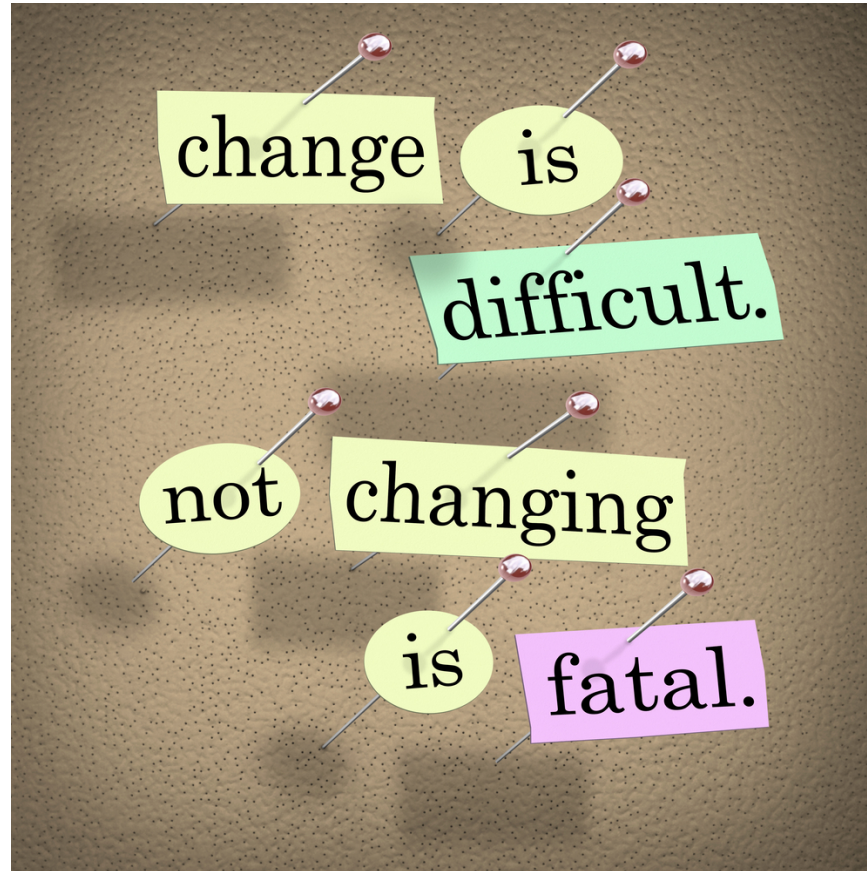


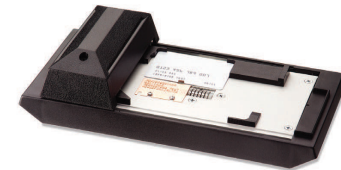
Changing Consumer Purchasing Patterns

**John Mayleben, CPP
SVP, Technology and Product Development
Michigan Retailers Association**



Michigan Retailers Association

- Michigan Retailers Association is trade association that provides services to members.
- MRA handles transactions for merchants in all 50 states and the District of Columbia
- In the last 12 months we have processed more than \$1.1 billion in credit card transactions for nearly 5,500 merchant locations
- The roots of MRA's merchant processing program reach all the way back to 1969. We are the oldest, non-bank organization operating in the merchant acquiring space, now specializing in all types of non-cash treasury management solutions.
 - Credit and Debit – Dip, Tap, Swipe, Keyed, Internet, or Recurring
 - PIN Debit
 - Check truncation, verification, and guaranty
 - Gift cards (storewide and community-wide solutions)



