



Effective Communication Practices for U.S. Chip Migration

Communication & Education Working Committee
June 2014

About the EMV Migration Forum

The EMV Migration Forum is a cross-industry body focused on supporting the implementation steps required for global and regional payment networks, issuers, processors, merchants, and consumers to help ensure a successful introduction of more secure EMV chip technology in the United States. The focus of the Forum is to address topics that require some level of industry cooperation and/or coordination to migrate successfully to EMV chip technology in the United States. For more information on the EMV Migration Forum, please visit <http://www.emv-connection.com/emv-migration-forum/>.

Purpose of this Webinar

Moving to chip card payments requires broad education of the entire payments industry. Since consumers have multiple payment cards and wide range of merchant interactions, it is particularly important that consumers receive accurate and consistent messages about their new chip cards and about the new way for paying in-store.

This webinar will enable executives to build sound communication strategies that will help the U.S. market understand and embrace chip payments and their many security benefits.

This webinar will be recorded and made available on the EMV Connection website at <http://www.emv-connection.com>.



Presenters



Randy Vanderhoof, Director,
EMV Migration Forum



Cynthia Knowles, Vice President
Market Integration, North American
Card Solutions, FIS



Brady Cullimore, Director U.S. EMV
Project Management Office,
American Express



Eric Rainsberg, Senior Manager Multi-
Channel Strategy and Development,
Macy's

Agenda Overview of U.S. Chip Migration

Value of Clear Communication

Best Practices and Tools

Q&A

Effective Communication Practices for U.S. Chip Migration

OVERVIEW OF U.S. CHIP MIGRATION

Worldwide EMV Deployment and Adoption

Region	EMV Cards	Adoption Rate	EMV Terminals	Adoption Rate
Canada, Latin America, and the Carribean	471M	54.2%	7.1M	84.7%
Asia Pacific	942M	17.4%	15.6M	71.7%
Africa & the Middle East	77M	38.9%	699K	86.3%
Europe Zone 1	794M	81.6%	12.2M	99.9%
Europe Zone 2	84M	24.4%	1.4M	91.2%

* Figures reported in Q4 2013 and represent the latest statistics from American Express, Discover, JCB, MasterCard, UnionPay, and Visa, as reported by their member institutions globally.

	EMV Cards	Adoption Rate	EMV Terminals	Adoption Rate
United States <u>Estimates</u>	~17-20M	~1-2%	~2M	~20%

Source: Estimates stated from The Smart Card Alliance/EMV Migration Forum, May 2014

Why Chip And Why Now?



Security & Fraud

Reduce counterfeit, lost and stolen card fraud
Unique microprocessor that prevents card cloning
Dynamic data
Fraud migrates to the weakest link, which is becoming the U.S. since other major markets have migrated



Global Interoperability

Increasingly difficult for U.S. travelers to use cards
Vulnerability of U.S. payments infrastructure
Foreign visitors will be able to use their chip cards in the U.S.



NFC and Mobile

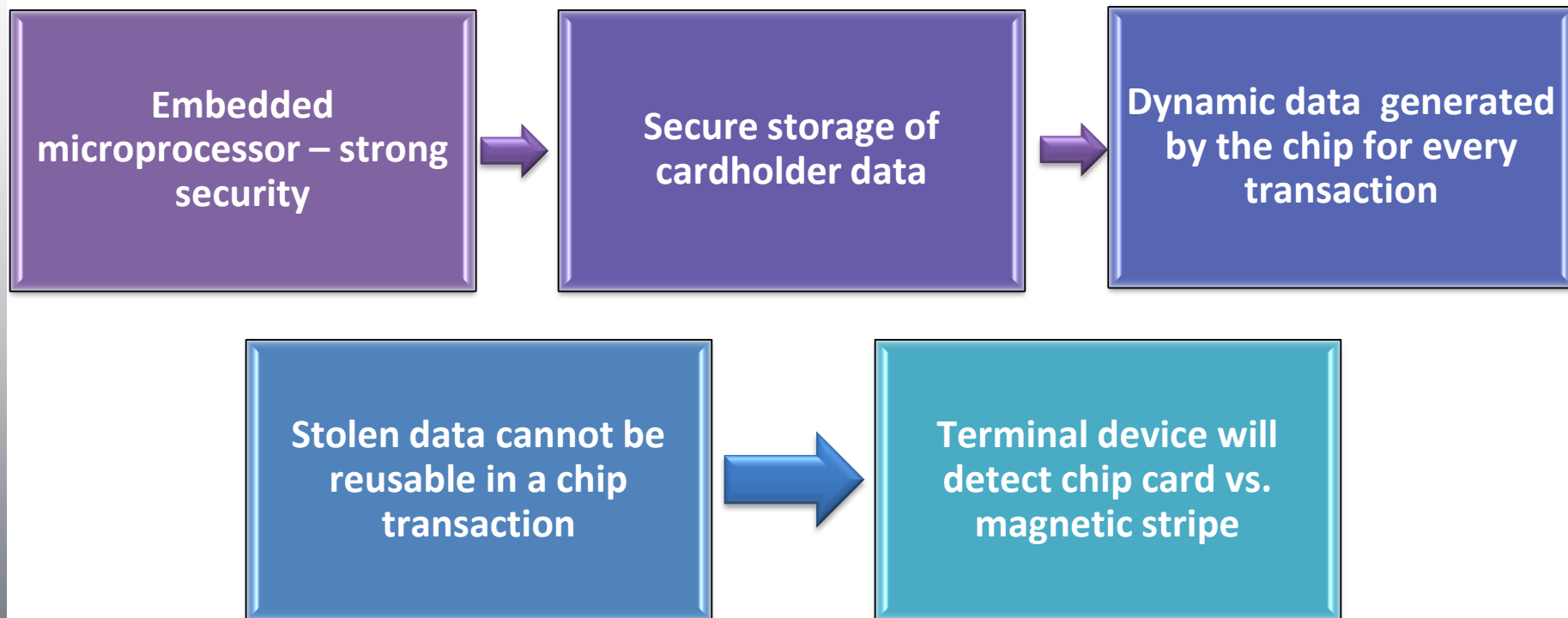
Accelerator for EMV in the U.S. to enable acceptance of other form factors
Merchants implementing NFC in combination with enabling of EMV on POS devices
Consumer adoption of contactless cards and mobile payments will continue to grow



Payment Networks

Major card brands are advancing the adoption of EMV through a series of liability shifts and mandates

How Does Chip Technology Protect Against In-person Counterfeit Card Fraud?



