Electronic Payment Security, PCI Compliance, and Payment Processing...OH MY!

Perry Halls
Regional Sales Director
Paymentus
What we will cover

1. PCI, and why it matters
2. Bill payment options and why it matters
3. Solutions
1. PCI, and why it matters
2. Bill payment options and why it matters
3. Solutions
U.S. Households...

...made over 14 billion bill payments last year. The average US household pays 10 bills per month.

Volume of Bill Payments By Payment Method

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>2002</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check</td>
<td>61%</td>
<td>50%</td>
</tr>
<tr>
<td>Online</td>
<td>12%</td>
<td>24%</td>
</tr>
<tr>
<td>Financial Institution Website</td>
<td>7%</td>
<td>25%</td>
</tr>
<tr>
<td>Biller Website</td>
<td>5%</td>
<td>25%</td>
</tr>
</tbody>
</table>

#1 reason consumers visit biller sites:
To Make a Bill Payment

76% of consumers use more than one method to pay monthly bills.

Higher Customer Satisfaction

3/4 of consumers say multiple billing and payment options is important/very important.

Who Carries Checkbooks?
Over half of consumers don’t use or rarely carry checkbooks

<table>
<thead>
<tr>
<th>Don’t Use</th>
<th>Rarely Carry</th>
<th>Sometimes Carry</th>
<th>Always Carry</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>45%</td>
<td>16%</td>
<td>29%</td>
</tr>
</tbody>
</table>

Late Payments

customers that have missed a bill payment or paid late

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had cash flow difficulties</td>
<td>42%</td>
</tr>
<tr>
<td>Forgot when payments were due</td>
<td>26%</td>
</tr>
<tr>
<td>Tend to wait until last minute to pay</td>
<td>16%</td>
</tr>
</tbody>
</table>

Late Charges

80% of the time

Bill Payment Timing is Fragmented

<table>
<thead>
<tr>
<th>Timing</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay on the due date</td>
<td>12%</td>
</tr>
<tr>
<td>1-4 days before the due date</td>
<td>29%</td>
</tr>
<tr>
<td>6-7 days or more before</td>
<td>32%</td>
</tr>
<tr>
<td>When I get the bill I schedule the payment</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Billing Household Survey, Fiserv 2013
Top 2 Ways People pay bills?

1. Online Banking – safe, secure, risk is on the bank, highly traceable

2. Credit Cards – safe? secure? Risk is now on the agency, traceable?
Consumers Have Choice
Electronic Payment Security

Breaches – from malicious hacking, malware, and social engineering attacks – have gone up a mind-boggling 500% in the last four years.

229 days is the median length of an attack before detection.

Cost of a Breach is $145 per record.
Key PCI Requirements

- PCI 3.0/3.1 (2015)
  - Better define the Cardholder Data Environment
  - Encourages the use of network segmentation
  - Annual penetration testing
  - Written responsible party agreements between merchants and Service Providers
  - Expanded Self Assessment Questionnaires (SAQ)
    - SAQ A-EP
PCI Compliance Expensive

- **Cost to Get Compliant**
  - Level 1: ~ $2.9m
  - Level 2: ~ $1.2m
  - Level 3 & 4: up to $200k

*Source: TrustNet*
The Cost/Benefit Balancing Act of Credit Card Acceptance

- Customer Service
- Security Risk
- Operational Efficiency
- PCI Compliance Cost
Reduce your PCI Footprint

Work with Enhanced Service Provider

- Handles the full customer experience and all aspects of payment acceptance and security
- 100% hosted; payment data is completely removed from your network
- Feature-rich customer engagement

Like an Insurance Policy
Shift risk and liability away from your business and on to Paymentus.
Questions or Thoughts?
1. PCI, and why it matters
2. Bill payment options and why it matters
3. Solutions
U.S. Households...

...made over 14 billion bill payments last year. The average US household pays 10 bills per month.

Multiple Bill Payment Methods

76% of consumers use more than one method to pay monthly bills.

Higher Customer Satisfaction

3/4 of consumers say multiple billing and payment options is important/very important.

Volume of Bill Payments By Payment Method

#1 reason consumers visit biller sites:
To Make a Bill Payment

76%

Changing The Way They Pay

1 in 5 change the way they pay bills each month.

