

Mastercard Digital

Connecting the Future

ITU Forum
Astana, Kazakhstan
July 5, 2017



Industry Trends

There are two rapidly evolving trends in mobile payments...

The number of mobiles
– and within this smartphones –
is increasing exponentially:

**2.7
billion**
smartphone users
in the world by 2019¹

The growth of
e- and m-commerce:

3.2 billion

internet users in 2015 globally vs 400 million in 2000²

82%

of Europe's population in 2015²

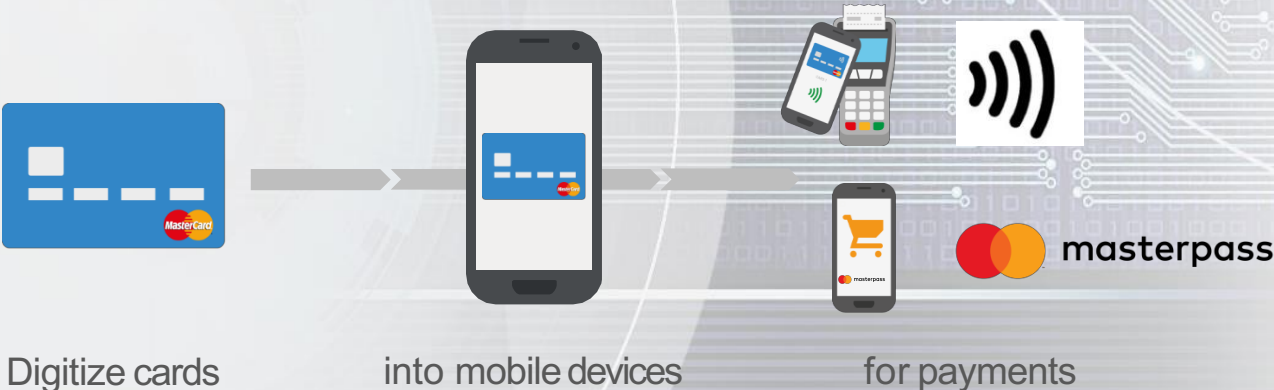
Mobile phone
and tablet users will make almost

**200
billion**
mobile commerce
transactions
annually by 2019³

1. Statista: Smartphone penetration amongst mobile users worldwide 2014-2019, [link to website](#)
2. International Telecommunications Union, 2015, [link to document](#)
3. Juniper Research, [link to website](#)

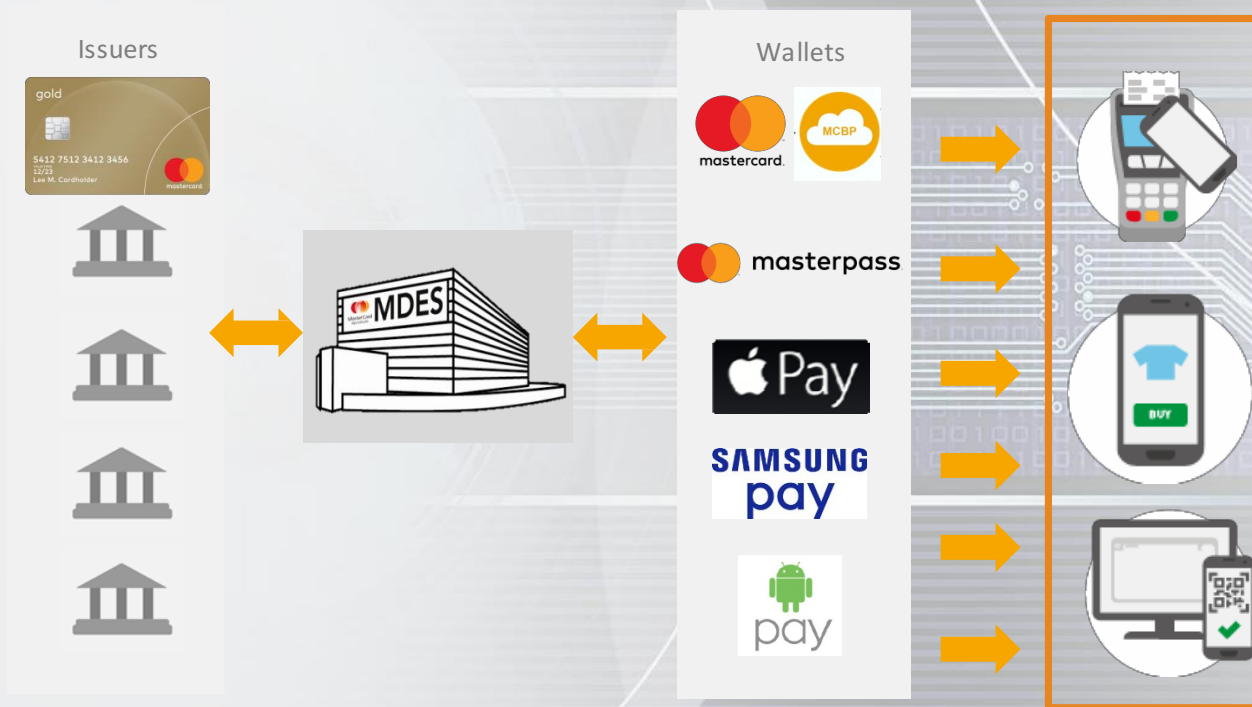
Mastercard's Vision for Digital Payments