Magnetic Stripe Data

BHEREISYOURCARDNUMBER^HEREIS/YOURNAME^EXPIREDATESERVICECODECVV

EASY TO READ, EASY TO REPLICATE!!!

Chip Data

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1C 03 04 26 7D 00 5A 1C 03 04 26 61 04 5A 1C 03 84 26 68 04 5A 1C 03 84 26 6F 00 5A 1C 03 84 26 84 04 5A 1C 03
5A 02 02 00 00 00 00 69 00 00 00 69 00 03 00 69 00 06 00 69 00 09 00 69 00 0C 00 69 00 0F 00 69 00 12 00 69 00
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9F 5C 06 00 00 00 00 00 9F 5D 06 00 00 00 00 00 9F 5E 01 00 9F 67 01 9E 9F 68 04 80 00 00 00 9F 6B 06 00
6D 06 00 00 00 00 09 00 9F 6E 04 00 00 00 00 9F 72 01 00 9F 73 04 00 00 00 00 9F 75 06 00 00 00 00 00 9F 76
73 75 76 77 78 79 7C 03 85 00 05 55 55 03 8A 00 04 55 55 03 92 00 05 55 55 03 97 00 18 55 00 03 AF 00 05 55 55
00 03 BF 00 09 00 00 03 C8 00 04 00 00 03 CC 00 04 A5 55 03 D0 00 05 55 55 03 D5 00 04 00 00 03 D9 00 04 00 00
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34 01 00 8E 12 00 00 00 00 00 00 00 02 01 02 05 42 04 5E 00 1F 00 9F 0D 05 FC 50 AC 88 00 9F 0E 05 00 00 00
24 03 16 08 31 5F 28 02 08 40 9F 07 02 FF 00 5F 25 03 13 11 01 70 3E 8C 15 9F 02 06 9F 03 06 9F 1A 02 95 05 5F
8A 02 9F 02 06 9F 03 06 9F 1A 02 95 05 5F 2A 02 9A 03 9C 01 9F 37 04 9F 44 01 02 5F 30 02 02 01 9F 08 02 00 8D
10 10 50 0B 56 49 53 41 20 43 52 45 44 49 54 00 22 6F 20 84 07 A0 00 00 00 03 10 10 A5 15 50 0B 56 49 53 41 20
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Complexities Surrounding U.S. Chip Migration

U.S. payments market is unique from other regions who have implemented chip technology

- Two international and 16 regional debit networks
- “Durbin Amendment” governs transaction routing for debit cards requiring U.S. issuers to participate in at least two unaffiliated debit networks
- Largest number of issuers, acquirers, merchants, ATM operators and cardholders



Effective Communication Practices for U.S. Chip Migration

VALUE OF CLEAR COMMUNICATION

Customers Today Expect More

The payment technology revolution is raising customers' expectations for their ideal shopping experience.



Cardholder Predicament

How do I get a chip card?

When do I need to sign for a purchase?

If I am using my credit card, why do I have to enter in a PIN?

Is personal information stored on the chip?

What does contactless mean?

What is EMV?!!

How do I know if I should swipe or insert the card?

Will the merchant charge me more?

How do I get cash from an ATM?

Will all my cards have a chip?

Will my mag stripe still work?

Where can I use this chip card and how will I know?



Merchant Dilemma

What if I am not ready by October 2015?

What about my gift and private label card – can I accept those?

What about mobile payments or accepting contactless?

What is the best CVM method?

What is the cost to upgrade?

What is EMV?

None of my customers have chip cards, so why upgrade?

How will I know when a customer needs to insert or swipe?

I don't have fraud – do I have to upgrade?

How will my customers know I am chip ready?

Will it cost more to accept a chip card?

What if the chip card isn't working or my customer forgets their PIN?



Inaccurate and Inconsistent Communication = Confusion

Every credit card in the U.S. will be replaced by October 2015 with new cards that contain the chip-and-PIN technology that the rest of the world has had for years,

