EMV: A Focus on 3\textsuperscript{rd} Party Retrofit Kits
Agenda

• Housekeeping
• About Conexxus
• Presenters
• Presentation
• Q & A
Housekeeping

This webinar is being recorded and will be made available in approximately 7 days
• YouTube (youtube.com/conexxusonline)
• Website Link (conexxus.org)

Slide Deck
• Survey Link – Presentation provided at end

Participants
• Ask questions via webinar interface
• Please, no vendor specific questions
• Our webinars may be used toward PCI continuing education credits. Please contact arussell@conexxus.org for questions regarding a certificate of webinar attendance.

Email: info@conexxus.org
About Conexxus

- We are an independent, non-profit, member driven technology organization
- We set standards…
  - Data exchange
  - Security
  - Mobile commerce
- We provide vision
  - Identify emerging tech/trends
- We advocate for our industry
  - Technology is policy
<table>
<thead>
<tr>
<th>Month/Date</th>
<th>Webinar Title</th>
<th>Speaker</th>
<th>Company</th>
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<tbody>
<tr>
<td>September 24, 2020</td>
<td>Lessons Learned with IoT API Integration</td>
<td>Scott Cheek</td>
<td>SageNet</td>
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<tr>
<td>October 22, 2020</td>
<td>Ransomware Protection and how a Managed Security Service Provider can help Oil &amp; Gas Retailers from being the next target</td>
<td>Ajith Edakandi</td>
<td>Hughes Network</td>
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<td>November 12, 2020</td>
<td>Three Real-World Scenarios That Impact PCI Compliance</td>
<td>Rob Chapman</td>
<td>Cybera</td>
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<td>December 3, 2020</td>
<td>EMV: A Focus on 3rd Party Retrofit Kits</td>
<td>Dan Harrell, Bill Pittman, Dan Witkemper, Russ Haacker, Julie Scharff</td>
<td>Invenco, Sound Payments, Gilbarco Veeder-Root, Dover Fueling Solutions, Visa</td>
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<td>January 2021</td>
<td>Securely Connecting Third-Party Vendors</td>
<td>Simon Gamble</td>
<td>Mako Networks</td>
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<td>February 2021</td>
<td>A Step-by-Step approach to Automating Security Response in a Multi-Vendor Environment</td>
<td>Ash Swamy, Robert Hicks</td>
<td>Omega</td>
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Presenters

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EMV® at the Pump

Countdown to April 2021

Julie Scharff, Vice President of Consumer Products
Overview
EMV activation over the years

2011: Announced US EMV Migration Roadmap

2015: Non-fuel liability shift began

2017: Original date for fuel liability shift

2020: Revised date for fuel liability shift (announced in 2016)

April 17, 2021: Revised revised date for fuel liability shift (announced in May 2020)
**EMV liability will be shifting for counterfeit fraud**

<table>
<thead>
<tr>
<th>U.S.</th>
<th>Card</th>
<th>Terminal</th>
<th>Liability</th>
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<td>After October 1, 2015 for POS In-Store 5541</td>
<td>Mag stripe only</td>
<td>Mag stripe only</td>
<td>Issuer</td>
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<tr>
<td>After October 1, 2017 for AFD 5542 XBorder</td>
<td>Mag stripe only</td>
<td>EMV chip</td>
<td>Issuer</td>
</tr>
<tr>
<td></td>
<td>EMV chip</td>
<td>EMV chip</td>
<td>Issuer</td>
</tr>
<tr>
<td>After April 17, 2021 for AFD 5542 US Domestic</td>
<td>EMV chip</td>
<td>Mag stripe only</td>
<td>Acquirer</td>
</tr>
</tbody>
</table>

There are **no** plans to further extend the US Domestic AFD EMV counterfeit fraud liability shift date.
Current state of EMV chip implementation

