# mobile connect

## **Mobile Connect Workshop**

GSMA Mobile 360 Series: Digital Societies, Bangkok

7<sup>th</sup> September 2018

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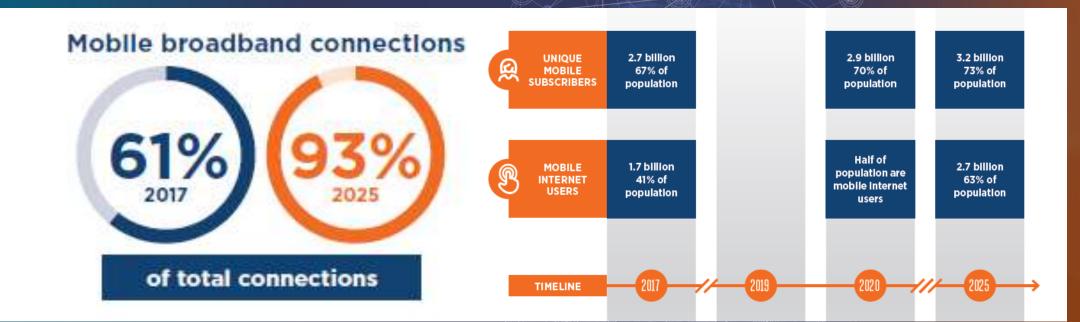
# **Delivering commercial success through identity services**

Julian Gorman, Head of Strategic Engagement, APAC, GSMA 7th September 2018

# Asia's digital landscape leads the world



# Accelerating the move to being online



# 3.9bn

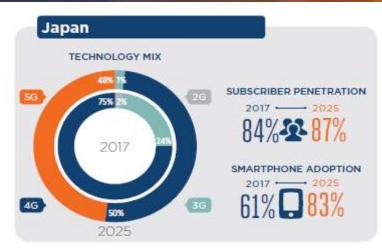
Smartphones by 2025

Growth of **1.4 billion** from the end of 2017

# North East Asia leading adoption metrics





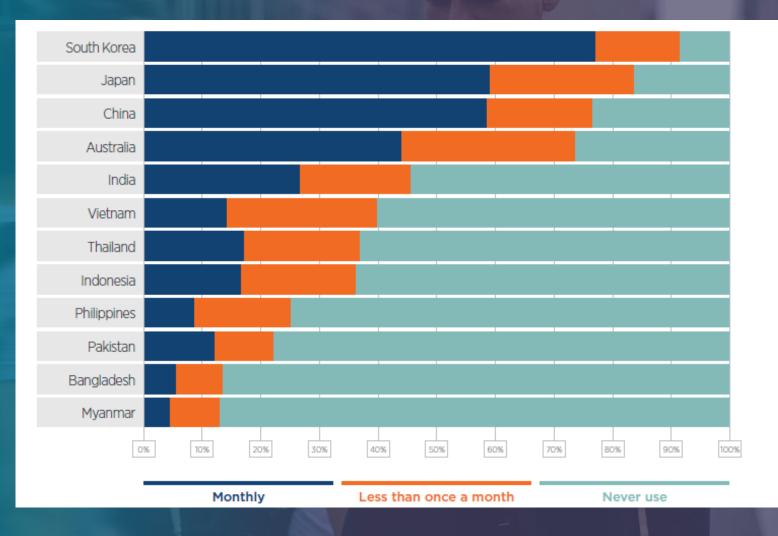








### **Smartphone adoption driving online engagement**



How often do you purchase or order goods online from your Mobile Phone?

GSMAi Consumer Survey 2017

### Asia leading growth for verification of digital identity



AGENDA
--------

Welcome	Julian Gorman, Head of Strategic Engagement, GSMA, APAC
Overview of Mobile Connect and the products	Sham Careem, Market Development Director, GSMA
Keynote:Creating a successful digital authentication businesswith Mobile Connect	Hyung Tae Park Senior Manager, Data Unit SK Telecom
<b>Group Discussion:</b> Use cases and deployments in Asia Pacific	Host: Julian Gorman, GSMA Hyung Tae Park, SK Telecom Olivier Letant, Apigate Richard Butlewski, Idemia Saurabh Sethi, Zumigo India
<b>Group Discussion:</b> Mobile Connect for e-Government Services in APAC	Host: Emanuela Lecchi Head of Region & Public Policy for APAC, GSMA Kwok Quek Sin, Gov Tech Singapore Saurabh Sethi, Zumigo India Victor Ocampo, BICS
Mobile Connect – The Commercial Opportunity	Host: Sham Careem, GSMA
<b>Presentation and Group Discussion</b> : Monetising attributes – overcoming the challenges and working together	Michelle Wheeler, Payfone Victor Ocampo, BICS Andre Marques, Experian Mauro Di Biasi, Danal, Inc.
Keynote:User experience is the key to consumer adoption.Successful UI/UX strategies.	Stefan Kostic Ipification (BVL)
Summary, thanks and close	Julian Gorman, GSMA



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### Introducing Mobile Connect - The Products

Sham Careem, Market Development Director, GSMA 7<sup>th</sup> September 2018

# **Digital Identity:** An evolving market place



Growing awareness of privacy and data protection is driving demand



**Cyber crime** is driving up the value of **secure identity verification** with users' attributes



Digital Identity **is cornerstone** of digital **business transformation** 

# **Adding value with Mobile Connect**



**Fraud Reduction** 



**Payment Authorisation** 



New Account Opening

# O Proving Identity





# Mobile Connect Over 70 operators in nearly 40 markets

# Authentication

Simple and convenient log-in or step-up authentication



Verifies user control of their mobile phone; and provides a single-factor authentication (Level of Assurance 2)



User enters a PIN or confirms their biometric on their mobile phone providing a two-factor authentication (LoA3)

# Authorisation

Enables users to authorise SP requests via their mobile phone



Relays a Service Provider-initiated request to the end user's mobile phone for approval. The end user confirms or rejects the request.



Requires an additional PIN or biometric confirmation prior to the user approving the authorisation request

# **Identity & Attributes**

- Users share data when they want to, and assert their identity when needed.
- ID verification with device and network information, helping to mitigate fraud



Phone number associated with a mobile device through which a user is accessing an SP's service is verified (and shared)



Provides information on the pairing between a user's mobile account and their device (i.e. last SIM change date and active call divert status) for use by the SP in spotting potential fraud



User consents for their operator to share their phone number with the requesting SP



User gives consent for their operator to share core information about them with the requesting SP



User consent s to sharing their core ID information in accordance with local legislation & regulations.



Verifies information supplied to the SP matches the subscriber information held by the operator



# Mobile Connect & PASS Solution



### **1. T Authentication**



### South Korea's number 1 telecommunications provider

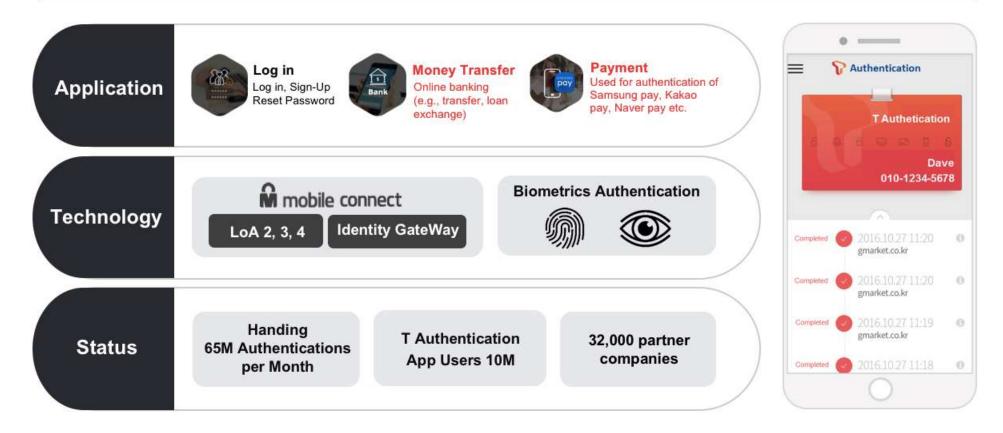
Subscriber : 29M Market share : 50%

Expertise	SK Telecom is South Korea's largest telecommunications carrier providing 600 million authentications to 30 million users annually. It has the extensive authentication experience in partnership with public institutions, financial institutions such as banks and credit card companies.
Convenience	SK Telecom provides T authentication services to MNO and over 32,000 service providers It provides the fastest and easiest interface and the know-how to the service provider.
Cooperation	SK Telecom provides a stable platform that constructs a collaborative system for MNO and Service Providers using expertise founded on the years of experience.

#### **About T-Authentication**

**Brief introduction of the T-Authentication Service** 

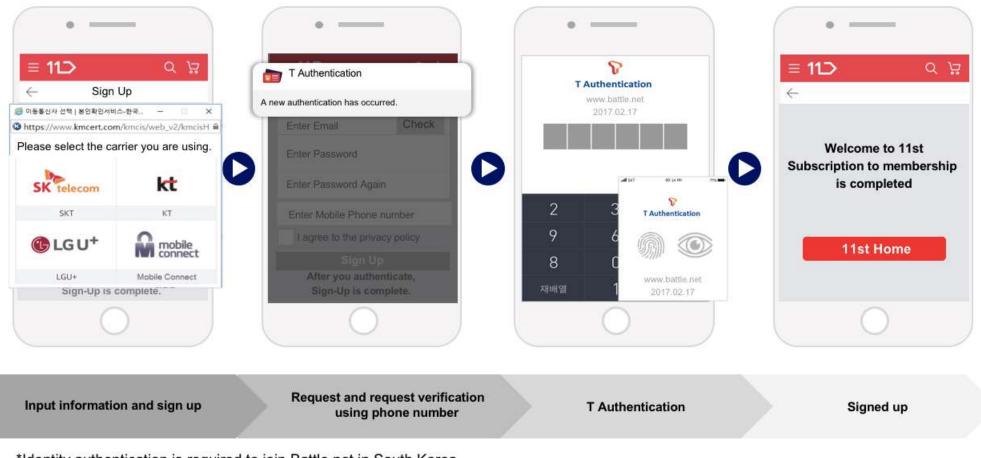
#### Identity authentication application with mobile phone numbers provides easy, safe and reliable services to end-users and corporate customers.