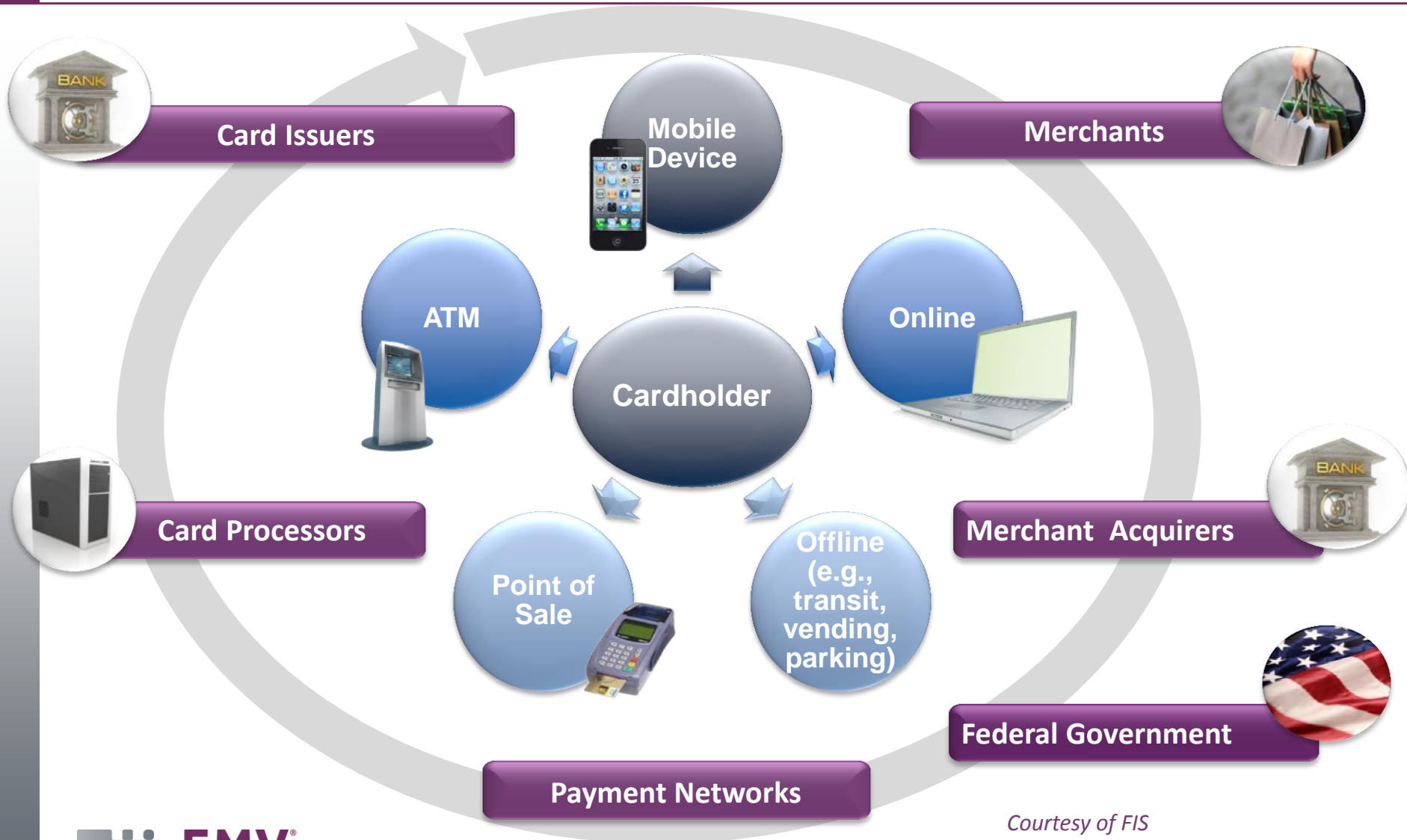
The U.S. is moving to new chip cards based on a global standard called EMV, already in use in 2.37 billion payment cards worldwide, to enhance in-person payment security for consumers, merchants and issuers.

Throughout this year, consumers should start receiving their new chip cards, and by 2015 will be able to use them more frequently to pay at retail outlets.

...Chip-and-PIN cards, often referred to as EMV cards due to the common standard for the technology created by Europay, MasterCard and Visa, have gained popularity because the cardholder data stored on the chip is encrypted and the cards are almost impossible to duplicate.....

EMV chip cards contain secure computer chips that validate the authenticity of the card and include a one-time use security code in every transaction, making chip payment data virtually impossible to use for counterfeit card fraud.

U.S. EMV Ecosystem



Cardholder Experience

How a chip card works in a mixed acceptance device environment



Magstripe Only Terminal
Swipe card
Sign Receipt



EMV Chip Card Terminal
Insert card and leave in terminal until
transaction is complete and you are
prompted to remove card
Follow screen prompts to complete
transaction



- There are many terminals in market today with the chip reader that do not support chip cards. This could cause some cardholder confusion/frustration.
- If a chip card is swiped in a chip card enabled terminal the terminal will prompt the cardholder to insert the card into the reader.

Merchant/Device Differences

Different merchant and device environments will have unique experiences and timelines for chip deployment



Restaurant

- Terminal to table
- PIN or signature
- Add tip on device prior to making payment