Every card can be digitized into a mobile device to offer ubiquitous and converged payment experience



Mastercard Digital Enablement Service(MDES)

connects issuers and cardholders with digital wallet providers and environments



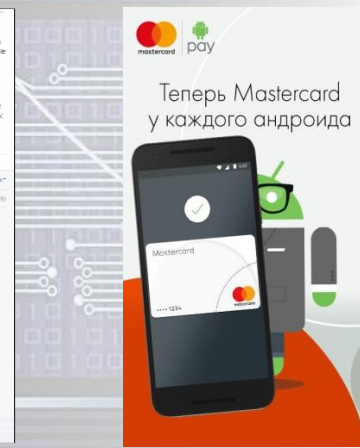
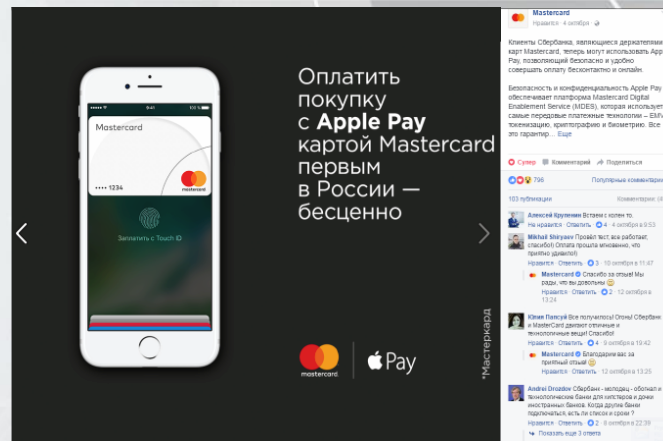
MDES: Tokenization & Digitization



Tokenization is the replacement of a consumer card's primary account number (PAN) with an alternative card number

Digitization is the process that delivers 'tokenized' card details to mobile devices or servers for more secure payments

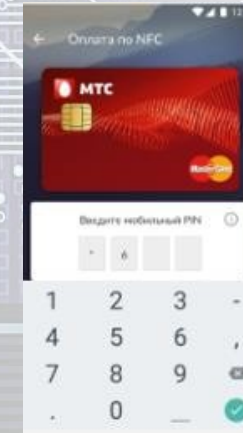
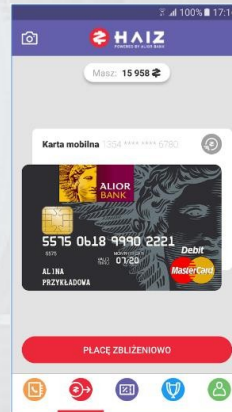
MDES connects issuers to Digital giants ...



...and enables issuers' mobile application



Mastercard Cloud-Based Payments (MCBP) for Android with NFC-enabled devices running v4.4 (Kit Kat) or higher enable consumers to make contactless in-store transactions and secure online purchases using MasterCard DSRP technology



Masterpass

Masterpass is a global interoperable platform, enabling digital transactions. It allows consumers to use any payment card or enabled device to buy the things they want quickly and simply, anywhere.



Simplifies the shopping experience



Consumers can pay with an enrolled payment card anywhere using any device



Card information and shipping details all securely stored in one place, easily accessible during checkout.



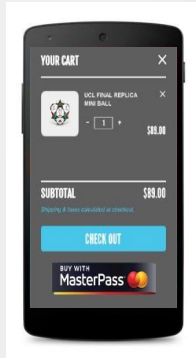
Eliminates the need to enter detailed payment and shipping information for every purchase



Masterpass: Converged experience

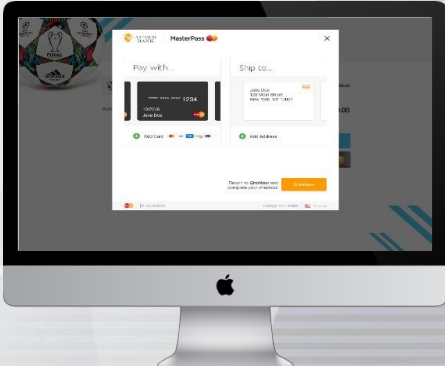
More customers and less abandonment with a fast and familiar UX.