And here's why...

- Availability of funds: 63%
- Date payment’s due: 54%
- Depends on amount owed: 41%

Late Payments

Late Charges

- 30% of the time
- 42% had cash flow difficulties
- 26% forgot when payments were due
- 16% tend to wait until last minute to pay

Bill Payment Timing is Fragmented

- 12% pay on the due date
- 29% 1 - 4 days before the due date
- 32% 6 - 7 days or more before
- 27% When I get the bill I schedule the payment

Source: Billing Household Survey, Fiserv 2013
In January, Google announced that U.S. search volumes for mobile surpassed PC search volumes for the first time.
53% of eMail is now opened on mobile!

Email Open Rates
Litmus - eMail Analytics; Jan 2015
Millennials:

» Largest demographic in today’s workforce
» Spend almost 15 hrs/weeks on smartphone
» 32% don’t read their bills before paying them
» 23% still pay their utility bill w/ a check
» 46% have no formal system to remember to pay their bills on-time
» 85% access their email using a smartphone
Customer Engagement

A consistent, user friendly experience across all channels.

Customer choice drives adoption!
The Cost/Benefit Balancing Act of Credit Card Acceptance

- **Customer Service**
- **Security Risk**
- **Operational Efficiency**
- **PCI Compliance Cost**
So…. 

More channels = more adoption = more risk = more concern for PCI =
More to Balance than ever before

- Customer satisfaction and user experiences
- Demographics
- Meeting changing technology needs
- PCI/Security
- Maximizing adoption
- Ongoing support in an ever-changing landscape
- Back Office...reporting, integration, reconciliation
1. PCI, and why it matters
2. Bill payment options and why it matters
3. Solutions
The Paymentus Solution
The first fully unified payment 2.0 platform.

Presentment:
- E-bill via all channels
- Customer Portal
- One-time payment
- Mobile App
- Secure email PDF
- Text to Pay

Payment Types:
- Credit
- Debit
- Check
- E-Check
- Cash
- IVR
- SMS
- Web
- Kiosk
- Mobile
- In-person
- Agent-assisted

Payment Channels:
- Secure email PDF
- Text to Pay
- IVR
- SMS
- Web
- Kiosk
- Mobile
- In-person
- Agent-assisted

Access:
- Credit
- Debit
- Check
- E-Check
- Cash
- IVR
- SMS
- Web
- Kiosk
- Mobile
- In-person
- Agent-assisted

Communication:
- Efficiently notify customers of service and critical business updates via:
  - SMS text
  - IVR
  - Email

Intelligence:
- Real-time snapshot of revenue received by channel, payment method, day/time, that demonstrate demographic trends to support your management initiatives

Customers are able to:
- View account usage information
- View bill history
- Make a one-time payment
- Schedule recurring payments
- Receive important notices

Paymentus
Proprietary and Confidential
Mobile Versatility

1/3 of customers are now “mobile only”.

Multi-channel mobile is best the way to reach a diverse mobile audience.
Mobile Versatility
from Paymentus

- The fastest way to go paperless
- Review balances and pay w/o ever opening an envelope or going online
- Great for Millennials

4 out of 5 adults use text messaging!
Mobile Versatility from Paymentus

Secure E-Bill Payment

Your Bill Summary

<table>
<thead>
<tr>
<th>Account Number</th>
<th>Service Address</th>
<th>Amount Due</th>
<th>Due Date</th>
<th>Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6750379</td>
<td>108 Smith St</td>
<td>231.12</td>
<td>05/10/2014</td>
<td>231.12</td>
</tr>
</tbody>
</table>

Your Payment Details

Bill will be paid with:

*test* 5454
07/2017

Complete My Payment

Total Amount Charged: 236.07
Payment Date: [ ]

Please click here if you wish to use a different payment method.

Pay Now

Please see your bill below
Mobile Versatility from Paymentus

- A consistent experience on any size screen
  - Laptop
  - Tablet
  - Smartphone
- No need to download an app

Mobile Versatility from Paymentus
Mobile Versatility from Paymentus

- Pay-by-Text
- Pay-by-Email
- mobileWEB

- Convenient downloadable bill-pay app
- Available on iOS and Android platforms
- Level 1 PCI Certified
Enter Account Information

Payment Type

- Personal Property Tax
- Real Estate Tax
- Utility Bill
- False Alarm Fee
- Parking Ticket
- Business License
- Building Permit Fee
- Planning Fees
- Elevator Certificate

Please select a Payment Type.