ATM

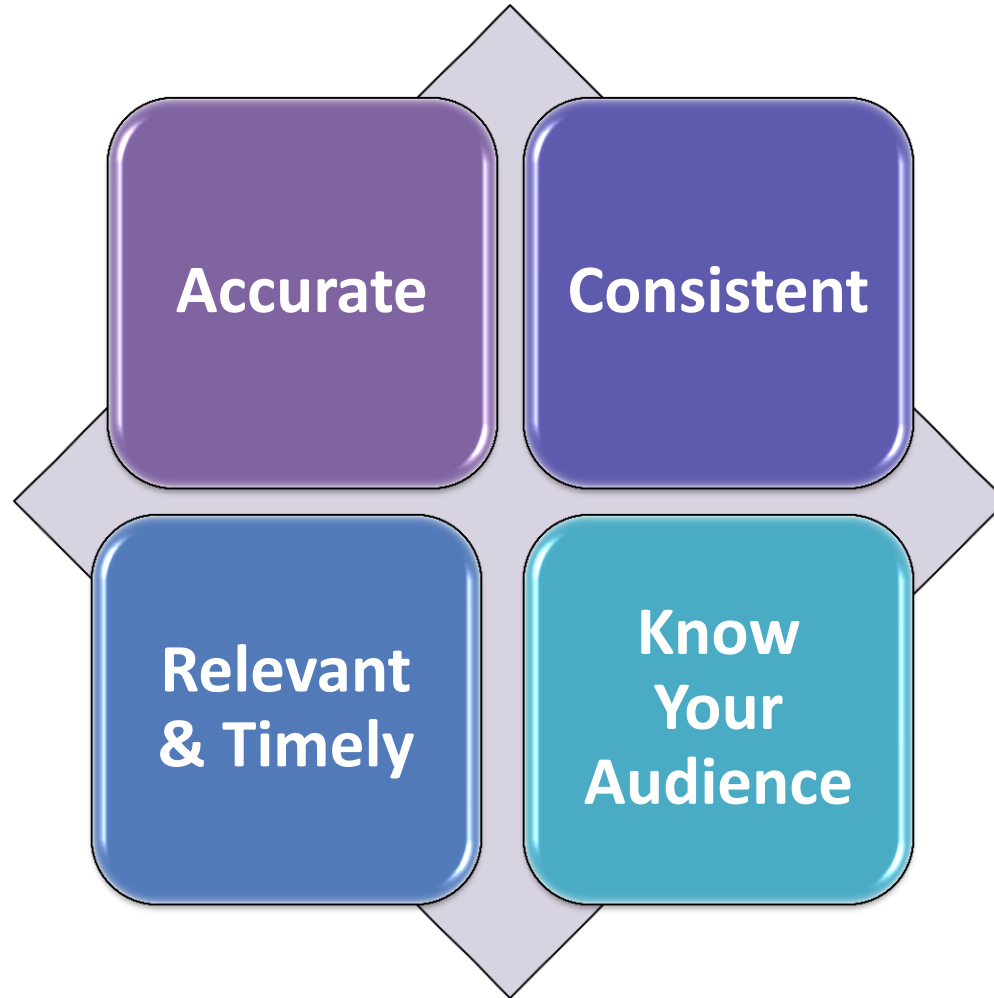
- Online PIN – required



Automated Fuel Dispensers (AFD)

- Pay at pump with PIN
- Pay at pump No CVM
- Pay inside with PIN or signature

Communication Framework



Effective Communication Practices for U.S. Chip Migration

BEST PRACTICES AND TOOLS

Standardization of Terminology

Defines standard terminology to enable clear recognition and understanding of information for industry stakeholders and consumers.

Column headers:

1. Recommended Standardized Terms
2. "Also Known As" (AKA) terms
3. Industry Stakeholder Definition
4. Cardholder/Customer Definition

<http://www.emv-connection.com/standardization-of-terminology>



Top Chip Terms

Terms to Use

Chip card
(or potentially “EMV chip card” for first reference)

Insert
(as in “insert your chip card”)

Terms to Avoid

Integrated Circuit Card (ICC)

Chipped card / Chipped (i.e. – your card will be chipped)

Chip-and-signature
(unless specifically referring to signature as a verification method on a chip card)

Chip-and-PIN
(unless specifically referring to PIN as a verification method on a chip card)

Microchip

EMV card

Smart chip

Smart card

Dip

(a popular marketing phrase used during the UK chip migration)

Chip Terms

A card reader with an opening for a chip card is considered “**chip-capable**” until it obtains a software update which converts the reader to be “**chip-enabled.**”

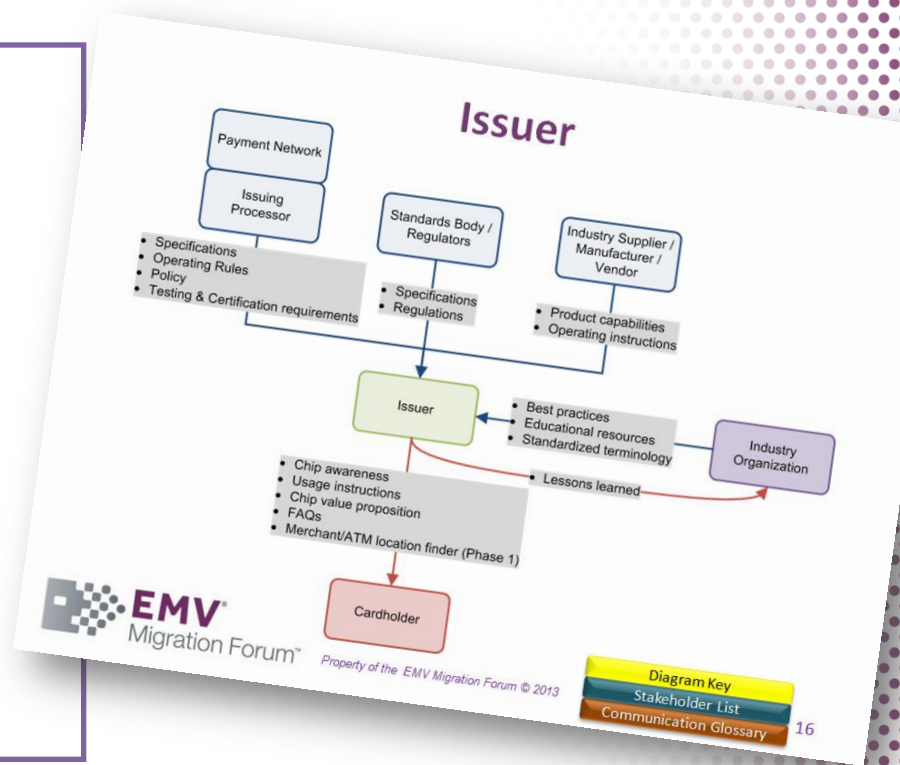
i.e. – There are currently many “chip-capable terminals” in the U.S., but relatively few “chip-enabled terminals.”



