



@arrowpayments™

Secure Payments. Reduce Compliance. Increase Efficiency.

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Higher Ed Payment Challenges



Large Decentralized Organizations

- Individual Departments = Unique Software & Payments Needs
- Processing Systems, Merchant Support & PCI = Expensive Headaches

Tight Budgets

- Limited Time, Resources & Funds
- Finance & IT Spread Thin

Tech Talent “Draw”

- Hard to find internal payments, technology & PCI expertise.
- Expensive recruiting, training, benefits, retention & HR costs.

Long Term RFP Decision Making

- Cheapest hard cost wins, but people, time & operational efficiency suffer.
- Exclusivity = limited options & slow to adopt technology advancements.



Payment Processing Security

The New Reality: Cyberthreats & Ransomware

Rogue
Antivirus
Software

Phishing

Social
Engineering
Attacks

POS (Point-of-Sale) Malware

Adware

Fake Tech Support Services

How Likely is a Data Breach?

Payment Card Data Breach Methods Used



- University of Wisconsin: “90,000 – 100,000 attempts per day from China to penetrate its system.”
- Corporate breaches: Home Depot, Target, Quest Diagnostics, Yahoo!, IRS & Others...
- If these organizations can’t protect themselves, can you?
- “Data breaches are inevitable. No defense is impregnable against determined adversaries.”

-Trend Micro Data Breach Research Paper

Higher Ed Data Breaches

Universities are 2nd highest cyberthreat target after healthcare.

U.S. Secret Service: “30% of all fraud happens on universities.”

Breaches Include...

- Butler
- Central Florida
- Connecticut
- Harvard
- Indiana
- LSU
- Maryland
- NC State
- New York University
- North Dakota
- Penn State
- Southern New Hampshire
- USC
- Virginia
- & Others...



<https://www.privacyrights.org/data-breach/new>
<https://www.universitybusiness.com/article/hard-costs-data-breach>
<https://www.universitybusiness.com/article/1015-jwd>

<https://www.computerworld.com/article/3170724/security/hacker-breached-63-universities-and-government-agencies.html>

Cost Per Lost/Stolen Record



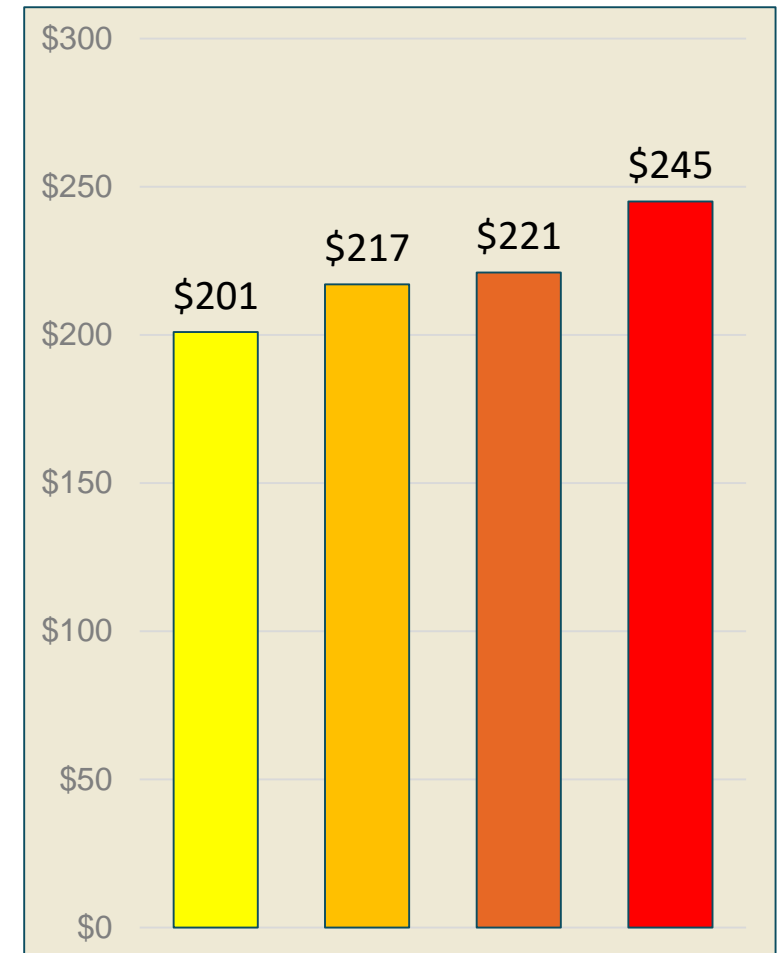
Data Breach Liabilities

- Auditor & Legal Defense Costs
- Fees & Fines (\$500,000 per Card Brand)
- Consumer Notifications & Protection
- Reissuing Credit Cards
- Fraudulent Charges Expense
- Card Acceptance Restrictions
- Operation Distractions
- Customer Confidence, Reputation & Revenue Loss

Your Data Breach Costs?

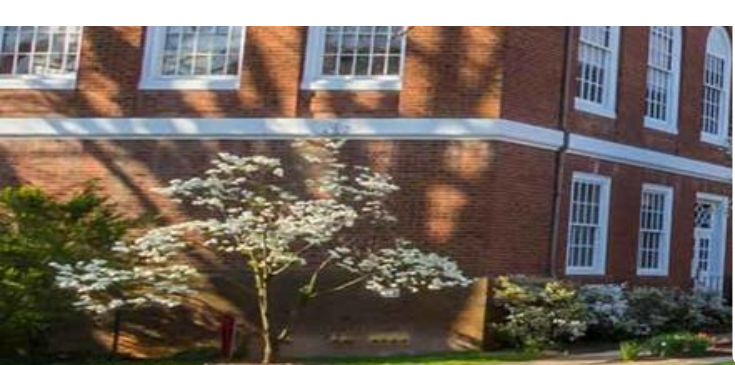
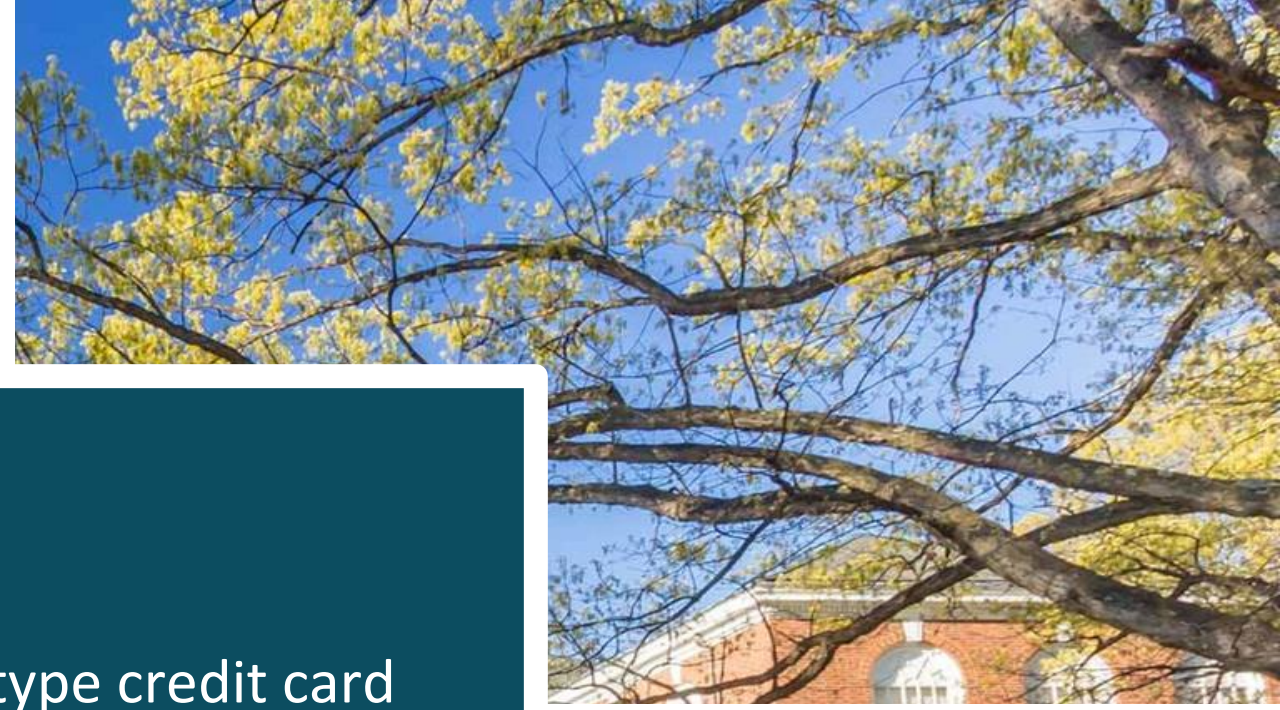
- Customer Records = 50,000?
- $50K \times \$245 = \underline{\$12M+ \text{ Data Breach Loss}}$

Average Cost Per Stolen Record

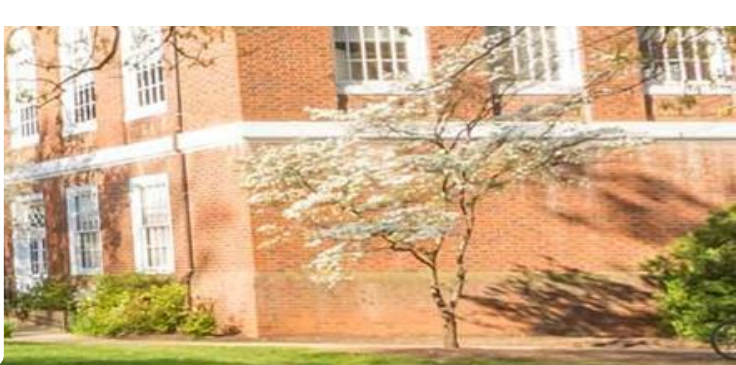


Stories we hear

Repeatedly...