#### Process

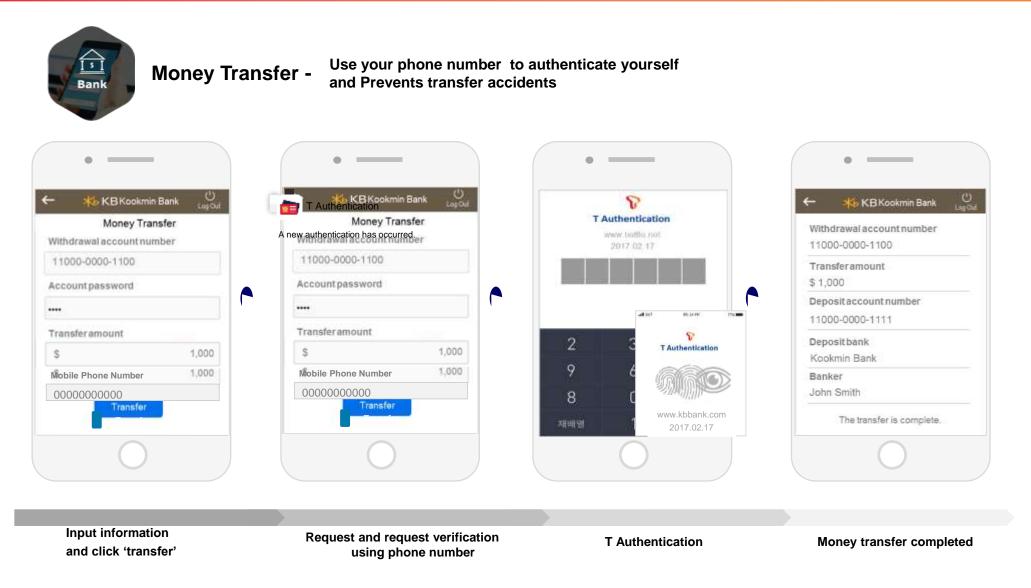


Log in (Sign-up) - Use your phone number to authenticate yourself and verify ownership of your phone number (prepaid phone also available).



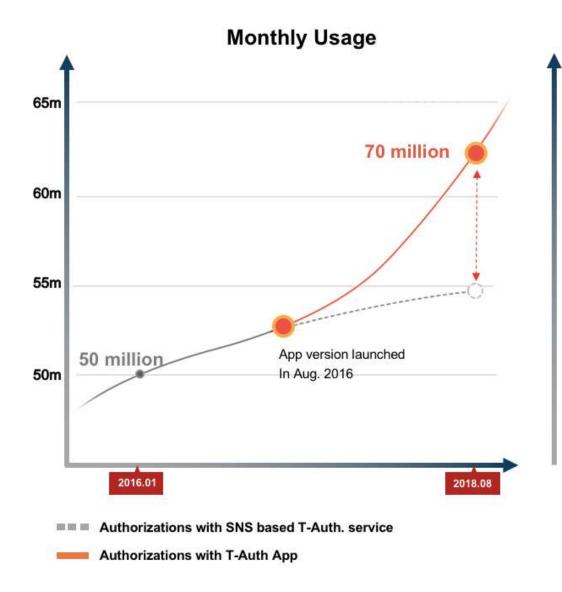
\*Identity authentication is required to join Battle.net in South Korea

#### Process

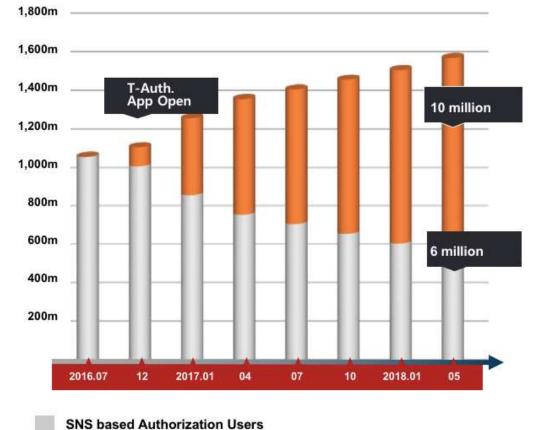


\*KB Kookmin Bank is South Korea's largest bank with 1,037 branches and 120 branch offices.

#### **Phenomenal Growth after Launching**





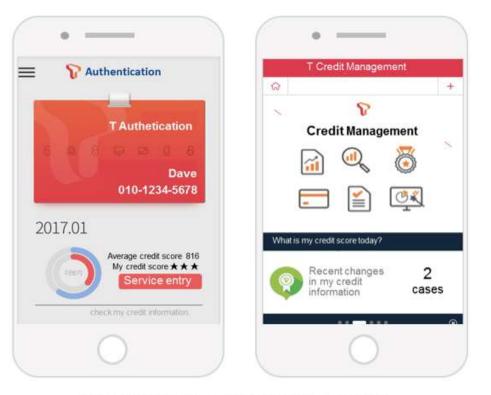


SNS based Authorization Use

T-Auth. App User

While in short time, SKT could find meaningful "Profit" sources.

#### T Credit management



Credit check and management of rating Fees : \$ 3 / month Launch : Jan, 2017 Registered Users : 260,000

#### 6 10 0 -**W** Authentication = P T stock Information Today's favorite stocks 4 Today's stocks Roboadviser stock **T**Authetication 기관 지분 추적 \* 전철 기관, 외국전 철신 순매수 금액이 큰 총의 (단위 : 의왕) Dave 풍목명 기관·외국인 기관 외국인 010-1234-5678 삼성전자 +1,234 +1,234 +1,234 +1,234 LG전자 +1,234 +1,234 2017.02.27 상성전자 +1,234 +1,234 +1,234 LG전자 +1,234 +1,234 +1,234 Stock Issue 삼성전자 +1,234Today's favorite stocks +1,234 +1,234 LG전자 +1,234 +1,234 +1,234 \*\*display 삼성전자 +1,234 +1,234 +1,234기관:+1,000억원 LG전자 +1,234 +1,234 +1,234 외국인:+123억원 Service entry 상성전자 +1,234 +1,234 +1,234 업종: 전기전자

Daily stock market information from robo-advisor Fees : \$ 10 /month Launch : March, 2017 Registered Users : 24,000

#### **T Stock information**

### 2. PASS



# **PAGSS** Simple Affordable One Brand

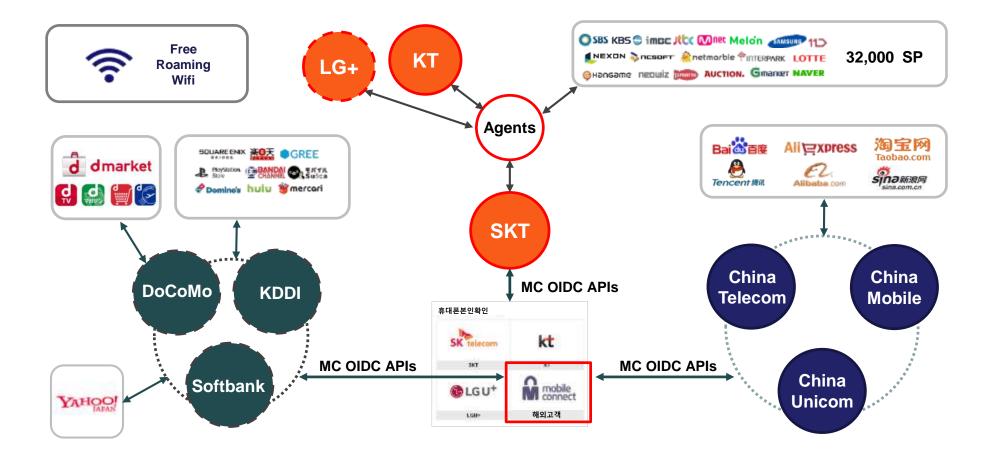




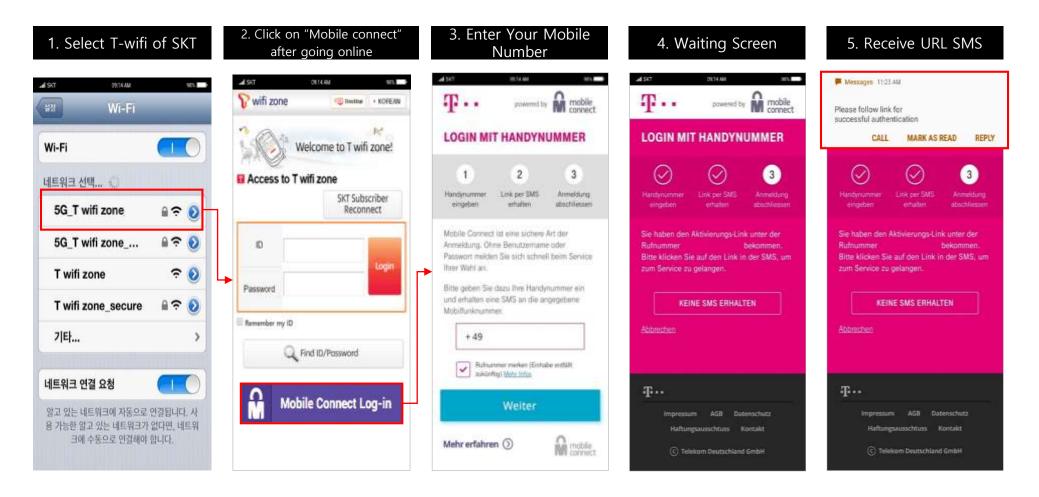




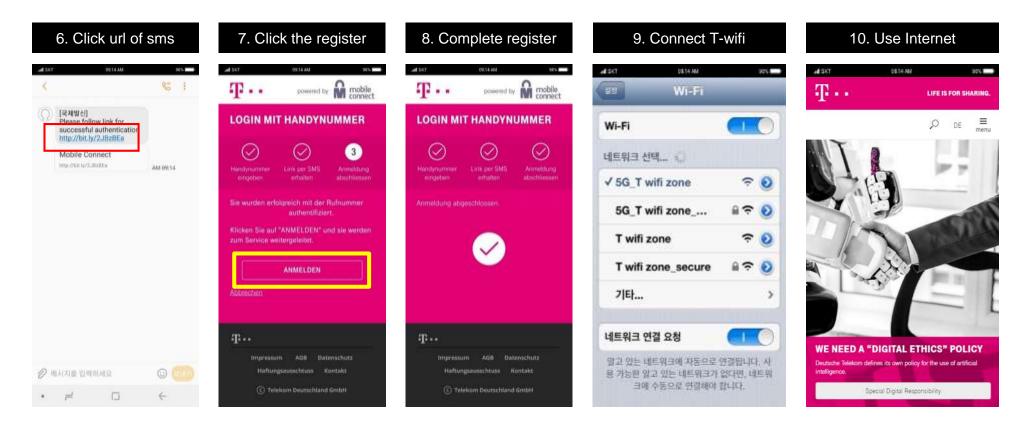
### **3. Cross border**



#### Illustrated for demo use only (connected with SKT and Deutsche Telecom)



#### Illustrated for demo use only (connected with SKT and Deutsche Telecom)



#### T auth. Product Manager



Hyeoung Tai Park(Phoenix) 82+10-5414-2551 phoenix8@sk.com

### Group Discussion: Use cases and deployments in Asia Pacific

Moderator: Julian Gorman, Head of Strategic Engagement, APAC, GSMA

Hyung Tae Park Senior Manager, Data Unit, SK Telecom

Olivier Letant Vice President Strategy, Apigate

Richard Butlewski Sales Director Digital Solutions APAC, Idemia

Saurabh Sethi Managing Director (India), Zumigo India Pvt. Ltd

### Group Discussion: Mobile Connect for e-Government Services in APAC

Moderator: Emanuela Lecchi Head of Region & Public Policy for APAC, GSMA

Saurabh Sethi Managing Director, Zumigo India

Victor Ocampo Mobile Identity Solutions, APAC and the Middle East, BICS

Kwok Quek Sin Senior Director of National Digital Identity, Gov Tech Singapore

### Refreshment Break Please be back in your seats by 11.10am

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# **The Commercial Opportunity**