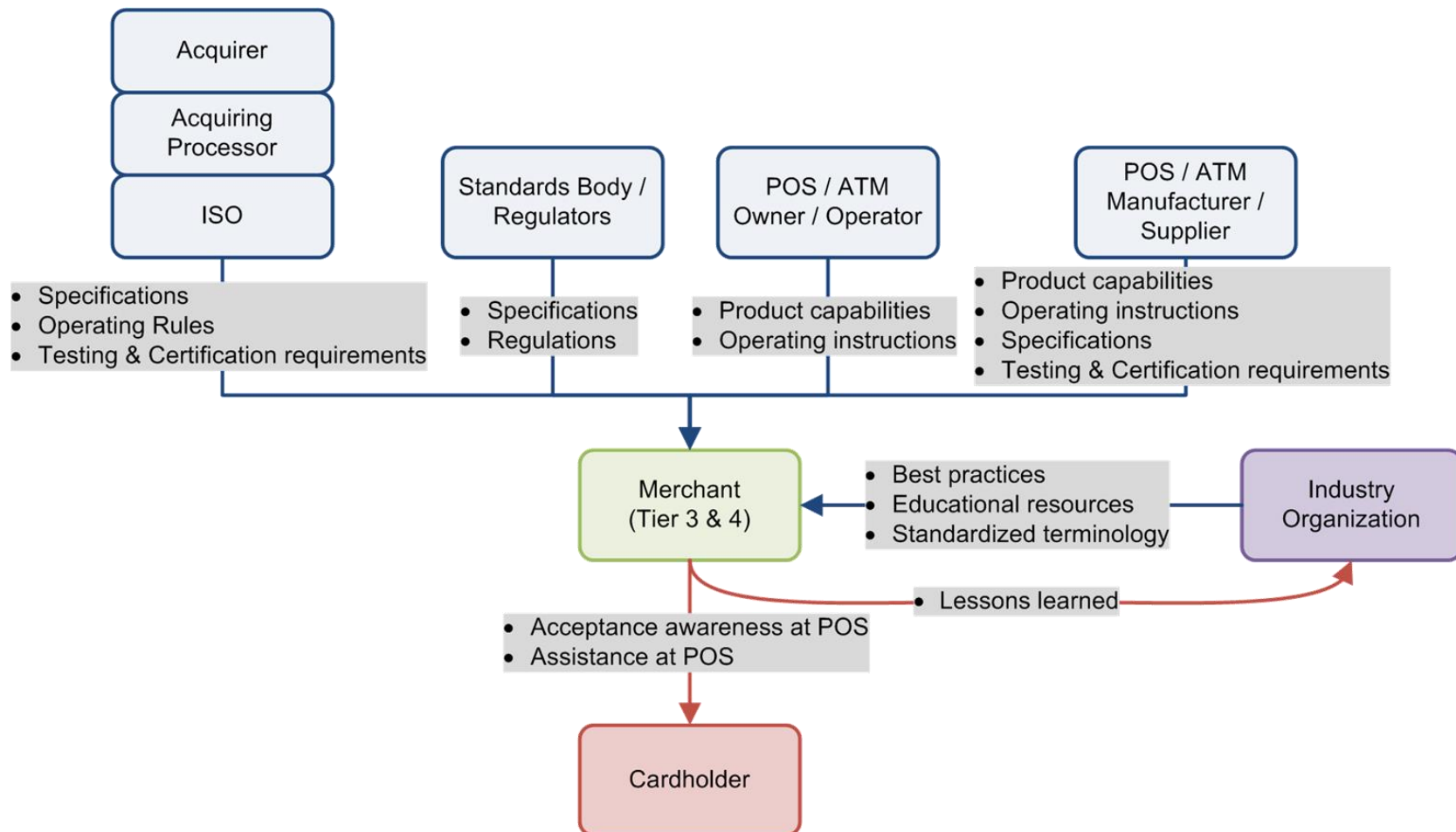
Who Educates Whom

Analysis of relationships between stakeholders who are involved in U.S. chip migration with an emphasis on communication and educational objectives among stakeholders.

1. Fourteen stakeholder diagrams
2. Communication glossary



Who Educates the Merchant?



***Tier 3 and 4 Merchants:** *Less than 1 million transactions per year, though precise classification can vary.*

Knowledge Center

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Knowledge Center

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Featured Content



EMV 101


Get an overview of EMV chip payments from the EMV Migration Forum recorded webinar covering the fundamentals of EMV chip payment.

Welcome to the EMV Migration Forum Knowledge Center, the online resource library for all stakeholders involved in EMV implementation. The Knowledge Center has gathered white papers, links, industry best practices and other resources from across the web, all relevant to EMV migration in the US.


The Knowledge Center is implemented as an interactive Excel spreadsheet. The need to update the Knowledge Center resources on a regular basis was apparent, and given the combination of topics and resource links, it became necessary to create a simple table that would allow users to filter by Category, Stakeholder or Subtopic, or search by keyword in an easy-to-navigate format. The Excel Interactive View was determined to be the best solution.

To access the Knowledge Center, click on the Excel Interactive View link below. An interactive Excel spreadsheet will open within the web browser—this is the Knowledge Center. Each resource is categorized by column heading — Category, Stakeholder, Subtopic, Title, and Author — and is searchable by filters.

To search for a specific resource by column heading, use the filters to the left of the spreadsheet. Select the filter criteria to locate the resource; select multiple filters to further narrow the search. Select two or more criteria under one column heading by holding the “Control” key while making selections.

To search by keyword, select the Excel-file symbol on the left-most side of the spreadsheet . This link will open two options. Select the “Open in Excel Web App” option. The spreadsheet will then open as a full Excel spreadsheet within the browser. In this view, select the “Find” button in the top middle of the page and enter the keyword(s). Conducting this type of search will highlight the keyword within the spreadsheet. This function is also helpful when searching without a specific Category, Stakeholder or Subtopic in mind. To return to the Excel Interactive View, return to the previous page.

Thanks to the Communications & Education Working Committee for initiating the Knowledge Center and seeing it through to completion. C&E Working Committee members contributed many hours to gathering, organizing, and researching resource links to ensure that the content provided is relevant to implementing EMV in the US.

