



State of the Industry Report Year 2016

Mobile Money
Mobile Connect

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About the GSMA

organisations in adjacent industry sectors

800 operators

handset and device makers, software companies, equipment providers, internet companies

GSMAssociation

World class events



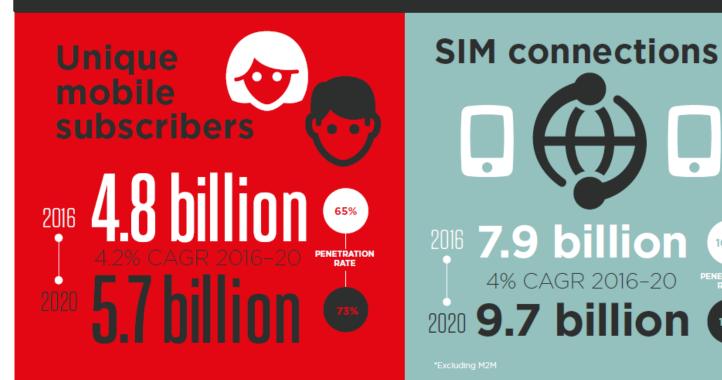


WEST AFRICA
ABIDJAN • 27 APRIL 2017



Let me give you some views on the global telecom market as per December 2016 and a projection to year 2020 ...

GLOBAL MARKET



Mobile contributing to economic and social development across the world



IGITAL INCLUSION

Delivering digital inclusion to the still unconnected populations.

MOBILE INTERNET PENETRATION

48% 2016**•** • 2020 60% .



FINANCIAL INCLUSIO

Delivering financial inclusion to the unbanked populations. As of December 2016 there were

277 live mobile money services in 92 countries



INNOVATION

Delivering innovative new services and apps

1bn by 2020







And also ...

ACCELERATING MOVES TO MOBILE BROADBAND NETWORKS AND SMARTPHONE ADOPTION

Mobile broadband connections to increase from 55% of total in 2016 to

> 73% by 2020

5.7bn
smartphones, growth of

1.9 billion from the end of 2016

Mobile data traffic to grow by a CAGR of

47% over the period 2016-2020

Source: Erlcsson

Data growth driving revenues and operator investments

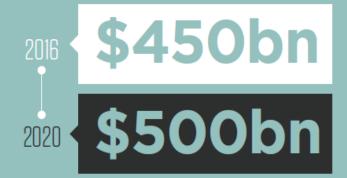


Operator CAPEX of up to \$700 billion for the period 2017-20

GLOBAL MARKET

Public funding

Mobile ecosystem contribution to public funding (before regulatory and spectrum fees)