“We manually type credit card numbers into our computers.”





“Our dial-up phone lines and stand-alone cellular terminals take too long.”



Complicated

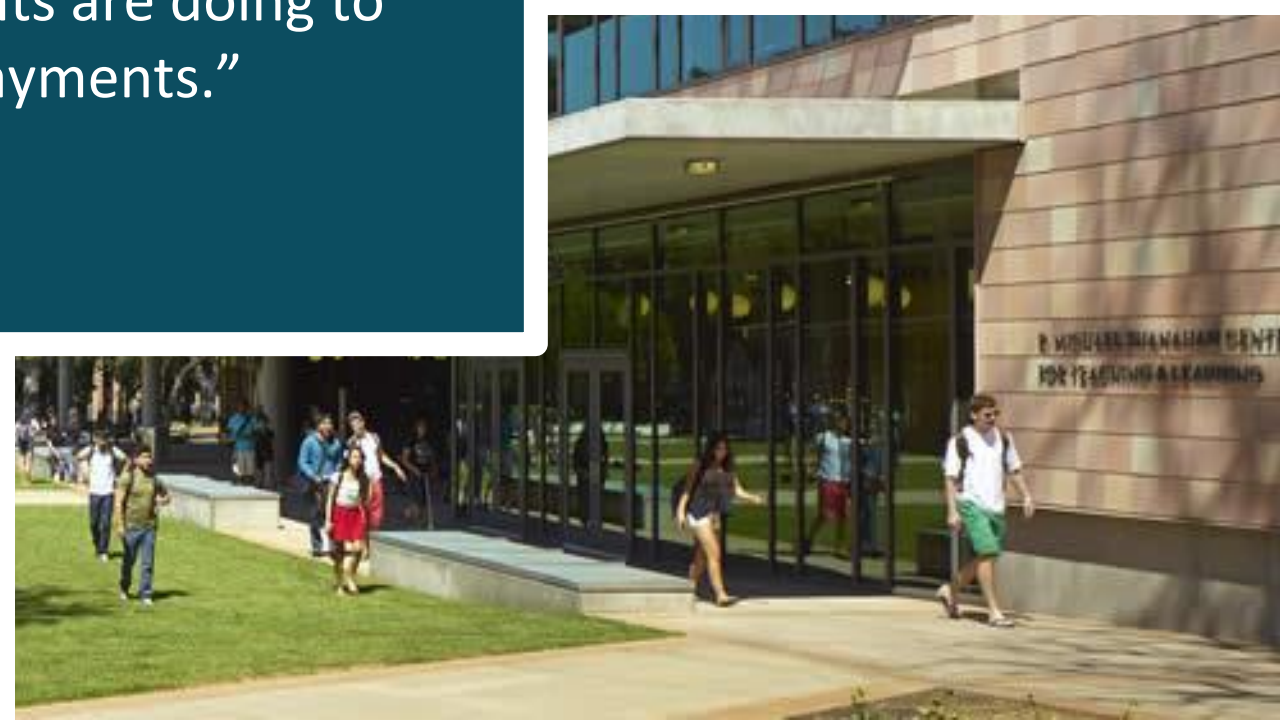
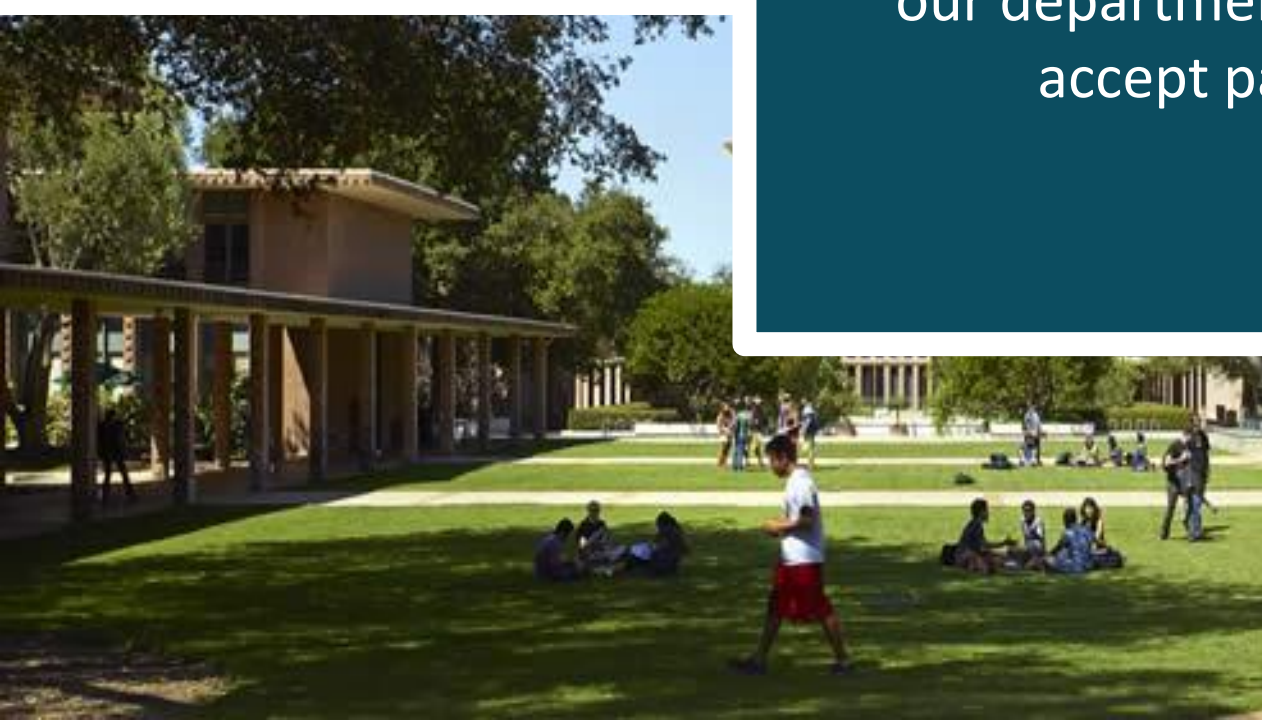
“Our legacy systems are tedious and hard to manage. We do not have a secure way to store customer information.”



“I don’t have real-time access to transaction reports across all of our departments.”



“We are not sure what some of our departments are doing to accept payments.”

