



# Clemson University

## How Ricoh Inspired Innovation at Clemson University Through Intelligent Lockers and Business Process Optimization

### About the Customer

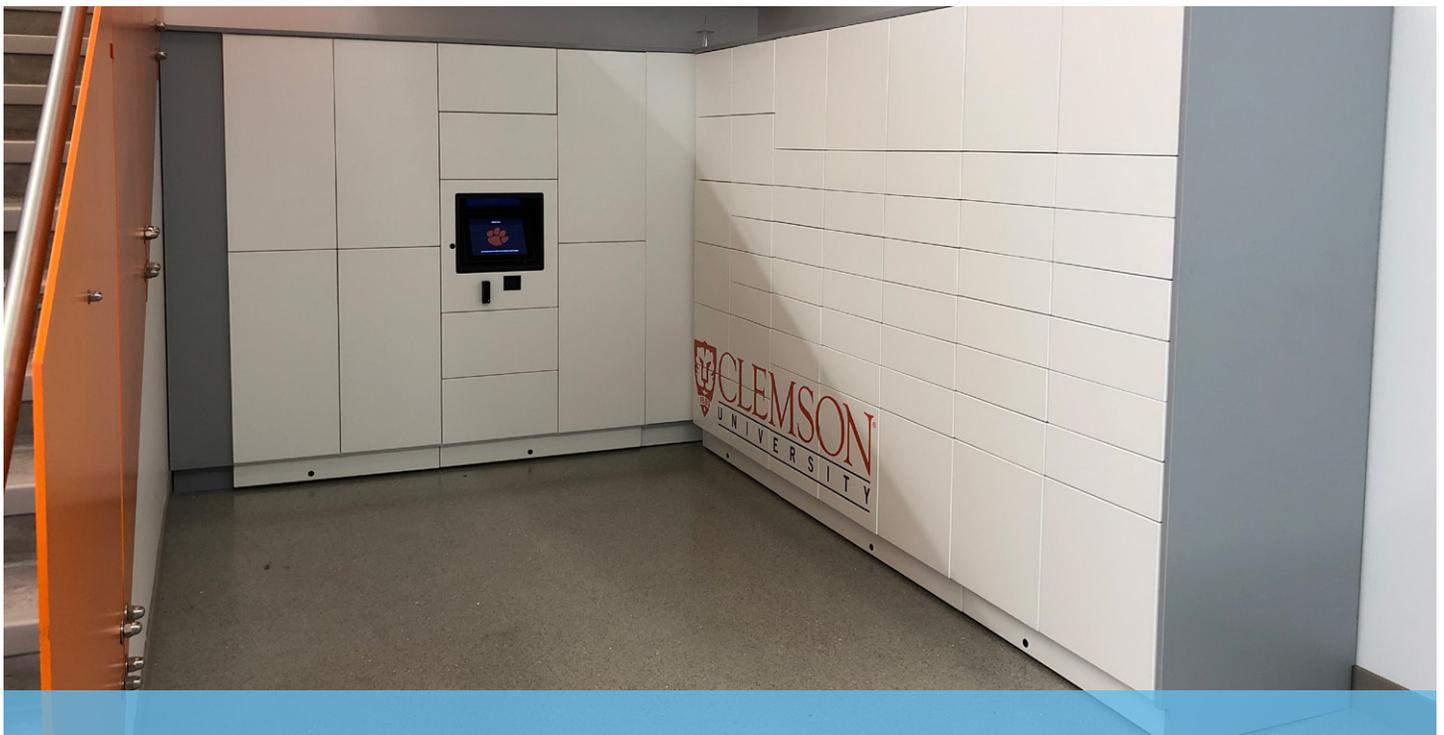
As one of the most selective public research universities in the U.S., South Carolina's Clemson University is committed to world-class research and a high quality of life. They are ranked among the best national public universities by *U.S. News & World Report*, providing diverse opportunities for more than 26,000 undergraduate and graduate students in South Carolina, the U.S. and beyond. And an overwhelming majority of senior students say they'd choose Clemson if they had to do it all again. Maintaining such high academic standards and phenomenal student satisfaction rates doesn't happen by accident. Even in times of economic recession and a global pandemic, Clemson has focused on preserving their stellar reputation and meeting students' evolving needs.