Employment



Jobs directly and indirectly supported by the mobile ecosystem





A focus on Africa as per Q1 2017

Population 1.23 Billions





ARPU

Per Sub Per connection 7.29 \$

4.10 \$

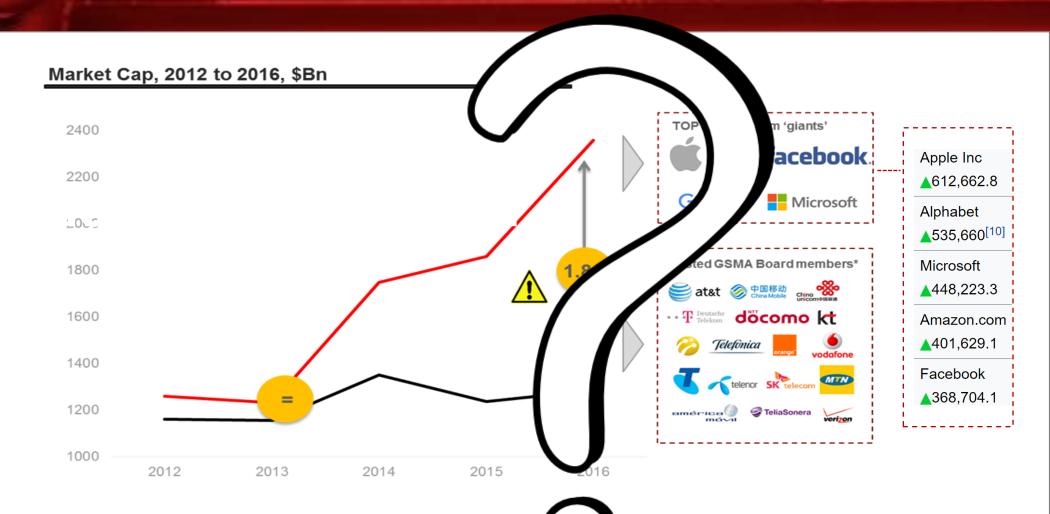


What if we compare the market value of all the worldwide mobile operators to the only TOP 5 ecosystem players?

Market capitalization is the market value of a company spares (800) = 10 Market Cap = stock price X total number of shares outstanding

= 10

more



An industry that is not growing will find increasingly difficult to attract investors ...



The lesson to be learned: Financial inclusion by Mobile is a must...

Financial Inclusion by Mobile
[digital] is not only a vector of
economic development for countries
but is also a must to go for the
Mobile industry to keep its health,
and then, its contribution to countries
GDP, to employment, to public
funding, and to drive innovation ..



Mobile Money Programme

Accelerating the mobile money ecosystem for the underserved 2 billion people remain unbanked, without access to safe, secure and affordable financial services.

The GSMA Mobile Money Programme is working with mobile operators and industry stakeholders to create a robust mobile money ecosystem.

By making mobile money more central to the financial lives of users, greater financial inclusion, economic empowerment and economic growth can be achieved.

Mobile Connect Programme

The new standard in digital authentication

Mobile Connect is a secure universal log-in solution. Simply by matching the user to their mobile phone. It's safe, secure and no personal information is shared without permission.



Figures from Mobile Money & Mobile Connect Programs



Countries participating in 2016 survey...





In just a decade, mobile money has become a global story...

Mobile money is now available in TWO THIRDS of low- and middle-income countries







...and has become more relevant to people's daily lives

More than 40%

of the adult population in

Kenya, Tanzania, Zimbabwe, Ghana, Uganda, Gabon, Paraguay and Namibia



are using mobile money on an active basis as part of everyday life, up from just two countries in 2015 (Kenya & Tanzania)