Account Number

Enter your account number

Add Account

Continue

Where is my Account Number

Simplify your life?

Register to use the Customer Portal and get access to more information and features than ever before.

- Set-up and manage monthly AutoPay
- Manage and pay multiple accounts

Explore
Signup
Expect More from your Payment Processor

Integration Layer

Database

Payment Processing Services
- eCheck
- Debit Cards
- Credit Cards
Support multiple fee structures

One Time Payment  Confirm Payment  Account #: 00000141-000012642

Confirm Payment

Payment Method

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>VISA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Amount</td>
<td>$5.00</td>
</tr>
<tr>
<td>Service Fee</td>
<td>$0.50</td>
</tr>
<tr>
<td>Total Amount</td>
<td>$5.50</td>
</tr>
</tbody>
</table>

Click to read the Terms and Conditions

I agree to the Terms and Conditions.

By clicking the PAY button, you agree to the service fee charged by Paymentus to be added to this payment.

Click the PAY button to complete your payment.

Pay $5.50
Save Payment Information

Confirm Payment

Payment Method

VISA **** 8765

Use this method for future payments

Payment amount $68.86 + Service Fee $2.25 = Total Amount $71.11

By clicking the PAY button, you agree to the service fee charged by Paymentus.

< Back  Pay $71.11
Manage Saved Payment Methods

My Wallet

- **VISA**: **** **** **** 4448, Expires 05/16, JOHN DOE
- **American Express**: **** **** **** 8431, Expires 05/16, JOHN DOE
- **MasterCard**: **** **** **** 4444, Expires 05/16, JOHN DOE
- **eCheck**: ****3120****3234, JOHN DOE, CHASE

Add Payment Method
# Shopping Cart Payments

## Payment Details

<table>
<thead>
<tr>
<th>Description</th>
<th>Payment Type</th>
<th>Amount Due</th>
<th>Date Due</th>
<th>Payment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6759370</td>
<td>Utility Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6759371</td>
<td>Utility Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6759372</td>
<td>Utility Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6759373</td>
<td>Utility Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6759374</td>
<td>Utility Bill</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Payment Components

- **One Time Payment**
- **Payment Information**
- **Account #: 000000141-000012642**

### Enter Payment Information

- Pay this Amount $ 5.00

#### Payment Method
- **Credit Card**

- **Card Number**: 4444444444444448
- **CVV**: ***
- **Expiration Date**: 04 - April, 2019

- **Card Holder Name**: John Doe

- **Debit Card**

- **eCheck / Bank Account**

- **Cancel**
- **Continue**
Block Payment Method

Welcome to the Paymentus Agent Dashboard. From here you can manage everything from:

- your users’ access,
- to your payment reconciliation,
- to reporting,
- to customer notifications,
- to broadcast messaging and
- to requesting support.

Account Updated
The changes to the account have been saved successfully.

Account Number: 6759379
Payment Type: Utility Bill
Blocked Payment Methods:
- Checking Account
- LOCKBOX Payment
Auto Pay with Decline Minimizer

✓ How is your utility handling expired/lost/stolen credit cards?
### Reporting Tools

**Agent Dashboard**

<table>
<thead>
<tr>
<th>Confirmation Number</th>
<th>Related Payment</th>
<th>Amount</th>
<th>Payment Type</th>
<th>Account Number</th>
<th>Customer</th>
<th>Payment Date/Time</th>
<th>Deposit Date</th>
<th>Payment Method</th>
<th>Origin</th>
<th>Channel</th>
<th>Originator</th>
<th>Email Status</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>26979288</td>
<td>Court Fines/Fees</td>
<td>$45.16</td>
<td></td>
<td>5551552</td>
<td>John Doe</td>
<td>Mar 5, 2014 5:23:24 AM</td>
<td>Mar 5, 2014</td>
<td>Visa (Check) One Time Payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cued</td>
</tr>
<tr>
<td>26980234</td>
<td>Court Fines/Fees</td>
<td>$40.62</td>
<td></td>
<td>6824101</td>
<td>John Doe</td>
<td>Mar 5, 2014 1:54:00 AM</td>
<td>Mar 5, 2014</td>
<td>Discover One Time Payments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cued</td>
</tr>
</tbody>
</table>