 [Excel Interactive View](#)

Knowledge Center

Filters

4 Category
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- ⚙ Customer Experience
- 📄 Fraud & Security
- Implementing EMV
- Regulatory & Compliance
- Technology
- Testing & Certification
- Training & Education
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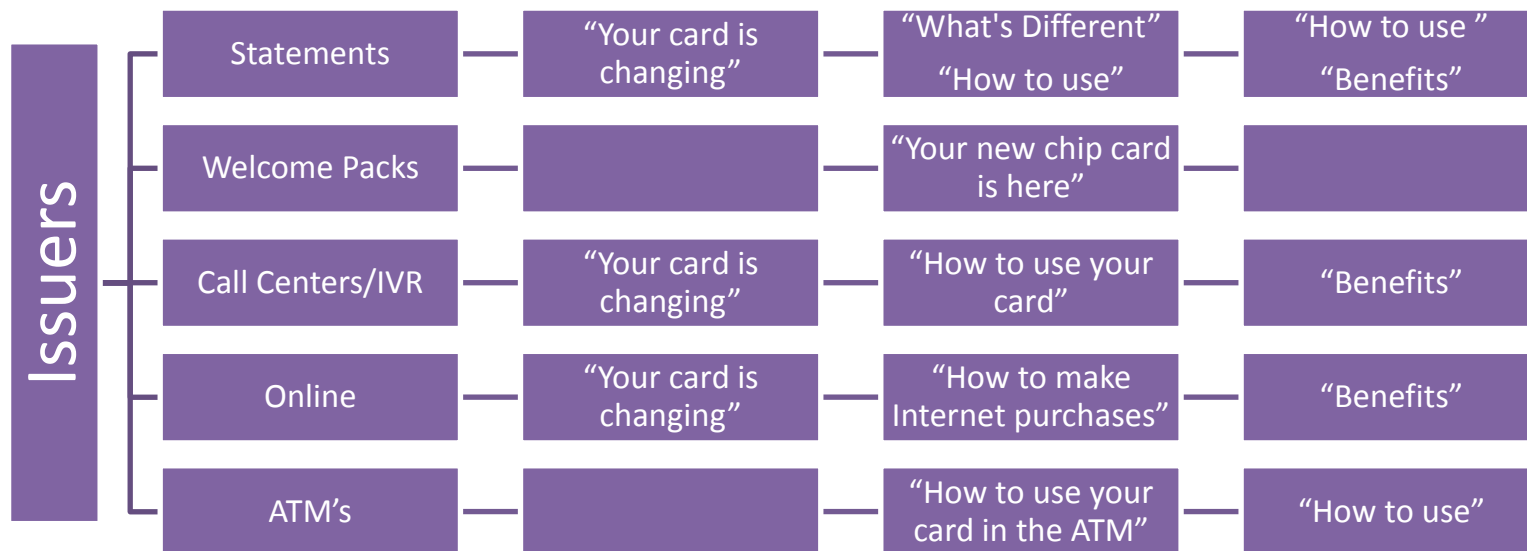
- ▶ Stakeholder
- ▶ Subtopic
- ▶ Title
- ▶ Author

Knowledge Center

Category	Stakeholder	Subtopic	Title	Author
Testing & Certification	Acquirer/Processors	Testing & Certification Overview	EMV Testing and Certification White Paper: Current U.S. Payment Brand Requirements for the Acquiring Community	EMF
Testing & Certification	Acquirer/Processors	Testing & Certification Overview	EMV Testing & Certification Video Presentation	Smart Card Alliance
Testing & Certification	Acquirer/Processors	Testing & Certification Overview	Terminal Type Approval web page	EMVCo
Testing & Certification	Acquirer/Processors	Links to Tools (Merchant, Acquirer, Issuer, etc.)	Terminal Type Approval: Qualified Contact Level 1 Test Tools	EMVCo
Testing & Certification	Acquirer/Processors	Links to Tools (Merchant, Acquirer, Issuer, etc.)	Terminal Type Approval: Qualified Contact Level 2 Test Tools	EMVCo
Testing & Certification	Acquirer/Processors	Links to Tools (Merchant, Acquirer, Issuer, etc.)	Terminal Type Approval: Qualified Contactless Level 1 Test Tools	EMVCo
Testing & Certification	Acquirer/Processors	Links to Tools (Merchant, Acquirer, Issuer, etc.)	Terminal Type Approval: Qualified Entry Point Test Tools	EMVCo
Testing & Certification	Acquirer/Processors	Links to Tools (Merchant, Acquirer, Issuer, etc.)	Visa Technology Partners	Visa
Testing & Certification	Acquirer/Processors	EMV and Brand Resources for Training / Education Services	Visa Technology Partners and Visa	Visa
Testing & Certification	Acquirer/Processors	EMV and Brand Resources for Training / Education Services	MasterCard Connect	MasterCard
Testing & Certification	Acquirer/Processors	FAQ's and whitepapers	General	EMVCo

