedy the situation, staff at RDNS built a business case for investing in a mobile solution that would enable health and care workers to manage client and clinical information at the point of care. As well as

reducing the costs listed above, they anticipate that a mobile solution will provide an improvement in both the timeliness and quality of data, leading to improved client care and greater staff satisfaction. They also believe that, by enabling staff to make more effective use of their time with easier access to schedules and client details, they can improve responsiveness to clients and increase ‘in home’ activity. As a result of these benefits, they also anticipate that they can reduce the costs ‘per episode of care’, and gain a sustainable competitive advantage.

Solution

After careful evaluation, RDNS implemented a solution based on Service Outlook and Formotus from Microsoft® Gold Certified Partner, Mobilise IT. The solution runs on a Windows Mobile® 6 Palm Treo smartphone and enables staff to view and manage appointment schedules; view and manage client demographic and clinical details; order medical supplies; view organisational procedures; enter activity data at point of care and manage their to-do list. All of this information is automatically synchronised using Microsoft® Exchange ActiveSync® technology and Web Services over the 3G network as staff go about their duties.

Because many RDNS field staff had limited exposure to a computer before, Release 1 was designed to replicate the existing paper-based system with minor modifications to the workflow. These included the ability to capture essential client data for the client management systems for use in government reporting, for compliancy purposes.

Jodie Rugless, Senior Business Systems Analyst, RDNS comments: “By creating a

simple, user friendly and non-threatening solution, we made it easier for workers to transition to using mobile devices. Rather than replacing what they currently do, we just gave them a new tool in the same format. It is a thin mobility layer across the top of what they currently have. Once staff are comfortable and competent using Release 1, we plan to incorporate additional functionality based on user feedback and involvement. By introducing change gradually, we anticipate easier and faster adoption for staff as they accommodate changes into their work practices.”

Feedback from the initial pilot scheme of six devices was extremely positive. Staff comments included: “Being able to see what I plan to do, record what I have done and then see what I did in real time is fantastic!” Staff were also positive about the familiar Microsoft interface, which made it easy for them to get up to speed. “Seeing it for the first time was not a challenge as the screens are familiar to a lot of other screens I see when using my computer.” Other staff were excited by the productivity gains and improved use of time: “The ability to see my client details and maintain them in real time will be a huge benefit.”

Management were equally impressed at the potential of the pilot scheme. Glen Winkler, Director MIS, comments, “The organisation will be able to implement a cost effective solution that leverages our existing technology infrastructure, providing a sustainable competitive advantage that is flexible enough to allow easy modification to meet the needs of our dynamic business environment.”

One of the most innovative aspects of the Mobilise IT solution is that it utilises all of the existing Microsoft infrastructure at RDNS. George Deligiannoudis, CEO, Mobilise IT explains “The RDNS solution was not created as a bespoke solution. It is a combination of mobile applications that interoperate with the existing RDNS systems. To achieve this, Mobilise IT used Formotus as one of the key technologies in the RDNS solution. This innovative application architected on a software plus services model enables RDNS staff to develop forms required by care workers in the field using familiar products such as Microsoft® Office InfoPath®. Any data entered in the field is synchronised to the patient care system (ComCare), finance and HR systems on the RDNS servers include Microsoft® Office SharePoint® Server.

By basing the solution on industry standards, and utilising existing technologies, RDNS now has a flexible solution that can easily be extended without requiring extensive IT support. They have also been spared the expense of re-engineering their existing server systems, since data is simply extracted, updated and synchronised between the smartphones and servers. The solution is one of the first of its kind in Australia. George Deligiannoudis says: “With some 440 users, this is the largest deployment of its kind to date. It is a significant milestone in improving business processes, security and efficiency of the mobile workforce when delivering healthcare.”

Benefits

RDNS anticipates a number of key benefits from the solution.

Lower costs

By modelling a business case RDNS have been able to establish that their Windows Mobile solution will contribute to reducing costs on an ongoing basis. These include the cost of data entry and correction as well as the cost of calls to the contact centre, printing, updating and collating paperwork. They anticipate that a combination of these factors will lead to a reduction in cost per episode of care and establish a sustainable, competitive advantage for RDNS.

Jodie Rugless explains: "Based on data taken from an IDC white paper, we were able to show that the cost of our solution per user is 40 percent less than industry average and that even if only half of the anticipated benefits are realised, we'll still achieve return on investment."

More accurate, timely data

With a single, controlled point of data entry on the mobile devices and changes reflected immediately on the office systems, RDNS anticipates significant improvements in the quality and timeliness of data. Health and care workers will be able to make more informed decisions. And with up-to-date information at their fingertips, contact centre staff will be better able to communicate healthcare worker intentions with clients. Centralised organisational procedure documentation can also be updated easily with changes reflected immediately to workers in the field keeping them informed of new processes or procedures.

Improved management of human resources

The mobile solution will also improve safety for staff, as managers can now track their whereabouts. They can also see what a health worker has scheduled for the day and the status of their tasks, making it easy to identify if they have extra capacity or if they need additional support to get through their list. This enables RDNS to maximise their use of human resources and to gain a better picture with regard to travel time and average visit length to assist with planning. With greater understanding of capacity, they can also be more responsive to new admissions.

Improved staff satisfaction and client care

With electronic visit schedules automatically updated, staff can start their shifts from home and no longer need to visit the office in the morning to collect their schedule. It's also easy for them to manage client appointments in advance by simply clicking and dragging using the familiar Microsoft® Office Outlook® interface. Since all data captured at the point of care during the visit is automatically updated, this also reduces time and eliminates double entry. Staff can also obtain immediate access to procedure information, ensuring that they always have the latest version at their fingertips and no longer have to refer to a manual.

Jodie Rugless comments: "By improving the quality of information and providing efficiencies at the point of care, health and care workers can spend more time with clients rather than filing paperwork or travelling to and from the office."

For More Information

For more information about Microsoft® products and services call the sales and information line on 13 20 58 Monday to Friday 8am to 8pm AEST. To find a partner or solution, visit www.microsoft.com/australia/findapartner/

To contact RDNS, email callcentre@rdns.org.au call 1300 364 264 or fax (08) 8378 5383

For information on Microsoft Gold Certified Partner, Mobilise IT, products and services call +61 3 8456 7555 visit www.mobiliseit.com

Opportunities to extend the solution

Built on standards-based Microsoft® technology, the solution provides RDNS with an extendable, flexible system that integrates with their existing ICT infrastructure.

Jodie Rugless explains “Being able to take advantage of new opportunities as they arise rapidly and without extensive IT integration provides them with a competitive advantage in that we can bring services to our people far more rapidly. We are already looking into how we can integrate our solution with General Practices to share client data. We also see an opportunity to onsell our solution to research groups and allied healthcare organisations in conjunction with Mobilise IT.”

Microsoft® Exchange Server

Microsoft® Exchange Server is a messaging and collaboration platform that enables organisations to provide electronic mail, calendaring, contacts and tasks. Exchange supports mobile and web-based access to information through a familiar Outlook interface. Mobile devices incorporating Microsoft® Exchange ActiveSync® maintain a secure connection with Microsoft® Exchange Server 2007, receiving new or updated e-mail, calendar, contacts and tasks as soon as they arrive on the server. This push method optimises bandwidth usage while keeping users up-to-date.

Software and Services

- Microsoft® Office System
- Windows Server®
- Microsoft® Exchange Server

Hardware

- 440 Windows Mobile® smartphones

Partner

- Mobilise IT