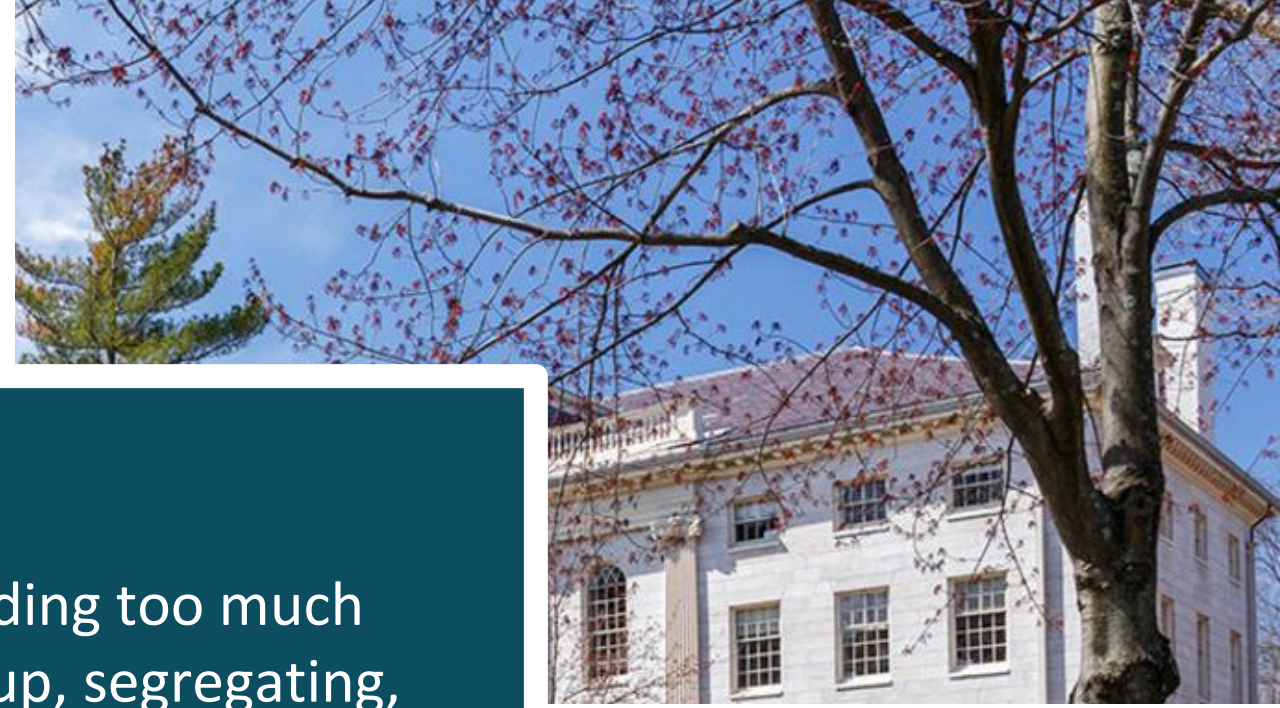


Mobile Payments

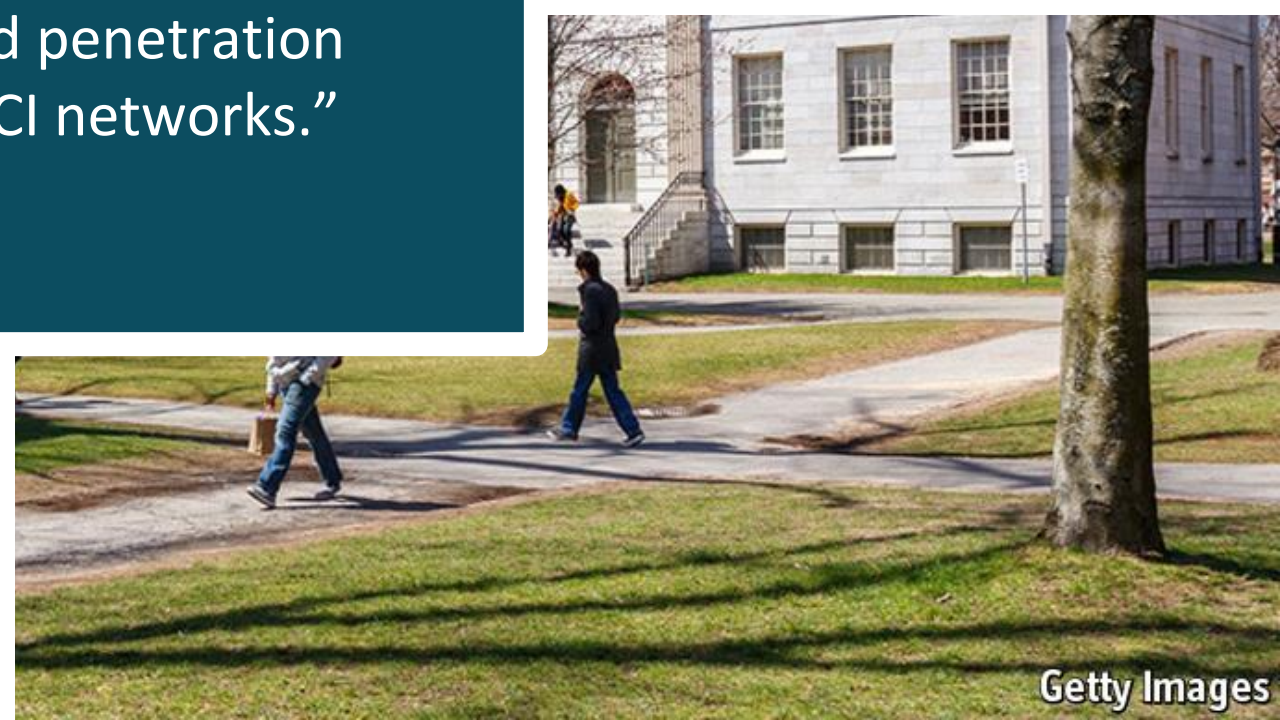


“The ability to take payments wherever a student or donor is ready would increase our admissions and fundraising.”





“We are spending too much money setting up, segregating, managing and penetration testing our PCI networks.”



Waiting For Solutions

“We want new technology, but we are stuck in a contract that doesn’t provide the solutions we need.”

Reconciliation



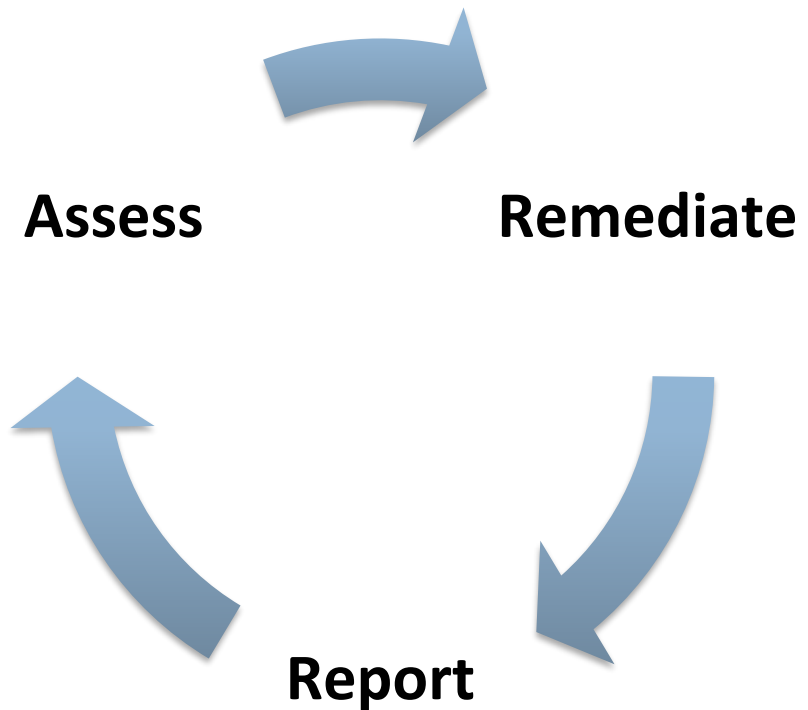
“We are managing 6 different systems and manually reconciling across all of them.”

“We create invoices in Word and track them in Excel. We would like real time reporting.”

“Sometimes credit cards are double charged which creates extra work and dealing with customer frustrations as we fix the issue.”

Managing Higher Ed Payments & PCI

PCI Compliance: Security



- **Assess:** Identify credit card locations, processes, hardware & information.
- **Remediate:** Fix vulnerabilities & eliminate cardholder data unless absolutely necessary.
- **Report:** Complete required PCI reports.
- **How are you managing PCI Compliance & costs?**
- **Are you relying on staff expertise or secure technology?**

PCI Compliance 4.0



Develop & Maintain Ongoing Compliance Program

- Cardholder Data Security (People, Processes & Technology)
- Procedures Reviewed & Updated Annually
- Monitor Effectiveness & Security Controls

Assign Ownership, Define Metrics & Measure Success

- Evaluate Scope, Goals, Resources, Risks & Consequences
- Track Department SAQ Types, Completion & Questions

Conduct Merchant & 3rd Party Vendor Assessments

- Review All Processing Activities & Remediate Issues
- Minimize Impact, Detect & Respond to Failures

Maintain PCI DSS Training

- Content Updates & Improvements Annually
- Ensure Staff Awareness Training Completed



Managing Complexity

Payment Solutions: Set-up, Training, Support, Troubleshooting & PCI Compliance

- New Solutions, Software & Department Requests
- MIDs, Gateways, User Access & Passwords
- Managing eCommerce Pages, Integrations & Partners
- File Transmissions, Reconciliation & Chargebacks

Order & Maintain Equipment

- Determine Compliant Equipment (EMV/NFC/P2PE)
- Order/Set-up/Test Equipment & Software (no tax, etc.)
- Maintain Equipment Inventory (serial numbers, security #, type & location)

Keys To Success

- Multiple Campuses & Merchants = Team of Experts
- Staying Proactive vs Reactive (Eliminate Rogue Departments)
- New Initiatives & Technologies to Provide Department Flexibility & Responsiveness



Finding Expertise

Merchant Services, Payment Systems & PCI Compliance

- Hard to Find Talent: No Payments/PCI Degrees
- Constantly Evolving
 - Technologies (EMV, NFC, P2PE, Blockchain)
 - PCI Requirements (4.0 Released)
 - Card Brand Fees Change Twice/Year
 - Numerous Vendors & Promises
- Is Your Staff Trying To Learn As You Go?
 - Researching & Asking Around?
 - Very Steep & Risky Learning Curve
- Hard to Retain Knowledge (Promotions/Poaching/Retirement)



Why Is This Critical?