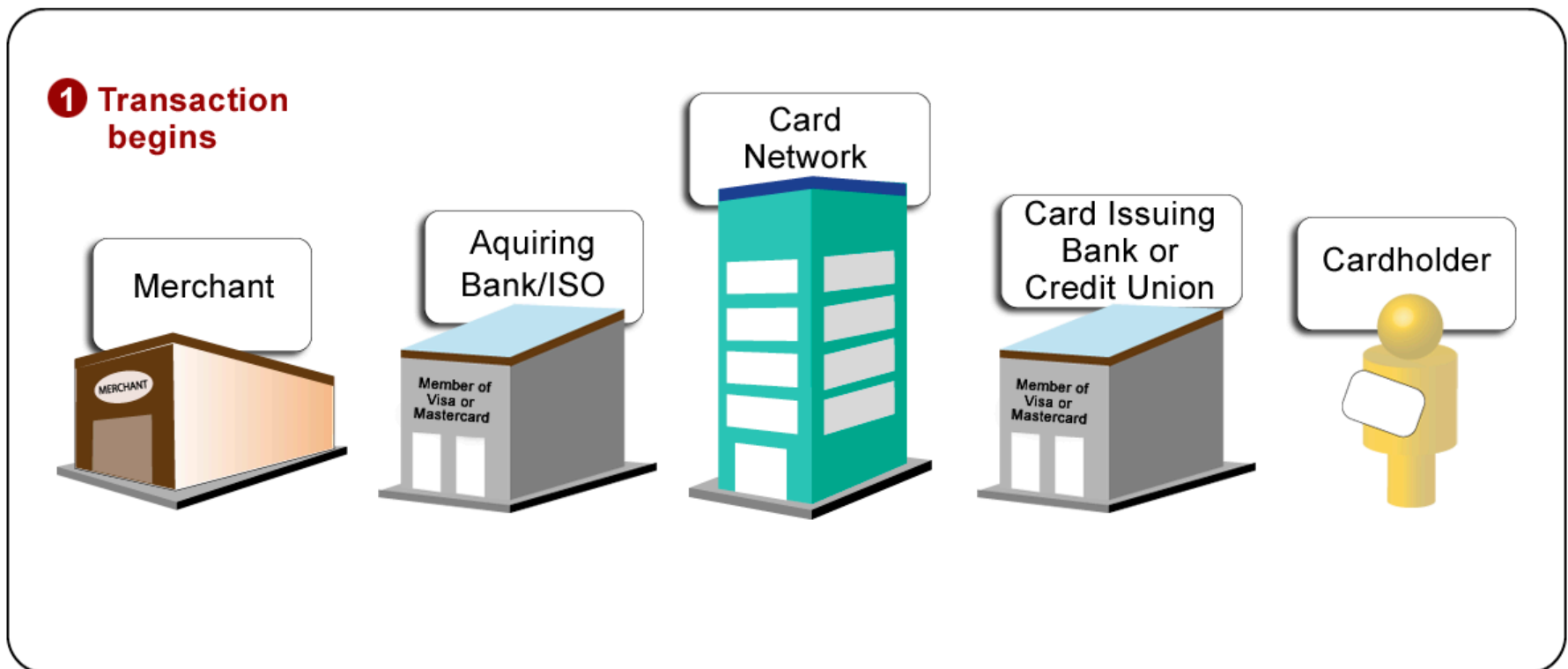
Credit Card Transaction Flow



Transaction Flow

1. TRANSACTION BEGINS

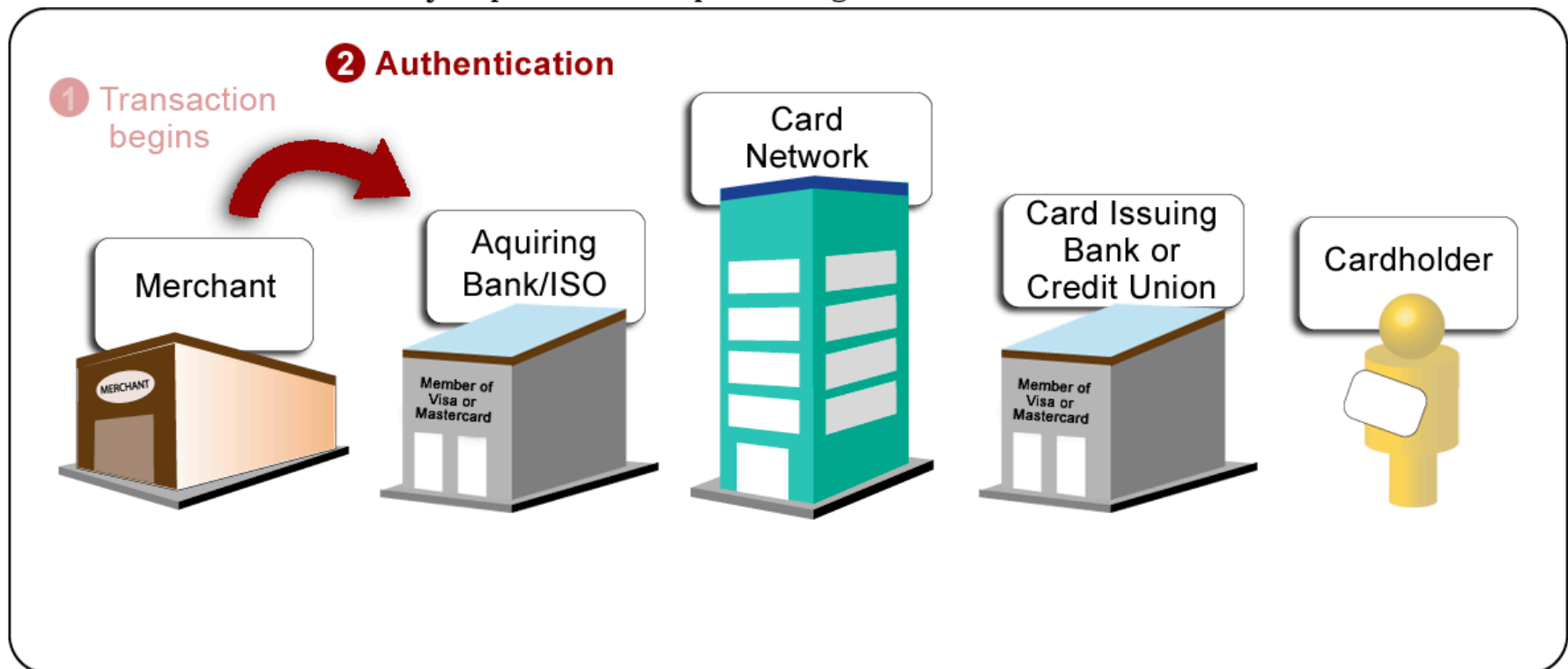
The cardholder purchases goods or services from the merchant.