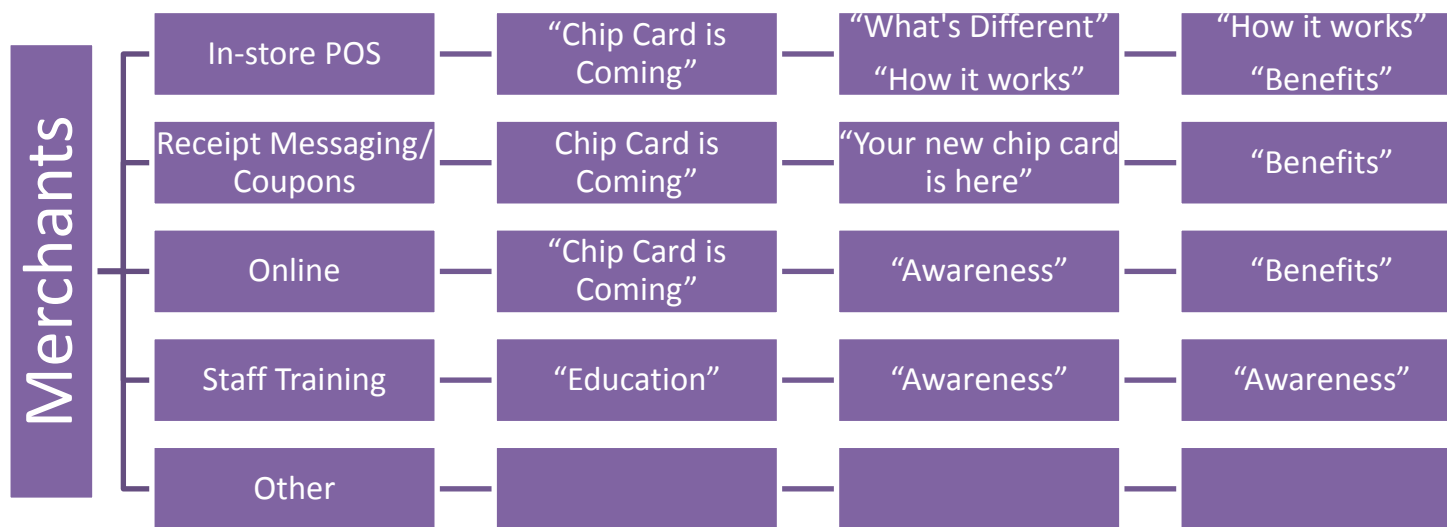
Example Messaging for Issuers

- Consistent and continuous messaging across all customer touch points

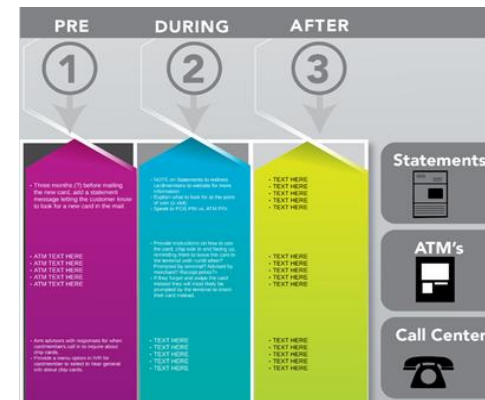
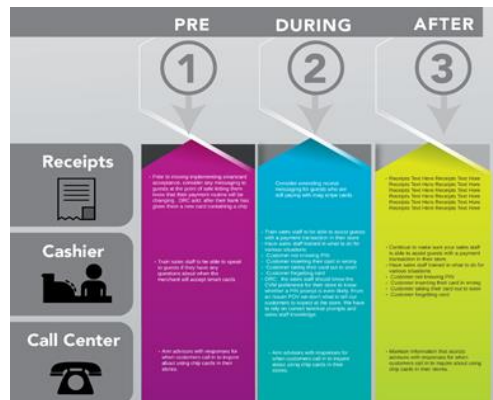
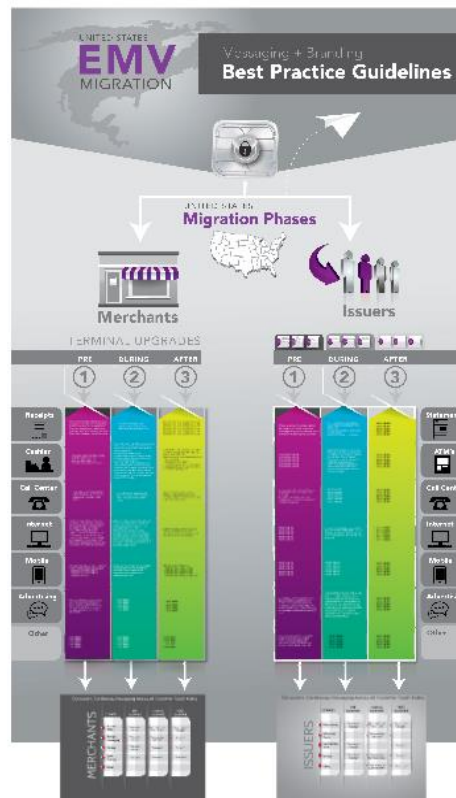
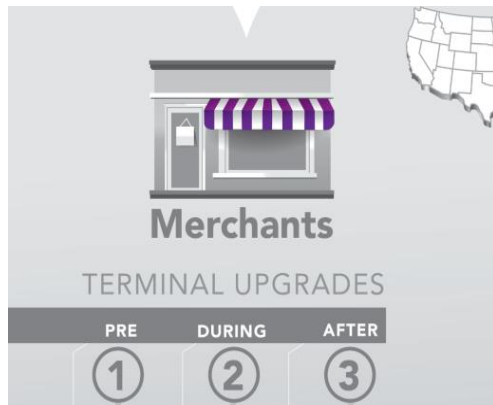


Example Messaging for Merchants

- Consistent and continuous messaging across all customer touch points



Messaging & Branding Infographic



Hints + Tips

FAQ's

Help and Resources

Standardization of Terminology

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About

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EMV Migration Forum Resources