Sham Careem, Market Development Director, GSMA 7<sup>th</sup> September, 2018

## Paths to monetisation



#### Strong authentication/authorisation

- Banking sector opportunity
- Enterprise VPN login
- eGov login
- Step up (out of band) approval
- Carrier billing authorisation

### **Network attributes**

- Banking / anti-fraud / varied SP
- SMS OTP replacement

account takeover protection

national ID

KYC match

phone

number

sign-up

verified MSISDN

Mobile operator

Operator's own services & self-care

tor's ervices -care Providers

**Basic authentication** 

#### **Identity attributes**

- Identity verification
- eCommerce checkout or account registration
- Data protection / GDPR



Can we **monetise** customer data in a user friendly, non intrusive way which adds real **Value and Utility** to our **Customers**? Much of the traditional thinking on data monetization has focused on **targeted advertising** 



Relatively **low investment** needed from MNOs

Generally understood by consumers

## It's a very fine balancing act

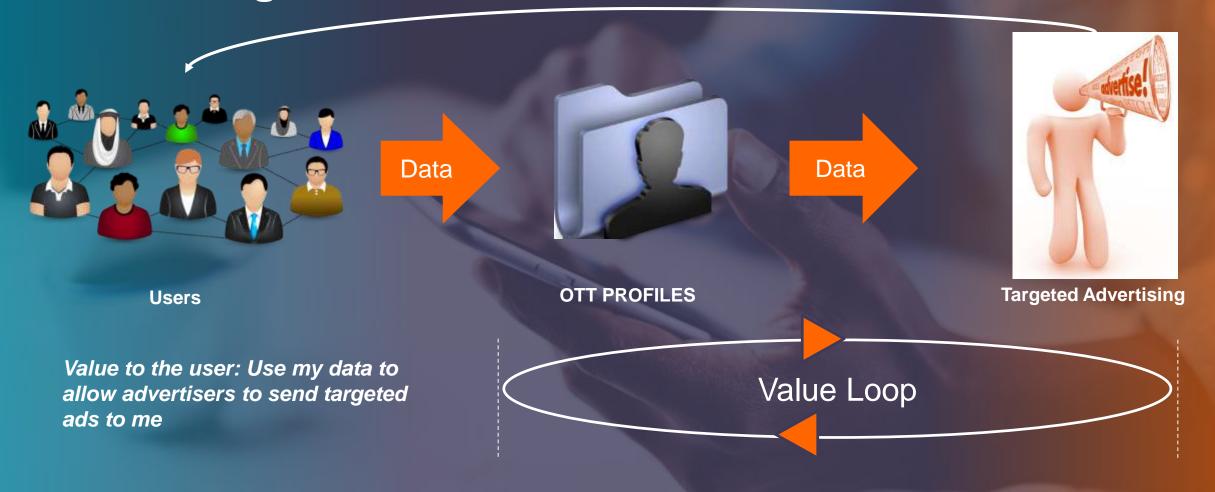
Trust

## Profit

## Privacy

## **Customer Experience**

## OTT players using user data to create value for advertising networks



Can we **monetise** customer data in a user friendly, non intrusive way which adds real **Value** and **utility to our Customers**?

# Are Mobile Connect attributes the answer?

## What are mobile operator attributes?







Know Your Customer (KYC) Age Phone Number National ID Account Takeover Protection (ATP) Location Lost/Stolen Network Presence Account Tenure Last Top Up Date Account type Billing Segment Deactivation

## MNOs can monetise user data whilst providing value and utility to the user Service

Data

Use my data to send Uber my location, allow my bank to protect my account from fraudsters, let AirBnB validate my identity User Consent

Data

\$

HSBC 🚺

airbnb ebay

Value Loop

End user **CONSENT** is critical to both adherence to regulatory frameworks, and maintaining **end user trust** 

- agree disagre Informed Transparent Stored
  - Seamless

## **Attributes are directly monetisable**

### Demand

- Organisations transacting with end users are continually looking to improve knowledge of their customers.
- For better customer experience
- To increase targeting and cross and upselling
- To reduce fraud

### Supply

 MNOs have a reliable supply of Network and Identity Attributes which meet the demand

### Monetisation

• The market has demonstrated clear willingness to pay for these attributes

### Attributes market size

## \$9\_3billion

### recognised global addressable market size

For global Identity and Network attributes in 2020 (USD\$):

Market size estimate will grow as more use cases are recognised as addressable by operators



### **KYC** Share ATP **KYC** Match DOB Lost/Stolen National ID Phone Date last top-up Number Age Verification **Deactivation** Location Account tenure Network Presence Verified Account type MSISDN **Billing Segment** High Effort to expose Low

Low

High

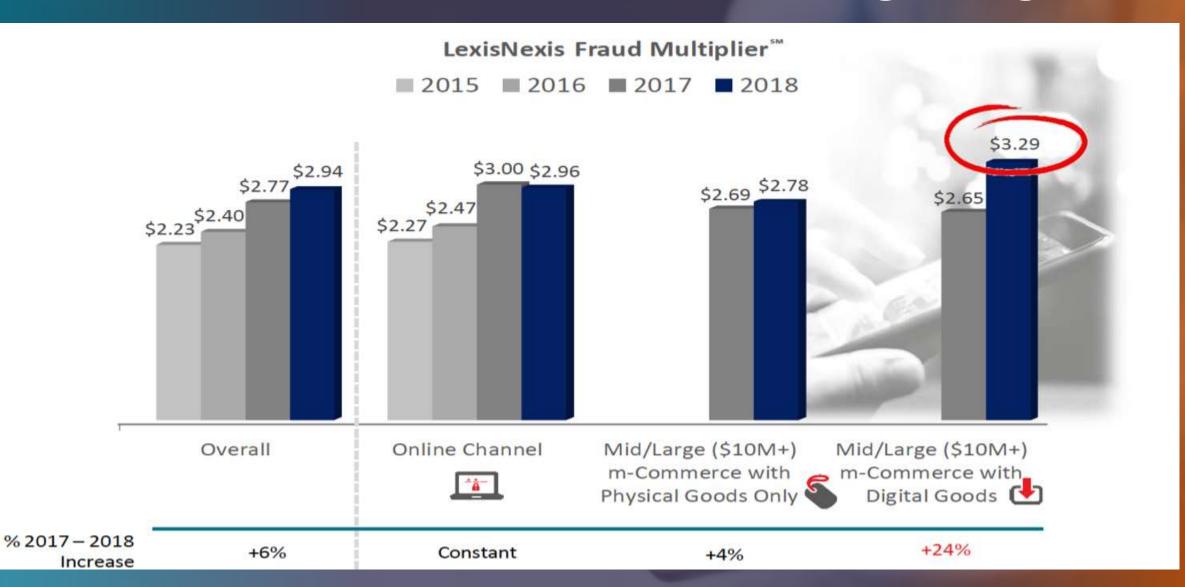
**Expected Price Point** 

## Fraud continues to grow





## And cost of fraud via the mobile channel is growing fastest



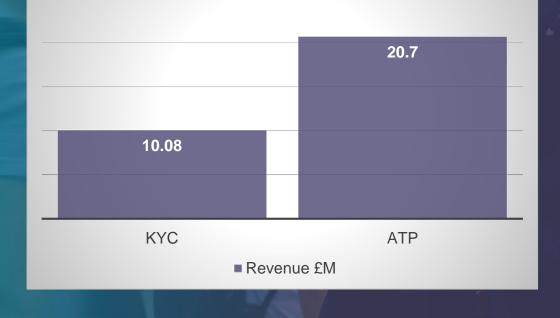
## UK Business Snapshot - Banking: KYC and Account Takeover Protection (ATP)



## UK Business Snapshot - Banking: KYC and Account Takeover Protection (ATP)

### **Revenue breakdown by Product**

Revenue £M



### Key Assumptions

- 101M UK bank accounts
- 2.5 ATP transactions per year per account
- 1.5 KYC transactions per account per year (including back book check regulatory compliance)
- 60% response rate to KYC request

# Are Mobile Connect attributes the answer?

## WIN WIN





### **CUSTOMERS**

- Derive more value from their mobile operator
- Increase convenience and security

### **OPERATORS**

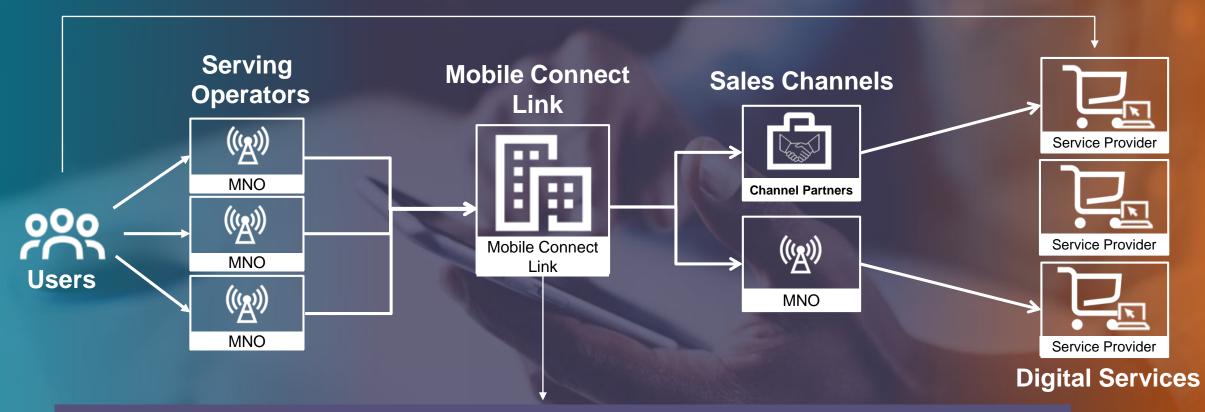
- Highly profitable new service •
- Deeper relationships with • customers

## Mobile Connect Accelerates your market

Standardisation
Case Studies and Best Practice
Business via Global Service Providers
Support for international cross border opportunities
MC Link

## **GSMA Mobile Connect Link**

A one-stop-shop for Mobile Connect



- Centralised commercial interface for buyers
- Matches supply to demand and provides billing and settlement, service monitoring and support
- Managed by GSMA