The industry is processing an average

30,000 transactions per minute

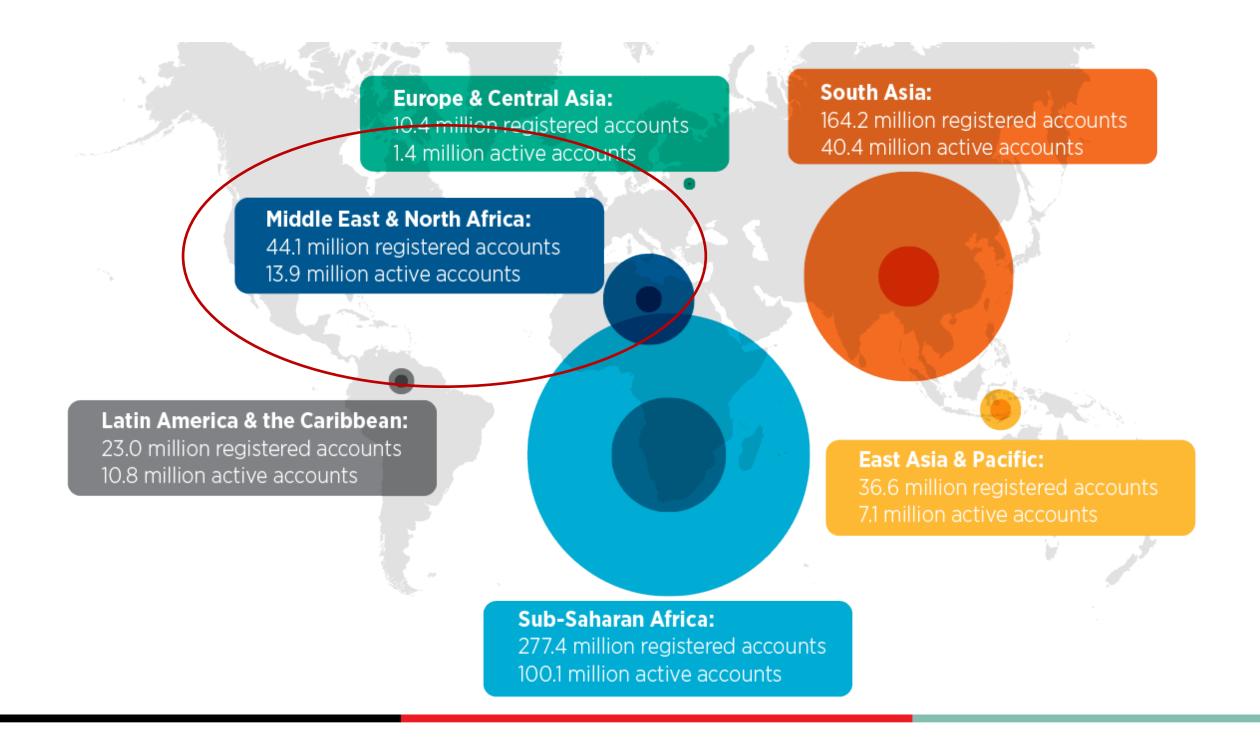
or more than

43 million transactions per day

in December 2016

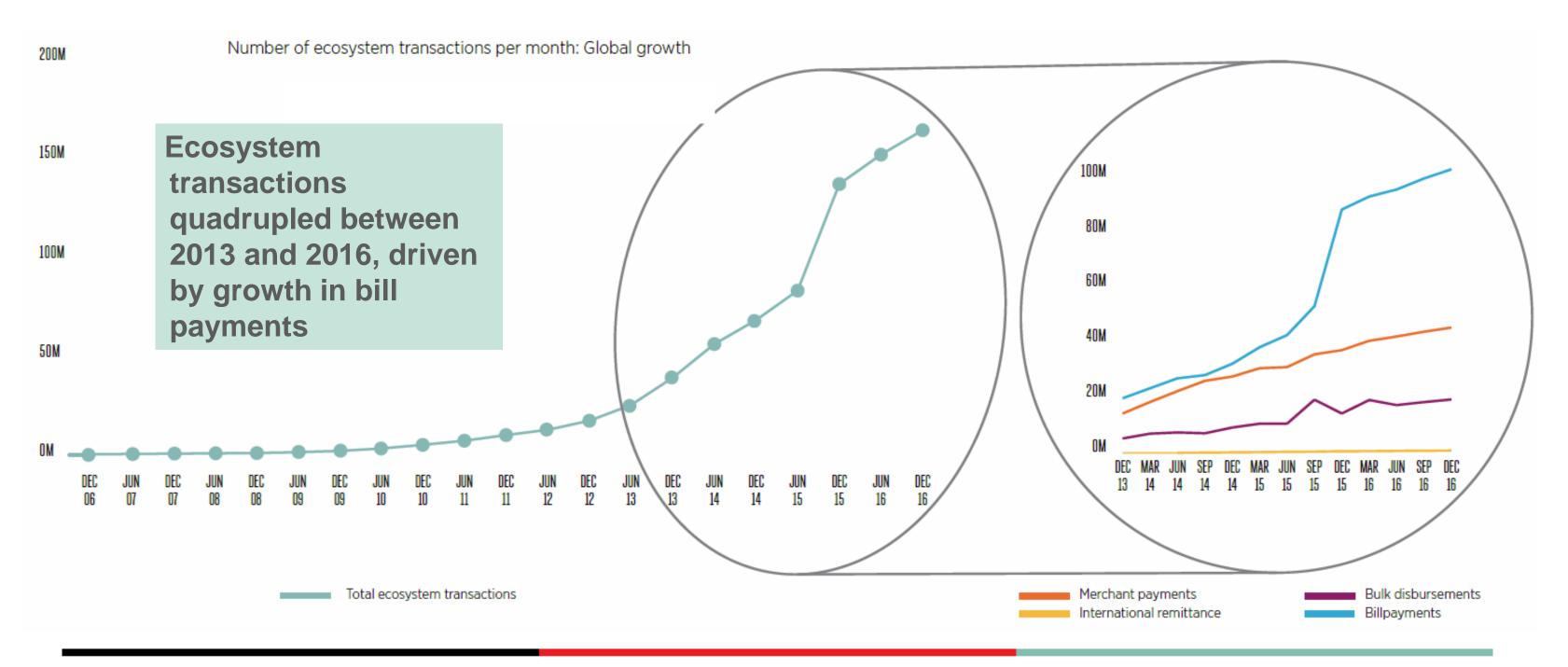


Not just in Sub-Saharan Africa...but also MENA





Mobile money has become more useful to customers in recent years...





Mobile money use cases are several ...

Merchant payments

While initially predominantly a P2P product, mobile money now has acquired other use cases. They include merchant payments (in a shop, we can pay with mobile money), international remittances, bulk disbursements (exp: in a large company we can distribute money to a group of employees, or an association to distribute money to refugees to buy food..) and bill payments (electricity, gaz, water..).

The ecosystem transactions ensure enhanced profitability and sustainability of mobile money services.





...in addition to facilitating more sophisticated products

106 MOBILE MONEY-ENABLED INSURANCE SERVICES IN

31 COUNTRIES

Fifty-three million policies issued by June 2016



52 MOBILE MONEY-ENABLED CREDIT SERVICES IN

21 COUNTRIES

The CBA disbursed 40 billion shillings (US\$495 million) in loans in Kenya in 2015 through M-Shwari

26 MOBILE MONEY-ENABLED SAVING SERVICES IN

16 COUNTRIES





Success relies on enabling conditions, especially REGULATION



52 of 92
COUNTRIES
have an enabling regulatory framework.

Middle East & North Africa

 The regulatory environment for mobile money in MENA creates considerable challenges for mobile money deployments to prosper.
