



Reducing Fraud through Secure Authentication and ID Verification Services

September 12th 2018



Evolution of identity in the digital space: the need for stronger authentication

Ana Tavares Lattibeaudiere, SVP and Head of North America - GSMA

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**

Digital identity in the US



Privacy under development state by state



22.4 million exposed records in US in H1 2018



16.7 million Americans victims of identity theft in 2017

Employment / tax fraud 34% / credit card 33%



US at top of the Enabling Digitalisation Index 2018



NIST MC proof of concepts delivered

Over 70 operators in nearly 40 markets

Over 70 operators in nearly 40 markets



Adding value with Mobile Connect



Fraud Reduction



Payment Authorisation



New Account Opening



Proving Identity



GDPR Consent
Capture



Password-less Login

AGENDA		
13:00-13:10	Evolution of identity in the digital space: the need for stronger authentication	Ana Tavares Lattibeaudiere, GSMA
13:10-13:20	Reducing fraud through enhanced mobile security and ID authentication	Johannes Jaskolski, AT&T
13:20-13:50	Panel: #BetterTogether: Taking digital identity to the next level	Host : Marie Austenaa, GSMA Rodger Desai, Payfone Eric Woodward, Early Warning Dr. Khan Siddiqui, higi
13:50-1400	Identity: Avoiding fraud in banking in the US	Lyndi Long, Zumigo Hrishi Talwar, Equifax
14:00-14:10	Global service providers: views on strong ID authentication	Morgan Webb, Microsoft Robert Blumenthal, Enstream
14:10-14:30	Panel: Intelligent authentication: US carriers make headway on challenging unauthorised access	Host : Ana Tavares Lattibeaudiere, GSMA Bill O'Hern, AT&T Services, Inc. Michael Goo, T-Mobile Doug Garland, Sprint Pavan Challa, Verizon
14:30-14:40	Future identity trends: IoT and ID management	Rikard Strid, Clayster
14:40-15:00	Panel: What is next in digital identity? From RCS to Blockchain	Host : Mark Harvey, GSMA Jim Greenwell, Danal Simon Wakely, Giesecke+Devrient Anatoly Kvitnitsky, Trulioo

Mobile Authentication Taskforce

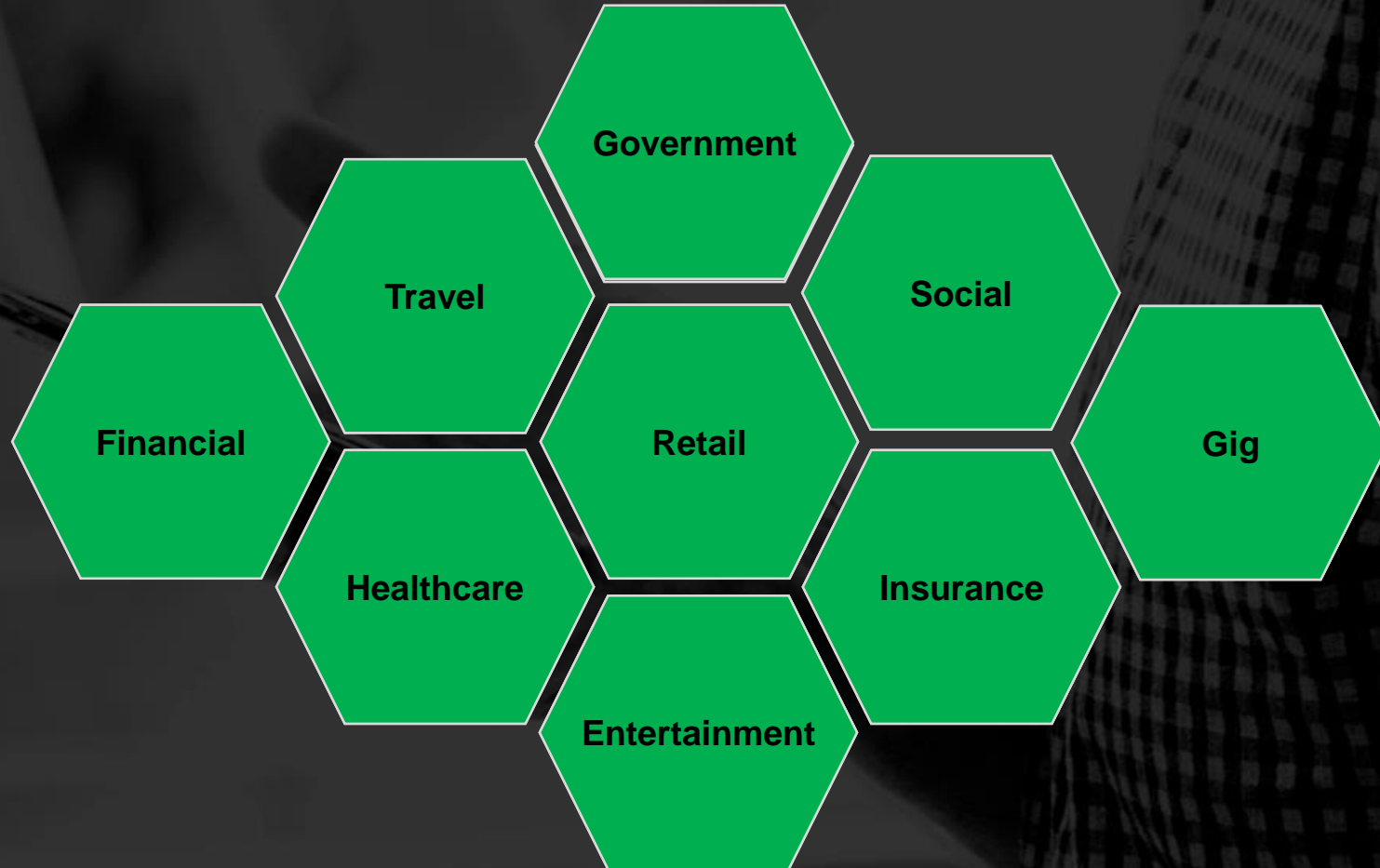
Reducing Fraud through Enhanced Mobile Security and ID Authentication