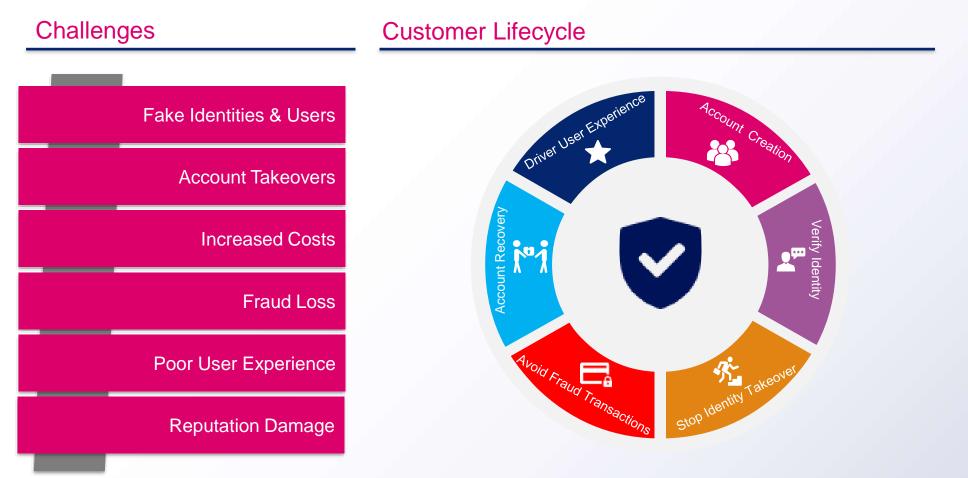


## Productizing Mobile Identity Data Attributes – GSMA Workshop

Victor Ocampo 7 Sept 2018



## The Challenges of using Phone number as an identifier



\$ 650 Billion Iobal Mobile Payments Market



## **The Pressing Issue of Account Fraud**

### Account fraud is continuing to rise

## 1 in 9

New account creations are fraudulent

## 700M

Total global cyberattacks in 2017

## 42M

Account creation attacks in 2017 Losses = Billions

**170%** Growth in ecommerce login attacks since 2015



52% transactions are mobile, attacks are growing



## What Digital Businesses Need to Do



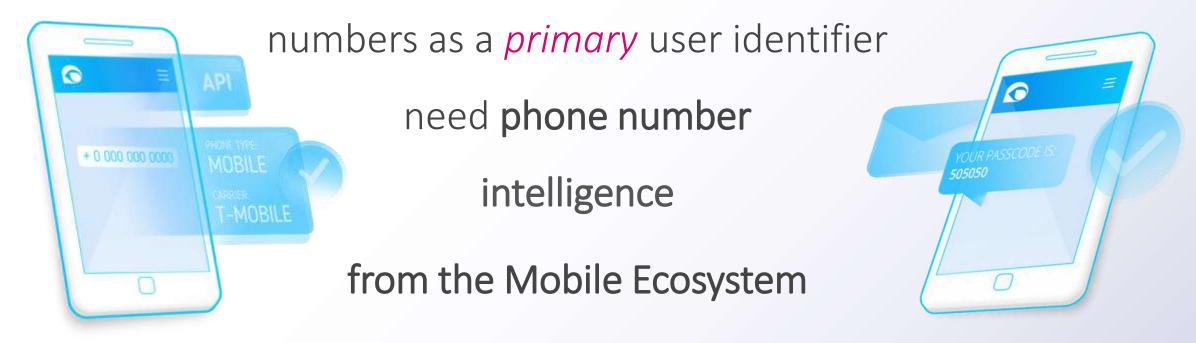
Establish a "true digital identity" for each user



Identify legitimate customers without adding friction



## Companies around the world who use mobile phone





### Phone Number Intelligence can answer Critical Questions about users



### Mobile Numbers: The Preferred unique identifier on Digital platforms

Phone Number Intelligence will help Mobile Operators solve fraud challenges for OTT platforms





### **BICS and the GSMA Mobile Identity Program**



- BICS is an active partner of GSMA
- Helping to accelerate the roll out of Mobile Identity Market globally
- Works with Carriers to productize mobile data attributes, and
- Helps Carriers comply with local and International Data Privacy Requirements



## **BICS Enables International Connectivity**





**TeleSign** is a communications platform as a service (CPaaS) company, founded on Account security and Fraud Prevention.

- Aggregates Mobile Identity Demand
- Global Leader in Mobile Identity Verification
- Trusted partner to 20 of the world's 25 top websites and mobile apps
- Secures over 4 billion end-user accounts in 200+ countries and 87 Languages
- BICS subsidiary





## A single data API providing access to multiple data attributes

Detailed and actionable global phone number and subscriber data intelligence designed to:

- strengthen authentications
- evaluate fraud risks
- enhance the customer experience
- and optimize communications



## **Selected TeleSign Clients**

"We needed more data on our customers. We match our data with TeleSign's data and it gives us **greater assurance that our customers are actually who they say they are**, which reduces fraud."

JONATHAN EPPERS CEO, RADPAD

R radpad

"I can't see why anyone would not want to use TeleSign APIs for customer verifications to **reduce fraud and user friction**."

EIBHLIS STUCKEY Founding Director, MOBILEDIGITAL





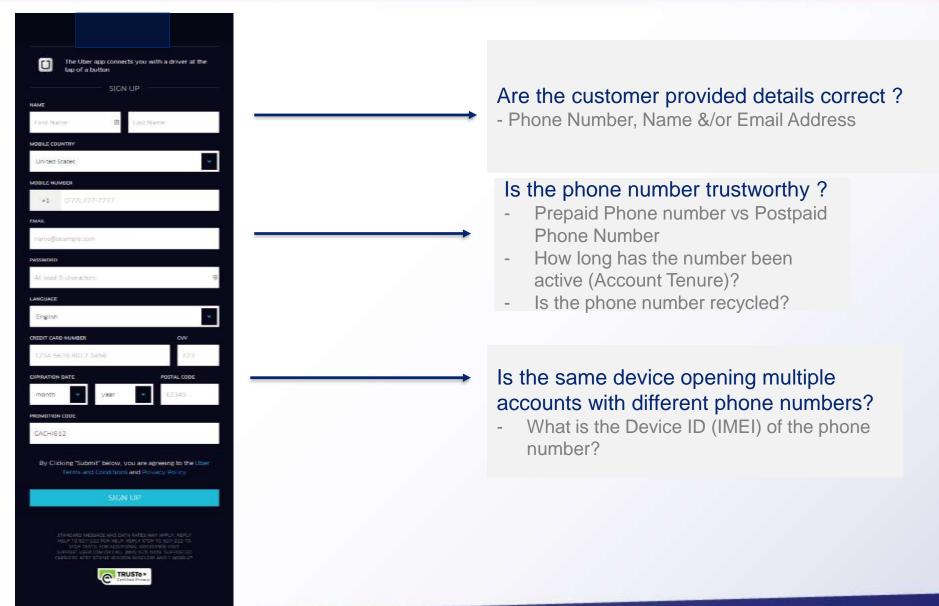


## **Fraud Scenarios and Data Attribute Needs**

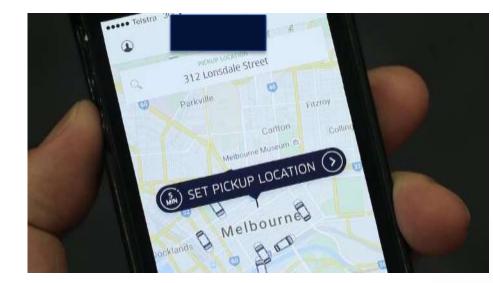
Fraud Type	Details	Data Needed to Prevent Fraud
Identity Fraud	<ul> <li>Ghost Drivers – Temporary accounts created using prepaid SIMs to benefit from cancellation fees.</li> <li>Cash Theft - Temporary accounts created using prepaid SIMs to commit theft while using Uber</li> </ul>	<ul> <li>Name and/or Address Match</li> <li>CRM Attributes – Status, Account Tenure, Prepaid Postpaid Flag</li> </ul>
Incentive Fraud	<ul> <li>Bonus Points Abuse – multiple accounts created to abuse the bonus points process inviting new drivers on the platform</li> <li>Promo Abuse – Creating multiple users to abuse promo codes</li> </ul>	<ul> <li>Name and/or Address Match</li> <li>CRM Attributes – Account Tenure, Prepaid Postpaid Flag</li> <li>IMEI</li> </ul>
Account Takeover	<ul> <li>Account takeover – by abusing the SMS 2FA process</li> </ul>	<ul> <li>CRM Attributes – Account Tenure, Prepaid Postpaid Flag</li> </ul>
Location Fraud	<ul> <li>Fake Riders - Fake Trips using GPS spoofing</li> <li>Fare Abuse – Fare Abuse using GPS spoofing</li> <li>Synchronous rides – Multiple rides using stolen credit cards &amp; temp accounts</li> </ul>	<ul> <li>Location – Cell ID(Latitude/Longitude)</li> </ul>



## **Registration Data Requirements**



# **Data Requirements During Ride Booking**



### Is the location of the user correct ?

Check location with Mobile operator



# Solution State Sta 0 Ride Hailing App Use Case: **Privacy and Consent Management**

03/10/2018

# How Does the Ride Hailing App Get Consent?



C TRUSTe\*

The Ride Hailing App is **REQUIRED** get consent from the End User during the onboarding or registration Process. It is compulsory to include Mobile Carrier consent language to ensure that the data can be shared with Mobile carriers for validation.

**Must include the following consent language**: "You authorize your mobile carrier to disclose your name, address, email address, account details, and device information to COMPANY for the purpose of verifying your identity and preventing fraud."

### Must display the following consent language: "You

authorize your wireless carrier to disclose your device location information with COMPANY to prevent fraud."

# **Important points on Data Privacy & Processing**

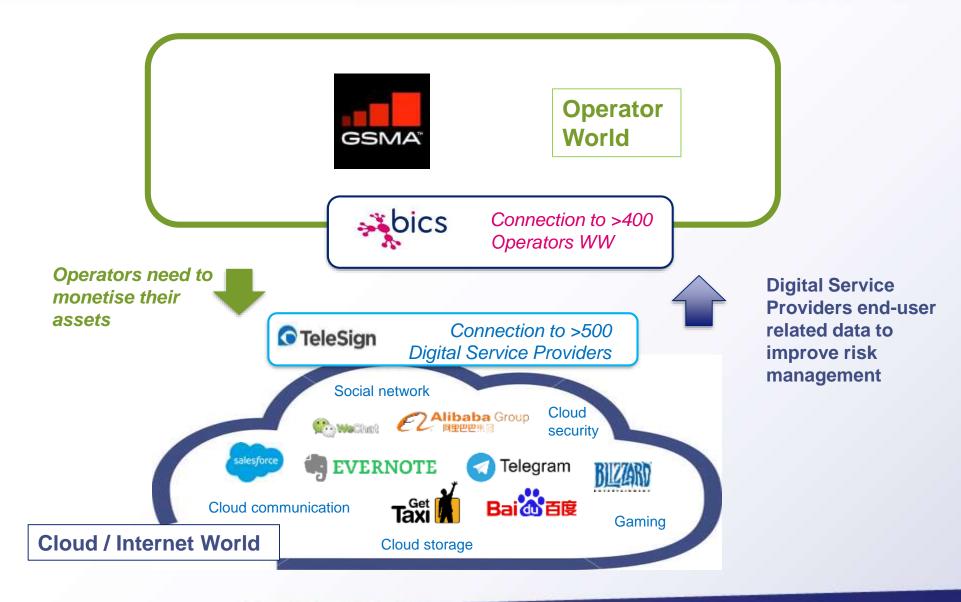
- ✓ No Personally Identifiable data (PII) is taken outside Carrier systems.
- ✓ Only Match Results (Score or Yes/No answer or derivate data like dates or days or hashed information) are exposed to customers. No Personal Data.
- ✓ Consent (Opt-IN) is always taken from the end user to validate the data with Mobile Carriers by the service provider.
- ✓ Opt Out option is also provided by the service provider
- ✓ The data is only used for fraud prevention or Identity verification
- ✓ No data provided by the mobile carrier is cached by the service provider
- ✓ For every new customer BICS will submit an Order form for approval to Carrier including the details of the customer use

case, consent, privacy policy, user flow, etc. After Carrier approval live traffic will be started. Example in attached doc.





