



ParaMed Home Health Care

Unique partnership improves healthcare delivery

"I've worked on other IT projects and I've never experienced this level of teamwork. It was a unique experience where very different organizations came together and worked as one. A group of highly skilled individuals all focused on achieving the project outcome and truly understood the meaning of customer service."

— Deb Mulholland, Senior Operations Consultant, ParaMed.

Situation

- ParaMed is Canada's largest private sector provider of home healthcare
- The organization operates 26 centres in Ontario and Edmonton, Alberta
- ParaMed's workforce of 4,500 is highly distributed and includes 4,000 full-time, part-time and elect-to-work registered nurses, therapists and support workers
- The organization communicated with its field employees primarily by phone, with a heavy reliance on voice mail
- Only some of ParaMed's field workers had mobile phones, leaving the others to use client phones or wait until they got home before picking up messages
- The organization's processes were almost entirely paper-driven, with the progress of each case charted on paper
- To confirm services provided and claim expenses, field workers were required to complete and return time slips and expense forms, either dropping them off at a ParaMed office or mailing them in
- Information was then manually entered into ParaMed's scheduling system
- Until this was done, ParaMed had no way of knowing whether an employee was delayed en-route to a visit or whether there were any variances to treatment plans

Approach

- ParaMed created a cross-functional user team with members from every relevant department of the organization
- This team looked at all of ParaMed's systems and processes, identifying critical failure points and recommending ways to create better systems, improve efficiencies and enhance the quality of care provided to clients
- All concerns were prioritized, with a focus on ROI
- ParaMed issued a Request for Information (RFI), seeking expressions of interest from potential technology partners
- Interested parties were required to provide details of a proven and referenceable solution, implemented and in use by existing clients
- The ParaMed user team scored all presentations against pre-set criteria
- Based on these results, ParaMed selected TELUS for wireless network connectivity and the provision, management and support of wireless devices
- US software developer CellTrak™** was chosen to provide a GPS-based application designed to integrate with the organization's existing scheduling solution
- Before full deployment, the solution, processes and business case were tested in a two-phase pilot
- A pilot steering committee was drawn up, consisting of key business and technical representatives from all parties, a collaborative team approach that drove all pre-deployment activities
- The steering committee monitored the pilot and validated results against pre-set criteria
- Detailed user support processes were mapped out, with handoff points predetermined for all parties
- The full solution was implemented and completely live by December 1, 2008

*CellTrak is now TELUS MobileCare™ in Canada.

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Business Benefits

- Every field worker carries a TELUS mobile phone or wireless device, and simply has to start the CellTrak application residing on it to confirm their arrival at a client's home
- The mobile device and application track the employee's location, list the services to be provided and confirm mileage, eliminating paperwork in the field
- ParaMed's scheduling system is updated automatically, in real time or close to real time, eliminating delays in billing and shortening the accounts receivable cycle
- Manual re-entry of data has been eliminated, and the accuracy of invoices can be quickly verified with back-up information
- ParaMed can provide fast updates on changes to the condition of a client
- Information is readily available to stakeholders and in the event of billing disputes
- User surveys at multiple points of the pilot indicated a 75% satisfaction rate with the new mobile tools
- By the end of the first month of full implementation, approximately 95% ROI was achieved in the areas targeted

Solution Details

The situation

One of Canada's largest providers of home healthcare and workplace health and wellness services, ParaMed operates 26 centres in Ontario and Edmonton, Alberta. The organization employs 4,500 people, of whom 4,000 are registered nurses, therapists and personal/home support workers who spend most of their time caring for clients. Some of these are direct service employees, employed in full time, part time and/or elect to work positions. Others are purely elect-to-work employees, who are able to choose their work assignments.

ParaMed had always relied on phone communications to reach its direct service employees. Typically, a call for services would arrive at one of ParaMed's offices, where an assignment coordinator would enter the referral information into the organization's scheduling application. Coordinators would then call qualified direct service employees to advise them of the referral. This would often mean leaving voice mail messages for several employees at multiple locations.