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The Global Economy is Going Digital

Consumers are conducting more and more sensitive transactions online, resulting in a need for higher confidence and security.



A grayscale photograph of a person's hand holding a smartphone. The person is wearing a checkered shirt. The background is blurred, showing what appears to be a modern building with glass windows. Overlaid on the image in large, white, bold, sans-serif font is the text "But there is a problem.".

But there is a problem.

A person's hand is holding a smartphone, with the person wearing a checkered shirt. The image is dark with a semi-transparent overlay. The text "Actually, there are two..." is written in white, bold font across the center of the image.

Actually, there are two...

Weak Security

86%

Of users expressed concern over security in online purchases

81%

Of Data breaches were due to weak or stolen passwords

Source: Duo, Gartner, Android, Verizon TCP Project Customer Survey, Intelligent CIO, GSMA

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High Friction

87%

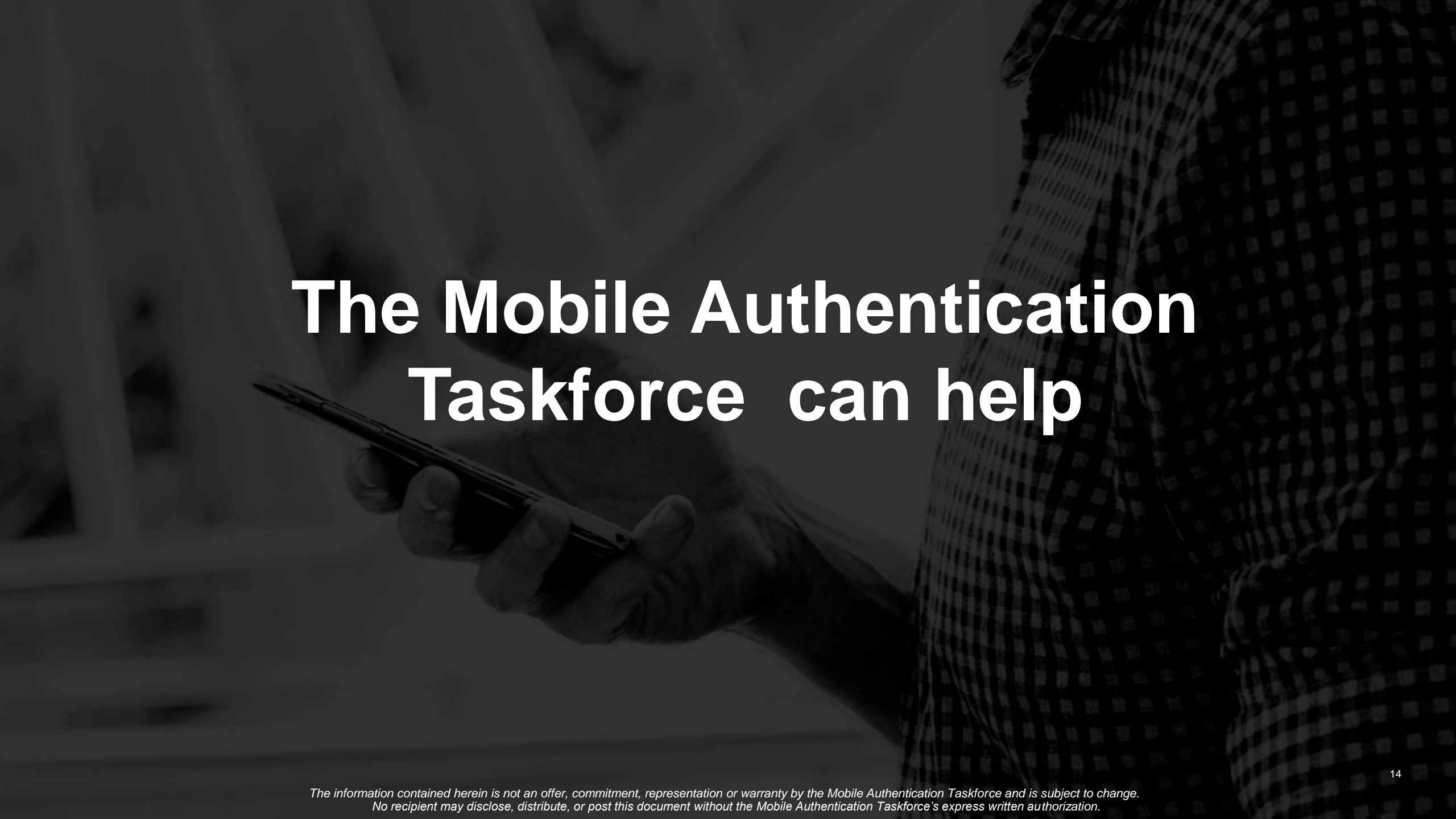
Of consumers left a website when asked to register