Transaction Flow

2. AUTHENTICATION

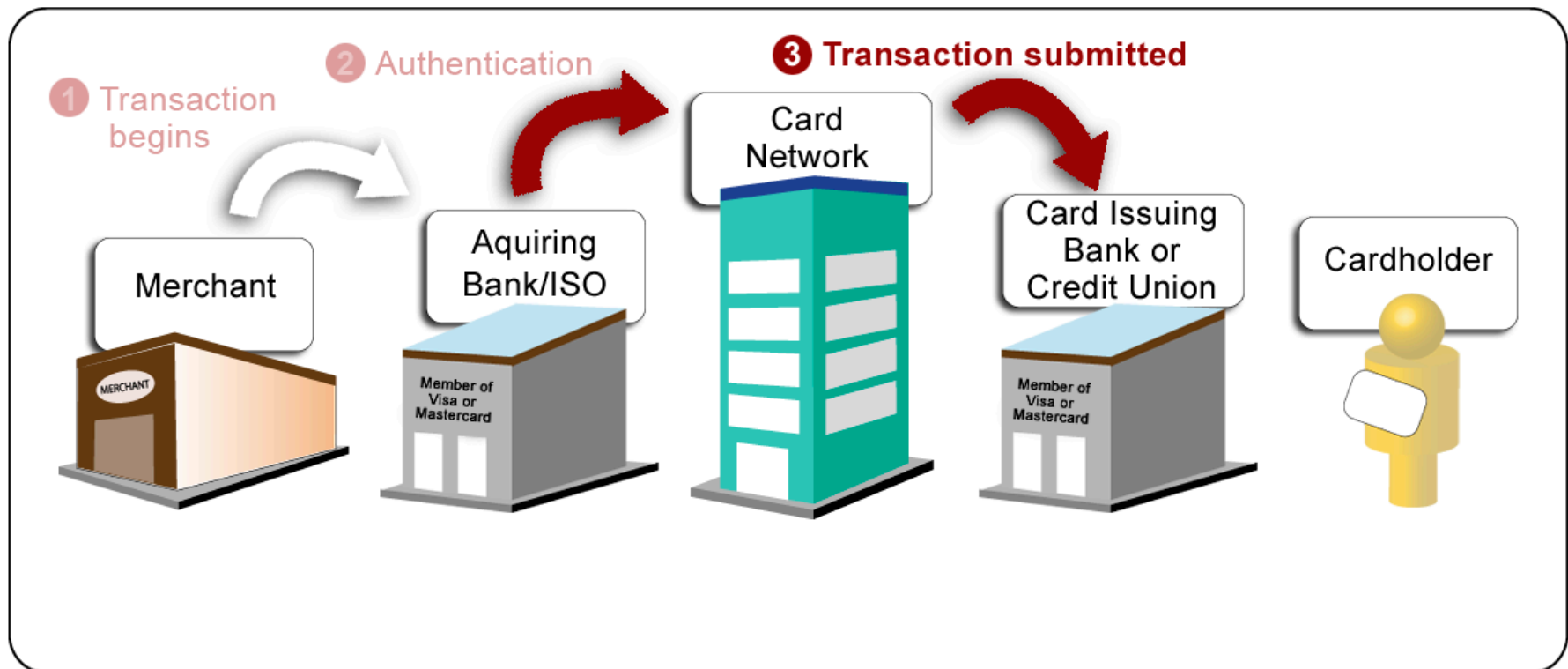
The merchant, in effect, sells the transaction to the “acquirer” and is reimbursed the amount of the sales ticket less a “discount fee,” the majority of which is driven by the cost of interchange and which is usually expressed as a percentage + a transaction fee.



