THE BOTTOM LINE
Using biometrics to automate collection of time and attendance data can reduce buddy punching, manual data review, correction time, and payroll error. The Schlage HandPunch gives customers a reliable and industrial option over other biometrics, delivering additional operational benefits by using hand geometry to increase reliability and reduce privacy concerns. Customers maximizing the full potential of the technology can realize payback periods of less than 9 months facilitated through reduced errors, reduced or eliminated systems and materials costs, increased productivity, improved reporting and data visibility, along with reduced compliance risk.

THE SOLUTION
The Schlage HandPunch is a biometric terminal system for time punch entry and record generation used in conjunction with workforce management and human capital management software. The terminal uses hand geometry to verify an employee’s identity, eliminating invasive measures such as fingerprint matching or facial recognition used by more conventional biometric terminals. The company’s terminal gives customers the benefits associated with employee verification for records management.

To use the terminal, employees enter a PIN or code and place their hand to generate a recorded time punch associated with the time of day. Features of the HandPunch include:

- Employee messaging and self-service. The terminal can be configured to display messages and menus specific to each employee and referenced by their ID. Keys can also be defined to let employees view and enter requests and update information.
- Clock-based editing. Managers can enter a password to modify data entry points without the need to access a computer.
- Bell and door scheduling. Employers can manage shifts and breaks while controlling access to facilities.
- Data integration. Data stored and used in the terminals to identify and access employment records can integrate directly with other applications in HR and payroll to ensure accuracy and reduce manual data review.

WHY SCHLAGE HANDPUNCH
Payroll is a significant source of operating costs for all companies and a small percent change in payroll error can be the difference of finishing a pay period profitably or in the red. Companies have and are investing in workforce management systems (WFM) that improve payroll accuracy. While WFM traditionally mitigates the risk of errors in reporting
and cost analysis, standalone enterprise software based on sign-in sheets, time punches, or schedule verifications can be error prone, slow, and incapable of reducing the risk associated with not validating an employee ID.

The Schlage HandPunch uses hand geometry to improve the accuracy of time and attendance, eliminating the possibility of productivity cost drains caused by actions such as buddy punching – the practice of one employee signing in or out for another. While other terminals identify users through palm prints, fingerprints, or iris scans, the HandPunch registers the size and shape of an employee’s hand, stores it in the system, and runs a verification match from the database to match an employee to his or her corresponding user record. The technology’s use of geometry removes the invasive and often unreliable genetic identification techniques used by other systems, opting instead for large-scale measurements that require less precision to produce a higher level of accuracy in verification.

**KEY BENEFITS**

Nucleus found that companies using the Schlage HandPunch realized several benefits that result in cost savings over the term of use. Key direct benefits include reduced errors and reduced materials costs, while key indirect benefits include increased productivity, increased data visibility, and reduced compliance risk.

**REDUCED ERRORS**

Reliable biometrics reduce the risk of employees altering time clock and payroll-related information. As a result, companies can drive down the potential of buddy punching, manipulation of rounding rules, and employee location disputes that arise around legal length of time for donning and doffing and permitted overtime. The average payroll error rate amounts to 1.2 percent of payroll and automating time and attendance and ensuring accuracy serves to reduce this rate. One customer found that moving from paper time cards that could not determine one user from another to the HandPunch system significantly reduced buddy punching. Other customers also found that moving from electronic badge systems to the new system reduced the risk that an employee would lose or forget a badge.

The average payroll error rate amounts to 1.2 percent of payroll and automating time and attendance and ensuring accuracy serves to reduce this rate.

Customers noted:

- “People will use any excuse when they’re late but because the HandPunch was more reliable than fingerprint scanning, I mandated the use of the HandPunch: You will prove to me in the system that you were here or you will not get paid. We still monitor the
clocks but I know we’ve saved a fair amount on payroll overpayments because employees believe they will be caught.”

- “We had problems monitoring time in and out accuracy. It used to take managers away from their other tasks to have to manage it. We tried different methods and ultimately the HandPunch made it so we didn’t need a lot of direct oversight to reduce our cost of managing or eliminating errors. No one can punch in or out for another employee letting us see where, when, and how employees are on the clock and it is that simple.”

