

Mastercard: Innovation Across the U.S. and the Globe



Mastercard: Who we are and what do we do?



- MasterCard is a technology company in the global payments business.
- We connect consumers, financial institutions, merchants, governments and businesses worldwide, enabling them to use electronic forms of payment instead of cash and checks.
- We use technology and data-driven insights to make electronic payments more convenient, secure and efficient for people everywhere.
- MasterCard does not issue cards, but develops advanced payment solutions and seamlessly processes billions of transactions around the world every year.
- Our business has a global reach and continues to experience growth in a world where **85% of retail transactions are still made in cash and checks.**

Mastercard: By the Numbers

- **2.3 billion cards**
- **11,300 employees, of which approximately 6,200 are employed outside of the United States**
 - **More than 210 countries and territories**
 - **150 currencies**
- **More than 56 billion transactions processed in 2016**
 - **160 million transactions per hour capacity**



mastercard.

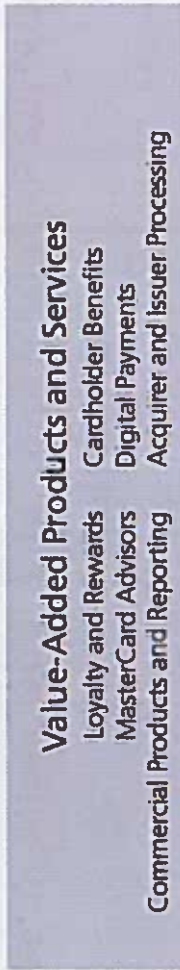
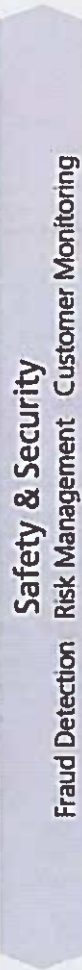
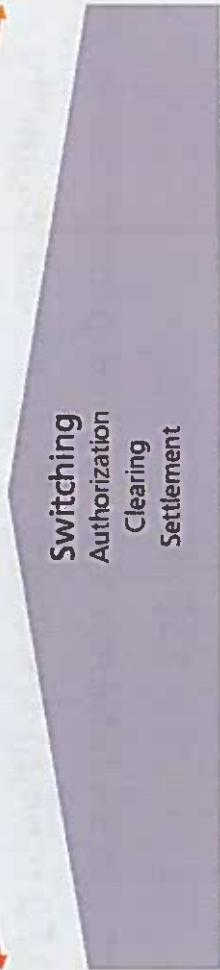
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Mastercard: Who we are and what do we do?