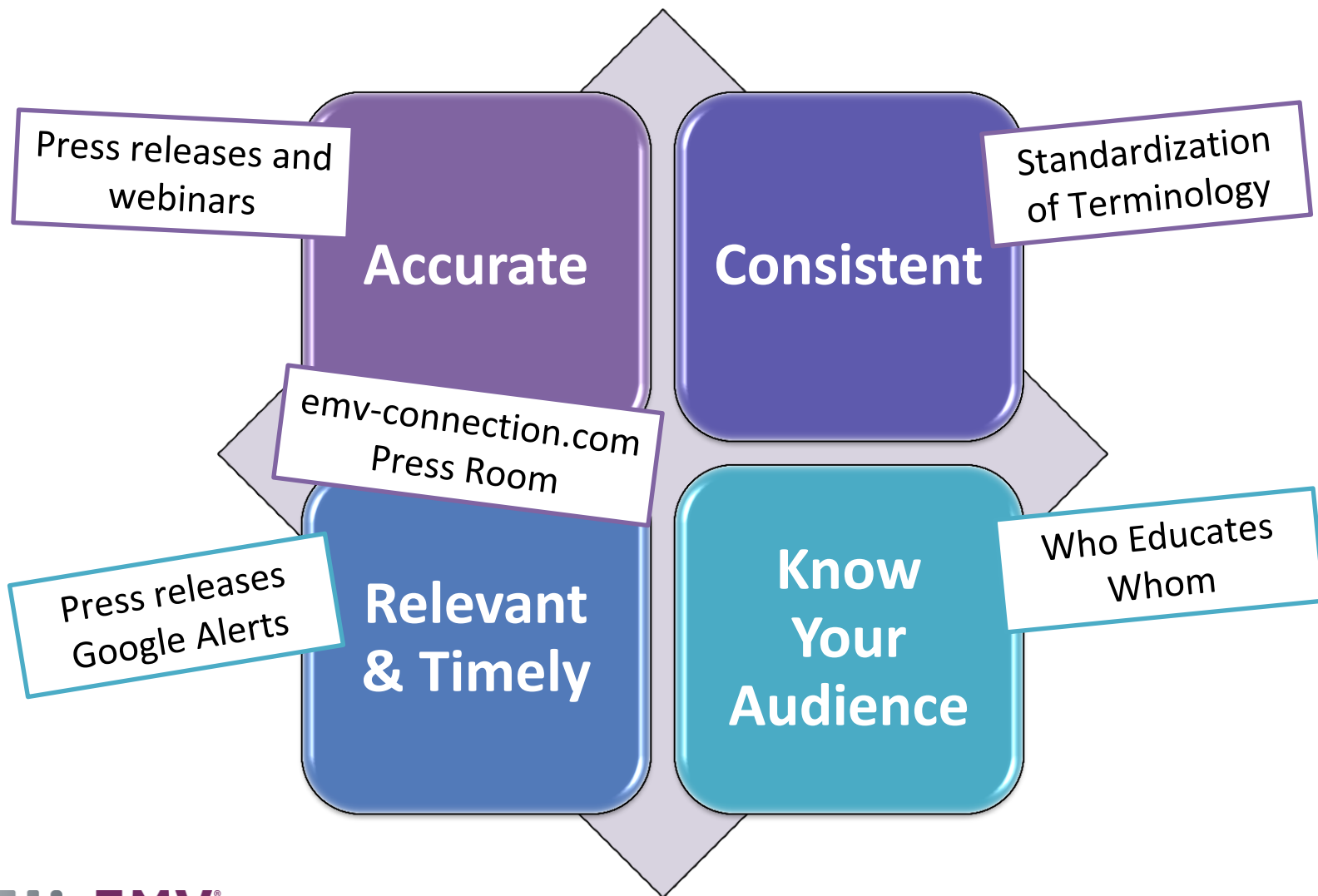
- **Categorized for Issuers, Merchants, Acquirers and Consumers**
 - www.emv-connections.com
 - <http://www.emv-connection.com/press-room/>
 - EMV 101 Webinar
 - EMV Frequently Asked Questions
 - Glossary of Standardized Terminology
 - EMV-related White Papers
 - *Card-Not-Present Fraud: A Primer on Trends and Transaction Authentication Processes*
 - *Card Payments Roadmap in the U.S.: How Will EMV Impact the Future Payments Infrastructure?*
 - *EMV and NFC: Complementary Technologies that Deliver Secure Payments and Value-Added Functionality*
 - *EMV Testing and Certification White Paper: Current U.S. Payment Brand Requirements for the Acquiring Community*
 - *U.S. Debit EMV Technical Proposal*

Other Resources

- General EMV Migration Forum and Smart Card Alliance press releases
- EMVCo
- EMV Migration Forum Weekly Newsletter
- Payment Brands websites
- Industry related webinars



Communication Framework – Examples



Somehow it all works out...



POLLING QUESTION

What would be the most valuable method of educating you about chip cards?

- a. Public broadcast/TV
- b. Information from my card issuer
- c. Merchant point-of-sale
- d. Payment brands (e.g. Visa, MasterCard, American Express, Discover)
- e. Digital (e.g. YouTube, Internet, Social Media, etc.)

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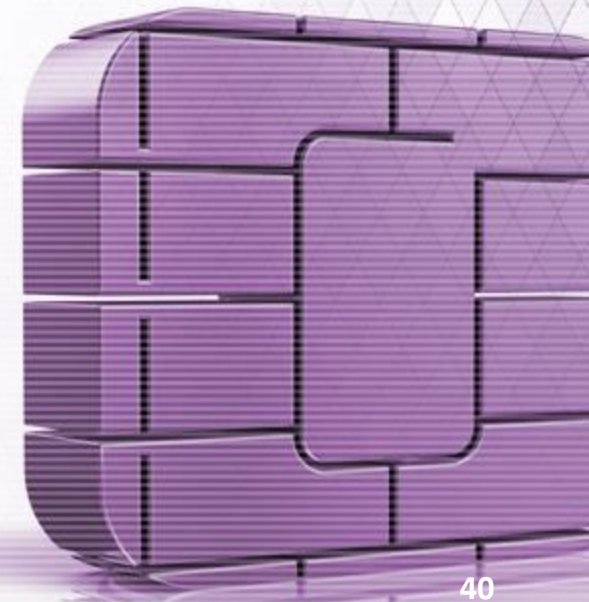
Q&A

Thank you

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