# BICS/TeleSign + Carrier Can play a key role in Mobile Identity



bics



# Productizing Mobile Identity Data Attributes – Carrier Name

Thank you | contact: victor.ocampo@bics.com





**Powering Opportunities** ...and helping to create a better tomorrow

GSMA Mobile 360 Series Digital Societies

s Head of Sales Telco SEA





Delivering leading edge solutions to support consumer engagement, retention and profit growth

+40 Mobile Operators in thirty countries including 13 in APAC

Financial profile of +400m mobile subscribers in APAC

# **Trusted MNO partner for over 20 years**

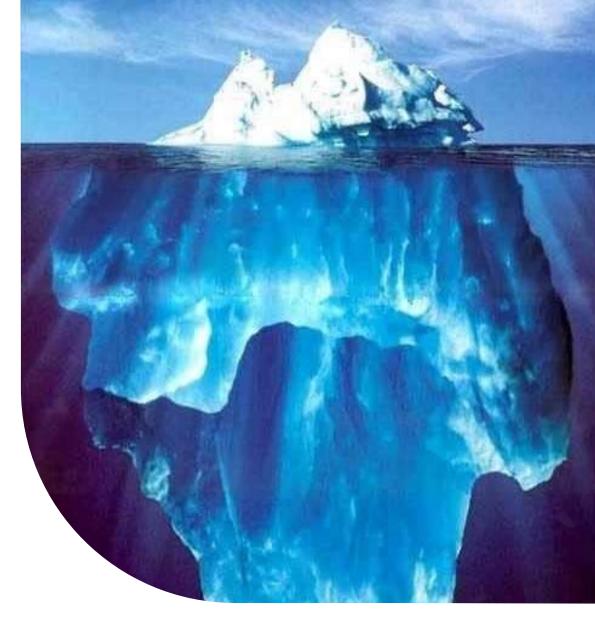
erian,

# Telco data in emerging markets A source of monetization

MNOs are yet to monetise their market presence and unique data records

Data can allow MNOs and 3<sup>rd</sup> parties to tackle untapped segments and opportunities:





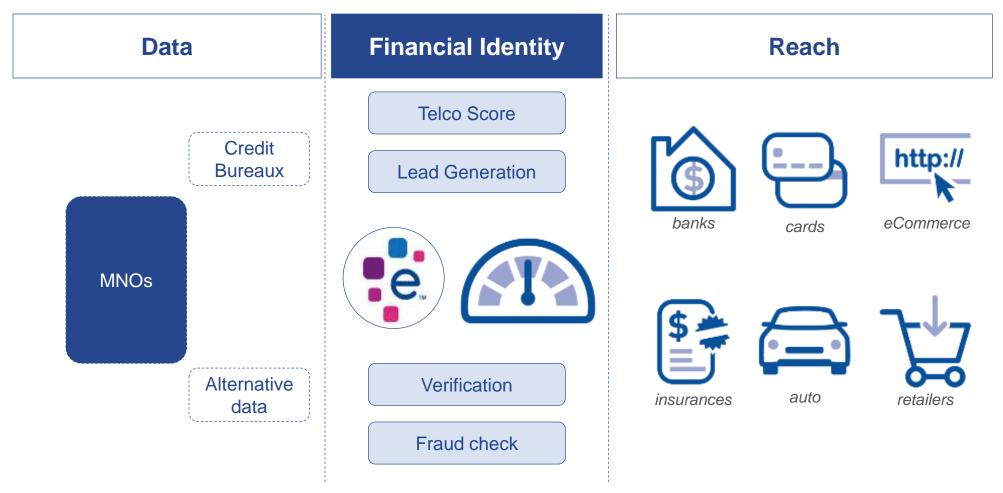


# Consumer segment untapped due to lack of information



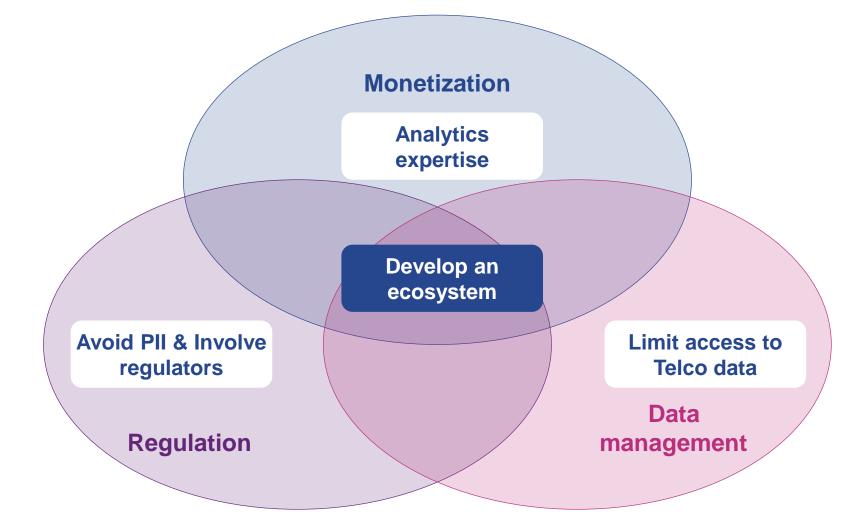


# Market Eco-system built by Experian for Financial Services Quicker GTM with existing relationships with a trusted partner





# Addressing the risks of execution



### Pitfalls to avoid

- Providing bad insights to partners
- Over-exposing raw data to multiple parties
- Regulator concerns and restrictions
- Dependency on few partners and use cases



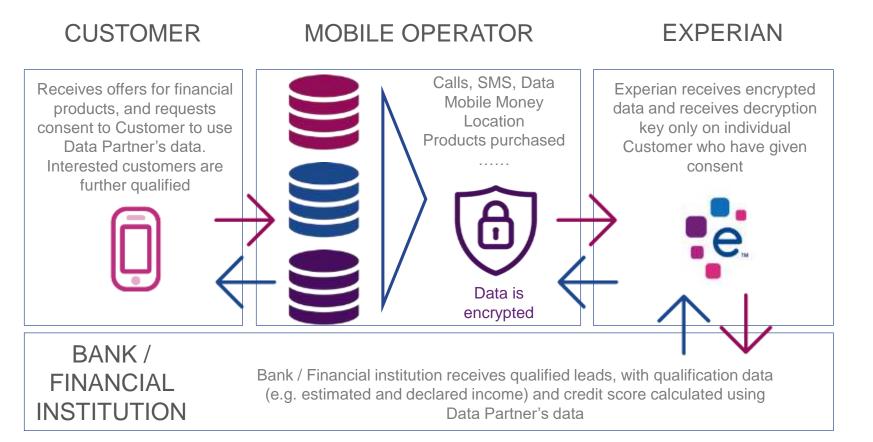


# experian.

# Experian ensures privacy and compliancy

### Experian approach

- Subscriber ID (MSISDN) encrypted by the Mobile Operator (MNO)
- No Personal Identifiable information (PII) considered in profiling
- MNO to communicate with subscriber directly as to ensure regulatory compliance
- Apply filtering criteria as per Financial Institution business needs
- Telco leads to consider Income, Stability and Propensity
- Performance information used to constantly improve the model





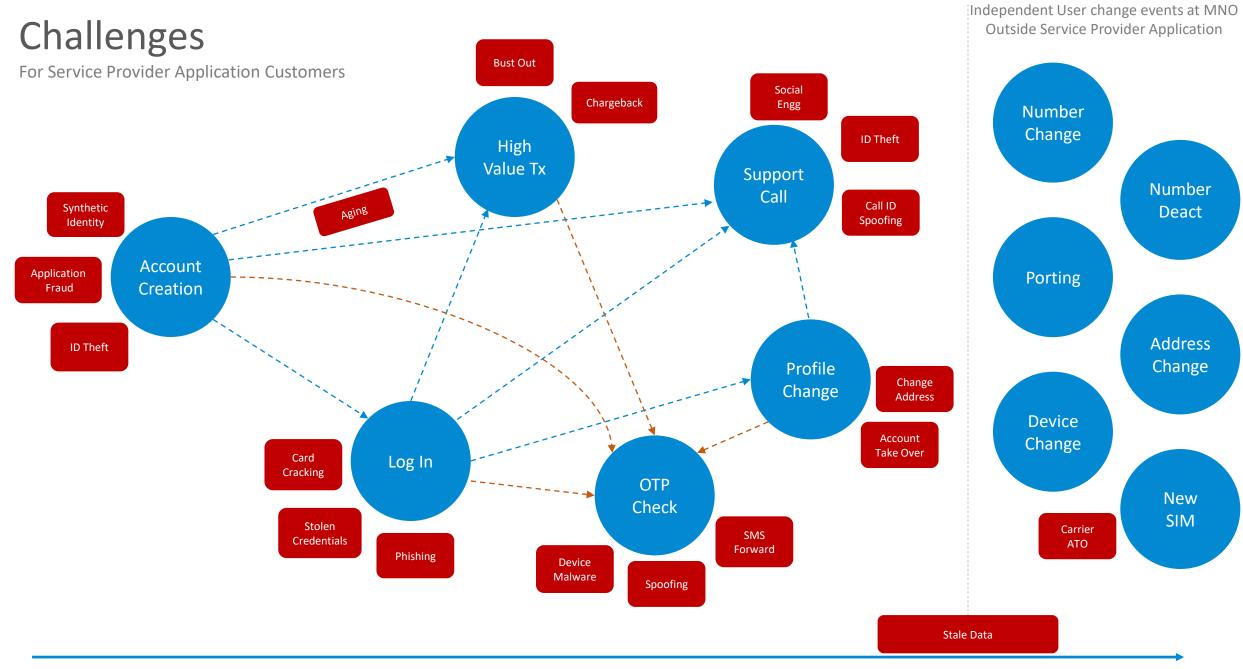


### Power your Business with Mobile Identity

Strengthen Authentication. Reduce Fraud. Improve Conversion. Be Compliant.