Network Processor



Acquirer



Merchant



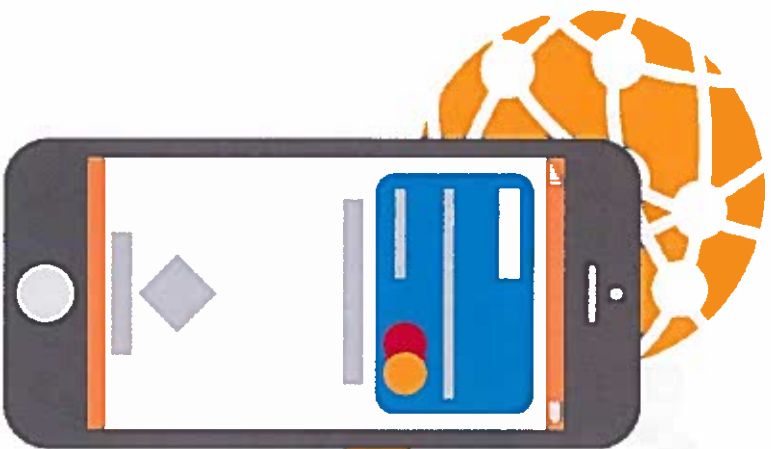
Issuer



Cardholder



The Internet of Things is here




Enriching Lives



Blurring the physical and digital boundaries

Removing Barriers



Revolutionizing digital commerce across industries

Enabling Opportunities



Powering payments everywhere

Across the Globe



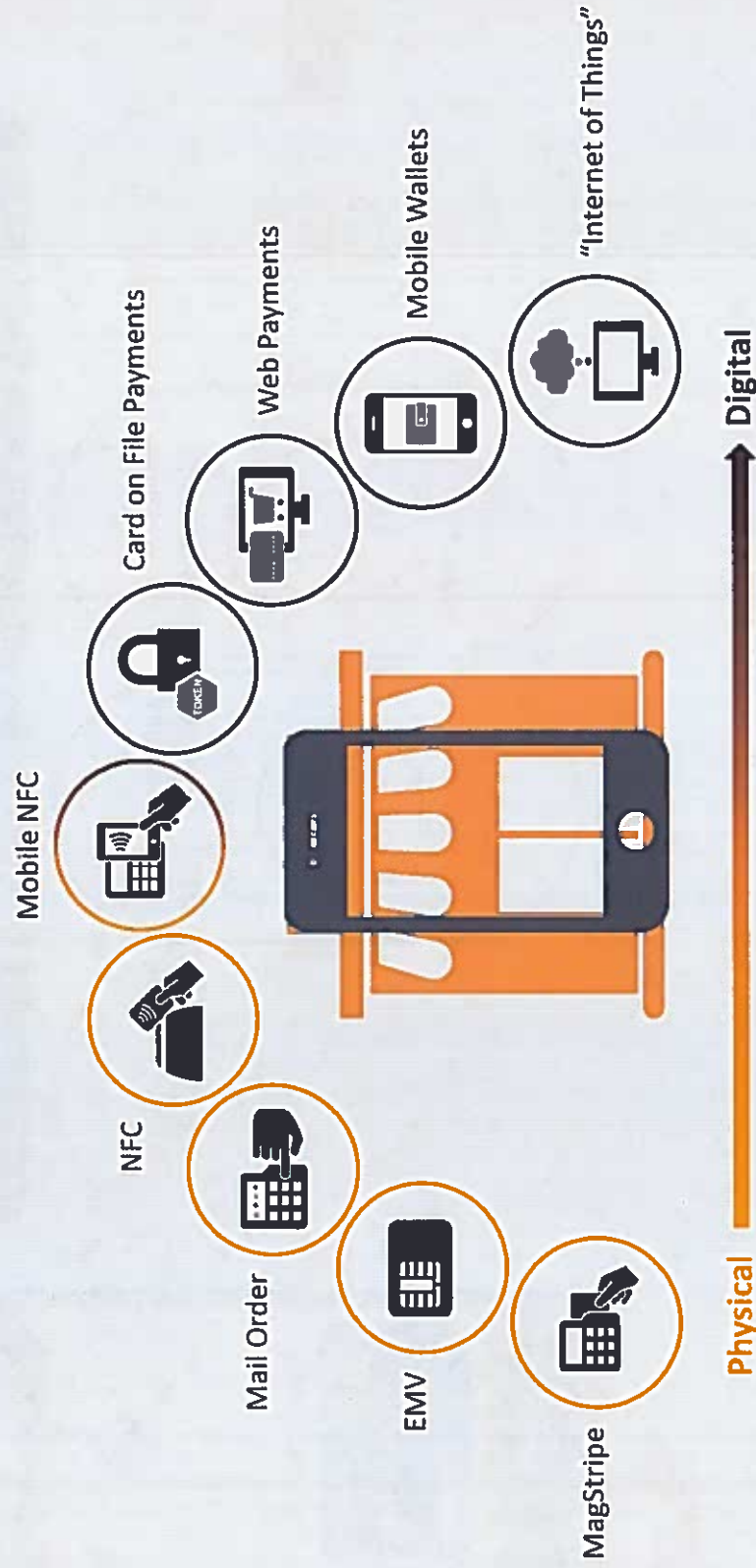
Increasing connectivity and changing lives