Transaction Flow

3. TRANSACTION SUBMITTED

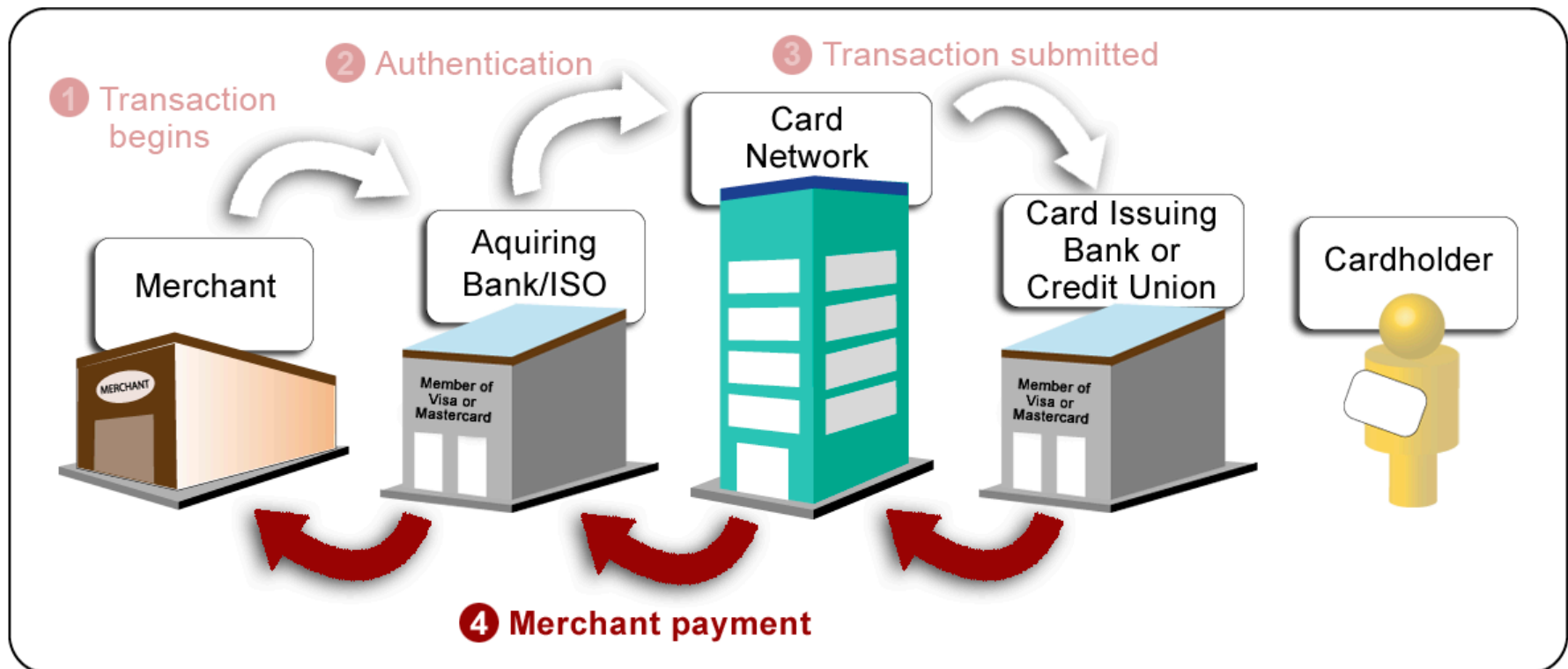
The acquirer then submits the transaction to the issuing bank for payment via the appropriate card network.