63%

Of logins failed due to forgotten credentials

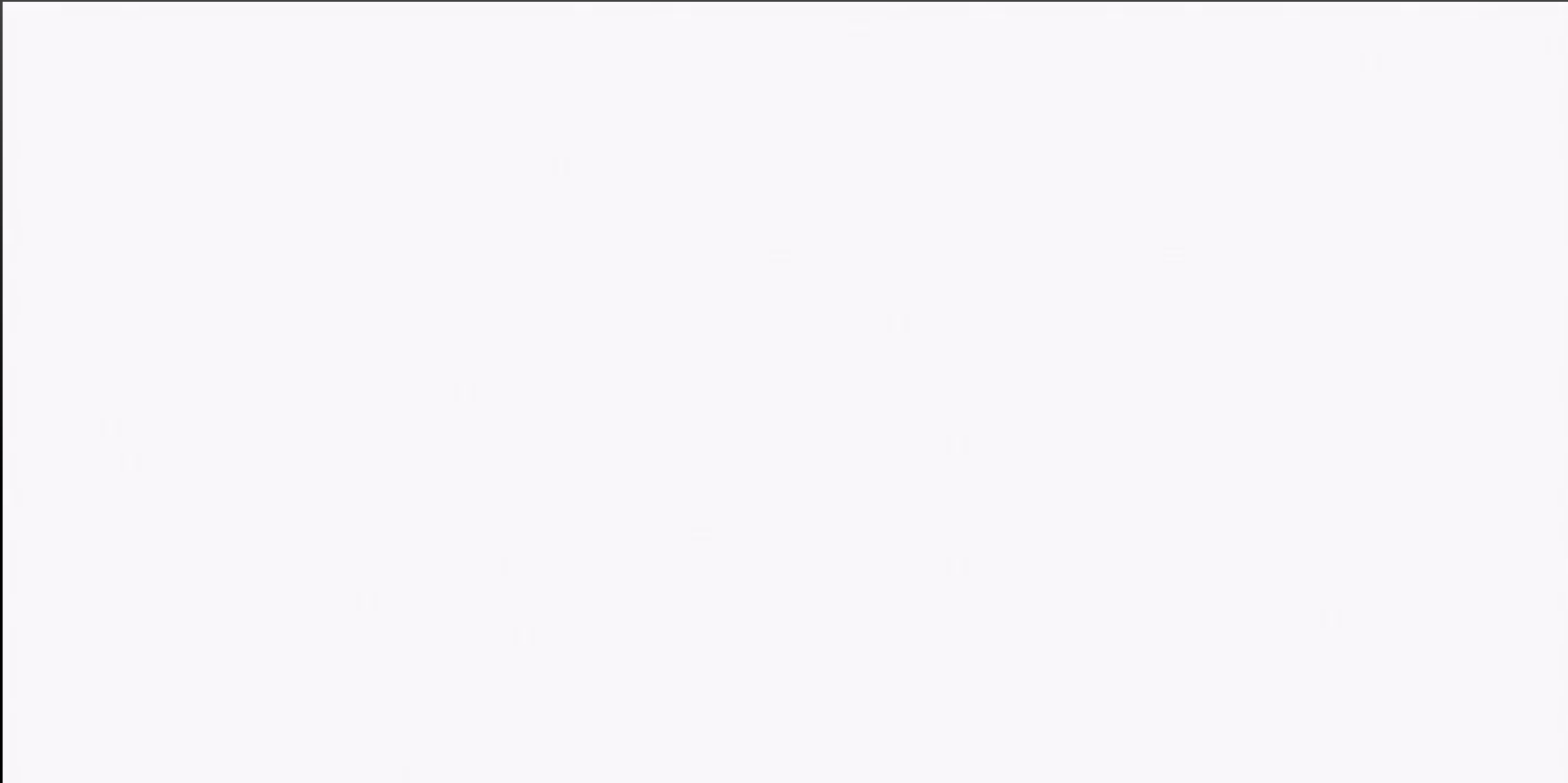
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A person wearing a checkered shirt is holding a smartphone. The image is dark with a white text overlay. The text reads: "The Mobile Authentication Taskforce can help".