- Retailers are beginning to recognize the benefits of EMV chip
- Counterfeit fraud targeting outdoor fuel dispensers is predicted to hit $451 million in 2020
- Nearly 81% of respondents said they have deployed or are planning to deploy contactless EMV outside (Conexxus)
- Roughly 1 out of 4 AFD transactions are chip-on-chip as of Sept. 1, 2020 (Visa)
Consumer Payment Preferences Are Changing

Visa Back to Business Study 2020

• A vast majority of U.S. consumers (70%) have changed the way they pay for items due to COVID-19, including shopping online and using less cash
• More than half (54%) would switch to a new store that installed contactless payment systems
• 1 out of 3 consumers have switched to contactless payment whenever possible

The benefits of EMV

Security
Reduces counterfeit card fraud by more than 80 percent compared to magstripe cards

Convenience
Supports contact, contactless and mobile transactions

Scalability
Available globally as an industry standard

Seamless Performance
Verifies transactions even in offline mode
Don’t know where to start?

List of Resources

- Hardware Partners
- Software Partners
- Acquirer
- Visa

And don’t forget...

- Add EMV contactless at the same time that you add EMV
The PCI Council has updated the PED (PIN Entry Device) Sunset and Replacement dates

All PEDs are subject to these dates (both Inside and AFDs)

The updated bulletin can be obtained at:

Terms to know:

**PCI Device Expiration Date**: Last date this device can be installed at sites (*like-for-like replacements permitted*)

**Revised Sunset Date**: Date this device must be replaced with a non-Expired/non-Sunset Device
## PCI Updated Sunset Dates

<table>
<thead>
<tr>
<th>Device (PIN Entry Terminal)</th>
<th>PCI Device Expiration Date</th>
<th>Revised Sunset Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCI PED or EPP PED V1.x (or prior)</td>
<td>4/30/2014</td>
<td>12/31/2022</td>
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<tr>
<td>PCI PED or EPP PED V2.x</td>
<td>4/30/2017</td>
<td>12/31/2027</td>
</tr>
<tr>
<td>PCI PTS Point of Interaction (POI) V3.x</td>
<td>4/30/2021*</td>
<td>12/31/2030</td>
</tr>
<tr>
<td>PCI PTS Point of Interaction (POI) V4.x</td>
<td>4/30/2023</td>
<td>Under Evaluation</td>
</tr>
<tr>
<td>PCI PTS Point of Interaction (POI) V5.x</td>
<td>4/30/2026</td>
<td>Under Evaluation</td>
</tr>
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*Extended from 2020 due to supply-chain disruptions related to Coronavirus*

### What should merchants do?
Talk to your equipment provider and ask them about their PCI Certification Level
Encryption

End-to-End Encryption (E2EE)
A method of secure communication that prevents third-parties from accessing data while it’s transferred from one end system or device to another. In E2EE, the data is encrypted on the sender’s system or device and only the recipient is able to decrypt it.

- Card Data is Encrypted at the point of entry with a Key provided by payment processor
- Remains Encrypted all the way to payment processor
- Only the payment processor can decrypt data

Point-to-Point Encryption (P2PE)
PCI-approved solutions that have been independently assessed against the PCI Point-to-Point Encryption Solution Requirements and Testing Procedures (the P2PE Standard).

- A PCI-approved P2PE solution, as the PCI Security Standards Council (SSC) describes, includes not just point to point encryption but also 'validated hardware, software, and solution provider environment and processes. Validation is done by a PCI-qualified P2PE assessor'.
- A Managed Device
- A list of all validated and approved P2PE Solutions: [https://www.pcisecuritystandards.org/assessors_and_solutions/vpa_agreement?return=%2Fassessors_and_solutions%2Fpoint_to_point_encryption_solutions](https://www.pcisecuritystandards.org/assessors_and_solutions/vpa_agreement?return=%2Fassessors_and_solutions%2Fpoint_to_point_encryption_solutions)
Your Options

• New EMV Pump
• New Pump without EMV & EMV Retro Fit Kit
• Retro Fit Kit from Pump Manufacturers
• Retro Fit Kit from 3rd Parties
# New Pumps vs. Retrofit Kits

## Up-Front Costs
- Equipment costs: total costs to get site upgraded to outdoor EMV
- Installation costs / business downtime
- Permitting costs / timing

## Maintenance Costs
- What will be the net effect of maintenance costs for both pump and OPT vs. new warranty?
- Additional service options / costs to consider?