Transaction Flow

4. MERCHANT PAYMENT

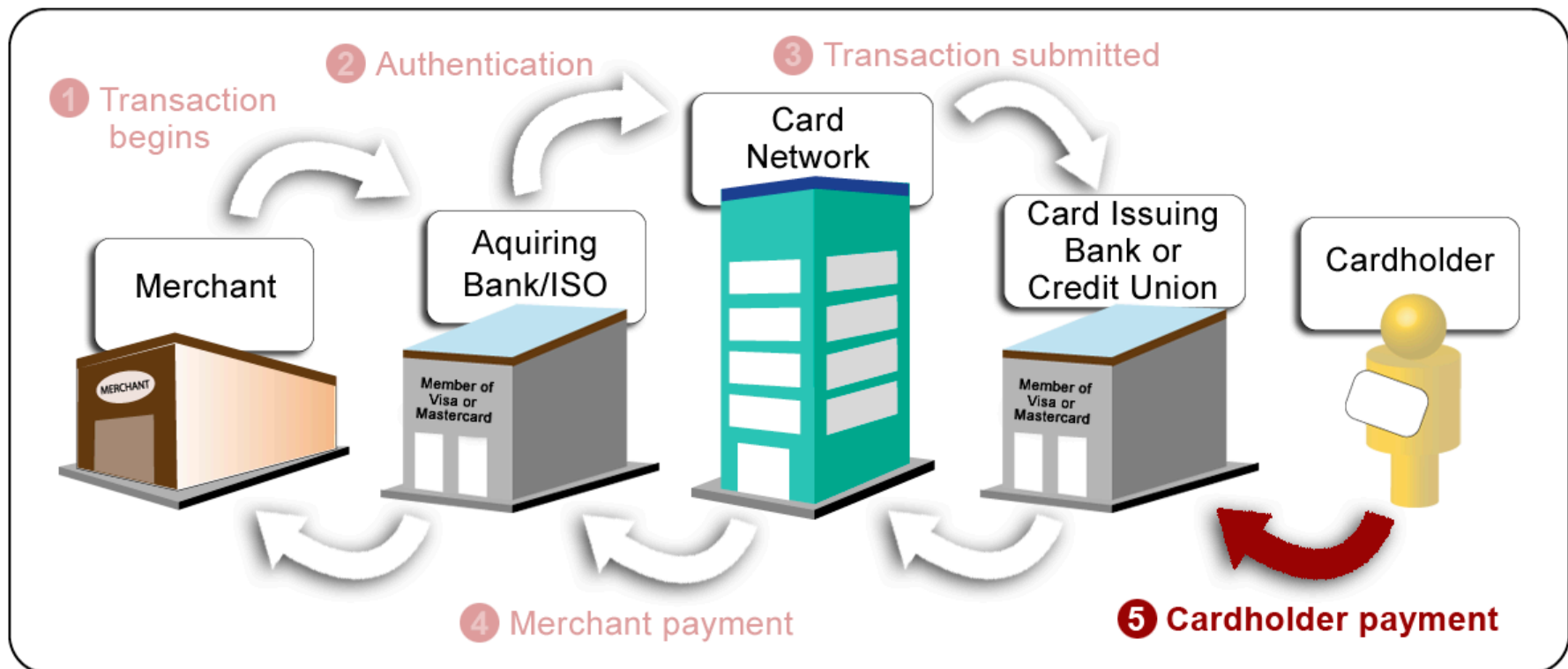
The issuing bank pays the merchant acquirer, less the interchange fee, who then pays the merchant less the “merchant fees.”



Transaction Flow

5. CARDHOLDER PAYMENT

Finally, the cardholder repays the issuer for the goods or services originally purchased from the merchant.



New ways to use a card in your retail store

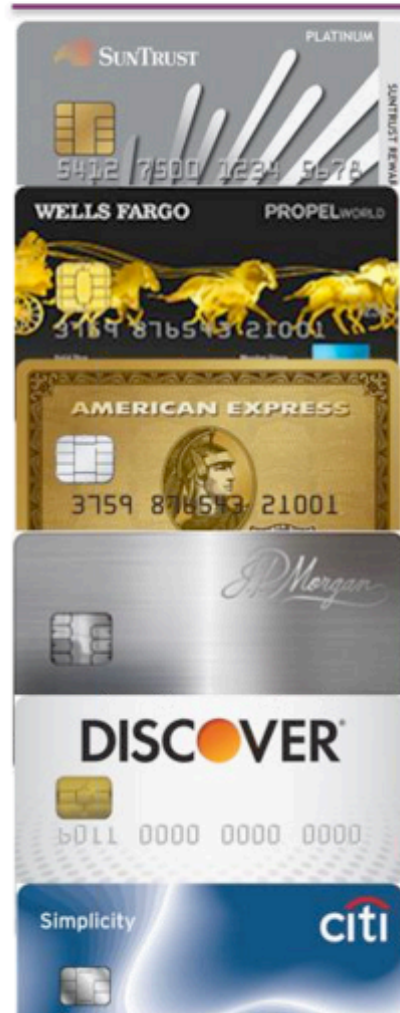


Coming soon to a store near you and your own wallet...