The Mobile Authentication Taskforce can help

Meet Project Verify



CREATED BY THE MOBILE AUTHENTICATION TASKFORCE



AT&T



verizon

T-Mobile

More Specifically:



> 450 M Subscribers



Built on existing carrier authentication (SIM)



SIM Swaps



Stolen / Lost Devices



Carrier Threat Analytics



Authenticated Location



WIFI Supported

Integration not Replacement

We understand that identity is core to your business.



Integration not Replacement


We **are not** looking to replace the service provider identity.




We **are** going to strengthen it with ours.

Core Functions for Service Providers

Register

Sign Up using PROJECT
 **VERIFY**

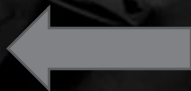
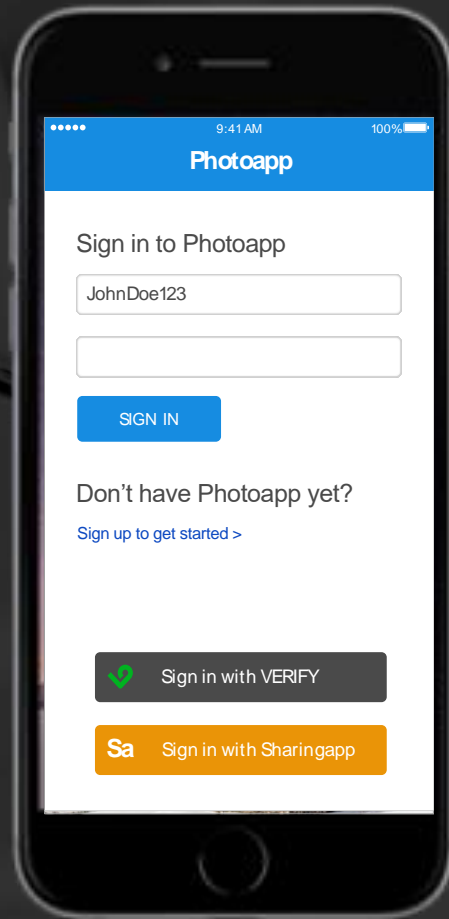
Authenticate

Log In using PROJECT
 **VERIFY**

Authorize

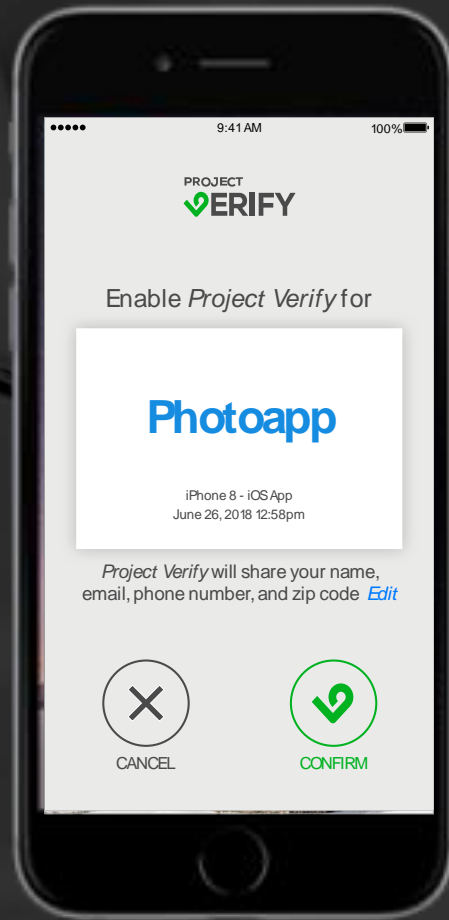
Approve using PROJECT
 **VERIFY**

Sample Authentication Experience



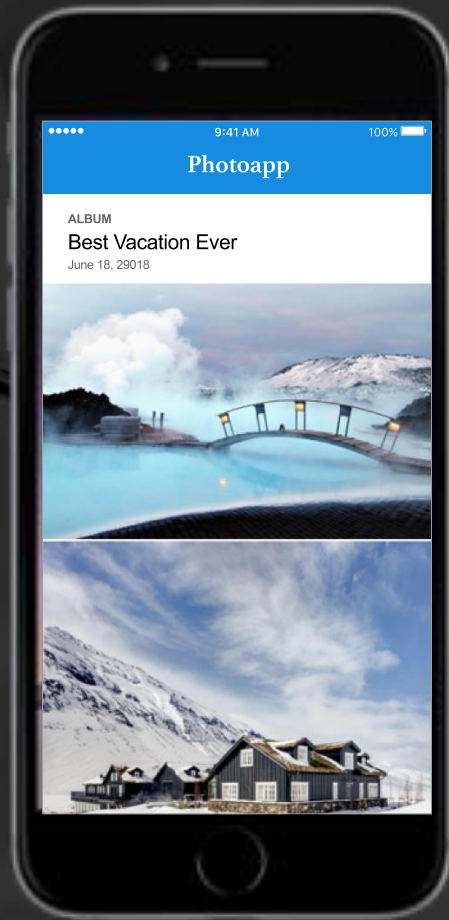
User choses Project Verify option

Sample Authentication Experience



User confirms the link and approves


Sample Authentication Experience



Done.
User is able to use the service.