Customers also found that the HandPunch terminal’s use of hand geometry proved more reliable than fingerprint scans, or handprints. Nucleus identified the following advantages of the increased reliability that contributed to fewer errors in timestamp reporting:

- The HandPunch takes an image from multiple angles and relies on visible details while a fingerprint relies on small-scale details that are subjected to environmental conditions such as dirty fingerprints or smudged scanners.

- The HandPunch updates itself based on a built-in biometric template for each user over, adjusting as users’ change either from self-induced causes such as weight loss or gain, or from natural causes such as temperature changes or injuries.

One customer found that:

- “We work in a manufacturing environment and dirt is not uncommon. It’s very common for people to have dirty hands from working in the plant all day and with a fingerprint scanner, I had to stand out there every day because there were so many errors.”

REDUCED OR ELIMINATED SYSTEMS AND MATERIALS COSTS

Companies that moved from paper time cards or badge recognition systems to automated terminal units with biometrics eliminated the cost of time cards and badges that average 5 cents per card and 15 cents per badge. Additionally, they eliminated the cost of storing time cards for payroll records and supporting badge systems inclusive of the cost of replacing worn, lost, or stolen badges.

One customer commented:

- “Employees would come to us having either lost, torn, or demagnetized their badges. We had gone to a new system from timecards because those would get lost, mishandled, or torn and we now had a more expensive resource to keep in inventory. The switch to the new terminal eliminated that without much risk of bad entries.”
INCREASED PRODUCTIVITY

Organizations using the HandPunch reduced the time required for employee identification and punching in and out. The system requires fewer materials to engage the system eliminating objects such as time cards and badges that stand between end users and accessing the terminal. It also reduces the time that HR spends in the back office matching schedules to time punches, supervising the time punch process, and verifying overtime ahead of signing off on payroll.

HandPunch users take advantage of the technology’s benefits, realizing productivity increases in a number of areas including:

- Improved management productivity. Automated data entry eliminated the need for manual data reviews and individual amendments to employee records and time stamp entries. The biometric also increases the rate of accuracy in accessibility making it easier for managers to compile and review employee records, and for departmental heads to focus on actionable activities instead of spending time approving timecards.

  One customer using a basic terminal noted:
  - “Even though the clock added the hours, they had to be scrutinized. It became an outdated thing.”

- Improved employee productivity. Rapid, reliable timekeeping ensured that employees spent more time on the job and less time entering timestamps. Basic, automated time clocks depended on employees keeping their personal ID cards accessible and in good form; characteristics that more often than not resulted in lost, forgotten, or damaged badges. Deploying the HandPunch accelerated the time punch process, decreasing the amount of time employees spent entering time and attendance data and increasing the amount of time they put into their primary role.

  One customer found that:
  - “Most of the time when our people are leaving, it’s all at the same time... and they would try to stop working to try to be first to punch out so they didn’t have to wait. [The] HandPunch takes only 30 seconds a person, and most of that time is people remembering their ID number and entering it.”

- Improved administration. Automating payroll and time and attendance using biometrics also reduces overall payroll administration time. One organization found that it was able to redeploy more than one quarter of an HR staff member’s time to other activities by eliminating management of paper time cards. Another organization reported that employees were able to save more than 30 hours per week reviewing time cards and processing timesheets.
Automated payroll and attendance with biometrics allowed redeployment of HR staff time to other activities by eliminating paper time cards at times by more than ¼. Employees could reduce the time needed to review and process timesheets by up to 30 hours per week.

INCREASED DATA ACCESSIBILITY
Automated data collection and timestamp entry with the HandPunch increased manager visibility into employee work habits and locations. As a result, organizations realized improved monitoring as well as improved audit capabilities. One company found that management could increase the rate at which they identified missing punches or punches where the start and finish locations did not match, establish the reasoning, and resolve the data conflict. Another company found that facilitating immediate access to all of the information in their HRIS system through the HandPunch let managers determine if an employee began their day in one department and finished in another.

One customer noted:
- “In our organization, employees float between different departments. We would often find out after the fact that they were clocking in and out in departments they weren’t scheduled to be working in that day. The HandPunch let us match the location to the punch to understand where employees were using the system to prompt us to find out why.”

The technology also lets managers perform weekly reviews of employee activity to see if staff members have erratic work hours or habits that can be detrimental to employee engagement, customer engagement, and employee-driven business outcomes. The system recorded more accurate and precise data that improved payroll budgeting projections, enabled managers to allocate employee resources more effectively, and decreased the time needed to resolve audits and discrepancies. Nucleus also found that greater visibility for both managers and employees reduced employee concerns about favoritism in scheduling and employee timestamp corrections.