 The region has experimented with a new centralized regulatory model.

MENA is the most challenging region, as banks system are well developed.

Sudan is one of centralized regulatory use case: Central bank owns the transaction processing platform to which all mobile money providers connect.

The GSMA opinion on the centralized regulatory model: good to start with, as all operators need to connect their platform to central bank switch platform, we recommend that TRAs not to impose procedures and timelines, but to **create a environment where stakeholders can discuss.**



Mobile money supports the pursuit of broader development goals

UNITED NATIONS
DEVELOPMENT PROGRAMME



THE MOBILE MONEY INDUSTRY IS DIRECTLY CONTRIBUTING TO 11 OF THE 17 SDGS





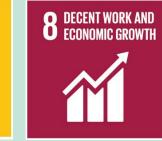


















Mobile money reduces poverty, with promising gains for women

- M-PESA has helped as many as 194,000 Kenyan households climb out of extreme poverty
- M-PESA "graduated" ~185K
 women to a higher economic
 level Source: MIT/Georgetown

Mobile money propels international money transfers

The cost of international remittances using mobile money was, on average, more than 50% cheaper than using traditional MTOs

Source: GSMA

Economic impact: formalizing payments, delivering transparency, and boosting GDP

Digital finance could add approximately

\$3.7 trillion

in additional annual economic activity by 2025

Source: McKinsey



The journey is just getting started...