A grayscale photograph of a person's hand holding a smartphone. The person is wearing a checkered shirt. The image is darkened with a semi-transparent black overlay. Centered over the image is the text 'How can we help your business?' in a white, bold, sans-serif font.

How can we help your business?



Visit our Demo Booth:
Innovation City
Identity Section, Stand 14

www.MobileAuthTaskforce.com

Discussion:

#BetterTogether: Taking digital identity to the next level

Moderator:

Marie Austenaa

VP and Head of Identity Business Development, GSMA

Rodger Desai

Founder and CEO, Payfone

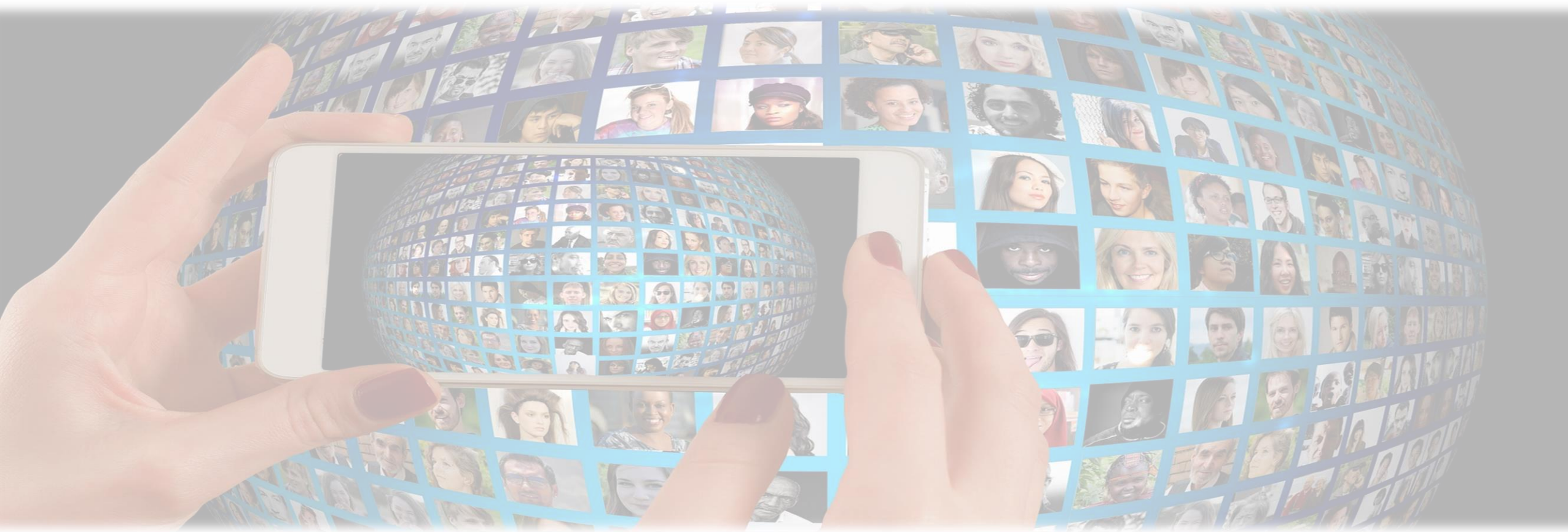
Eric Woodward

Group President of Risk Solutions, Early Warning

Dr Khan Siddiqui

Founder and CTO, high





Banking Case Study in the US

Presented by: Lyndi Long, Zumigo & Hrishi Talwar, Equifax

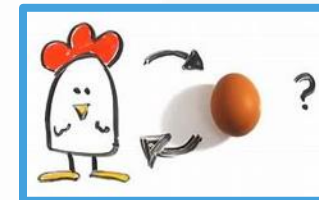
Emergence of One-time Passcodes



- **Many US banks are phasing out email password reset links and challenge questions**
 - Email accounts are easily hacked, allowing fraudsters to intercept the link
 - Challenge questions are cumbersome and customers often forget the answers
- **Instead, banks are now sending one-time passcodes (OTPs) via voice or text message to the customer**
 - In theory, the customer's ability to enter the one time passcode proves that they are who they say they are since they have possession of the phone

Challenges with OTPs

- **OTPs have their own set of challenges...**
- **Fraudsters have learned how to hijack phone numbers to intercept voice and text OTPs**
 - **Porting Scams**
 - **SIM Swaps**
 - **Call Forwarding**
- **Some banks don't have the customer's current phone number on file**
 - **How does the bank know it is safe to send an OTP to a new phone number if they aren't sure the person giving them the phone number is the real person?!**