Higher Ed Revenue, Funds & Data Security

- \$Millions of Dollars at stake.
- Nobody wants to be responsible for losing money or a data breach.
- Are you trusting staff who are going to “figure it out” or “learn as they go”?
- Your school’s reputation is on the line...



Arrow Payments Support

Arrow Payments

Merchant Services & PCI Support
PCI Qualified Integrator & Reseller (QIR)



Supporting \$2.7B+ Payments



4 of Top 20 US Universities



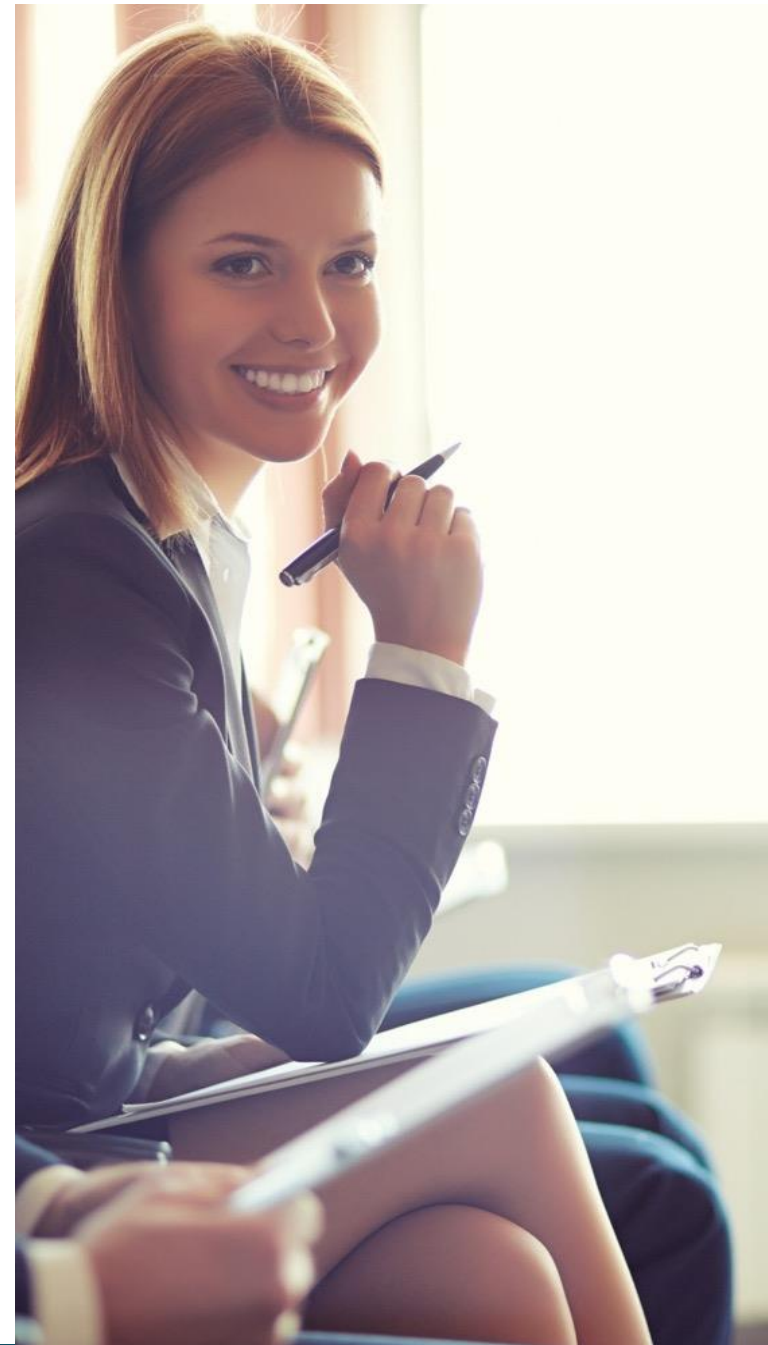
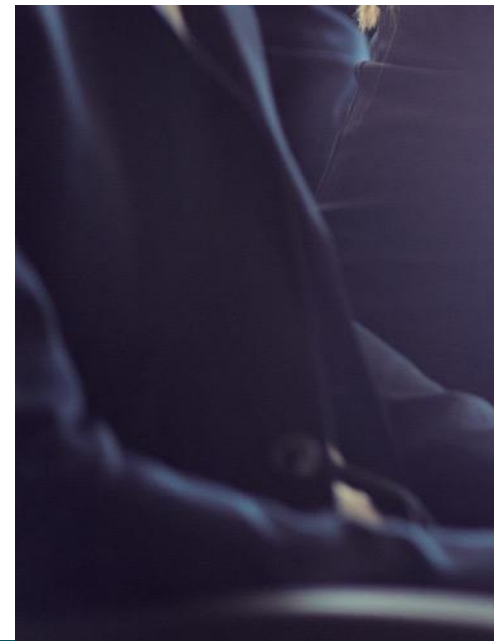
15+ Years Experience



Proven Higher Education Success
(Ivy, BigTen, State Universities & Colleges)



Woman Owned Business
(WBE Certified)



The Team on Your Team

Your Outsourced Payments Experts

- We handle the hard work: Implementations, Integrations, Training & Support for your departments.

Reducing Your Burden

- Payment & PCI Strategies
- Merchant Services Support
- Vendor & Equipment Coordination
- PCI Scope Reduction, Tracking & Help
- Payment Processing & Reconciliation Efficiency
- Budget Reductions & Cost Management
- Monitor Evolving Technologies & Threats

@arrowpayments™



Your Options



Software, hardware, gateway, processing & security solutions for your specific situation...



And more...

Customer Support

So you can focus on other responsibilities...



Payments & PCI Discovery

Identify credit card locations and information. Take inventory of IT assets and business processes. Analyze vulnerabilities. Present options & strategies.

Solution Implementations

Upgrade systems, address vulnerabilities, encrypt credit card data everywhere possible, eliminate the storage of all cardholder information unless absolutely necessary, train users, support University's ongoing payment systems & PCI compliance needs.

Merchant Services Support

Support University's departments, merchant services, payment systems & PCI compliance needs.

The Arrow Payments Advantage



Independent

- Solution Flexibility & Expertise
- Learn & Share Best Practices Across Higher Ed Clients

Ensuring Reputational Excellence

- Supporting Community Colleges, Large Universities & Government
- Decentralized Department Experience & Treasury/IT Staff Augmentation
- Monitoring Evolving Technologies, Threats, Best Practices & Benchmarking
- Faster Than Internal Resources, No Learning Curves & No Data Breaches

Cost Effective

- Phone, Email & Online Support Available
- Solution Cost Comparisons, Price Reductions & Interchange Optimization
- Processing & PCI Costs Can Be Allocated To Departments vs Treasury & IT Budgets
- Lower Costs vs Recruiting, Hiring, Benefits, Burden, Office Space, Training & Continuing Education





Black Hawk College

Payment Strategies

Black Hawk College



Previous Challenges

- Balancing Security, Fiscal Responsibility & Department Needs
- Achieving Compliance Across Diverse Decentralized Campuses
- Fast Moving Technology & Tight Budgets

Constant Changes

- Payments & Security Evolution
(Chip Cards, Apply Pay, Google Wallet, Crypto)
- New Staff, Student, Alumni & Donor Expectations

Arrow Payments Discovery & PCI Assessment

- Merchant Surveys Completed
- Prioritized Risks, Volume & Visibility
- Department Meetings
- Staff Enthused, Provided Feedback & Wanted Solutions ASAP



Results?



