



white paper

## The Value of Quality in Distributed Check Capture

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Doors opened in the U.S. for check truncation and image exchange when the Check Clearing for the 21st Century Act (Check 21) became effective on October 28, 2004, and check processing will never be the same. With the potential to reduce overall item processing costs by over two billion dollars annually, financial institutions are actively exploring a variety of avenues to take full advantage of the "Check 21" opportunity. Outside of the United States many countries are exploring or actively pursuing check truncation-based on their respective countries check clearing process.

A common approach is to capture images early, even at the point of check presentment, in a distributed or decentralized model. Large banks, in particular, are implementing distributed capture processes to reduce costs, increase cash flow, and service new customers under Check 21. Such implementations promise large paybacks with commensurate investments to roll out distributed capture in hundreds or even thousands of locations.

While high-throughput capture devices (reader sorters) have a place in the foreseeable future in many processing schemes, small check scanners are the order of the day for distributed capture. Check scanners fit neatly in teller station, backroom, or even merchant environments. Their size alone guarantees unit costs that are orders of magnitude less than reader sorters. The variety of scanner vendors further drives cost down.

Making an investment decision chiefly based on unit price may well lead to a lower return on investment in the best case and present a recipe for disaster in the worst. Financial institutions considering product performance and service quality as part of their selection criteria for distributed capture equipment providers will have the advantage.

## The Burroughs Commitment to Quality.

Burroughs Payment Systems designs its check scanner products with a commitment to quality that is second to none in the industry. Quality in Burroughs check scanners is evident in measurable criteria related to out-of-the-box success and reliability. Quality is also evident in the technology and selected components to deliver critical functions (for example, MICR reading and image capture quality), which impact the bottom line.

Banks introducing wide-scale check capture technology are discovering the importance of quality when it comes to check scanner products. Experience is also teaching the necessity of excellent support during installation, startup, and the production life of the product. Deficiencies in quality and support can result in higher project costs and a lengthened implementation schedule. Even small problems can impact teller or operator efficiency and larger ones, particularly those resulting in downtime, can significantly impact the document processing workflow. Less than excellent quality and support puts customer satisfaction at risk. Of course, missing processing windows immediately impacts the bottom line.

Burroughs recognizes the value of your investment in new image driven processes and equipment and seeks to provide the best equipment and support. The Burroughs commitment to quality is seen in its commitment to continuous improvement and customer satisfaction as embodied in ISO 9000 standards, as set forth by the International Organization for Standards, and Six Sigma Lean programs. The distinguishing character of the Burroughs commitment to quality becomes apparent with a greater understanding of these cornerstone initiatives.

**Burroughs ensures high quality equipment through cutting-edge, integrated quality management systems.**

## Implementation of ISO 9000 Standards.

The Burroughs Supply Chain Operation (SCO) organization in Plymouth, Michigan has been building check processing products for over 40 years. Compliant with ISO 9001 as far back as 1991 and certified to the ISO 14001:2004 environmental standard since 1999, the operation assembles and ships financial payment system products from a modern, 600,000 square foot manufacturing facility.

Employees in SCO at Plymouth have an average tenure of 20 years with very low turnover, providing in-depth manufacturing experience that is reflected in product quality. Excellent product quality translates to the following benefits for customers

- Increased percentage of products that function "out of the box" as specified
- Saved costs from fewer service issues
- Fewer product failures over the life of the product, producing additional savings in labor and equipment

ISO 9000 sets forth a rigorous standard to guide quality management systems and enforces compliance through inspections and process review. Re-certification is required for organizations on a regular basis.

The International Standards Organization offers the following description of ISO 9000:<sup>1</sup>

The ISO 9000 family is primarily concerned with "quality management." This means what the organization does to fulfill

- the customer's quality requirements, and
- applicable regulatory requirements, while aiming to
- enhance customer satisfaction, and
- achieve continual improvement of its performance in pursuit of these objectives.