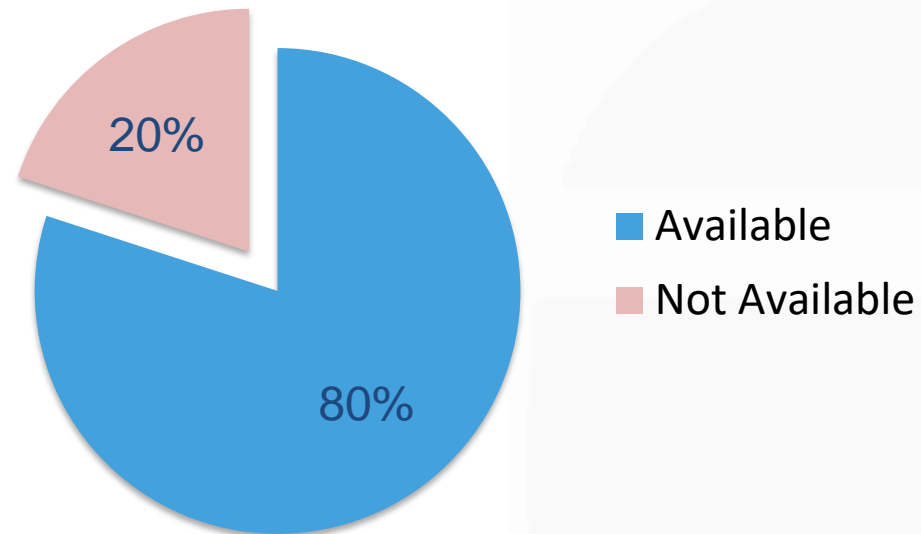


- The introduction of carrier data has helped with many of these challenges:
 - ✓ **Detecting Ports**
 - ✓ **Detecting SIM Swaps** - by looking for changes in IMSI & IMEI
 - ✓ **Detecting Call Forwarding**
 - ✓ **Detecting “Riskier” Phones** - by checking for brand new accounts and prepaid phones
 - ✓ **Verifying Ownership** - by checking the name and address associated with the phone number...*but it's not perfect....*

Phone Ownership Issues

- **Phone ownership can be difficult to assess due to gaps in the data returned by the carriers**

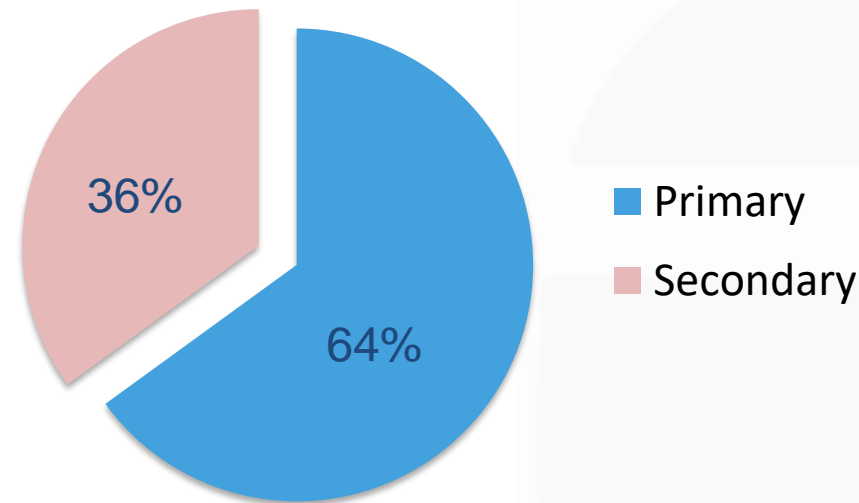
Name & Address Availability



- **Sprint does not return information for business or government accounts**
- **Many prepaid accounts don't have name and address information**

- **Phone ownership can also be difficult to establish due to family plans**

Primary vs. Secondary Lines



- **Secondary lines are not always updated with the information of the person using the phone**
- **The primary account holder's information gets returned by the carrier instead**

Phone Ownership Issues

- Often, there is no obvious relationship between the name and address returned by the carrier and the person claiming ownership of the phone
 - ✓ Mixed families have different last names due to divorce and remarriage
 - ✓ Kids go away to college
 - ✓ 41% of millennials (21-37 years old) are still on their parent's plan*
 - ✓ Other "family" (friends and family) are added to existing plans because it's cheaper to add a line



***Source: Country Financial Security**

Confidential & Proprietary – Zumigo & Equifax

Householding for Matching



- Zumigo has partnered with Equifax to offer householding to solve these problems
- Householding improves match rates in cases where the carrier returns information for the primary subscriber -instead of the person using the phone
- Credit and utility data is used to establish a link between the primary subscriber and person using the phone
- The linkage shows that they are part of the same household and are likely



Householding: A Real-Life Example

Bank trying to verify:

Phone: 813-766-4054
Name: Isis Ash
Address...Sunnyvale, CA
MM/DD of Birth: 07/04



Carrier returns:

Phone: 813-766-4054
Name: Lyndi Long
Address...Plant City, FL
Nothing Matches!?