# GSMA Digital Societies Account Lifecycle Challenges and Opportunities Mauro Di Biasi



Time

### **CHALLENGES**

# 1. Use Case – Account Creation

- ID Theft / Synthetic IDs
- Digital Onboarding Process
- User Experience Tradeoffs
- Data Breaches
- Unreliable KBA Methods
- KYC and AML Requirements

### **SOLUTION**

Platform

Onboard identity proofed accounts leveraging govt. issued IDs, facial match and authoritative 3<sup>rd</sup> party data.

### **Document Scanning**

Driver's license or passport validation using, image recognition, OCR and enhanced security features

### **Biometrics**

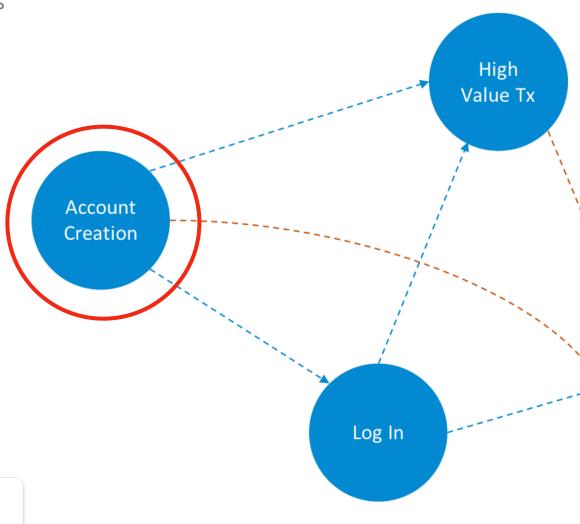
3D facial recognition matched against photo on document ID

### **Phone Verification & Profile Match**

Confirmation of phone possession and validation of scanned ID data against authoritative data sources

### **Attribute Check & Establish Baseline**

Check phone number history and baseline validated new user using their device and network attributes



### **CHALLENGES**

- SMS OTP Weak
- Password Archaic
- Cumbersome UX (SSO)

- Device Malware
- Stolen Credentials
- SS7 Hacking

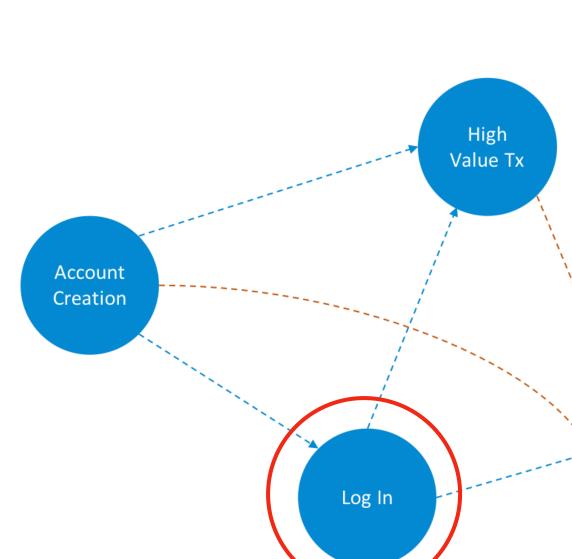
### **SOLUTION**

Bolster access to your application by using Danal phone verification and network attributes.

**Phone Verification** Seamless network based phone possession verification

### **Compare to Baseline**

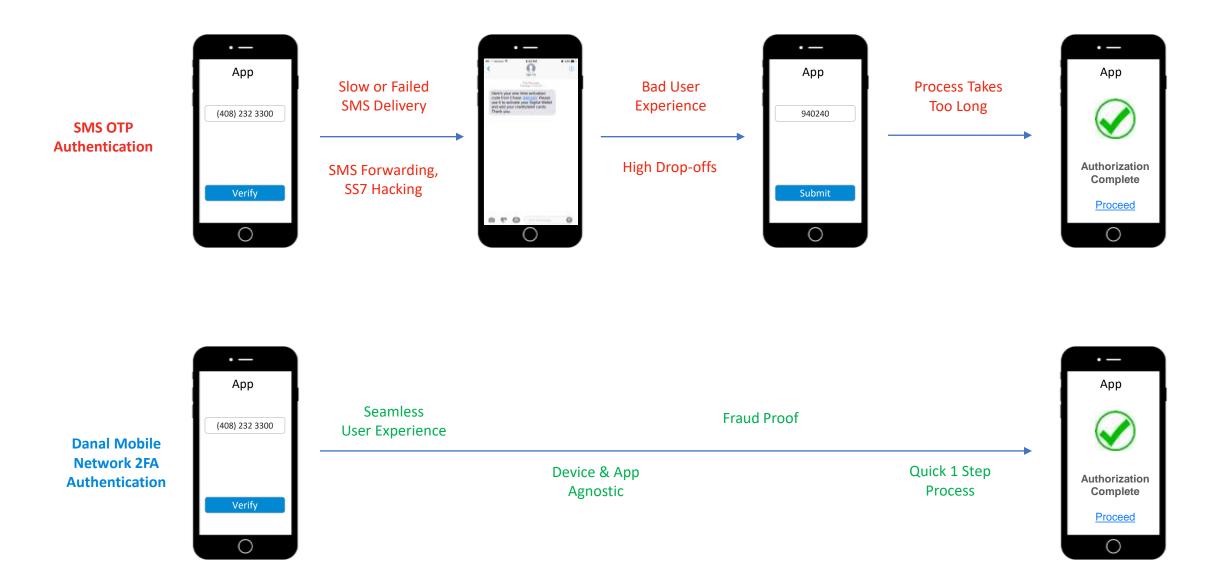
Verify real time device and network attributes against established baseline



2. Use Case - Authentication



# **2FA Phone Number Verification**



# Benefits

### **Fast Verification (Real-time)**

Shaves on average 30 seconds compared to SMS based methods

### **Better User Experience**

No waiting for SMS

### **Improved Conversions**

No drop-offs and increased conversions as a result of improved UX

### **Fraud Proof**

Not susceptible to forwarding, malware etc. Completely device or app agnostic

### Reliable

No delivery delays. Real-time verification leveraging user's network connectivity

### **CHALLENGES**

- Burner / VOIP Phones
- Impersonation
- Changed Number

- Device Malware
- Call Forwarding
- TCPA Violation



### **SOLUTION**

Platform

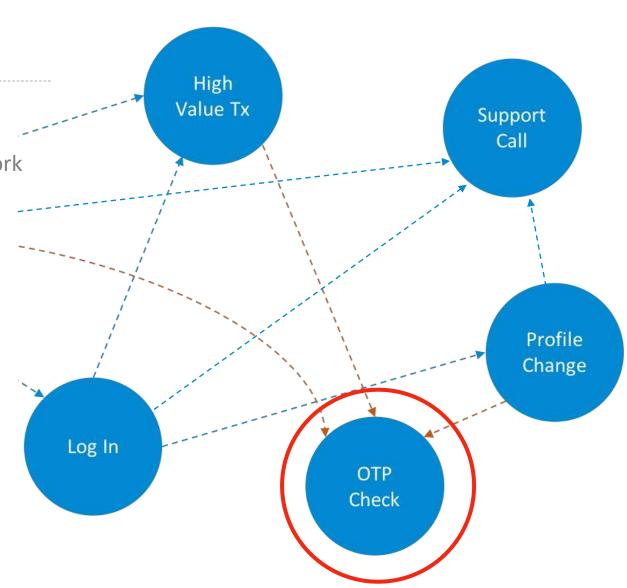
Bolster your OTP send process by leveraging intelligent network attributes before sending the SMS.

### **Real-time Network Attributes**

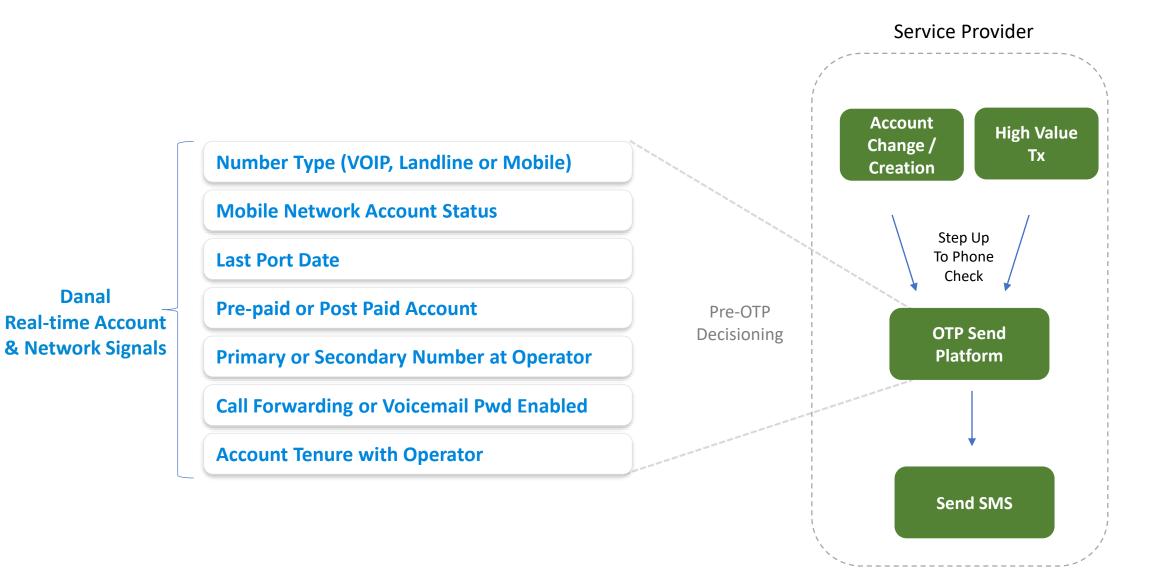
IMSI, IMEI, SIM change, device change, call forwarding etc.

### **Account Attributes**

Line type (fixed, mobile or VOIP), Active / inactive, current tenure, pre vs post-paid etc.



# **Real-time OTP Send Decisioning**



# Benefits

### **Protection against Burners**

Eliminate delivering OTP to one time burner numbers

### **Reduce Costs**

Prevents wasted spend on incorrect SMS traffic

### **Better User Experience**

Prevents bad user experience and complaints due to incorrect message delivery

### **Real-time TCPA Protection**

In session check ensures no TCPA violations occur due to inadvertent message delivery

### **CHALLENGES**

# 4. Use Case – Fraud Prevention

- Real-time Decisioning
- Context Based Information
- Offline to Online

- ID Theft / Account Takeover
- Chargebacks / Bust Out
- Simulators / Malware

### **SOLUTION**

Platform

Prevent fraud by leveraging real-time predictive signals from the Danal platform in your risk decisioning platform.