### Challenges

- Package pickup was far from student residence halls
- Pandemic prompted need for contactless package pickup
- Desire to print anywhere on campus, from nearly any device
- Slow, labor-intensive AP process to pay invoices

*"Our students immediately loved the intelligent lockers and we quickly said we wanted more of them."*

Kathy Bush Hobgood, Assistant Vice President of Finance and Operations at Clemson University



For more than a decade, Clemson University and Ricoh have achieved a range of improvements including a modernized production print and mail operation. But despite the popularity of the upgraded mail center, students still had to trek up to a mile across campus from their residence halls to the center after receiving an email that they had a package awaiting pickup. Some packages contained books that were heavy, making for a strenuous journey back to the residence hall. Clemson had also recently opened 1,600 new resident beds on campus that were even farther away from the mail center. Increasingly, students were requesting more convenience and accessibility to packages closer to their residence halls. Furthermore, the COVID-19 pandemic hit and package pickup protocols needed to be contactless and flexible.

Also, Clemson's print management needs had evolved. The university's staff needed mobile printing to be able to print from any device and securely retrieve printouts no matter their location on campus. Clemson also wanted fewer abandoned prints to further their sustainability goals. Finally, Clemson had hundreds of P.O. Boxes for receiving invoices and hundreds of invoice handlers. With this highly manual, decentralized process, it took on average 24 days for the university to pay an invoice.

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## Results

- Contactless package retrieval with intelligent lockers
- Widespread praise for intelligent lockers among student population
- Secured print via mobile devices to a convenient printer on campus
- AP invoice processing reduced from 24 days to 24 hours

While neither Clemson nor Ricoh could have predicted COVID-19, the pilot program for intelligent lockers that began prior to the pandemic couldn't have been better timed. Students had contactless package retrieval through the lockers and students didn't have to interact in person with Ricoh staff. Clemson and Ricoh even established a process whereby an infected student could designate a healthy proxy and share email notification information to retrieve their mail and packages at a locker—instead of having to wait two weeks through quarantine. The intelligent lockers currently installed at Clemson have received widespread praise by the students who were surveyed about the pilot program. The rollout of more intelligent lockers is planned for the new student post office as Clemson and Ricoh strategically map out the new area for deployment.

## CASE STUDY: HIGHER EDUCATION

To make printing more convenient and environmentally friendly across campus, Clemson's staff is now able to print securely with their mobile device to any multifunction printer that is equipped with the new print management software. In addition, as part of a digital transformation initiative, the Clemson AP department has cut invoice processing time from an average of 24 days to 24 hours with the support of Ricoh's Business Process Optimization team.



Widespread student praise for  
**intelligent lockers**



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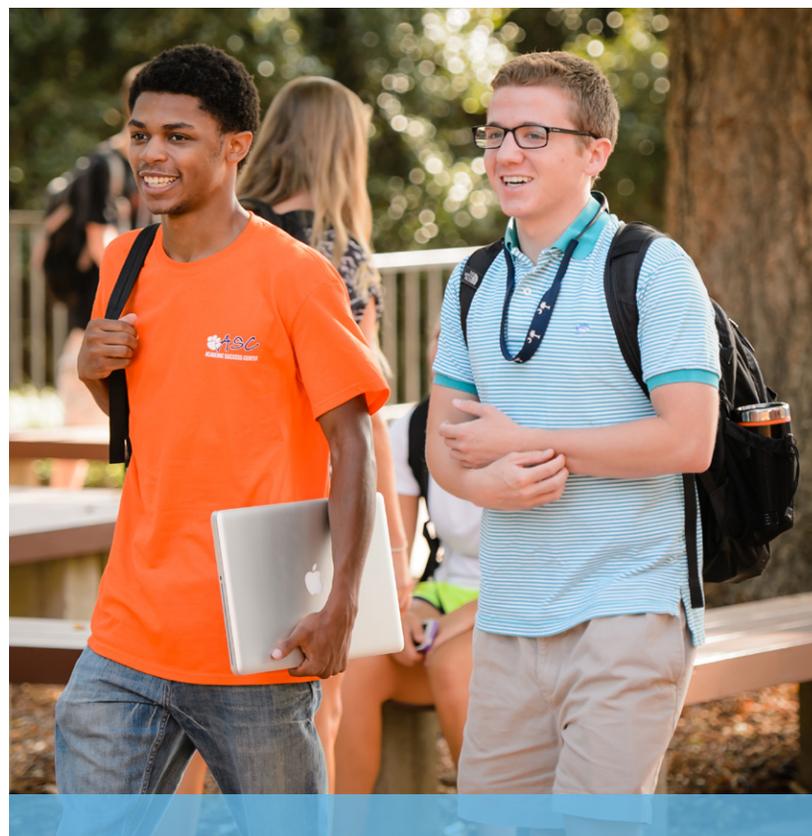
### How We Did It