It also required employees to check in frequently for new messages and for changes to their schedules – and because not all employees had mobile phones, they either had to use a client's telephone or wait until they got home before they could pick up their messages.

In addition, ParaMed's processes were almost entirely paper-driven. Direct service employees completed time slips to confirm the delivery of client care, and also submitted mileage and expense forms. All this paper was mailed into or dropped off at the employee's ParaMed office, where the information was manually entered into the accounting application system and data was compiled for billing. At this time, all client progress notes were also reviewed for variance to care plan.

With so many manual processes, there were just too many opportunities for human error. ParaMed was also not able to proactively confirm that client services were being delivered as per the care plan, while auditing 100% of employee expense claims would have been prohibitively expensive.

"The documentation wasn't always legible and didn't always arrive in a timely manner," explains Deb Mulholland, ParaMed's Senior Operations Consultant. "We often only found out what was happening long after it occurred. For example, if someone had been delayed or had missed an appointment, our only way of knowing this was when the staff or client reported the occurrence."

As a result, ParaMed decided to implement a wireless solution that would help address all of these issues.

The approach

To ensure that critical failure points in all processes and systems were identified, ParaMed created a cross-functional user team, with experts from all areas of the organization. The team included representatives from all functions, such as clinical, direct service employees, IT, accounting, human resources and scheduling.

After identifying the issues, the team prioritized them, with a clear focus on ROI. Based on this, a Request for Information (RFI) was drafted. The team made it clear that they would not accept a theoretical solution or one that was in development. It had to be both proven and reference-able. "We were looking for an organization that has experience in this realm," says Mulholland. "We didn't want to be the first agency they'd dealt with on a large-scale wireless communications solution."

The RFI stipulated a number of requirements:

Wireless devices:

- Easy to use, ergonomic, with a large screen and both typical voice/phone capability and the ability to run the chosen application
- GPS capable
- Able to grow to other applications such as email
- Capable of two-way radio communications (Push To Talk®) for integration with the office and call centre
- Consistent across the field, with as few different models as possible
- Designed for fast user adoption
- Rugged, with long battery life and a full range of accessories to support daily usage
- Configurable to enable ParaMed to restrict usage in order to ensure cost certainty
- Backed by full support and project management, including device configuration, technical trouble-shooting and inventory management

The network:

- Extensive enough to provide coverage that would allow each direct service worker to receive their schedule at the beginning of every day and upload data at the end of the day
- Capable of real time updates throughout the day
- Proven reliability and performance
- Allow messaging and Push To Talk capability
- Require minimum end user activity in the event of upgrades

The application:

- Capable of integrating with ParaMed's Scheduling application
- Certified on the wireless devices selected
- Easy to navigate and behaviour-driven wherever possible
- Easy for users to adopt, with minimum user intervention required
- Capable of reducing or preferably eliminating the need for paper tracking for time and duty conformance
- Would eliminate self reporting of travel expenses
- Able to store and forward data if employees travel outside wireless coverage areas
- Would include a monitoring dashboard, allowing coordinators to ensure scheduled activities meet compliance requirements

All responses to the RFI were scored by the user team against pre-set criteria. Based on these scores, the team selected TELUS for wireless network connectivity. TELUS was also selected to provide, support and manage a variety of wireless devices, ensuring that each field worker has the most appropriate device. US software developer CellTrak was chosen to customize its GPS-based application and integrate it with ParaMed's scheduling application.

"Even though all three parties signed a contractual agreement, it's really a partnership," says Mulholland. "This was vital to the success of our solution. We had to work together with a common goal and be solution-oriented. That's exactly what happened. We created a unique partnership that gave us a competitive advantage in enabling us to execute something of this magnitude within a tight time frame."

The implementation

The CellTrak application was customized around ParaMed's scheduling processes and the workflow between coordination and direct service staff. The application draws on Global Positioning System (GPS) technology, ensures real-time interaction between employees and their support system, accessibility of resources at the point of care, safety in travel, and electronic documentation of care provided. Communication between the schedulers and direct service staff is supported with text messaging and/or email.