Mobile In-App



Reduce time to pay within Merchant Mobile app

Web



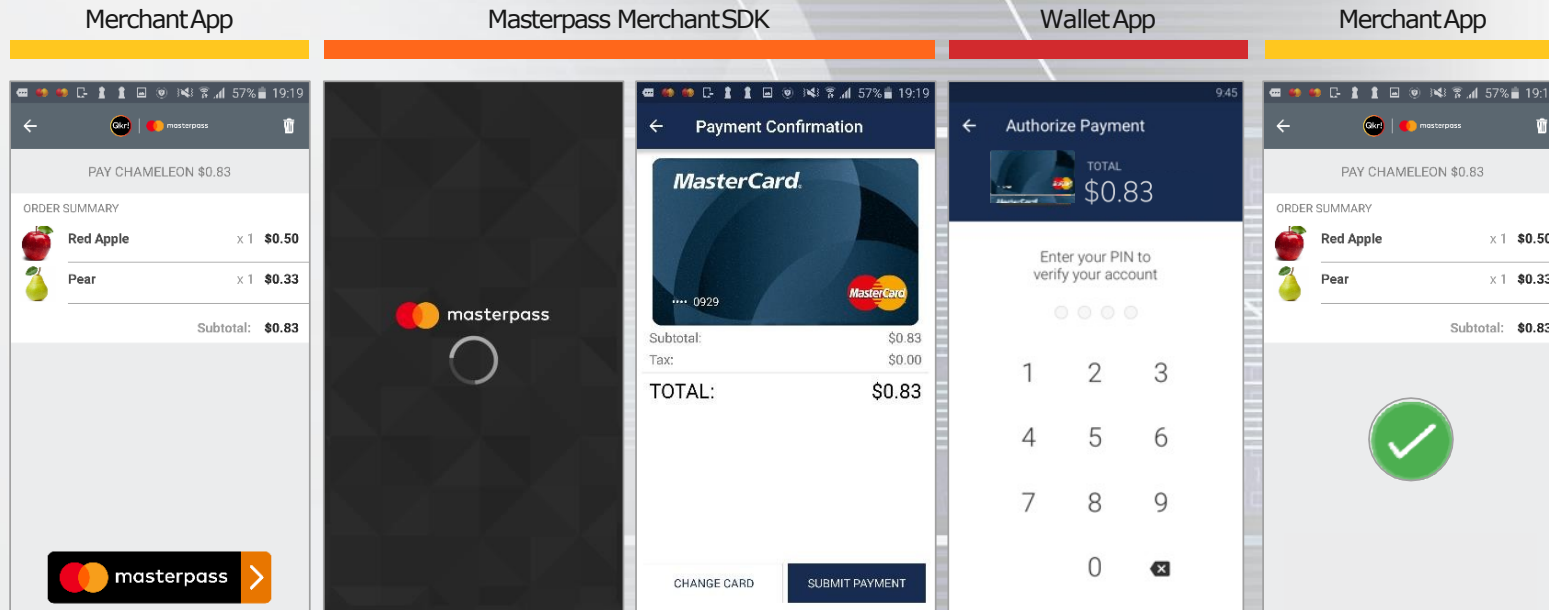
Simple ordering Online or in a Mobile Browser