## Image Upgrade / Additional Benefits
- What is the overall image impact of the upgrade?
- Possible uptick in traffic with “new look”
- Are there new features and capabilities that can be implemented in one versus the other?
EMV Retrofit Requirements

- EMV retrofit solutions MUST be UL certified for safety
- Some of the pumps are deemed hazardous locations
- BOTH the devices AND the installation process must be certified, or a fire marshal can close the site

- Minimum of PTS POI v3.x until April 2021, then must be v4.x or above
- Network certification (L3) – end to end with terminal and EPS solution
- Certified to use with Major Oil Brand and Payment Network

- Consumer operable parts must be at or below:
  - 54” from grade if curb/island constructed before March 15, 2012*
  - 48” from grade if curb/island constructed on/after March 15, 2012*

* Please check with your local weights and measures authority for laws in your state
EMV Retrofit – Integration

TCP/IP Network
Conexxus v1.0 FPT Protocol
or
Proprietary Vendor Protocol

EPS and/or FCC
Processor Certifications

• Level 1 (device), Level 2 (software) & Level 3 (brand)
• Full Integration versus Semi Integration
• Direct Connection to Associations
  – Bank Sponsored
  – Volume to Justify
• Processor Certifications
  – First Data (Fiserv) Bypass, Heartland (2 platforms), Worldpay, etc.
  – With EMV certify all components in the transaction:
    1. Card Reader
    2. Forecourt
    3. Payment Applications
  – Need to Recertify if something changes
Certifications Take Time

- 3 to 6 months is not uncommon
- Types of Certification
  - Attended Certification (Inside POS)
  - Unattended Certification (Pay-At-Pump)
- Permutations
  - Card Types and Brands
  - EMV, Mag Stripe
  - Contactless Apple, Samsung, Google
EMV Retrofit – Purchase Options

**Buy**
- Retailer purchases the equipment outright and pays for installation
- Retailer is responsible for all repairs outside of warranty
- Retailer owns the equipment

**Lease**
- Retailer signs agreement with a leasing company
- Retailer is responsible for repairs outside of warranty or pay for service contract

**As a Service**
- Retailer pays installation fee and fee/pump/month for contract period
- Manufacturer is responsible for all repairs during the life of the contract
- Manufacturer owns and is responsible for the equipment
- At the end of the contract, contract can be renewed and new device installed
How to get started with EMV retrofits

1. Take an inventory of your site equipment
   - What pump brands and models do you have?
   - Do you have CAT5 cable in the ground or just twisted pair?
   - What POS brand and version are you running and planning to run with EMV?

2. Determine goals of your EMV investment
   - Vanilla EMV with NO liability shift?
   - Adding contactless payments, 2D barcodes, media, new applications?
   - A platform that gives you room to grow with new initiatives?

3. Choose a solution that aligns with your strategy
   - Correct certifications?
   - Right capabilities now and in the future?
   - Good value for the investment?

4. Work with your installer to set an upgrade date
   - Equipment and software availability?
   - Installation provider availability?
   - Plan out the impact to the business and get it done!
Free Resources

Resource Guide, Survey Results
conexxus.org/emv

Infographic from MAG
(Conexxus & other SME-contributed content)
knowyourpayments.com/emv-technology/

Podcasts
convenience.org

Vendor websites
doverfuelingsolutions.com/emv
gilbarco.com/us/emv-resources-c-stores-gas-stations
invenco.com/s/emv-guide
soundpayments.com/emv-easy-pump/
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