Expensive Security & PCI Compliance Requirements



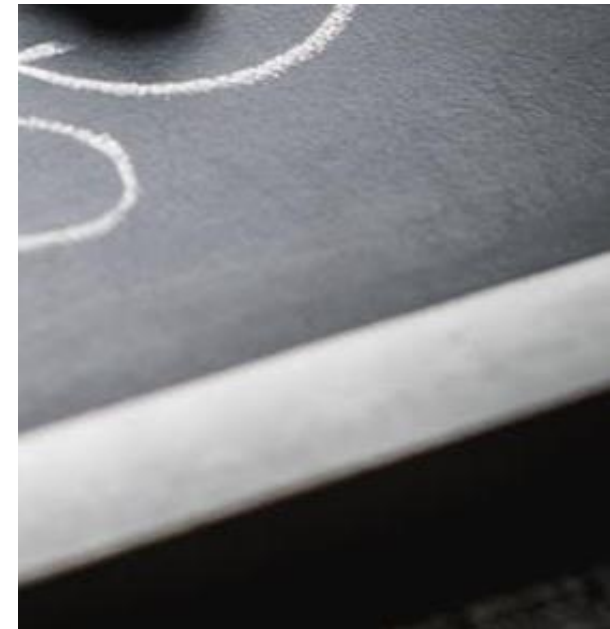
Multiple Systems Compromise Efficiencies & Accountability



Decentralized Departments Looking For New Solutions



High Costs = Overhead & Budget Constraints



Solutions

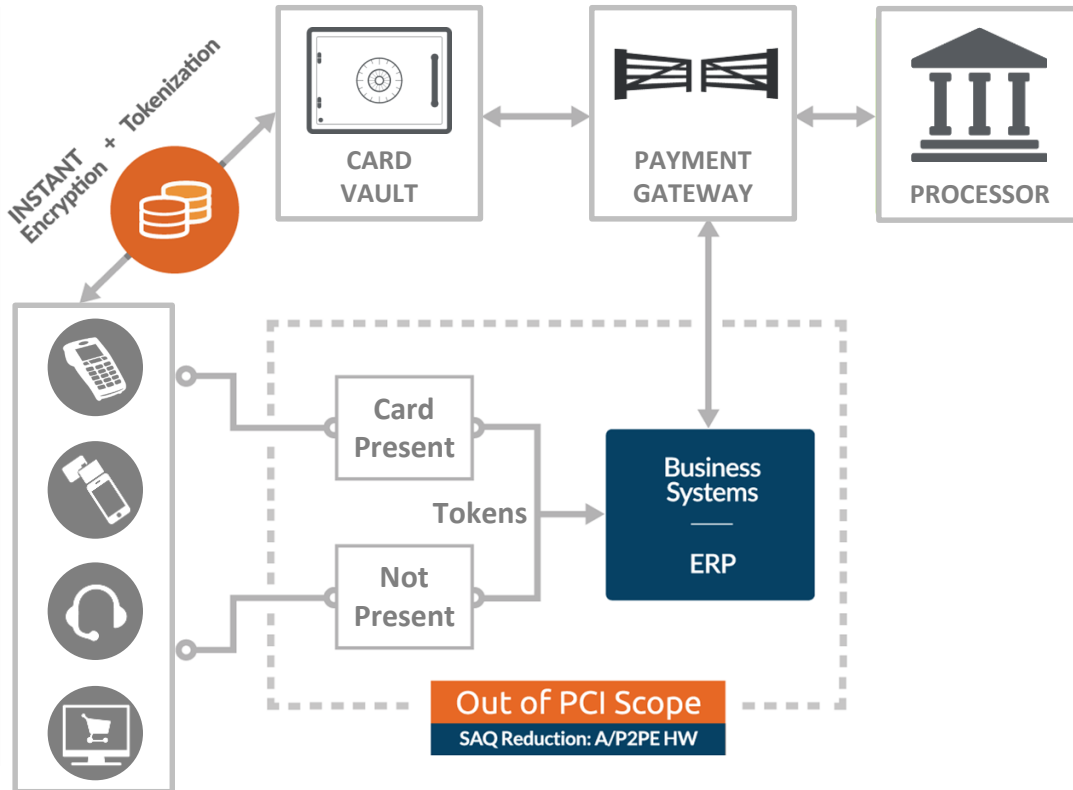
PCI Council Recommendations

- Limit data exposure with PCI Validated Point-to-Point Encryption (P2PE).
- Render credit card information useless to hackers.
- Reduce PCI compliance costs.



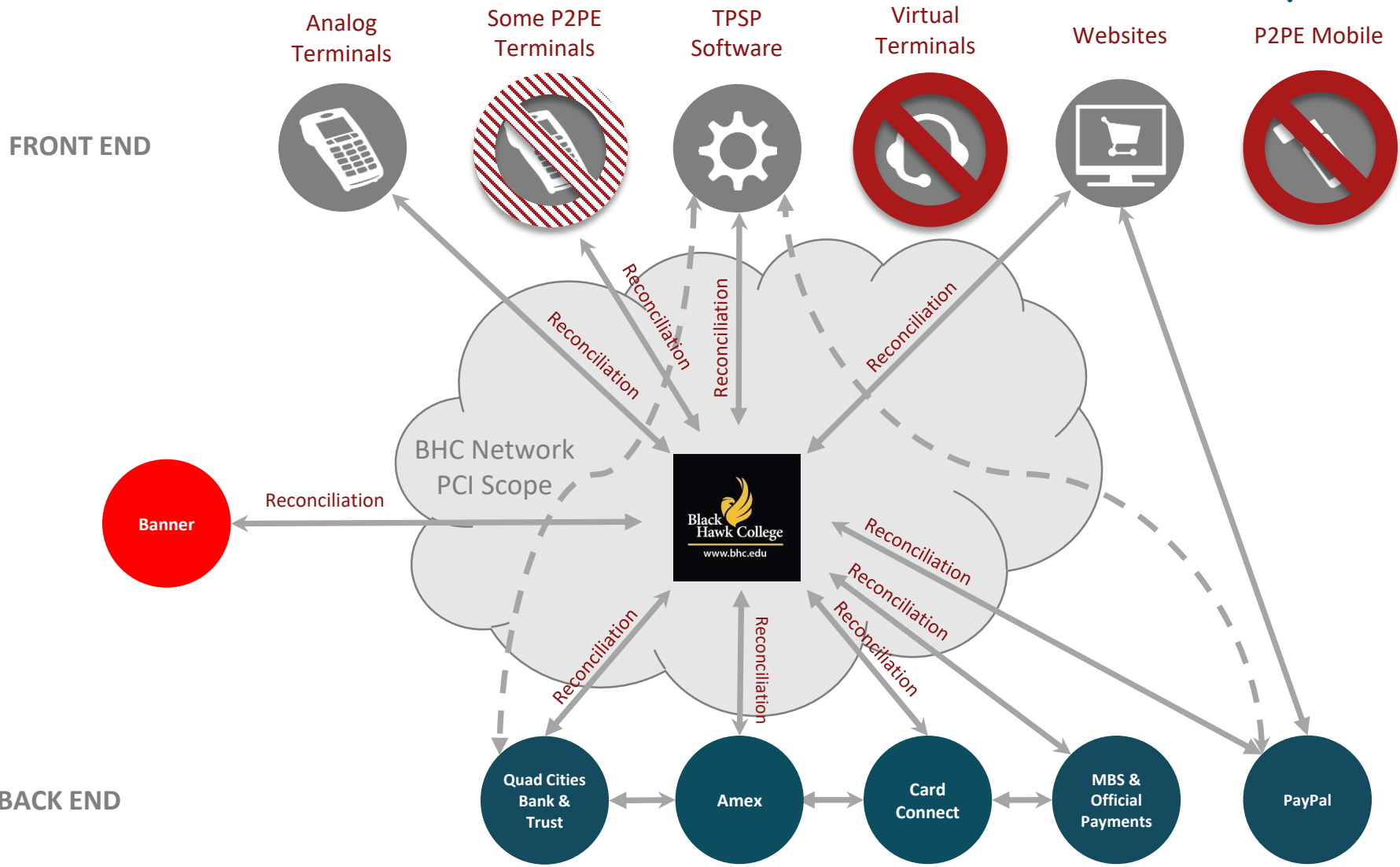
How P2PE Security Works

PCI Certified Point-to-Point Encryption (P2PE) & Tokenization



- Full payment data breach protection.
- Card data encrypted on swipe or type.
- Removes systems from PCI Scope.
- Reduces PCI compliance & costs.
- Card data stored as tokens.
- Delivers security, flexibility & efficiency.