### **Real-time Profile Match**

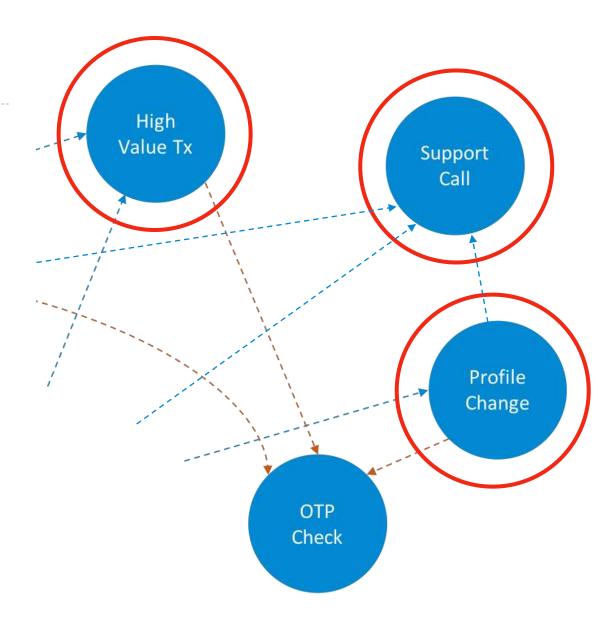
Match current customer data with authoritative data sources

### **Real-time Decisioning Attributes**

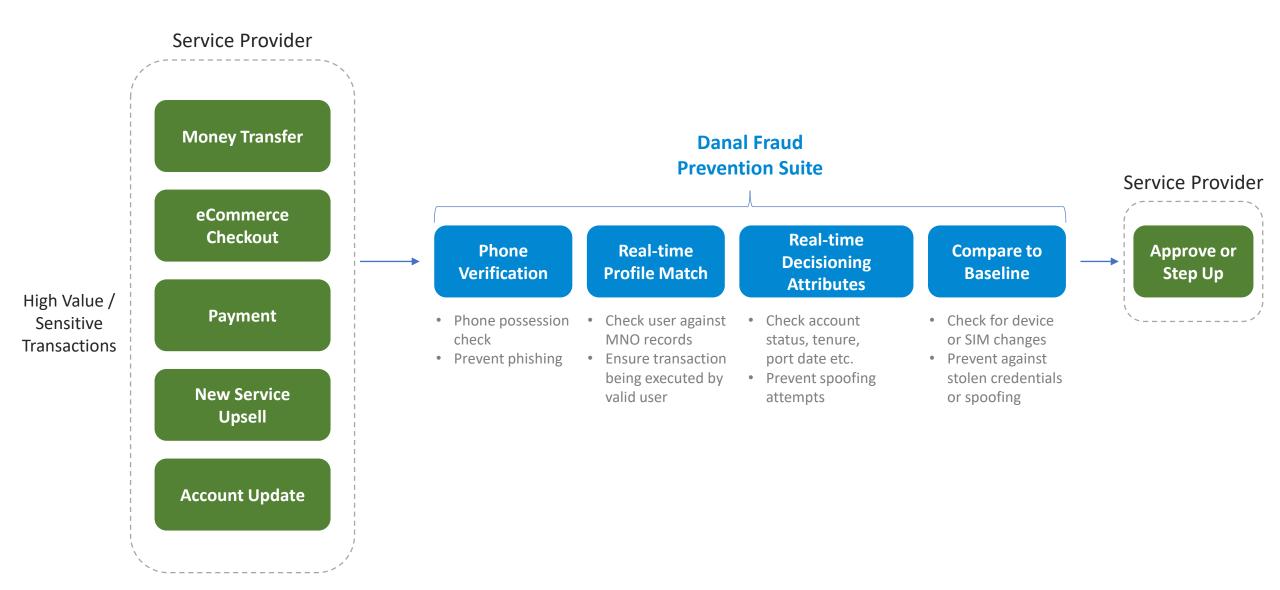
Network and Account attributes such as current account status, tenure, pre vs post-paid, last port, SIM change, device change, call forwarding etc.

### **Baseline Check**

Verify real time device and network tokens against established baseline to prevent spoofing



# **Real-time Fraud Prevention**



# Benefits

### **Real-time Decisioning – No Guessing**

Remove the guesswork by leveraging real-time predictive signals

### **Spoof Proof**

Impossible for bad actors to spoof a device, SIM or user and commit fraud

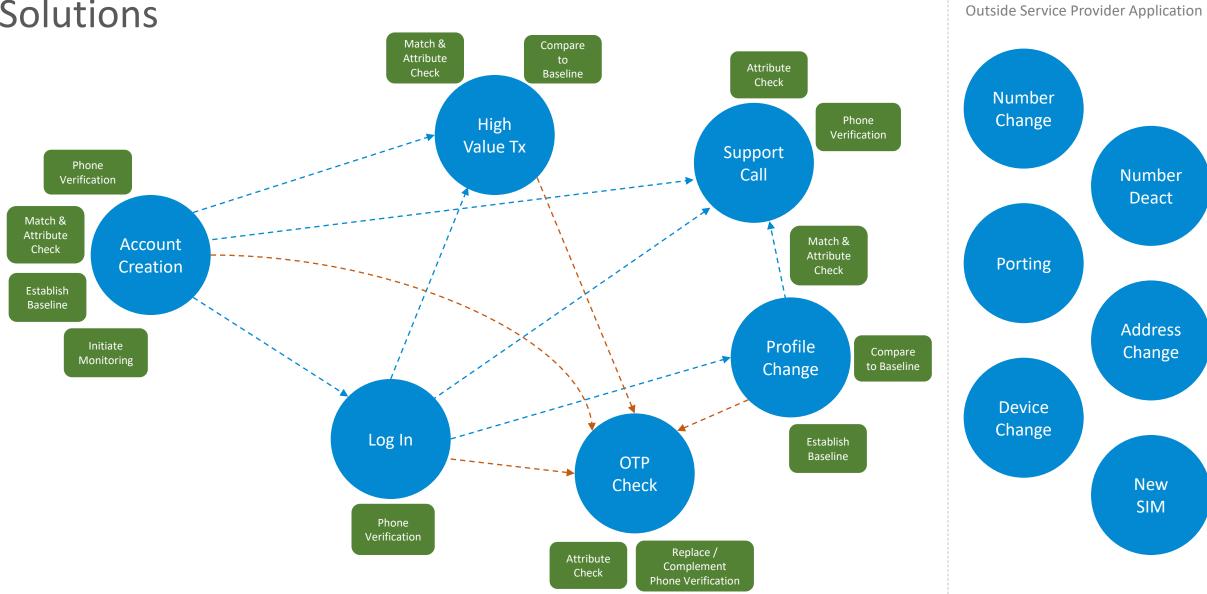
### Reliable

Most recent, real-time trusted data from Mobile Operators

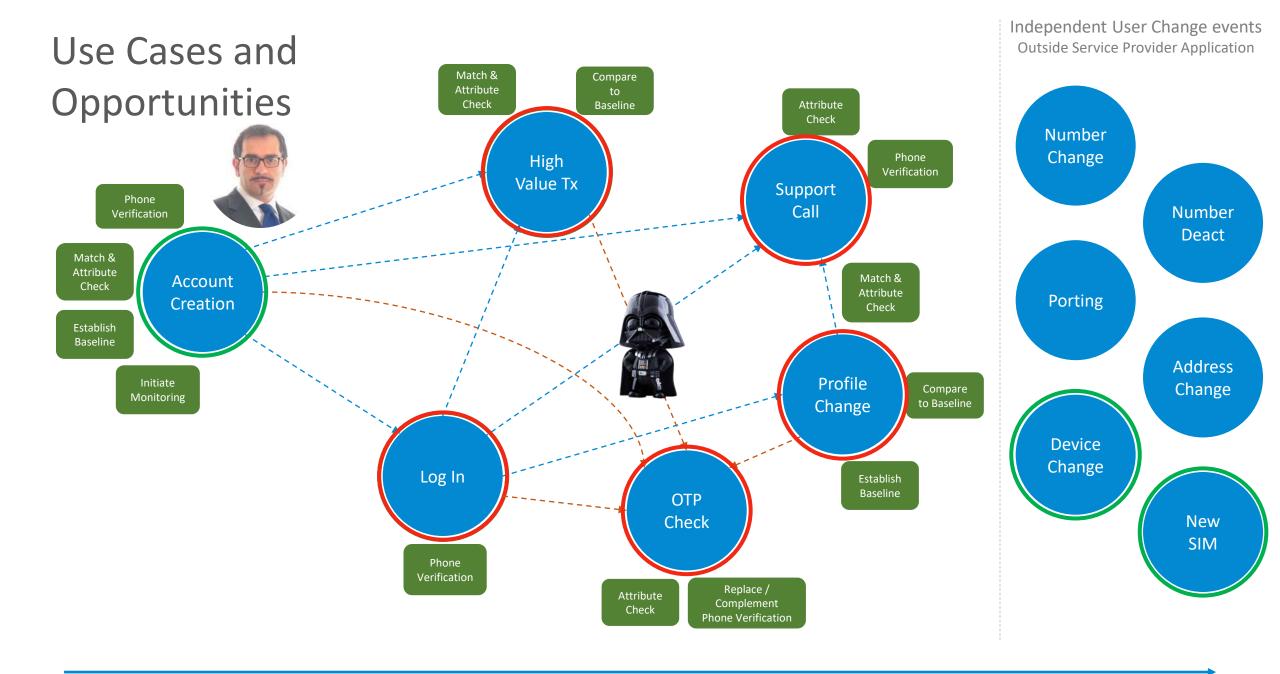
### Global

Coverage of 3Billion+ users enabling you to protect your transactions globally

# Solutions



Independent User Change events





# Thank You!

mauro.dibiasi@danalinc.com

# **Group Discussion:**

Monetising attributes – overcoming the challenges and working together

Moderator: Sham Careem Market Development Director, GSMA

Michelle Wheeler VP Business Development, Payfone

Victor Ocampo Mobile Identity Solutions, APAC & Middle East, BICS

Andre Marques Head of Sales SEA EMA, Experian

Mauro Di Biasi Head of Customer Success EMEA, Danal, Inc.



# SEAMLESS AUTHENTICATION

Mobile Connect 4.0 powered by IPification

15928348 US patent pending **1803719.2** GB patent pending

	Application	
Email		
Password		
	Or loginwith	
â	Mobile Connect	
pov	vered by IPification	

### **Observations & Challenges**



### Forgotten passwords

40% of people forgets password at least once a month



### Unsafe authentication

2FA via SMS is no longer considered secure and is deprecated (NIST US)



### **Cart abandonment**

74% e-commerce cart abandonment increase as consumers shift to mobile



### **Biometrics alone aren't enough**

Fear of privacy breaches, ID unreliability, ID theft and poor standards



### **Privacy breaches**

83% of mobile users are concerned regarding privacy when accessing website & mobile apps



### Blockchain in mobile identity

It's still some years away. Self-Sovereign ID? Who Are you? Consumer Usability



### Increased bounce rate

86% users leaves a web-site/application uppon registration process

"It's unreal how careless we are with data that's worth more than gold."