- Implemented pilot program for interior intelligent lockers
- Expanded a year later with exterior intelligent lockers close to select residence halls
- Conducted communications campaign to inform students and parents about intelligent lockers
- Installed higher-functioning print management technology for mobile printing and secured release
- Enlisted technology and Business Process Optimization team to speed invoice payment

Ricoh's collaborative partnership with Clemson helped the university reduce millions in printing costs, generate revenue through production print services, modernize its mail and print shop, and automate various business processes. Ricoh's on-campus staff ran the print and mail shop that receives and delivers mail throughout the campus. Working together to continuously improve processes and workflows, Ricoh suggested a pilot for intelligent lockers during the summer of 2019 and made recommendations on where to locate them based on extensive package data collected including volumes, sizes and frequency over the course of the eight-year relationship.

In the first year, 128 interior lockers and more than 450 exterior lockers were installed for students to retrieve their packages closer to their residence halls—adding a greater level of convenience. Each locker was integrated with software so students could access with their Android and iOS devices, enter a pin code or scan a QR code with their mobile phones to open the locker. While the interior intelligent lockers were subject to building hours, the exterior intelligent lockers were accessible 24/7. The exterior metal lockers were heavy duty and waterproof, and lighting and security cameras were installed to make the area safer during nighttime pickups.

Promotional materials were developed to inform students and parents about the new intelligent lockers, show where the lockers were located, explain why certain areas of campus were selected for the pilot and provide information on how to access the lockers. Clemson's frequently asked questions (FAQs) were updated on Clemson's website, several email campaigns were sent to parents and students and Clemson's e-newsletters included information on the new lockers.



## CASE STUDY: HIGHER EDUCATION

Higher-functioning print management software was added to Clemson's printing fleet throughout the campus to accommodate mobile printing and secured release at printers. This provided Clemson faculty and staff with the flexibility to print no matter where they were working on campus. Technology was also implemented to allow a job to reside in the cloud for up to two days. If a print job wasn't released and printed by then, it was removed from the system—leading to reduced abandoned prints and lower paper consumption. Default black-and-white printing is enabled at all color print devices. However, if the employee chooses to print in color, the technology can be configured to alert the employee about how much it would cost before printing—thereby encouraging black and white output.

Clemson's departments processed thousands of invoices a year for payment. To support their digital transformation initiative, an invoice handling and payment process was created that dedicated just one P.O. Box number to receiving all hardcopy invoices, rather than hundreds of P.O. Boxes. Instead of the Ricoh mail services team receiving, sorting and delivering the mailed invoices, the team opened all incoming invoices, scanned the information and then sent the image offsite to the Ricoh Business Process Optimization team to extract the data, code it and upload the data into Clemson's e-procurement site for automatic payment within five days. For electronic invoice submission, a centralized email address was created for suppliers to send invoices, replacing the hundreds of email addresses where invoices used to be sent. When the Ricoh team receives an email with an electronic invoice attached, the data is extracted, coded and uploaded to Clemson's e-procurement site within 24 hours.

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*“With our digital transformation in AP, we will have fewer points of entry, get invoices in the system faster and more consistently and get suppliers paid more quickly.”*

**Lori Brierre,**  
Strategic Operations Director  
at Clemson University

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[www.ricoh-usa.com](http://www.ricoh-usa.com)

**See how Ricoh's decade-long partnership with Clemson University has improved package delivery, print management and invoice processing or contact us.**