REDUCED COMPLIANCE RISK
Companies found that using an accurate, auditable time and attendance tracking system reduced their risk of cost overages and fines caused by non-compliance measures. It also reduced the amount of time managers spent managing compliance risks and ensuring that internal labor practices in scheduling aligned with FLSA, FMLA, ACA, union, state, local, and other federal rules and regulations. Companies reported compliance to be the largest operational cost after labor, direct inventory and facilities. Compliance costs are not readily known up front and are subject to change throughout a calendar year leaving many HR departments in the dark about the size of their actual risk. While the HandPunch terminals do not report the cost of the risk, they enabled customers to manage individual employees’ labor hours through unbiased reporting to ensure that designated, known rules were being followed. As a result, managers were able to access data to minimize the
up-front risk of non-compliance and eligibility verification costs for irregularly scheduled employees.

One customer noted:
- “To employees, a punch in or out is just adding time for pay. To us, we have to be careful about accuracy so we don’t run into compliance risks. [The] HandPunch gave us that added layer against basic errors like buddy punching or slipping in some added time that could cause us big problems with government rules and pay amounts.”

**KEY COST AREAS**

The main cost area for the HandPunch was the initial hardware investment. Other areas reported by customers included:

- Integration. Schlage has several business partners that can integrate with the software forming the user interface in the technology but integration with other systems may be necessary to connect the time and attendance data to the central HRIS for payroll reporting. Customers typically run into added costs for this in the way of consulting provided by their existing HRIS or payroll provider when they are implementing the HandPunch after deploying their HRIS or payroll solutions.

- Personnel. Initial personnel time was required to support implementation of the technology and manage the integration with existing HRIS applications. In spite of reports of labor hours spent, Nucleus found that personnel time required was minimal.

- Training. Some basic, initial training was reported for employees and managers to be familiarized with the technology’s user interface. Nucleus found that the HandPunch UI was intuitive and that the training time reported was also minimal.

**BEST PRACTICES**

Maximizing the return of any software or technology investment is up to the practices used to implement and maintain the solution while keeping internal staff fluent in its use. Nucleus found organizations followed a number of best practices to maximize their return on investment with the HandPunch and reduce the amount of time it took to recuperate the cost of the technology.

- Clear communications. Customers reported several concerns surrounding the HandPunch’s implementation surrounding employee data privacy, government data sharing, and data use. The HandPunch does not collect fingerprints or palm data and cannot be used with systems such as the Automated Fingerprint Identification System (AFIS) that connects to law enforcement. Companies should communicate this to employees up front and further use it to segue into how hand geometry data will be collected and used inside the company. Implementing seemingly invasive means of tracking raises concerns among employees and manager need to keep the lines of
communications open and include employees in the implementation as much as possible without hindering the deployment timeline.

- Test environment. Deploying to a select group of employees to show how the technology can streamline entering a timestamp and tracking absence and leave requests can help identify initial deployment problems, identify security issues, and create an advocacy panel of employees to increase adoptability among the greater workforce.

- Integration management. The more uses of the HandPunch and the data it generates and tracks, the greater the potential ROI. Integrating the system directly into back-end payroll and HR applications can reduce data management time, errors, omissions, and costs, leading to greater savings across multiple solutions and increasing the value of the implementation.

**CONCLUSION**

As companies look to reduce labor costs and improve operational efficiency, they need to be considering automating time and attendance to return visibility into labor data for more effective and productive management. While many organizations have automated some aspects of workforce management, many remain challenged to produce accuracy and eliminate employee-generated errors such as buddy punching. Nucleus has found that employees are less likely to attempt buddy punching or other fraud if they believe a system is accurate because they cannot argue with a data-driven outcome correlated with other solutions to deliver context for improved accuracy.

Deploying the HandPunch significantly reduces payroll errors associated with accidental and employee-induced errors, delivering significant returns by reducing the cost of payroll. Companies supporting paper-based, badge-based, or invasive biometric-based systems can eliminate system error costs associated with failed scans, misread scans, lost, damaged, stolen, or forgotten badges, and timecard storage. Nucleus found that deployed properly, the HandPunch can deliver a payback period of less than 9 months, and companies moving from a paper or badge-based system are likely to see an even shorter period driven by elimination of higher materials costs.