NASCENT IN MANY COUNTRIES

2/3 of 277 live services have existed for five years or less



36% less likely than men to use mobile money



ROBUST INVESTMENT

Heavy operational expenditure & full buy-in from senior leadership is required



REGULATION

41 markets with regulatory barriers



INNOVATION & ECOSYSTEM EXPANSION

Third party integration is not yet seamless



RURAL CUSTOMERS

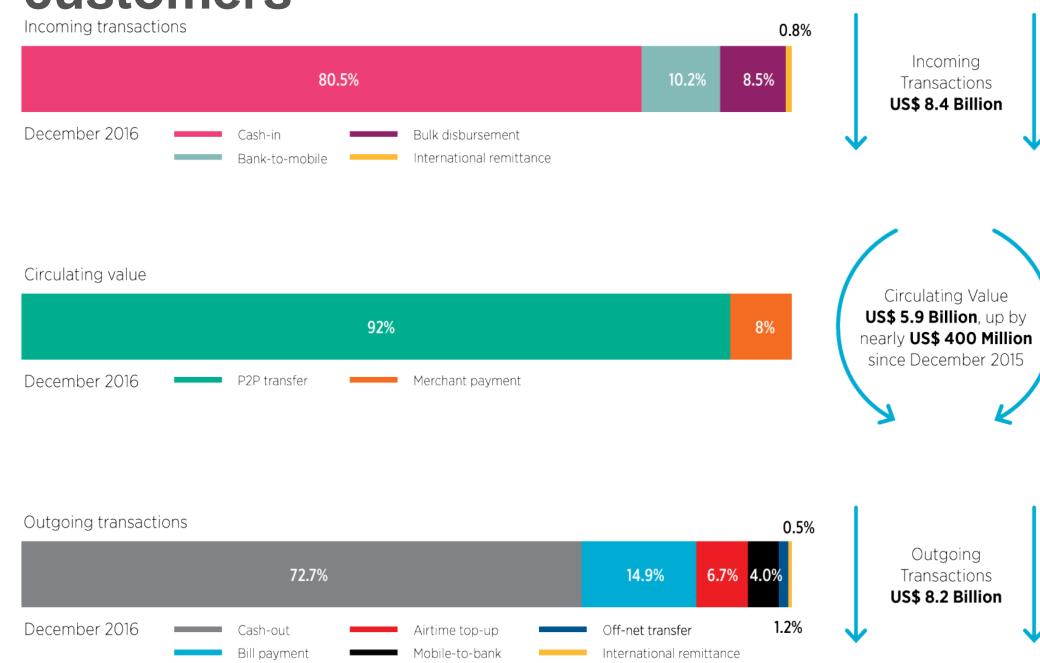
Providers have captured just 17% of the addressable mobile money market



We observed for the

year **2016**

Increased circulating value suggests more trust and value for customers





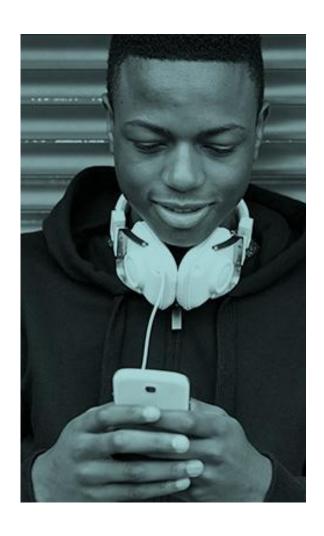
A month in the life of an average active customer

CASH-IN

2.1 Transactions (per month)US\$26.9 / transaction(average value per transaction)

BULK DISBURSEMENT

0.2 Transactions (per month)US\$37.9 / transaction(average value per transaction)



P2P TRANSFER

1.5 Transactions (per month)US\$38.6 / transaction

(average value per transaction)