Zumigo sends a request to Equifax for householding

Equifax finds:

Name: Lyndi Long
Address...Plant City, FL
MM/DD of Birth: 05/31



Equifax looks for someone on a verified account with Lyndi with DOB=07/04 and finds:

Account: Sears Credit Card
Cardholder: Lyndi Long
Address...Plant City, FL
MM/DD of Birth: 05/31
.....
Authorized User: Isis Ash
Address...Sunnyvale, CA
MM/DD of Birth: 07/04

Equifax Returns

Name: Isis Ash
Address...Sunnyvale, CA
MM/DD of Birth: 07/04



Zumigo compares the Bank and Equifax info:

Phone: 813-766-4054

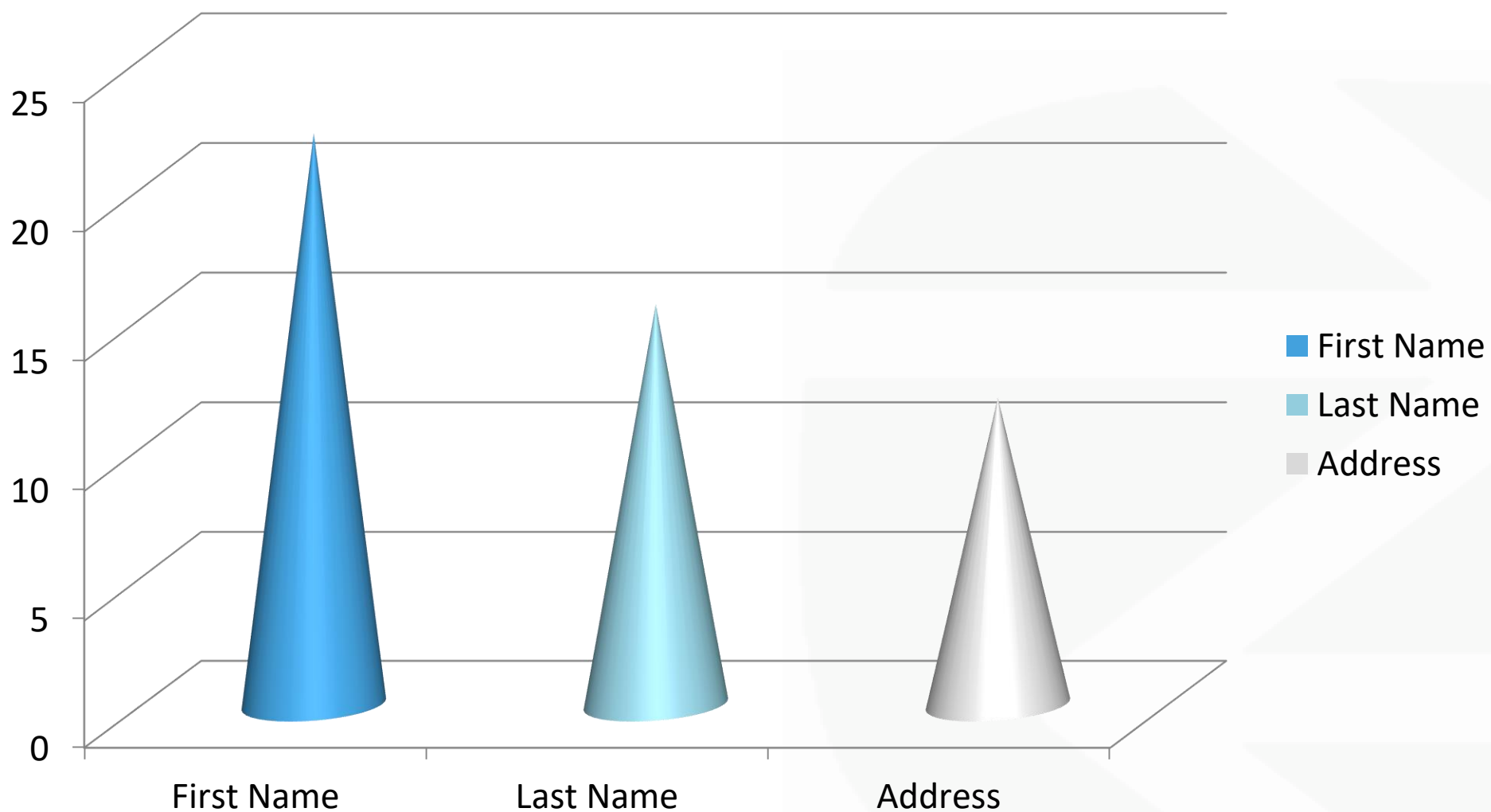
- ✓ Name: Isis Ash
- ✓ Address...Sunnyvale, CA
- ✓ MM/DD of Birth: 07/04
-
- ✓ Name: Isis Ash
- ✓ Address...Sunnyvale, CA
- ✓ MM/DD of Birth: 07/04



Isis is likely to be on Lyndi's family plan and this is likely to be Isis' number.