BHC Legacy State



BHC P2PE Hardware Strategy



FRONT END

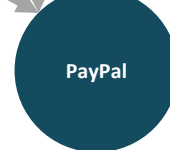
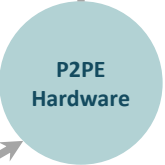
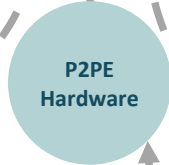
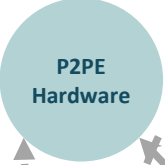
P2PE Terminals

TPSP Software

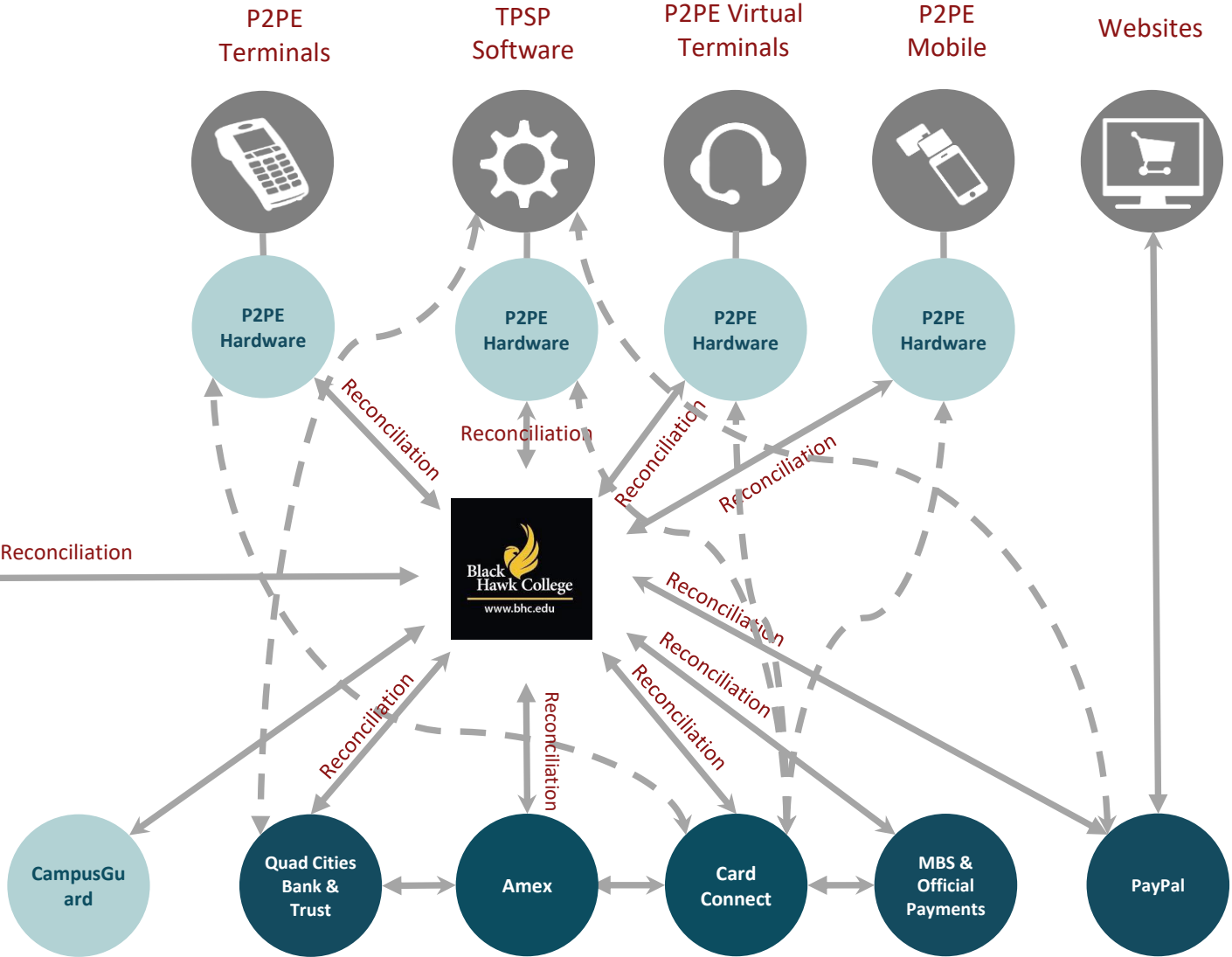
P2PE Virtual Terminals

P2PE Mobile

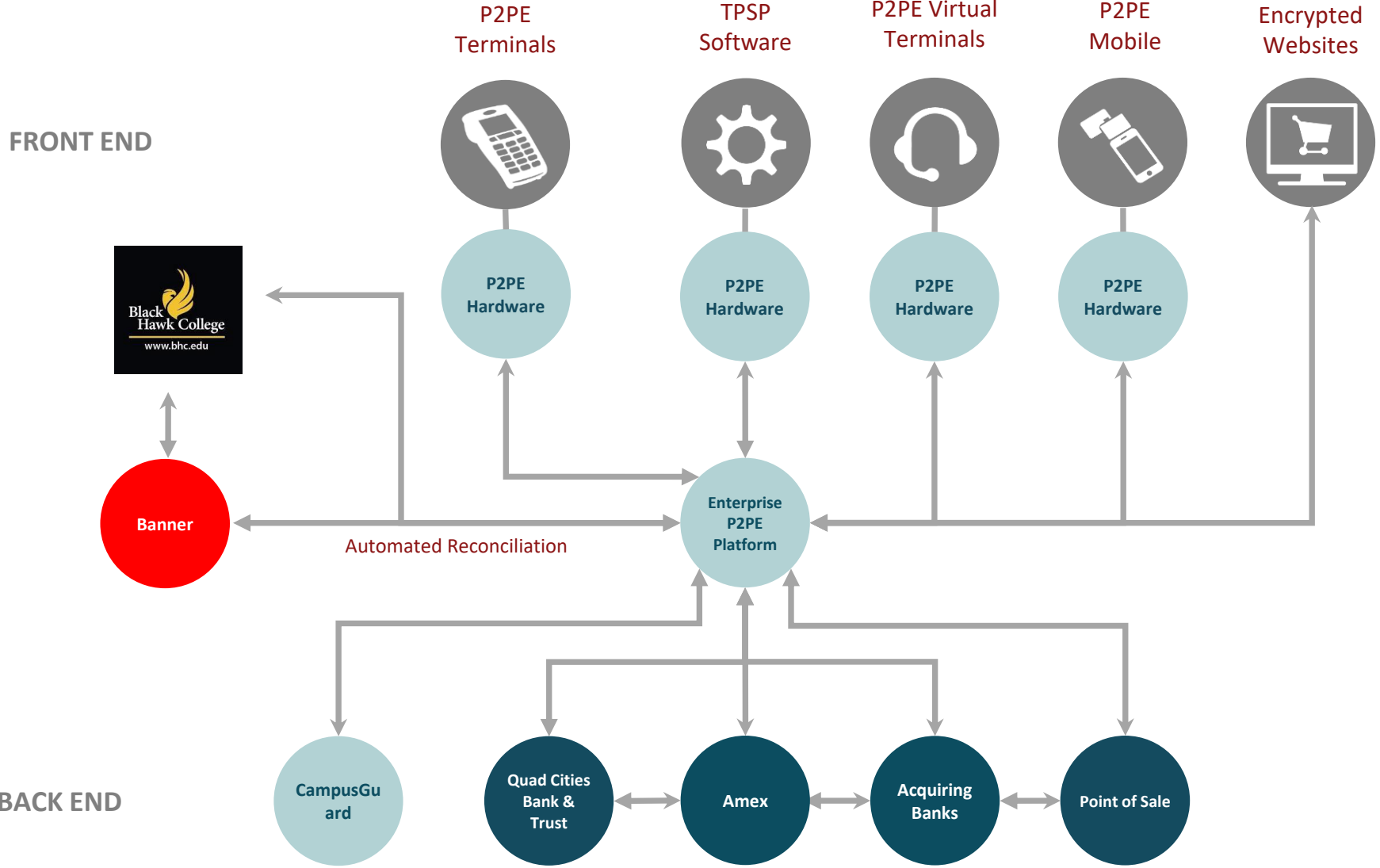
Websites



BACK END



BHC Enterprise P2PE Strategy

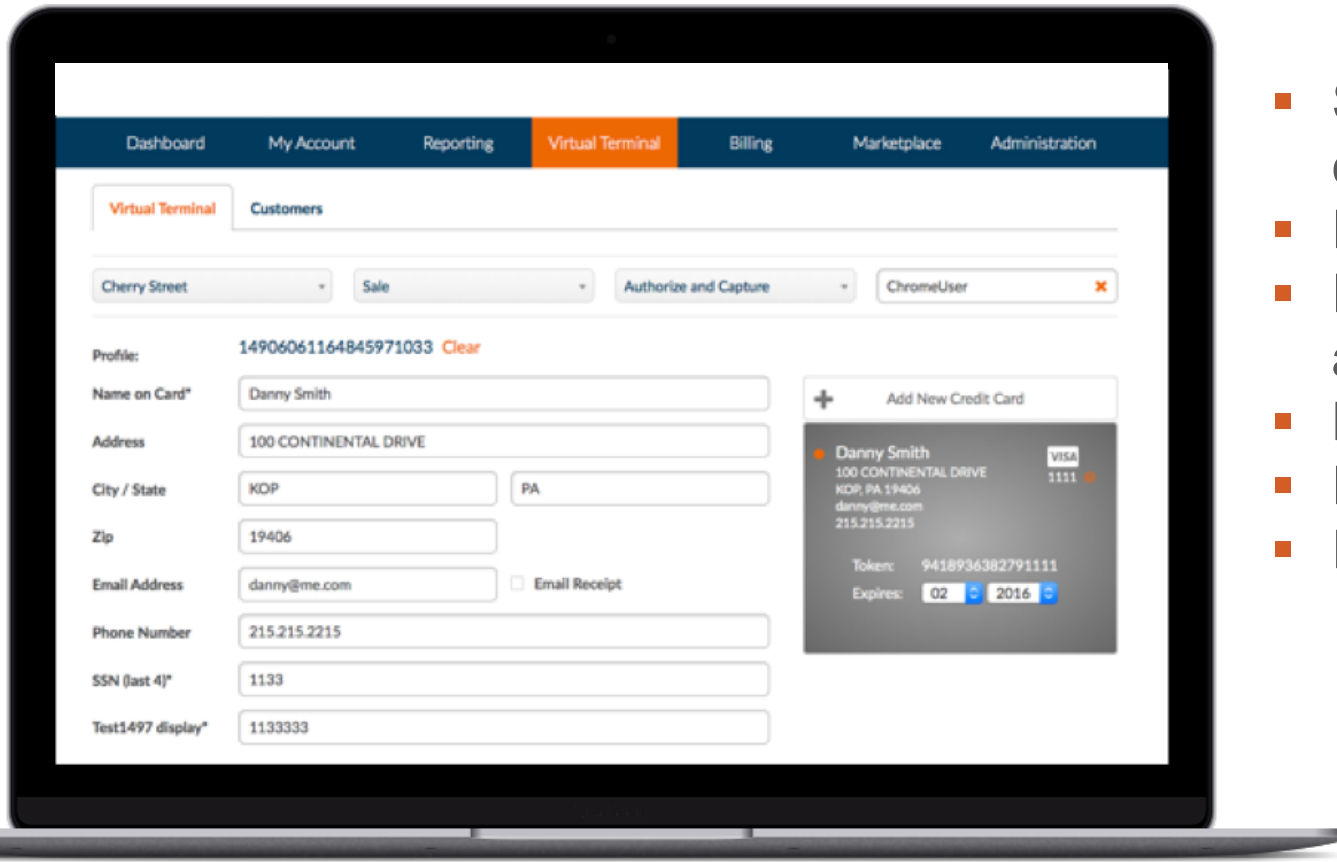


P2PE Terminals



- Connect via Ethernet
- Fast Processing (vs Analog Dial-Up)
- PCI Validated Point-to-Point Encryption (P2PE)
- EMV Chip & NFC Contactless Cards (ApplePay & Google Wallet)
- In-Person & Over-The-Phone Payments (Virtual Terminal)

P2PE Virtual Terminal & ACH



- Securely process payments from any computer.
- P2PE USB or Ethernet Integrated Terminal
- Electronic ACH (checking or savings accounts).
- Lower credit card fees.
- Easier than going to the bank.
- Recurring billing capital



CLOVER – DELIVERING COMMERCE TO MERCHANTS

Wherever your customers are.

← **Countertop** ————— **Mobile** ————— **Online** →



Station

Powerful countertop POS with pivoting touchscreen and stunning looks.



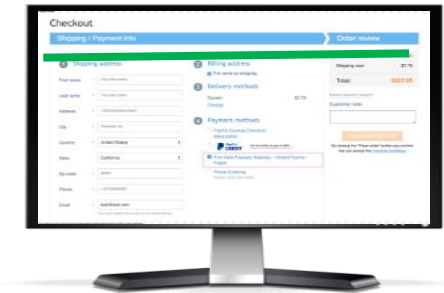
Mini

Accept swipe, EMV chip & NFC payments right out of the box.



Flex

Ultimate Flexibility. Use it in line, at the table, at the counter or on the go.



Online Store

Turn-key web presence options with fully integrated inventory & payments.



Hosted Payment Pages

Secure Online Payments

- Can be stand alone or embedded into a website using redirection, an iFrame or a modal pop-up window
- Removes the merchant website completely from PCI scope

Invoice Number