ParaMed chose the TELUS i-DEN (Mike) network as its primary network – with rugged, easy to use Motorola i857 devices for its field staff – because the CellTrak application had already been proven on iDEN deployments in the US. In addition to regular voice and data communications, the TELUS iDEN network provides secure Push To Talk radio connectivity, allowing instant communications between coordinators and employees. It's also configurable, allowing ParaMed to restrict usage to data, text messaging and Push To Talk communications for cost certainty.

For direct service employees who work in geographies not supported by iDEN network and/ or require greater capabilities, including email, TELUS provides BlackBerry® Curve™ handheld devices that operate on the TELUS 1X-EVDO high speed wireless network.

Working together, ParaMed, TELUS and CellTrak implemented a two-phase managed pilot to test the solution, processes and business

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case before committing to a full deployment. A pilot steering committee was set up, comprised of key business and technical representatives from ParaMed, TELUS, CellTrak and B-Wireless, a TELUS authorized dealer. In phase one, a select group of 14 home care providers spent two weeks using the solution, duplicating their manual processes. This allowed the steering committee to validate the appropriateness of the training and the ease of use of the devices, ensure the proper function of the core application and its integration with the scheduling system, confirm the usability of voice and Push To Talk features and verify the realization of expected benefits.

In phase two of the pilot, small adjustments were made to the solution and the scope was increased to all 144 nurses and home care workers employed at the branch. During this six-week phase, the steering committee tested end-to-end operational processes and validated the business case and expected ROI.

The pilot was a complete success and the solution was deployed across the organization, achieving full roll-out by the beginning of December, 2008.

Throughout the pilot process and the subsequent full deployment, there was a fully collaborative, team approach between ParaMed, TELUS and CellTrak. "Three very different organizations came together and worked as one. A group of highly skilled individuals all focused on achieving the project outcome and truly understood the meaning of customer service," says Mulholland. "We could all have worn the same hats."

Business Benefits

This solution has enabled ParaMed to automate and streamline its operational processes, resulting in enhanced service through expedited communication, electronic documentation, improved employee safety, and increased employee satisfaction.

ParaMed's direct service employees now receive their daily schedules, including encrypted client specific information, on their handsets via the CellTrak application at the beginning of each day. A text or email message of available assignments is sent to qualified elect-to-work workers and the first to respond positively is awarded the assignment. This has eliminated the need for coordinators to notify workers separately, speeding communications and enhancing efficiency.

When they arrive for each visit, workers simply start the CellTrak application on their phones. This confirms that they're on-site and provides them with any special instructions. At the end of the visit, the worker documents all services provided, together with any variance to the care plan. This information is uploaded to ParaMed immediately if the worker is within wireless coverage. If not (for example, in extreme rural areas or in basements within buildings), it is stored on the handset and transmitted automatically when coverage is available.

ParaMed now has complete visibility into the status of every visit, the progress of every client and time and duty conformance by direct service workers. The GPS component helps calculate more accurate travel expenses and has significantly reduced mileage expenses.

Home care workers have also expressed satisfaction with the solution, with user surveys at multiple points during the pilot indicating a 75% satisfaction rate. They can quickly and easily contact a coordinator if they are delayed and no longer have to call in to confirm the next appointment. Most important of all, manual paper processes have been significantly reduced. A few keystrokes confirm that they've completed their duties and ensure that their expenses will be paid.

For its part, ParaMed now knows that the information it receives and works with is accurate and no longer as prone to human or data entry errors – and by the end of the first month of full implementation, the solution had already achieved approximately 95% ROI in the areas targeted. ParaMed can also provide full transparency to all stakeholders regarding service delivery. Clients who order services – such as provincial health agencies and health insurers – can ask for and receive full documentation of every visit and every service provided, ParaMed is assured that all claimed expenses are valid and the organization's healthcare workers know that support is always available to them.

"We truly broke ground," says Mulholland. "We made change, not only within ParaMed, but also within TELUS and CellTrak – and for community healthcare."