ISO 9000 processes extend to all organizations involved in product inception, design, development, manufacturing, installation, support, and servicing. Customer satisfaction is assessed through the use of feedback from annual customer surveys, business partner surveys, and Arrival Quality Report information.

In addition, data from the Burroughs Order Fulfillment Process and other sources is collected. Analysis is the basis for resolving any issues and for improving the quality system.

"We are a fast cycle organization that relentlessly targets and eliminates waste in its pursuit of delivering cost-competitive, high quality products and services."

Larry McCarter, Supply Chain Operations, Burroughs, Plymouth

<sup>1</sup> "ISO 9000 and ISO 14000" International Standards Organization. <http://www.iso.org/iso>

## Six Sigma Lean: Continuous Improvement with Streamlined Processes.

The quest by Burroughs for quality and continuous improvement mandates that ISO 9000 is not an ending point. Six Sigma uses a portfolio of techniques and tools to solve business problems by analyzing fact-based data. The day-to-day accumulation of successes produce a significant improvement in business processes, operational excellence, and cost savings, which ultimately lead to yet higher quality products and customer services. As the American Society for Quality describes it, "Six Sigma is a methodology that provides organizations with the tools to improve the capability of their processes."

Organizations that use Six Sigma establish a culture of continuous improvement and an infrastructure of teamwork."<sup>2</sup> Methods involve applying definition, measurement, and analysis to determine root-cause problems, which are solved through improvement and control or design and verification processes.

In the SCO organization at Plymouth, Six Sigma methods are combined with an improvement process called "Lean" to eliminate waste and establish baseline processes promoting continuous resource flow. Combined with Lean processes, Six Sigma attacks complex process variation issues resulting in lack of repeatability and control. When combined, Six Sigma and Lean yields streamlined processes and factory layout, reduced defects, corrected key trouble spots, and reduced production costs.

Six Sigma Lean practitioners constitute the entire Plymouth manufacturing workforce with experience extending over ten years and led by a highly-trained Six Sigma Lean (SSL) team.

Six Sigma Lean initiatives enable breakthrough performance through a commitment to continuous improvement and disciplined execution.

## Quality in Servicing and Support.

When a problem occurs, especially in large-scale implementations, excellent service and exceptional support can be crucial. All Burroughs service organizations are certified to the ISO 9000 standard. The Burroughs Global Infrastructure Services organization, which has access to over ~500 service engineers in the U.S. alone, offers installation, repair, and on-site services 24 hours a day and seven days a week.

Burroughs Service Repair Depot for check scanning equipment have been in operation since 1970. The Burroughs Service Repair Depo employs a highly-skilled and experienced workforce that uses ISO 9000 certified processes to provide high quality and consistent product repair and distribution.

<sup>2</sup> "Six Sigma." American Society for Quality. 2005. 6 Apr 2005  
[www.asq.org/topics/sixsigma.html](http://www.asq.org/topics/sixsigma.html)

## Measuring the Benefits of Quality.

The purpose of quality is to increase efficiency and cost savings while focusing the organization on its business goal. Quality has a measurable financial benefit, especially in large-scale implementations and projects. Measurable quality metrics for check scanner implementations include arrival quality, mean time between failure, and performance.

Arrival Quality is the out-of-box failure rate, which is directly related to manufacturing quality and pre-installation product testing. Arrival quality potentially has the largest impact on cost because failures delay the implementation, interrupt the schedule, and waste labor resources. Poor arrival quality directly increases project costs. Based on the average cost for a service engineer's visit, each "dead-on-arrival" unit may cost \$250.

Mean Time Between Failure measures the frequency of component or product failure. While repair costs may be covered through a maintenance agreement, product failures produce direct costs through lost employee time for diagnosing and recovering from problems. Time may also be spent to shift tasks to compensate. Excessive equipment failures can detract from the business, thus creating lost opportunity costs.

Performance Quality measures how well a component or product does compared to what it was designed to do. For example, consider metrics related to Magnetic Ink Character Recognition (MICR). A "can't read" character causes an item to be fixed through a fix and reject re-entry process, which costs about 10 cents per check. A misread (an improperly read MICR character) is harder to identify and correct and can cost as much as one dollar to correct.

