

White Paper

Justifying Auto ID Solutions

By Larry Oliver

Auto ID in the form of bar code, magnetic card or RFID is everywhere. It is used on every retail item that is scanned at the store checkout and it is on most of our personal identification cards in some form. It is on cards that allow us to enter a secure area, at some service stations, we buy gas without the use of a credit card and a puck shaped device pays our toll as we drive under a checkpoint.

Have you ever wondered how the users of the technology can justify the investment they have made in it? These reason and benefits of Auto ID implementation is not always obvious. The purpose of this paper is to explain the justification for these systems

Auto ID systems are implemented for 1, or more, of 3 possible reasons:

1. It is mandated by some industry standard that you must comply with.
2. There is a strategic desire to improve some part of the business.
3. There is a clear financial justification due to benefits resulting in operational savings ROI.

Let's examine these 3 reasons with some real world examples and review the business payback in each situation.

1. It is mandated: If the application is mandated there is no need to consider ROI. Sometimes the use of Auto ID is mandated by standards that in order to do business you must comply with. The longest standing example of such a mandate is the use of UPC in retail. Many stores simply will not do business with you if you do not provide your merchandise to them with perfectly formatted bar code labels.

Many of the emerging standards for RFID will create a similar mandate thus eventual adopters of the technology will have little choice – “RFID or Perish”. In these cases, the financial return is not important, the initiative must move ahead and no matter what the ROI would have determined the answer is that it must be done. The good news is that many companies who have implemented an Auto ID solution because of a mandate have gone on to receive tremendous financial gain after deciding to make use of the technology for internal purpose.

2. Strategic Reasons: Many Auto ID applications are not mandated and do not have an obvious ROI but are valuable from a strategic or business perspective.

A real world example I worked with was a meat distribution company that had maximized its physical production space. By implementing a mobile bar code order system for its sales people the company was able to transmit orders in electronically during the day and eliminate the need to expand production capacity.

The use of person identification cards that contain magnetic stripes or PDF417 bar codes are used in security, to identify who you are and your level of authorization to enter a building or use a bank machine. The Justification for these systems is customer service.

3. Financial Justification - ROI: Most auto ID systems have a rapid pay back to the company implementing the system. It is actually easy to identify cost saving, they are usually in the following areas:

1. Labour – look to determine who is entering data into your computer system via a keyboard – Auto ID systems convert data into digital form at the point of capture thus eliminating the keying processes. Even greater saving can be gained if the data collection process is being done in the field and traditionally entered onto paper to be keypunched later; in this case, the cost of double data entry is eliminated.
2. Errors – keypunching data will result in errors but what is the cost of an error. Usually it results in a shipping error or an asset being lost. The cost of the error is not just the lost item, it is often an unhappy customer and the resulting costs to correct the problem.
3. Paper forms – data is often collected on paper forms that are pre-printed for that purpose. The forms are expensive, sometimes in duplicate and are thrown away as their use changes.
4. Field Productivity – Auto ID can be combined in field or mobile work as it is often possible to eliminate tasks such as week day or week end work summaries thus freeing up the worker to increase the amount of the field activity.
5. Shop Floor Productivity - Auto ID automates non-value added activities of recording production related data and allows for simplification of various shop floor and warehouse processes. It is for example successfully used to streamline shipping, receiving and inventory counting. Manufacturing industry uses Auto ID solutions to help them implement such lean manufacturing practices as Kanban, JIT or Vendor Managed Inventory.

6. Increased visibility and velocity of materials - Tracking pallets, cases or individual parts or items on the production floor and / or in the supply chain is often possible only by using Auto ID technology. In addition a significantly increased velocity of material movements can be achieved.

Real ID Systems are experts at helping a business cost justify an expenditure on Auto ID technologies such as bar code or RFID. If you would like to contact the author of this document contact larry_oliver@realidsystems.com