SAFETY AND SECURITY IS MORE CRITICAL THAN EVER

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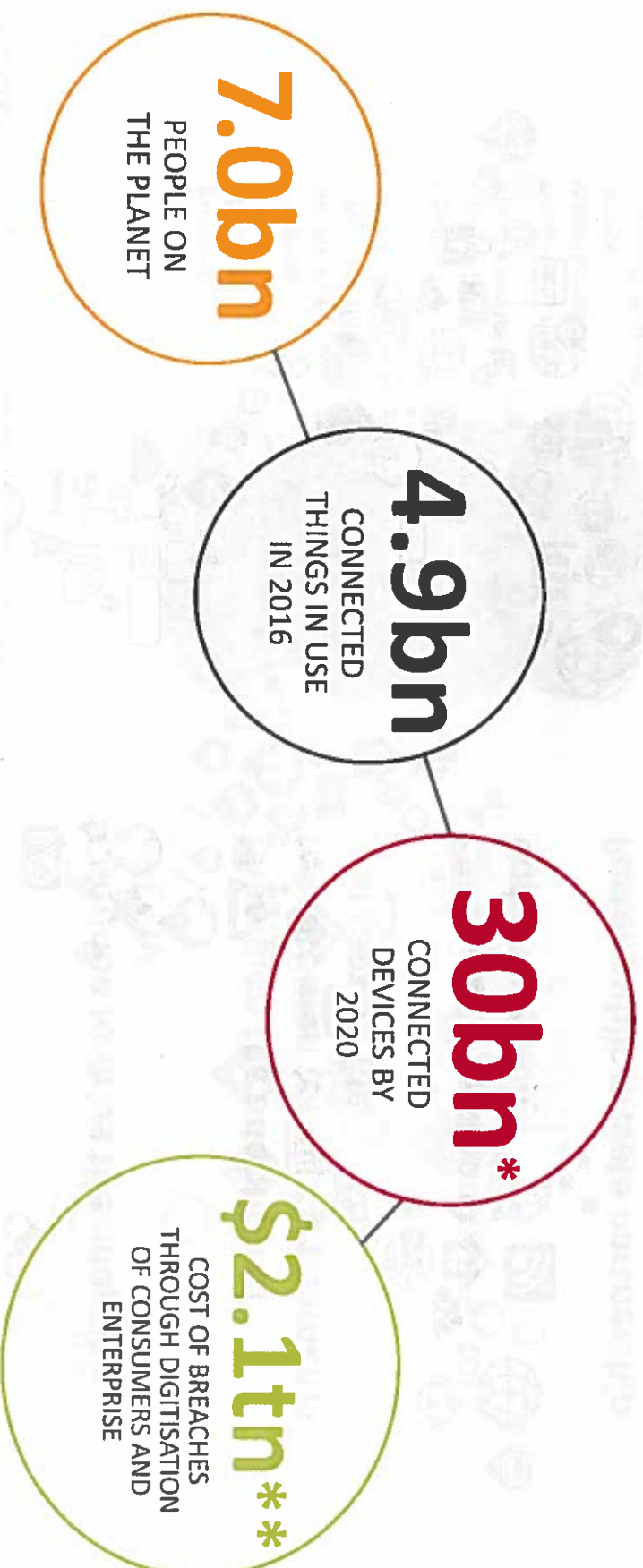


Technology is enabling and disrupting the marketplace



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This is a big opportunity, but with it comes great risk