Total Amount Due

Payment Info

Choose payment method

Credit Card ACH (eCheck)


Payment details

Card Number *

Expiration Date *

Security Code (cvv) *



I'm not a robot  reCAPTCHA
Privacy - Terms

Billing Info

Company Name

First Name *

Last Name *

Address 1 *

Address 2

City *

State *

Zip/Postal Code *

Country *

Email Address *

Phone #



Payment Page

Interchange Optimization

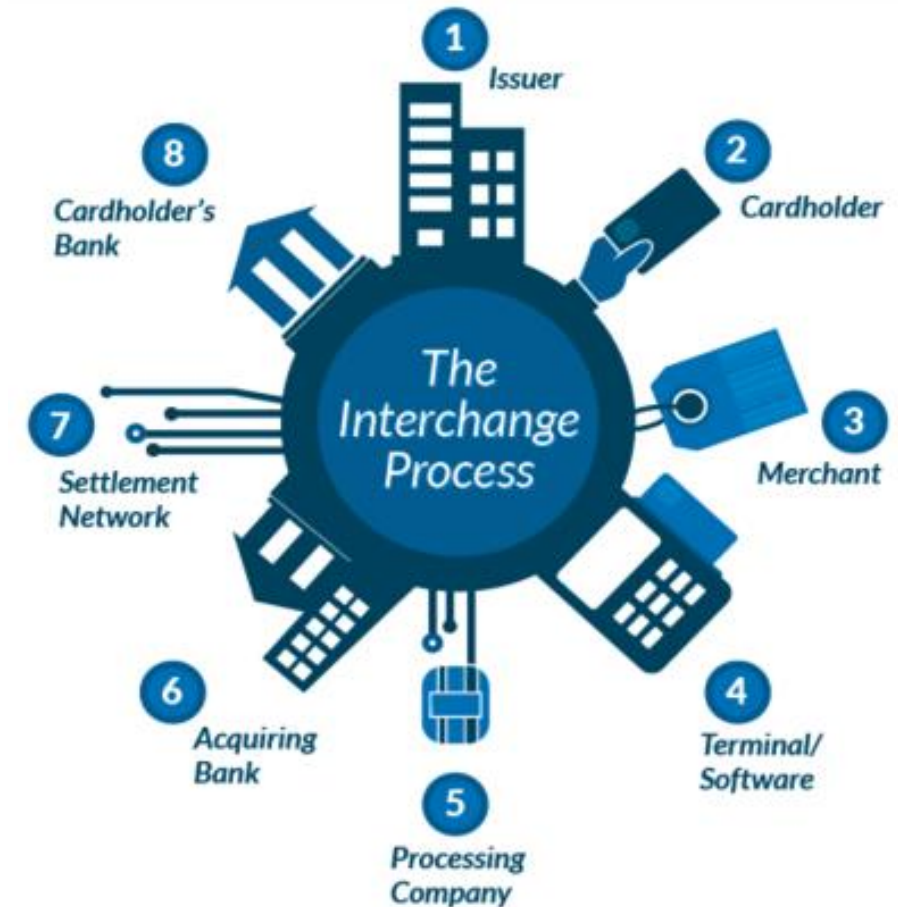
Reducing Visa/MC/Amex/Discovery Transaction Fees

Interchange Plus Pricing

- Aggressively managing payment processes to deliver the lowest rate possible for each transaction.

Level II & III Data

- Sending purchase order, item description and tax information with transactions to significantly lower the interchange rates charged by credit card brands.



Optimized Interchange Rates



Level II & III

MasterCard	Data Rate I	Data Rate II	Data Rate III
Business Debit	2.65%	2.20%	1.80%
Corporate	2.65%	2.00%	1.80%
Purchasing	2.65%	2.00%	1.80%
Fleet	2.65%	2.00%	1.80%
Level 1	2.65%	2.00%	1.75%
Level 2	2.81%	2.16%	1.91%
Level 3	2.86%	2.21%	1.96%
Level 4	2.96%	2.31%	2.06%

Visa	Commercial Standard	Retail CNP	Retail CP	B2B	Level II	Level III
Business Tier 1	2.95%	2.25%	2.20%	2.10%	2.05%	
Business Tier 2	2.95%	2.45%	2.30%	2.25%	2.05%	
Business Tier 3	2.95%	2.60%	2.40%	2.40%	2.05%	
Business Tier 4	2.95%	2.70%	2.50%	2.50%	2.20%	
Corporate	2.95%	2.65%	2.50%	2.55%	2.05%	1.85%
Purchasing	2.95%	2.65%	2.50%	2.55%	2.05%	1.85%
Signature Preferred	2.95%	2.40%	2.10%	2.10%		

Automated Reconciliation

Save Accounting Time & Increase Accuracy
Matching Receipts & Deposits
Minutes vs Hours

Minimized Costs

- Settle transactions instantly to avoid unnecessary work.