CASH-OUT

1.6 Transactions (per month)US\$32.0 / transaction(average value per transaction)

BILL PAYMENT

0.8 Transactions (per month)US\$12.2 / transaction(average value per transaction)

AIRTIME TOP-UP

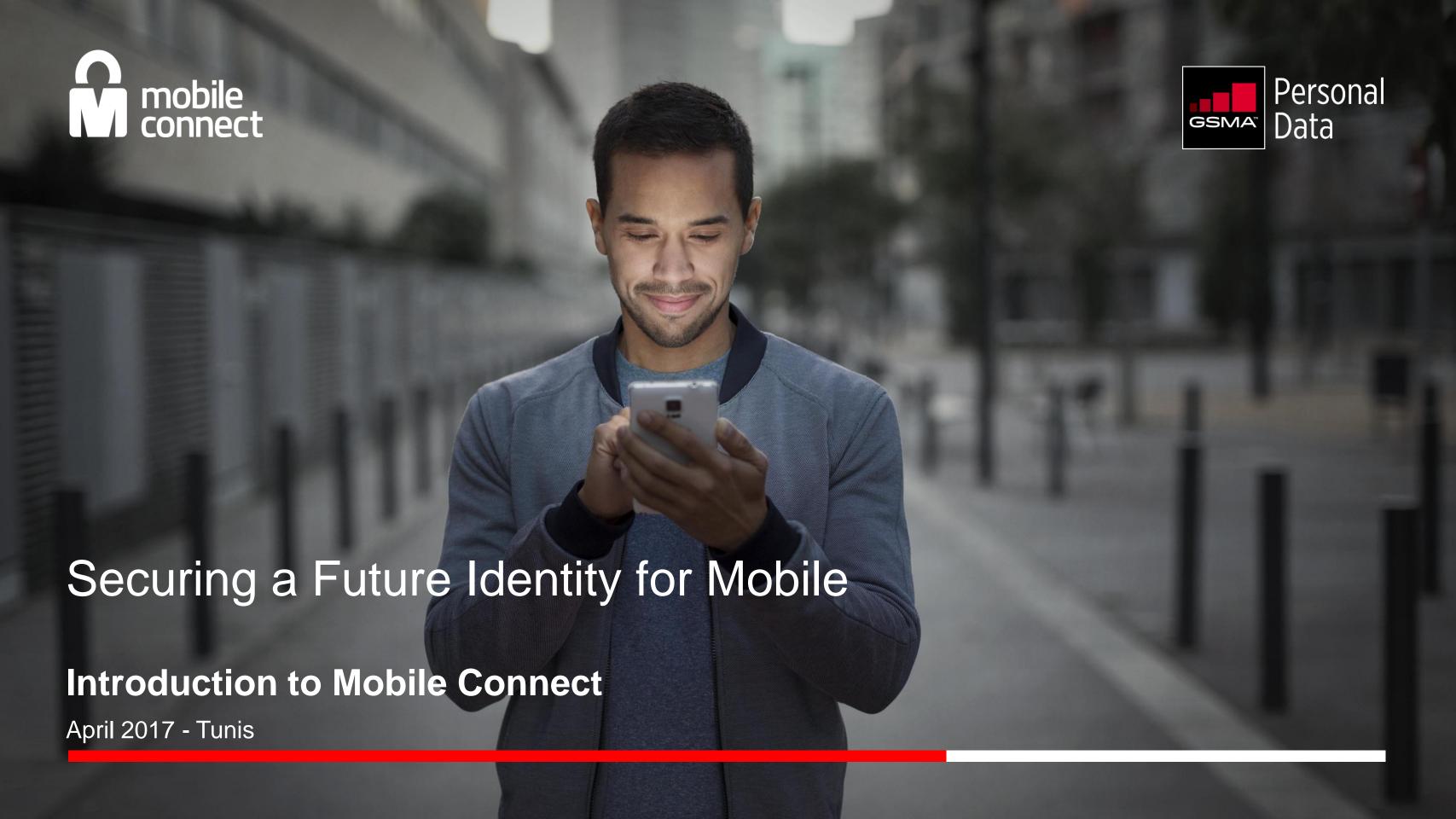
4.5 Transactions (per month)