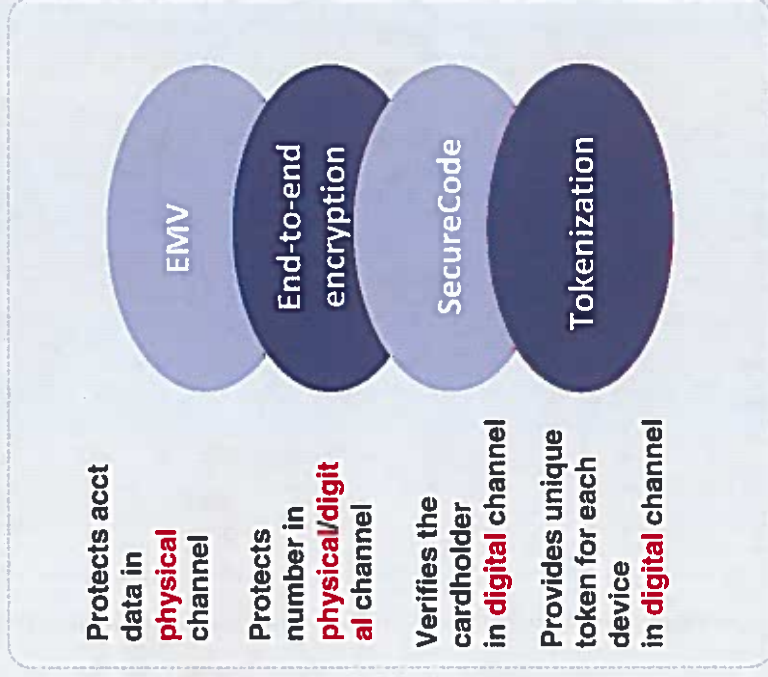


* Gartner **Juniper Research

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Securing the Eco-System



Continue to drive the adoption of EMV

Champion the adoption of tokenization for digital payments and card on file

Encourage migration to end-to-end encryption

Foster public private partnership initiatives



Mastercard Is Committed To Advancing Financial Inclusion

Two billion adults around the world still don't have a bank account.

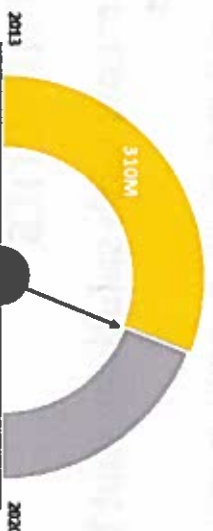
Trapped in a cash economy, they lack the financial services to guard against risk, invest in their future and build better lives.

MasterCard, in partnership with financial institutions, merchants, telecommunications companies, governments and non-governmental organizations (NGOs), has the technology, scale and capacity to do something about this in a way that allows us both to do well and do good.

We have already helped make the financial system more accessible to more than 300 million people previously excluded through 500 programs in more than 50 countries

Our commitment is to reach 500 million financially excluded by 2020, including bringing 40 million merchants into the system

Reaching our Goal: Financial Inclusion



As of: Q4 2016

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Mastercard & Governments

- **MasterCard provides governments with solutions that help them reduce costs, gain efficiencies, and curtail fraud**
- We also drive government efficiency by helping them eliminate paper systems, implement identification solutions, manage social payments, and improve procurement
- The *Direct Express Program* in the USA provides an example on how to leverage financial education to drive deeper adoption of electronic payments
 - US Treasury required a cost-effective electronic payment solution for four million social security recipients, and other beneficiaries without a bank account
 - US Treasury opted the prepaid card platform to serve the needs of unbanked recipients
 - Lack of consumer awareness of the benefits and value of electronic payments was a barrier to adoption of electronic payments

After US Treasury launched Direct Express Program in 2008:

- More than 1.75 million recipients enrolled in financial education (~25% of these are unbanked)
- Cost savings of nearly \$1 billion over 10 years
- As of March 1, 2013, all social security benefits have been mandated to be electronic



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The Long Tail of Electronic Payments Adding Jobs and Growing Michigan

- The Perryman Group measured the effects of the electronic payments system by performing a simulation of the US economy in which no such mechanism existed and comparing it to actual US economic measures as of 2014.
- The Perryman Group estimates that electronic payment systems have, since their inception, led to gains in business activity in the United States (compared to the results if no such system existed) totaling **\$1.760 trillion in gross product and almost 23.2 million permanent jobs.**
- The increased usage of electronic payments from 2004 to 2014 has **generated \$432.927 billion in gross product and nearly 5.7 million permanent US jobs**
- In Michigan, the increased usage of electronic payments from 2004 to 2014 has generated annually almost **\$10.5 billion in gross product and over 137,000 permanent jobs.**



