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Case Study – Buhle Waste Management Services

Buhle Waste Management Services (Buhle) is a company responsible for the nation-wide daily delivery and collection of both reusable and disposable medical waste bins and containers to over 2,100 hospitals, clinics and doctor surgeries. The industry in which it operates is highly regulated with strict requirements relating to on-site stock levels, site dwell-time, transportation times, handling procedures and accurate disposals.

Business Challenges:

Losses. The Client was losing an indeterminate number of plastic waste containers monthly. The source of the losses was suspected as being both ad-hoc thefts as well as by organized theft syndicates.

Logistical inefficiencies. The Client's response to delivery and pickup schedule bottlenecks or delays was to increase their transportation fleet and drivers. They had no opportunity to benchmark the transportation processes to create standard metrics or to define standard operating procedures to identify expected activity targets. Areas of variances or inefficiencies remained unchecked.

Large paper trail. The national industry regulations require that documentation be produced for all points along the medical waste containers lifecycle. With four copies of each paper form being produced and stored for up to 5 years, the resultant quantity of paperwork, storage and security as well as corresponding data capture operation had become a major logistical undertaking unto itself.

Issue response times and batch recalls. The manual nature of the paperwork and data capture meant that the time taken to identify any product quality or delivery problems and to apply the appropriate corrective action would generally exceed 24 to 36 hours. This resulted in an unnecessary increase in cost to institute corrective action, and reduced client satisfaction levels.
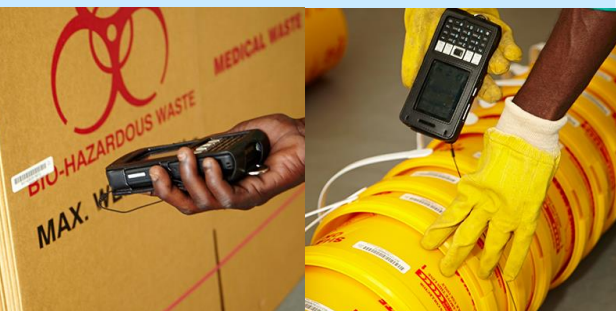
Data visibility. No formal mechanisms existed to the extraction and analysis of operational trends and metrics beyond the obvious data (number of containers delivered and picked up). As a result, there was no additional reporting and alerting available. Any attempt to extract management reports required a dedicated team to be assigned to the task and could only be undertaken periodically.

"You can't fix what you don't know is broken". There was a sense within Buhle that "things" could be done better across the whole organization; however, there were a large number of departments and groups (logistics, warehousing, transportation, accounts (clients) / finance (operations), HR, procurement, training, client services, maintenance / cleaning, IT services and operations). Each group was independently responsible for its own area and it was difficult to form a "golden thread" crossing group boundaries. Although the total organization seemed to be working, it lacked a level of synergy allowing it to be more than the sum of each part.

Implemented Solution:

Technetium was contacted to implement a full asset tracking and management system centered on the individual unique identification and tracking of each plastic container using polyester barcodes and handheld touch screen barcode GSM-enabled scanners. The backend system comprised of Technetium's hosted web-based TeamTrak (**T**echnetium **E**nterprise **A**sset and **M**anagement Tracking) platform. Changes to Buhle's operations included the introduction of container scanning at all points along its lifecycle (procurement, initial receipt, storage, client delivery, client pickup, return receipt, cleaning, repair and scrap). Training on the system was instituted across all departments with interdepartmental workshops setup to identify and define required custom reports and system alerts needed from the system. The major clients were also given an overview, access and training of the system relevant to their specific business with the creation of corresponding reports.

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Results:

There was an almost immediate reduction in plastic container stock losses once the client became aware that the container fleet was managed and controlled. This reduction was attributed to the areas of losses from inefficient handling, misplacement and ad-hoc pilfering of containers, and allowed the company to focus on and introduce corrective actions in the more problematic areas. It should be noted that the implementation of the Technetium TeamTrak system did not directly stop the theft of containers but by highlighting the areas where the thefts / mismanagements were taking place, accountabilities and policies based on the 80-20 rule were implemented to further drastically reduce these losses.

Through the use of the system, Buhle was able to define and standardize on operation times for all logistical procedures including delivery and collection times, transport and handling times, dwell time and storage times. This allowed the company to identify operation aberrations and take corrective actions. This included individual's training, modifications to handling procedures, the introduction of a mentoring and rewards program, reassignment of staff. Again, once the staff was aware that there was now an accurate measuring of their performance there was an immediate improvement in performance. It also resulted in an improvement for staff morale as workers felt that the company was genuinely interested in improving working conditions and was looking to "catch them doing things right".