A range of technology is employed by vendors to perform MICR. By asking for testing results and examining MICR statistics, it's straightforward to determine which scanners are the best and to project cost savings or losses for different machines.

Courtesy Amount Recognition (CAR) is another technology that produces hidden cost savings or reveals losses based upon the quality of the product. Each item for which an amount is not automatically recognized typically adds one cent to amount-completion labor. Such costs quickly add up. Assuming 500 branches processing 2,000 items/day per branch, the cost of decreased MICR and CAR read rates quality is as follows:

- 1 percent difference in MICR read rate costs \$1,000 per day<sup>†</sup>
- 1/10 percent difference in MICR misread rate costs \$1,000 per day<sup>†</sup>
- 5 percent difference in CAR rate costs \$500 per day
- Total cost from lower performance quality = \$2,500 per day

<sup>†</sup>Rates for each are \$0.10 for MICR re-entry and amount entry and \$1.00 for misreads.

## Choosing a Supplier.

The benefits of choosing a supplier or partner providing exceptional quality and service should be apparent. Financial institutions implementing distributed capture should consider the potential value gained in choosing a technology supplier with a reputation for quality. Indeed, practicing due diligence in selecting a supplier with high quality standards and placing a dollar value on the potential added return on investment is a key to success.

It is common for major enterprises to have formal standards for selecting quality suppliers. Today most manufacturers require their suppliers to be ISO 9000 compliant with demonstrable quality standards before they integrate components from a supplier into their process. Service organizations, including banks, are pursuing ISO 9000 certification in an effort to raise their service quality and differentiate themselves in the market.

Burroughs suggests that just as a bank performs due diligence when coming to acquisitions, loans, mergers, and other business decisions, they should also require their equipment providers to be ISO 9000 compliant. Consideration of quality metrics and comparison of vendor's equipment should be part of the process in addition to standard price measurements.

## Risk Aversion.

Risk aversion is rooted in experience and quality. Transitioning to distributed capture offers a broad selection of small check scanners and suppliers. But such opportunity must be weighed against the risk of new or relatively untested products and services. Even vendors with reasonable product offerings may not have the necessary experience and depth to address the requirements of large and complex implementations. Hence, there is increased investment risk for the financial institution.

Burroughs Payment Systems is number one in the industry in check-processing experience, implementation expertise, and dedication to "total quality." As a worldwide company, Burroughs is one of the financial industry's largest hardware and service providers. Burroughs offers the depth and breadth of experience and services to support large-scale implementations. Also, Burroughs has the expertise to work in a partner relationship to help financial institutions with enterprise-wide implementations that leverage new technology. Burroughs can supply whole distributed capture solutions or work as a team member to deliver key parts of the implementation. Just as importantly as experience, expertise, and quality products and services, Burroughs brings a track record of longevity and staying power to the market-rare assets in today's world.

A good business case should recognize the reputation of suppliers and place value in the reduced risk that an experienced and "committed to quality" supplier offers. Coupled with a broad range of services,

Burroughs offers products and services to complete distributed capture solutions

- Broad range of hardware products
- Superior product quality
- Worldwide access to consumable items and supplies
- Globally available maintenance
- Advanced product exchange and repair services
- Comprehensive product testing and hot staging services
- End-to-end installation and implementation services

## Quality—The Differentiating Factor.

Quality programs such as ISO 9000 and Six Sigma Lean require a major commitment. Not all companies have the resources or the will to pursue the highest standards when it comes to quality. Burroughs recognizes the value of the up-front investment in time, training, and execution for quality programs to provide exceptional products and services.

Our integrated quality management system drives quality in everything we do from product design to the manufacturing supply chain and on to customer service and support. In its approach to quality, Burroughs demonstrates its commitment to the industry by its commitment to quality, a differentiating factor that translates to commitment to our customers.



For more information about the entire line of Burroughs Payment Systems Financial Products  
visit [www.burroughs.com](http://www.burroughs.com)

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