Deposits - Mar 5, 2014

Download CSV / Billing System File

Paymentus
<table>
<thead>
<tr>
<th>Confirmation Number</th>
<th>Related Payment</th>
<th>Amount</th>
<th>Convenience Fee</th>
<th>Payment Type</th>
<th>Account Number</th>
<th>Customer</th>
<th>Payment Date/Time</th>
<th>Status</th>
<th>Customer Channel</th>
<th>Email Status</th>
<th>View</th>
<th>Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>13765457</td>
<td>Utility Bill</td>
<td>$50.55</td>
<td>$1.50</td>
<td></td>
<td>7767420</td>
<td>Heather Turner</td>
<td>Jan 25, 2014 11:05:11 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>13883221</td>
<td>Utility Bill</td>
<td>$100.00</td>
<td>$1.50</td>
<td></td>
<td>7768730</td>
<td>Wayne Rogers</td>
<td>Jan 25, 2014 11:06:10 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>17207419</td>
<td>Utility Bill</td>
<td>$52.55</td>
<td>$1.50</td>
<td></td>
<td>7789086</td>
<td>Jacqueline Andersson</td>
<td>Jan 25, 2014 11:07:25 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>17789228</td>
<td>Utility Bill</td>
<td>$89.99</td>
<td>$1.50</td>
<td></td>
<td>7810128</td>
<td>Ashley Simmons</td>
<td>Jan 25, 2014 11:06:34 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>13248120</td>
<td>Utility Bill</td>
<td>$65.13</td>
<td>$1.50</td>
<td></td>
<td>7729481</td>
<td>Marie Monroe</td>
<td>Jan 25, 2014 11:04:56 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>14345603</td>
<td>Utility Bill</td>
<td>$65.56</td>
<td>$1.50</td>
<td></td>
<td>7511122</td>
<td>Amanda Henderson</td>
<td>Jan 25, 2014 11:04:36 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>12477127</td>
<td>Utility Bill</td>
<td>$52.30</td>
<td>$1.50</td>
<td></td>
<td>7765964</td>
<td>Stephen Harris</td>
<td>Jan 25, 2014 11:03:22 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>13558915</td>
<td>Utility Bill</td>
<td>$99.99</td>
<td>$1.50</td>
<td></td>
<td>7869272</td>
<td>Evelyn Sanchez</td>
<td>Jan 25, 2014 11:00:10 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
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<tr>
<td>19537004</td>
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<td>$58.22</td>
<td>$1.50</td>
<td></td>
<td>7626387</td>
<td>Russell Barnes</td>
<td>Jan 25, 2014 11:02:59 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
<tr>
<td>19276244</td>
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<td>$92.00</td>
<td>$1.50</td>
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<td>7651122</td>
<td>Cheryl Foster</td>
<td>Jan 25, 2014 11:02:56 AM</td>
<td>Completed</td>
<td>Web Channel</td>
<td>Approved</td>
<td>View</td>
<td>Refund</td>
</tr>
</tbody>
</table>
Online Quick Pay

Pay-by-Text

Paperless eBilling

Mobile

Pay-by-Email

iPad Kiosk

IVR Payments

Self-Service Portal

Customer Communication

AutoPay

one expert vendor

one hosted service

one call issue resolution

one data integration

one payment processor

one price for all services
Part II: The Rising Cost of PCI Compliance...The Risk and Burden are on You
Payment security a burgeoning problem. With it comes a host of issues and tighter, more complex and costly Payment Card Industry (PCI) regulations. It’s a necessary evil that every business – large or small – needs to implement. In this second blog of our three-part series, find out more about the true costs of PCI Compliance and which PCI 3.0 security standards are proving to be the most challenging to implement.

Sep 29, 2015
Would You Like Paper or Mobile?
One-third of millennials don’t review their bills before paying them. Make sure your billing and payment systems are reaching these customers.

Sep 21, 2015
Part I: Are You PCI-Compliant? Why your Business shouldn’t be Compliance