US\$1.0 / transaction

(average value per transaction)

MERCHANT PAYMENT

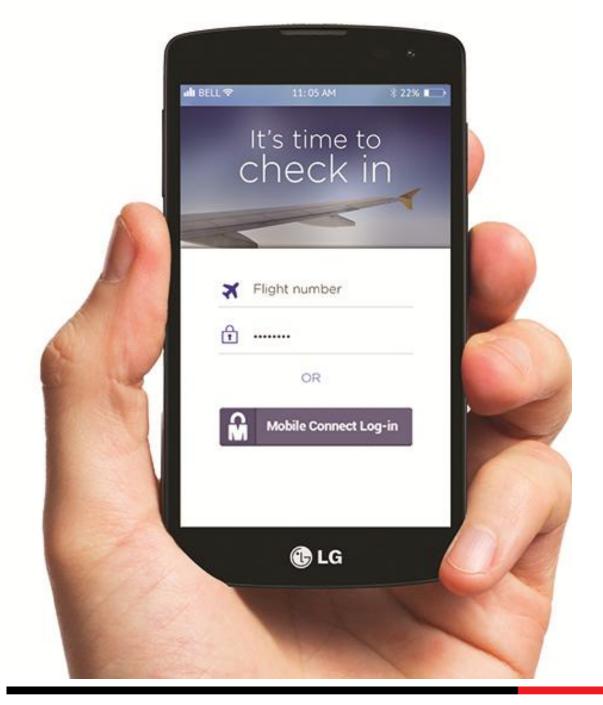
0.4 Transactions (per month)US\$10.3 / transaction(average value per transaction)





Secure access to digital services







Government:

Simple citizen and employee log-in to eGovernment services, e.g. e-healthcare, e-education, smart cities and voting

(40% of EU non voters would've voted via a mobile device)



Market trends: Growth in digital services – authentication becomes important, digital identity is an imperative



Market trends simplify and improve secure access to digital services:

- Ability to use the same username / password across many services
- Stronger authentication to make access more secure

Mobile Connect is positioned to take advantage of these trends

Secure Authentication via Convenient Seamless consistent and simple log-in for any service

trusted operators over secure

regulated networks

Private

No data shared without explicit

consent



Etisalat use case: cost savings from implementing Mobile Connect: Authenticating customers for call center calls



Mobile Connect launched October 2014

BEFORE MOBILE CONNECT

WITH MOBILE CONNECT





Caller answers 7-10 questions to identify themselves



Receives Mobile Connect request on mobile, clicks "OK"





1'30" to 2' call duration



20" to 30" call duration

Launched first with own services

Use cases include:
Authentication to
Etisalat call centres

RESULT

- Customers spend over 1 minute less in each call
- 30% improved efficiency for the call centres





An accelerating race to make passwords history



Player	2014		201	15	2016	connect
8+			Jul 2015 – Separation of Google Account from Google+	Sep 2015 – Android Pay launched with biometrics	Jan 2016 – Log-in to Google on Google Search App on m	
f		4 – Launch FaceBook nous Log-in		One tap login to websites in with FaceBook	Apr 2016 – Facebook Account Kit released	
			Feb 2015 – Azure authenticator app released	Jul 2015 – Windows 10 v factor authentication bui	,	
Ć		Oct 2014 – Apple pay launched with support fo	r biometrics		o factor authentication on El Capitan for new devices	
Y!			Mar 2015 – Launched user e SMS one-time-password cap		count Key app lets users press of a button	
M	Feb 2014 – Launch of MC Authentication	Dec 2014 – First comme deployment Sri Lanka	ercial		Feb 2016 – >2bn users enabled with basic authentication	Jun 2016 – Evolution into identity and attribute services
	And banks are leve	raging their proce	esses to take a posi	tion in authenticat	ion and digital identi	ty

We have made an early start, but history has shown we can rapidly loose ground



The Mobile Connect growth

Mobile Connect has grown at an exceptionally rapid pace and today is available to more than 3bn mobile users