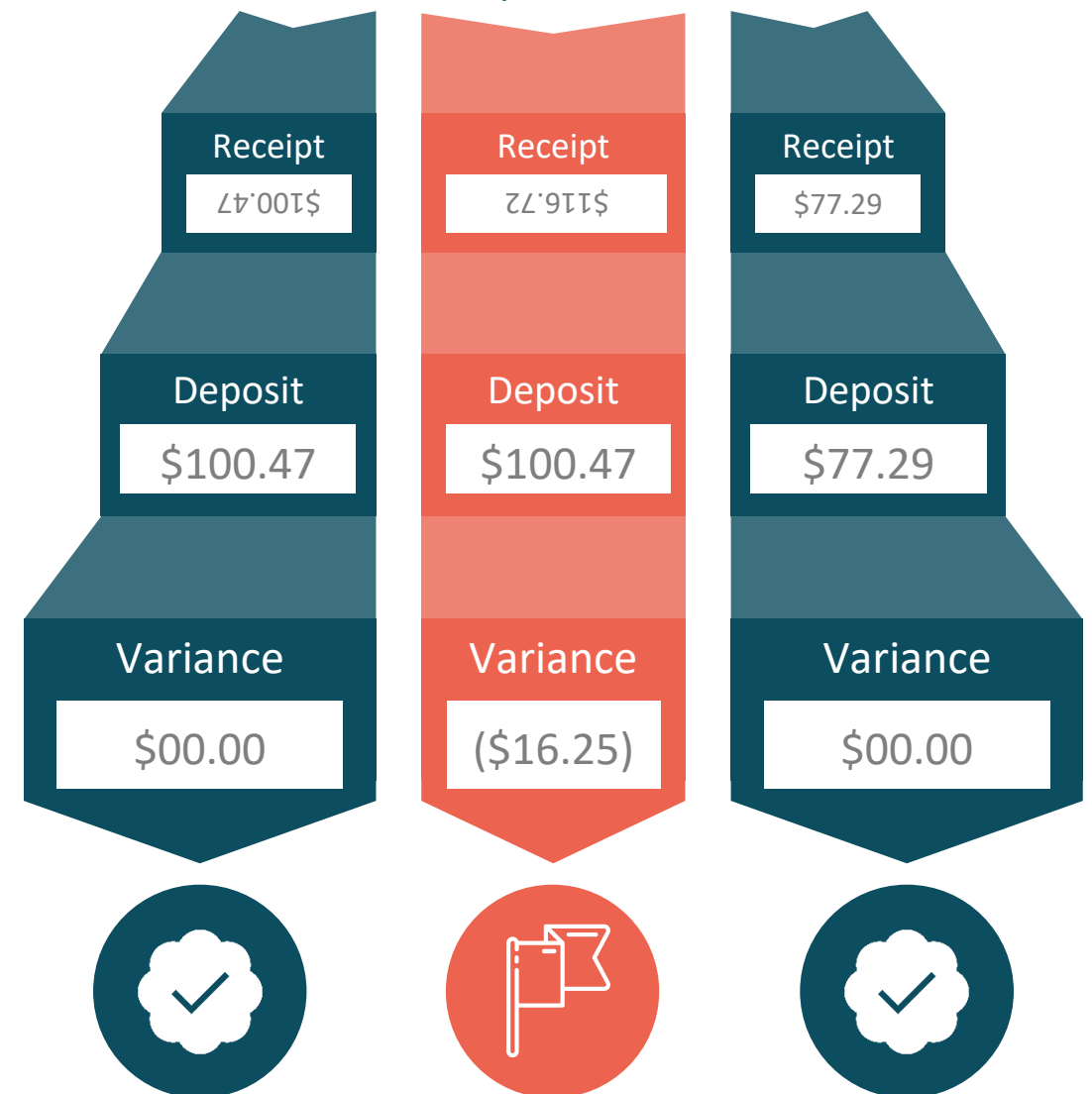
Speed

- Expedited settlement, automated posting & accelerated resolutions.

Detailed & Accurate

- Automate reconciliation without manual errors.

@arrowpayments™

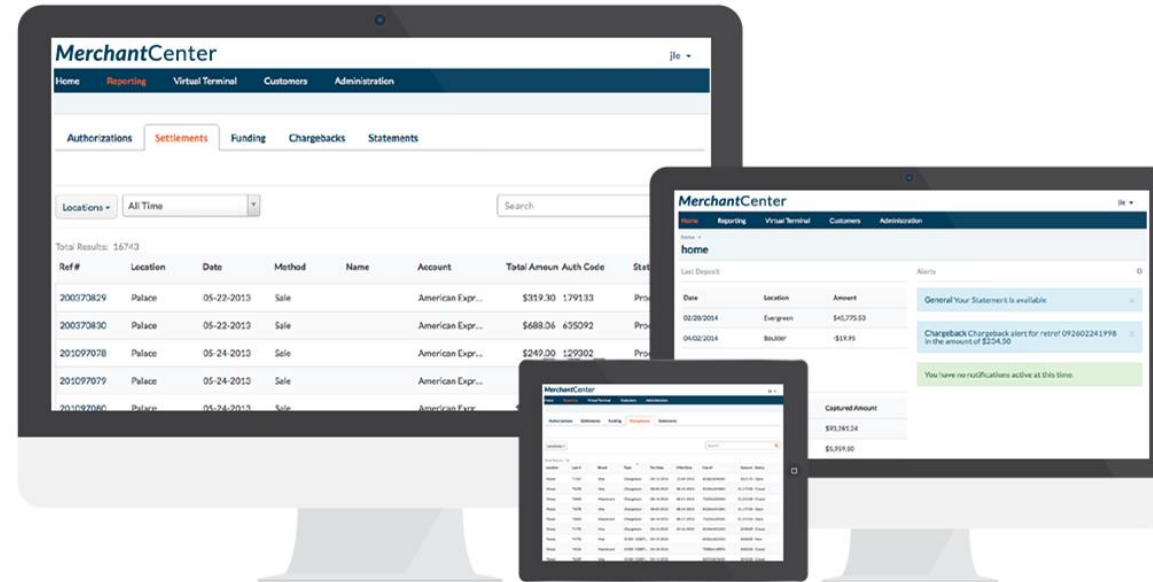


Merchant Center



Flexible

Merchants can add a number of users to their account and customize the permissions for each one.



Premium Extras

From the merchant center, users can choose to add extras including our virtual terminal, ACH, gateway/API, and mobile.



Always Free

If a merchant is processing, they will always have access to their online account.



Account Alerts

Notifications are sent so that merchants are the first to know when a chargeback occurs, when a statement is available, and more.



Paperless

Merchants can receive all their statements immediately, online. They'll get an alert when it's ready to review.

Benefits

P2PE Benefits



Security



Reputation



Efficiencies & Cost Savings



Increased Revenue



Benefits: ROI



- ### Benefits
- Reduced PCI Scope →
 - P2PE Security →
 - Revenue & Donations →
 - Financial Efficiencies →
 - Encrypted Data/Fraud →
 - University Reputation →

- ### Savings
- Annual Compliance →
 - IT & Security Expenses →
 - Increased University Funds →
 - Time & Cost Savings →
 - No Security Breach →
 - Customer Confidence →

- ### Value
- \$50,000+/Year
 - \$80,000+/Year
 - \$100,000+/Year
 - \$95,000+/Year
 - \$ Millions
 - \$ Priceless

What Our Customers Say



Northwestern University Treasury Office

“I’ve been very thankful for the commitment with which Arrow Payments has moved all our merchants toward PCI compliance. Arrow has proven to be an invaluable partner, augmentation to our staff & source of real expertise.”

Western Michigan University

” I can't say enough regarding the level of customer service we receive. Everyone is very responsive.”

University of Delaware

”Experts helping us upgrade all our payment systems, improve PCI compliance & secure the university against a credit card data breach. We couldn't have made as much progress in so short of time without Arrow Payments.”

Cornell University

“Arrow Payments worked into the evening hours to get up and running with registrations... I am pleased & encouraged. I look forward to a long & successful partnership.”

Columbia University

“Arrow Payments is so patient, professional & pleasant with every tech support call. They are amazing, and I am very grateful! Thank you.”



Thank You

Bryan Jurewicz

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