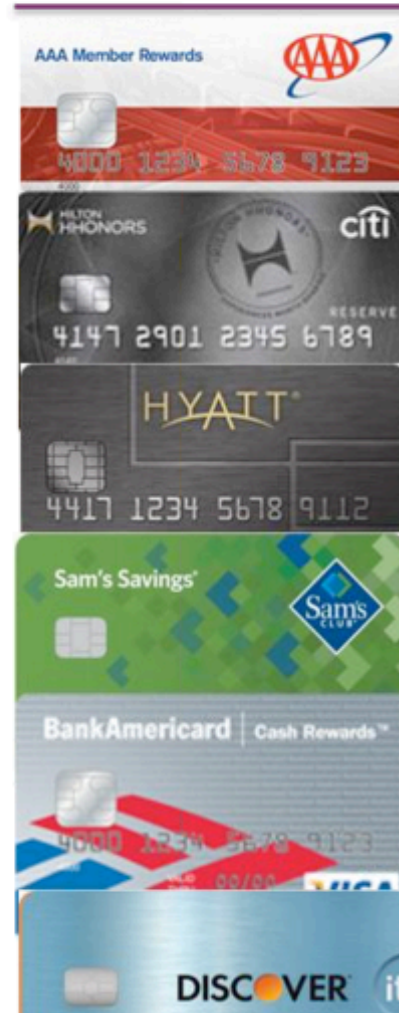
Corporate
Charge



Consumer
Credit



Consumer
Rewards

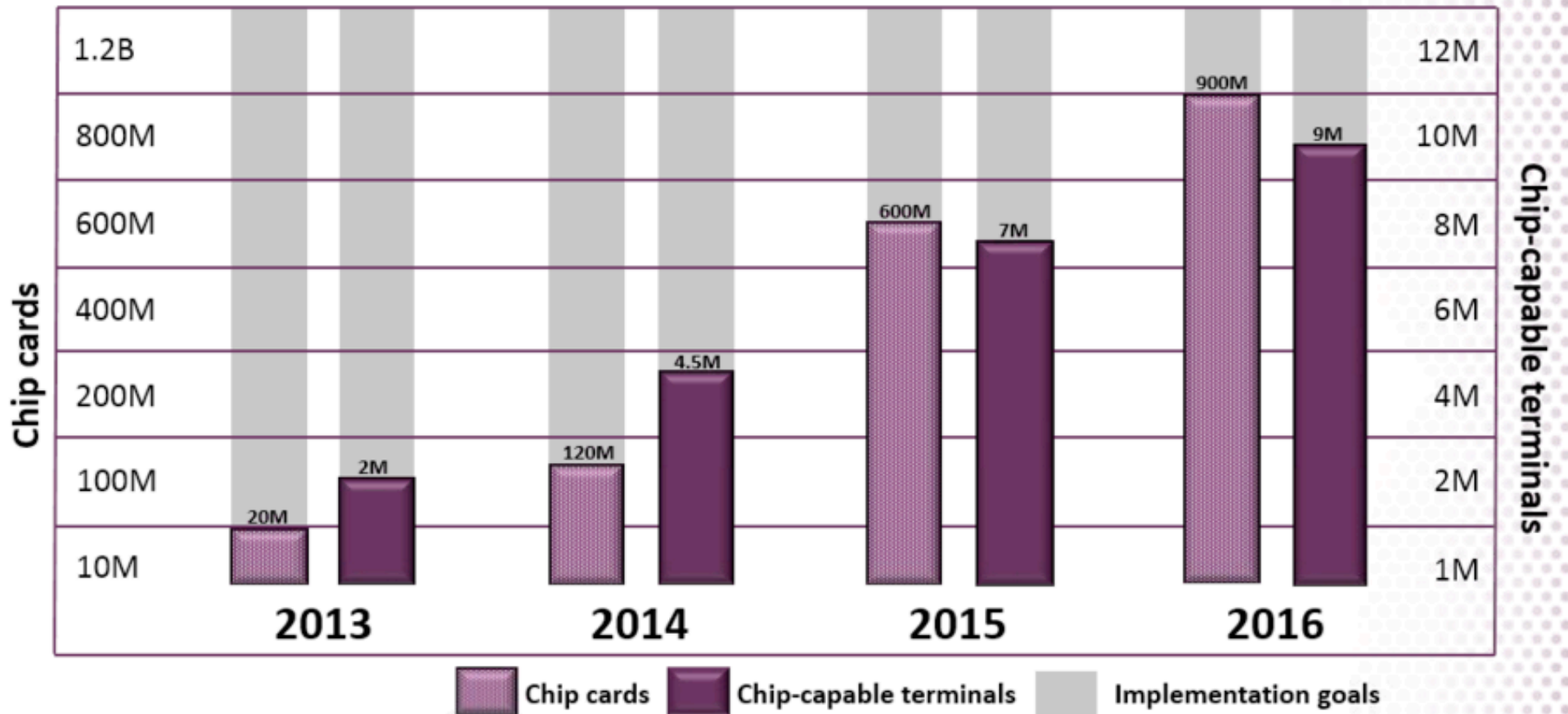


Travel
Rewards





EMV Migration Forum projects more than 120 million chip cards and 4.5 million EMV-capable terminals will exist in the market by the end of 2014