> Sri Lanka Australia etisalat

Mobitel Dialog Telstra



Bangladesh Spain





Peru Argentina Mexico Turkey





China Indonesia Spain France Italy Malaysia





2.5 bn

Bangladesh Switzerland China Myanmar **Philippines** Indonesia



Mexico

2 bn













Finland Morocco Egypt Thailand Pakistan

















India UK













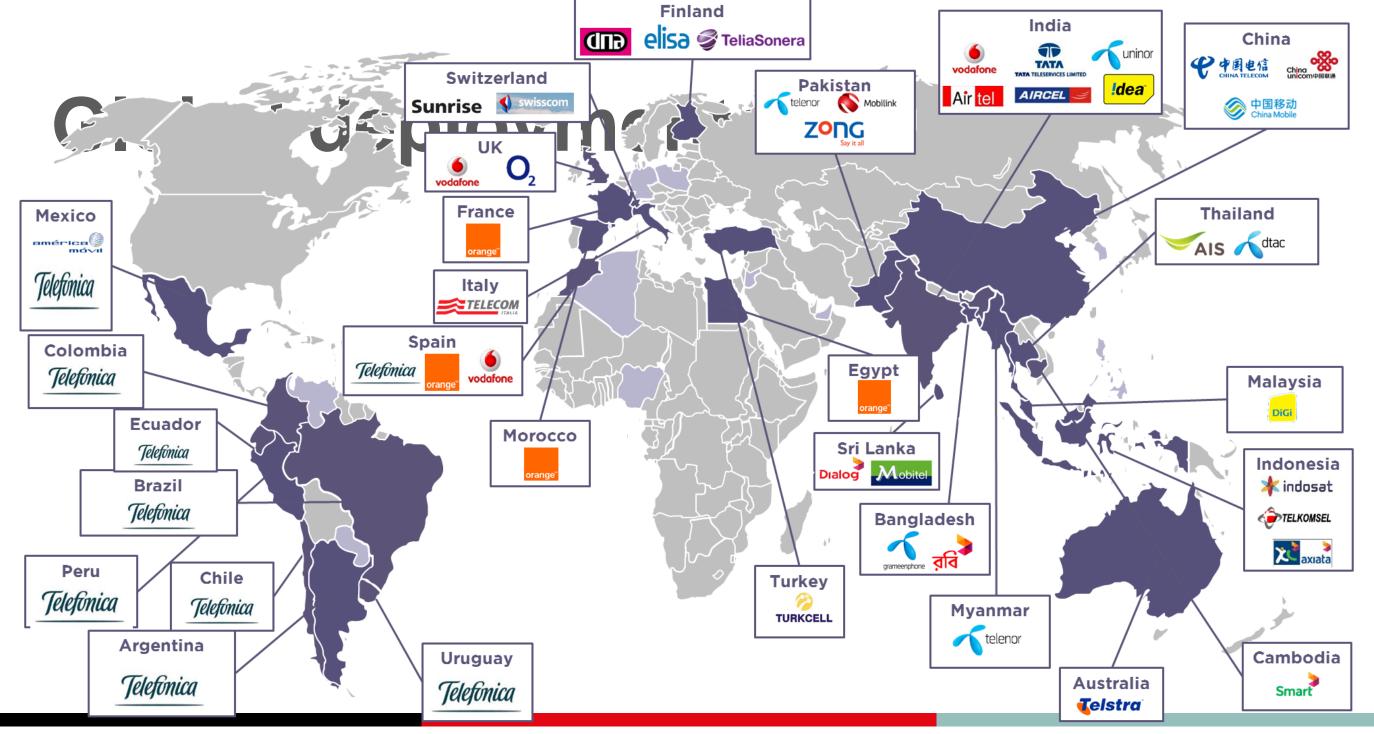


April 2015

January -February 2016

January 2017









Thank You

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www.gsma.com