In-Store



Speed through checkout with tap and pay In-store at the POS

APP2APP using Masterpass Android SDKs



Consumer selects Masterpass in merchant app

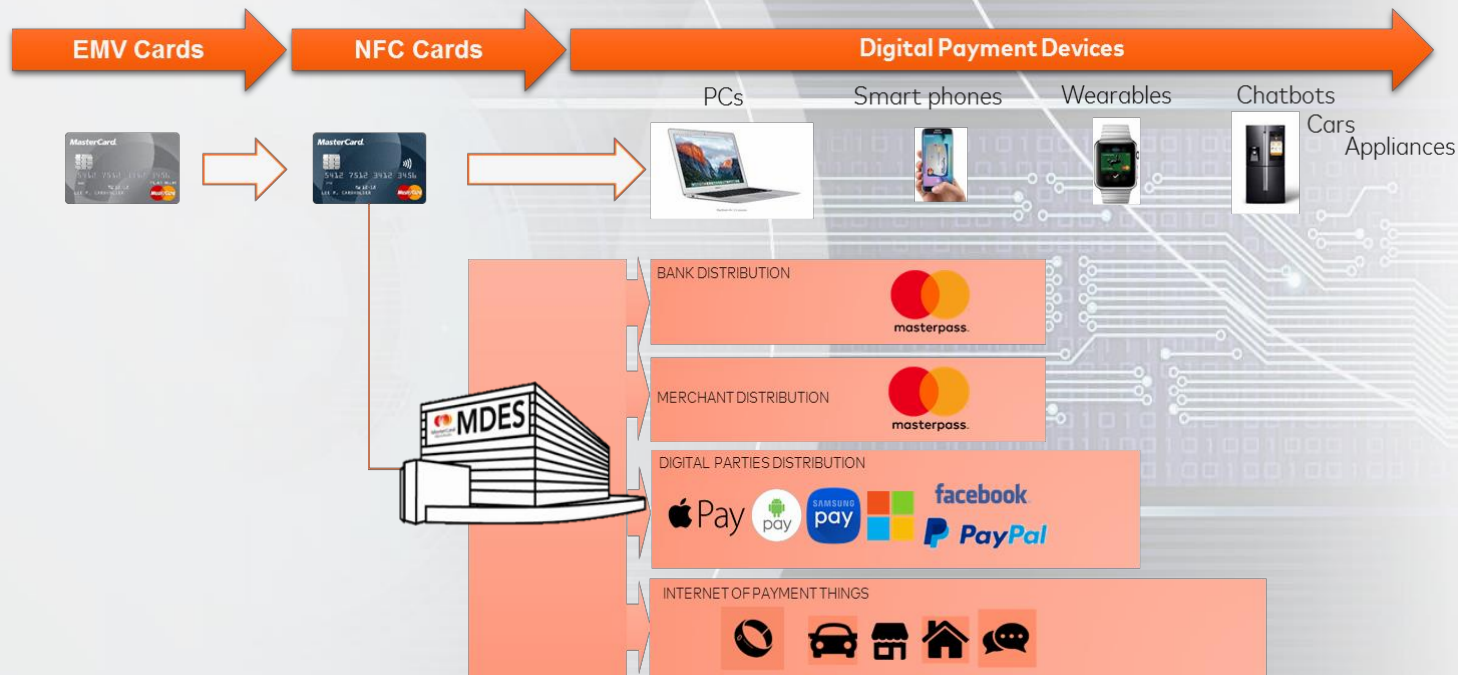
Masterpass identifies available wallets and cards

Consumer selects payment details and shipping (if applicable) and submits payment

Consumer authenticates payment within wallet app

Transaction completes and consumer is returned to merchant app

Mastercard's digital strategy is well aligned for IoT space



The Growth in Wearables is Driving Digital Commerce



Wearables Market Trends

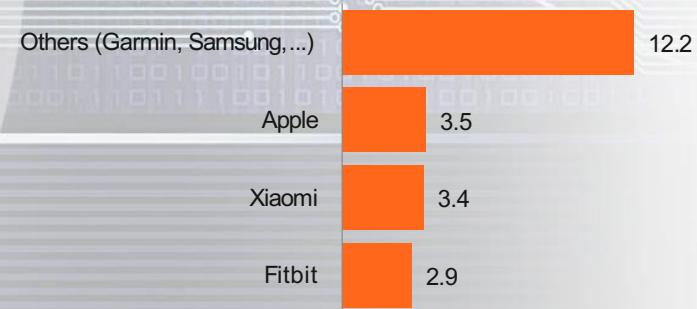
20.8 billion connected devices by 2020 – Typically, this means an AVERAGE HOUSEHOLD WILL OWN ROUGHLY **50 INTERNET CONNECTED DEVICES BY 2020**, UP FROM APPROXIMATELY 10 DEVICES TODAY*.



Market Overview

- Wearables - Highly fragmented market: Smaller players represent 55% of 2017 Q1 shipments, and growing fast (+58,5% YoY)**
- New entrants expected from peripheral industries (sports, watches, fashion)

Global Wearables Vendor Shipment
1Q 2017 - Millions of Units**



Source: *Gartner
** Strategy Analytics

Smart Cities



Non-financial applications are of interest to different social groups and cover almost all spheres of life:

- Medicine
 - State Services
 - Social Benefits
 - Transportation Services
 - Loyalty Programs
 - Education
 - Entertainment
 - Sport
- ...and many other things.

In our daily life, we make purchases, pay passenger fair, taxes and penalties as well as use different cards as our IDs and Electronic Passes within the systems of access control and management in order to receive discounts, bonuses and benefits.

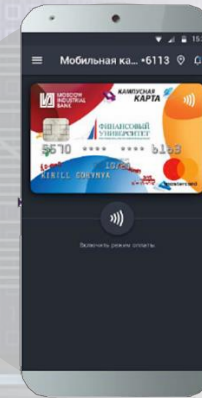
Mobile M\Chip for non-financial services



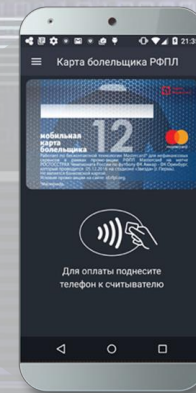
LOYALTY



CAMPUS



SPORT



Mastercard M/Chip supports all form-factors



Connect to the future with