Other predictions

- *Aite Group* predicts that 70% of U.S. credit cards and 41% of debit cards will be EMV-enabled by the end of 2015
- *Javelin Strategy & Research* forecasts that 166 million EMV credit and 105 million EMV debit/prepaid cards will be in circulation in the U.S. by the end of 2015
- The *Payments Security Task Force* expects to see 575 million chip-enabled payment cards by the end of 2015

Region	EMV Cards	Adoption Rate	EMV Terminals	Adoption Rate
Canada, Latin America,	471M	54.2%	7.1M	84.7%
Asia Pacific	942M	17.4%	15.6M	71.7%
Africa & 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%

***Source – EMVCo**



What is Changing?

- **The traditional mag stripe is going to disappear over the next few years.**
 - **When the mag stripe was introduced in the late 70's and early 80's, it was the leading edge of technology. The same technology that was used for cassette tapes and the 8-track tape.**
 - **You could now store data on the back of your card and increase the speed of the transaction dramatically.**
 - **Unfortunately, now almost anyone with a little bit of knowledge and skill can copy the data off a mag stripe and make their own version of someone else's card.**
 - **This is done by either hacking a company computer system or through the installation of a device called a skimmer.**
 - **During a recent audit of gas station pay at the pump systems, one state alone, found that nearly 2% of the pumps had skimmers installed.**



Liability Shift = Potential Chargebacks

- **In most cases, after the target chip migration dates in October 2015 (for traditional retail) and October 2017 (for pay at the pump), the payment brands will shift the responsibility for any fraud resulting from a payment transaction to the party using the least secure technology. This may be either the issuer of the card or the merchant accepting the payment card. If neither or both parties have implemented chip, the liability stays the same as it is today.**
- **Currently, in Face to Face transactions, 66% of the fraud is counterfeit card transactions. The remaining 34% is divided equally between Lost/Stolen and “other”.**
- **System wide, the average fraud rate for all cards, is .9% of all transactions.**



What Does This Mean?

■ American Express, Discover and MasterCard

- For lost, stolen or counterfeit cards today, the issuer is liable for the transaction as long as the merchant follows certain rules, and processes the card via a swipe transaction.
- After the liability shift, if the merchant does not have a chip terminal and is presented with a chip card, they will assume all of the liability for these transactions.
 - Counterfeit
 - Lost
 - Stolen

■ Visa

- For lost, stolen or counterfeit cards today, the issuer is liable for the transaction as long as the merchant follows certain rules, and processes the card via a swipe transaction.
- After the liability shift, if the merchant does not have a chip terminal and they are presented with a Visa chip card, they will assume all of the liability for counterfeit cards ONLY.



Counterfeit Card Liability

- **All cards**
- **Current – Mag stripe card & Mag stripe terminal – Issuer liable**
- **Future**
 - **Mag stripe card & Mag stripe terminal – No change, issuer liable**
 - **Mag stripe card & chip terminal – Issuer liable**
 - **Chip card & Chip terminal – Issuer liable**
 - **Chip card & Mag stripe terminal – Merchant liable**



Lost/Stolen Card Liability

- American Express, Discover, and MasterCard but not Visa
- Current – Mag stripe card & Mag stripe terminal – Issuer liable
- Future
 - Mag stripe card & Mag stripe terminal – No change, issuer liable
 - Mag stripe card & chip terminal – Issuer liable
 - Chip card (and PIN) & Chip terminal – Issuer liable
 - Chip card & Mag stripe terminal – Merchant liable



Benefits of Chip Card implementation

- Fewer fraud-related chargebacks due to skimming
- Data in various systems less valuable
- Contactless NFC cards and ApplePay transactions
- Cardholders are starting to ask for more secure ways to handle their card
- Harder to counterfeit and run a “white plastic” sale



Even newer ways to pay

- **ApplePay**

- **With the introduction of the iPhone 6 and 6+, the payments landscape got a little more complicated.**

- **Over 15 million iPhones with payment capabilities**

- **600,000 active, regular users of ApplePay at the retail counter, as of now.**



Even newer ways to pay

- **Samsung LoopPay**
 - **Recently Samsung, in an attempt to engage consumers in the payments space, purchased LoopPay.**
 - **LoopPay is technology that will be loaded onto Samsung Galaxy devices and allows payment at virtually any credit card terminal, using a transmitter within the device to communicate directly to the current mag stripe reader within the credit card terminal.**



Key issues of Chip Card implementation

- **Speed of checkout**
- **Checkout configuration**
- **Change in habits (both sales clerk and consumer)**
- **Ease of use**
- **Implementation**



What does the future hold?