Once the system had been up and running for a short period of time, an audit was conducted to compare the accuracy between this purely digital document system versus the original paper-based system. The results showed that document retrieval times were now drastically deduced and general data integrity significantly improved. With the introduction of on-screen signatures through the handheld scanners for site activities and proof-of-deliveries there was less invoice disputes and faster client payments.

The total organization was given an opportunity to add recommendations into a system in terms of what reporting each group needed / wanted, as a result every business entity had ownership in the final system. A sample list of different business benefits included:

Asset Stock Benefits:
- Identify assets lost at sites
- Monitor stock levels at sites
- Asset locations and status
- Asset utilizations and turn rates
- Measure time on a site
- Measure actual usage by type
- Identify source of damaged assets
- Stock-take and audits

Staff Benefits
- Optimize handling procedures
- Automatic capture of manifests with parameters
- Accurate data capture and reconciliation
- Structured training programs for weaker operators

Process Benefits
- Measure transportation times
- Measure handling times
- Monitor cleaning / preventive maintenance processes
- Monitor damage, repairs and scrap
- Compliance with Government Regulations
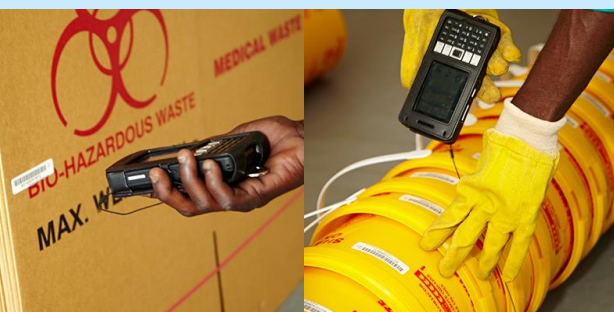- Reduced paperwork and improved document retrieval

Security and Alerts
- Digital signature delivery confirmations
- Alert on route deviations
- Alert on overdue deliveries / pickups
- Alert excess onsite times
- Alert on incorrect deliveries

The Conclusion

With the implementation, the high-level benefits for Buhle Waste Management Services were felt in three primary areas:

Procedures
- Greater visibility
- Increased productivity
- Quick response to errors

Equipment
- Increase utilization
- Reduced purchases
- Reduced losses/thefts

Finance
- Quick ROI
- Increase performance
- Increase productivity
- Client satisfaction

A key number of benefits post implementation were achieved:

- Substantial increase in contractual compliance to near 100%
- Reduction in manual field data capture and associated errors
- Improved debit collection through the reduction of disputed invoices
- The systems advanced hazardous checklists has reduced dangerous handling incidents and improved staff safety
- Accurate visibility of client's location stock levels
- Extensive reports tailored according to each manager's needs – something that was previously unavailable

Other benefits that have become apparent over time include:

- Stock loss reduction with a corresponding reduction in capital outlay
- Streamlining of work force with a reduction of bloated headcounts
- Increase client retention and contract renewals
- Compliance with statutory regulations
- Accurate and up-to-date Inventory Control

TeamTrak has been transformative for Buhle Waste Management Services in the way that they are now able to manage their work force, operations and assets. Reaction times to addressing in-field issues have improved by a massive 54%. Through the automation of data capture, field staff training and handling errors have been reduced significantly. The company is spending 24% less on stock replenishment and staff morale is significantly up.

Some unintended benefits have also emerged. The company is now able to determine the transit time of workers from one location to the next within a facility. This metric has never been available previously and it now allows them to monitor delinquency in this area.

In addition to the automatic reports generated by TeamTrak, the Client's Management has remote access the data through the TeamTrak web portal.

Buhle continues to use the TeamTrak platform and more aspects of their business are benefiting from it. In testimony to the solution provided by Technetium, Buhle's Chief Executive Officer, Dr David Sekete, is quoted as saying,

"The power and uniqueness of the Technetium Asset Tracking and Management System in terms of addressing legislation compliance, operational challenges, managing risk, and maintaining the efficiency of our business cannot be matched. TeamTrak's intuitive interface has been easy for our operators and supervisors to adopt, simplifying integration into our operations. They operate more as a partner than a supplier. Technetium has proven to be a competitive differentiator helping us to building and sustain market share even as industry competition intensifies."

For more information on TeamTrak visit our website: www.technetium.com