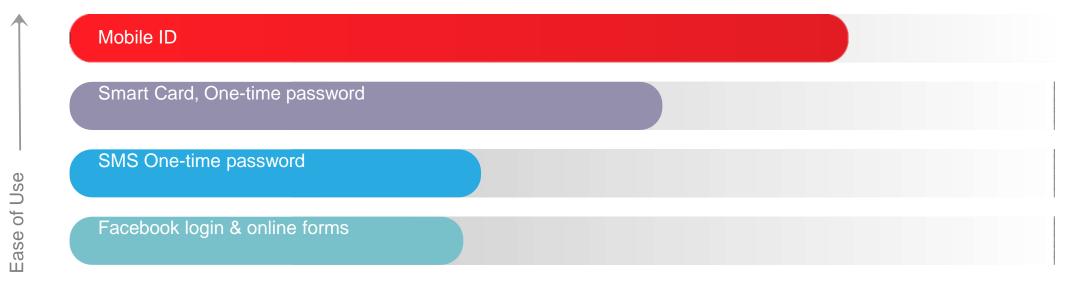
Harry Cheung

### **Observations & Challenges**

### **DIGITAL AUTHENTICATION OPTIONS**

The potential for fraud is always a risk that cannot be ignored when it comes to conducting transactions or access information. In person, an individual could present forged or altered documents that attest to an identity that does not belong to him/her.

Online, an individual could also misrepresent his or her identity in a similar manner using someone else's credentials without their permission. Here is where online user authentication is able to attest to a person or entity's identity and ensure the validity of a transaction.



### **Observations & Challenges**

### **CYBER-SECURITY ALARMS**

Security & Privacy protection isn't getting better fast enough, critical infrastructure security hangs in the balance, and smart hackers from around the world are getting bolder and more sophisticated.





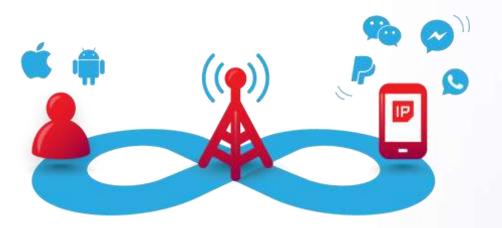






# UNLOCKING THE TRUE POTENTIAL OF MOBILE IDENTITY

By delivering seamless Authentication as a Service (AaaS) technology to Telecoms globally (GMID<sup>™</sup> Box), IPification helps to lower the cost of doing business, opens up new revenue streams and enhances the existing security of its subscribers – bringing back the power and relevance in today's digital ecosystem.





OpenID Connect







# IPification – seamless authentication for Mobile Connect



### **BVL IPIFICATION – PARTNERSHIP FOR SEAMLESS AUTHENTICATION FOR MOBILE CONNECT**

### BVL IPification delivers technology which enables seamless authentication for Mobile Connect

•either as an authentication sub-system to plug into an MNO's existing Mobile Connect ID GW or

•a full Mobile Connect solution including ID GW (Cloud-hosted) exposing Mobile Connect APIs

### IPification supports the following Mobile Connect services:

•Seamless authentication (on-net), returning a PCR to the relying party (MC Authenticate (LoA2)

•Seamless authentication (on-net), returning a MSISDN to the relying party (MC Verified MSISDN Share)

•Fraud indicator (similar to MC ATP revealing a change in either SIM or IMEI)

### Typical use cases and benefits are:

•"Sign-up" from on-net mobile device sharing mobile number to pre-populate forms

•"Click to log-in" from on-net mobile device - no passwords; relying party gets PCR

•"Click to log-in with Mobile Number" from on-net mobile device – no passwords; relying party gets MSISDN

•Device verification providing mobile number to enable SP to perform a background check as an added level of assurance (e.g., device being used to access

user account matches the MSISDN associated to that account)

•SMS OTP replacement: by enabling the SP to verify a MSISDN provided to them by a user ("click to confirm mobile number")

### **FLOW EXAMPLE**

Both native mobile apps and web platforms are supported.



### **Consent Page (Conditional)**

If User is being authenticated for the first time via IPification (and Mobile ID) for a specific Service, a Consent Page will be shown asking for User's confirmation on using Telco-based Mobile ID

### **Auth Success**

Mobile ID created successfully and distributed (exchanged) with Client/Service over OIDC protocol

### **ANDROID APP**

Authentication user experience

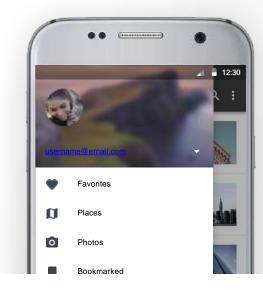


User downloads and installs the app. During the app opening, standard Mobile Connect (OIDC/OAuth2) authentication flow is triggered by the application to the IPification Auth Service.



IPification Auth Service authenticates the User by live querying directly Telco network through specific APIs in place (GMID<sup>™</sup> Box). If authentication SUCCESSFUL, App server prompts Terms of Service (ToS) to the User

\*ToS are optional and depends on specific country egulations



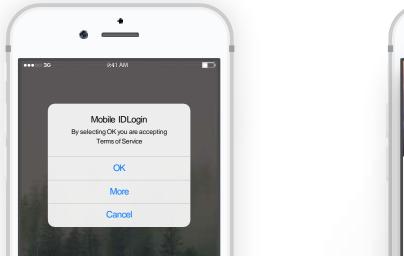
User Accepts ToS and get full access to the App's content

### **IOS APP**

Authentication user experience

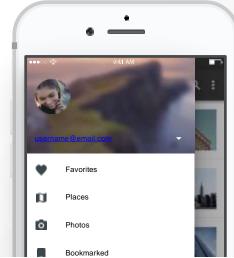


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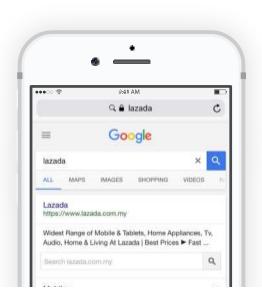
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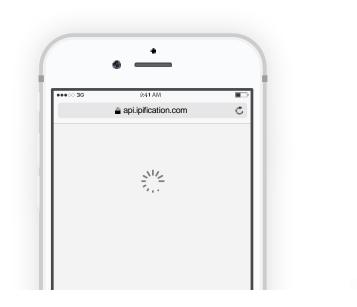
User Accepts ToS and get full access to the App's content

### WEB

Authentication user experience



User searches and clicks on Merchant's URL Example: lazada.com.my



Merchant redirects User for authentication to IPification Auth Service: https://api.ipification.com/auth

IP authentication SUCCESSFULL, give full access to content (automatically login the user)

9:41 AM

🔍 🖨 lazada

Hi, John Smith

A My Account

🕾 My Orders

My Reviews

TUKAR BAHASA

Help

Logout

.

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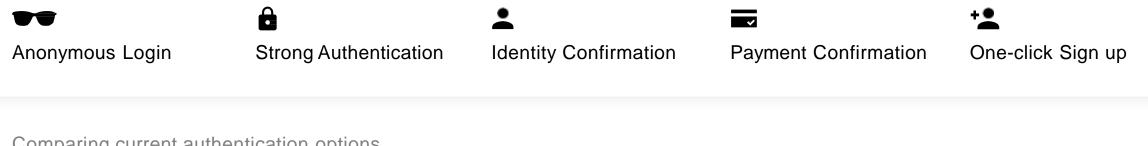
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Ξ

Filter

### **END-USER BENEFITS**

Privacy protection for Piece of Mind. Highest level of security equals Trust. Convenience drives Adoption.



Comparing current authentication options

Solution	User Experience	Security	Cost *Lower is better	Reliability	Scope
Email & Password			1 - C		
Phone Number & SMS					
Header Enrichment		1			
IPification					

### **BENEFITS FOR GLOBAL INDUSTRIES**



### Online service providers, device manufacturers and many others

- More transactions thanks to simpler user journey
- Increase of conversion rates
- Easy and fast login



### Banks

- Mobile sales & online channels promotion
- Enhanced security
- Fnancial transactions confirmation
- Strong authentication



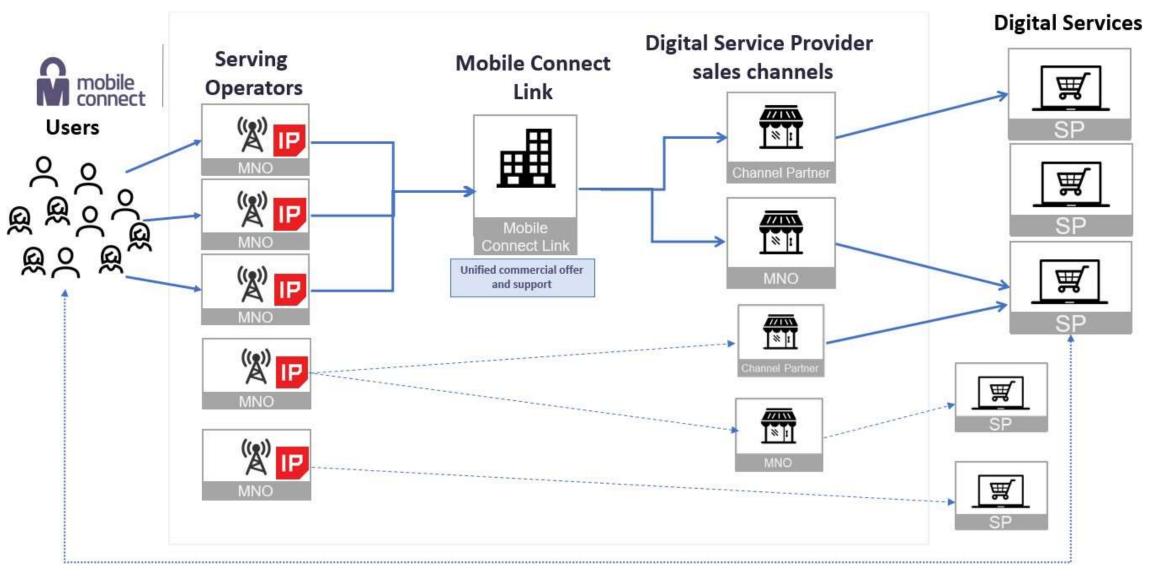
### Corporations

- Match employees mobility and data security
- Make workforce mobile
- Get trusted remote access to working tools



### e-Governments introduction

- Reduce administration costs and time frame
- Enable digital identity



MC Link enables digital service providers to access any mobile user through one channel regardless of mobile operator serving the user

### Note: Mobile Connect Link is non-exclusive



# Thank you for your attention

Contact us anytime at partnership@ipification.com

www.ipification.com

# mobile connect

# Summary & Close Thank you

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