- **Today, we manage risk by handling “credential presentation”**
 - Card
 - iPhone
 - Paper check
 - Etc
- **Tomorrow, we will manage risk by handling “consumer authentication”**
 - **Apple store app that allows you to select an item with your own phone, pay for that item, and then physically carry it out of the store, without every interacting with an in store person.**
 - **Uber – you schedule a ride via your smart phone and pay for it with the same device. The service can see that you were in the same close proximity as the vehicle and driver. It can also see that you stayed together on a “route” and therefore has a high degree of confidence that you successfully completed the transaction.**



Card processing resources

- **Visa.com**
- **Visachip.com**
- **Mastercard.com**
- **Americanexpress.com**
- **Discover.com**
- **Retailers.com**

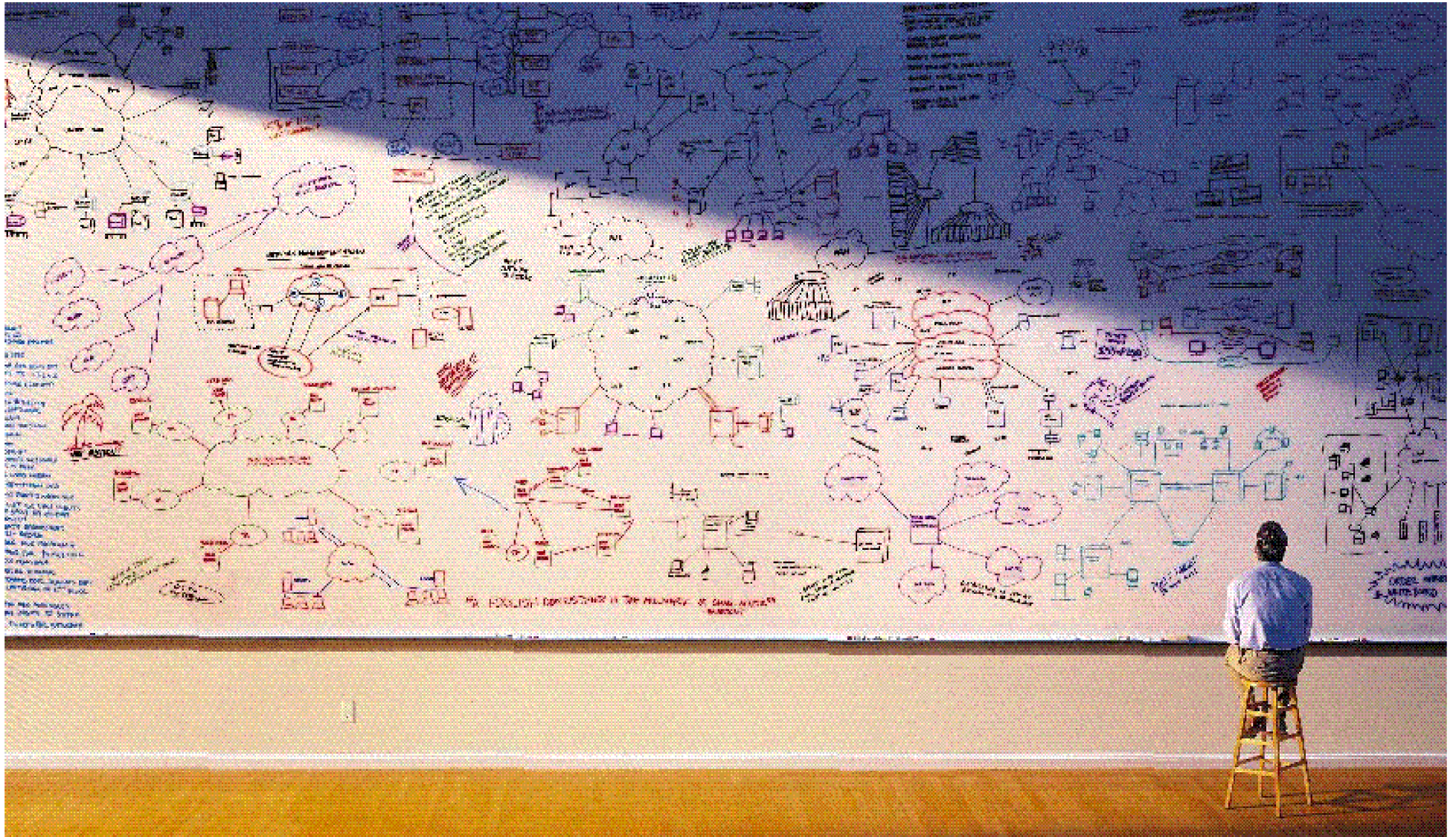


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Questions?



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