Case Study: Householding Statistics

% Match Rate Improvement for a Bank by Using Householding



Householding for Form Fill



- **Equifax uses carrier data in their InstaTouch offering**
- **InstaTouch is used by major retailers to automatically complete a credit card application on a mobile phone**
- **Householding improved the accuracy of the information that is filled out on the form**

Form Fill: A Real-Life Example

BEFORE:

Personal Information

FIRST NAME
Lyndi

LAST NAME
Long

STREET ADDRESS (NO P.O. BOXES)
2324 Village Green Blvd

STREET ADDRESS LINE 2

CITY
Plant City

STATE
FL

ZIP CODE
33566

Continue

AFTER:

Personal Information

FIRST NAME
Isis

LAST NAME
Ash

STREET ADDRESS (NO P.O. BOXES)
1263 Lakeside Dr

STREET ADDRESS LINE 2

CITY
Sunnyvale

STATE
CA

ZIP CODE
94085

Continue



Thank You



Global service providers: views on strong ID authentication

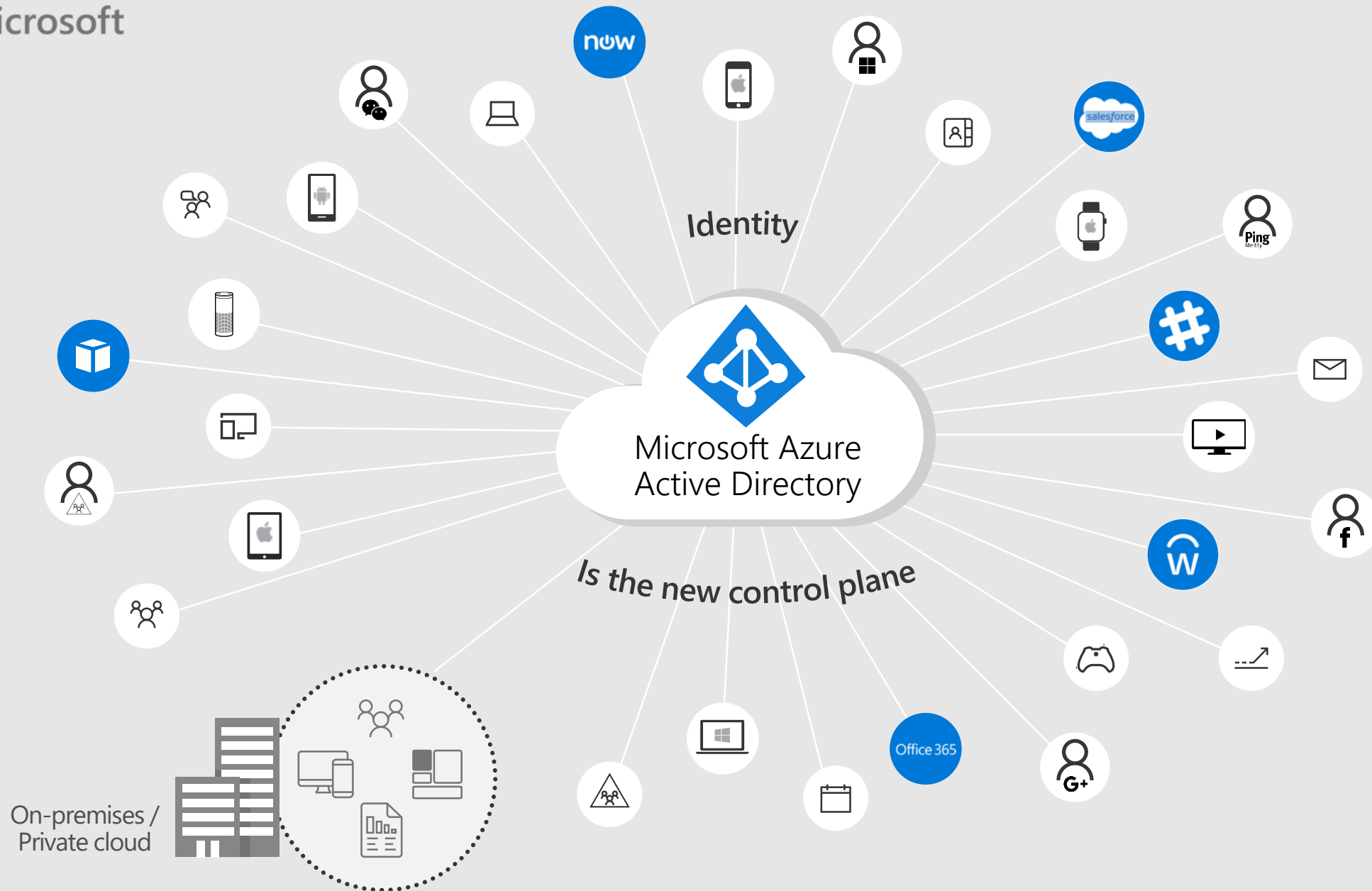
Mobile Connect for Microsoft Azure



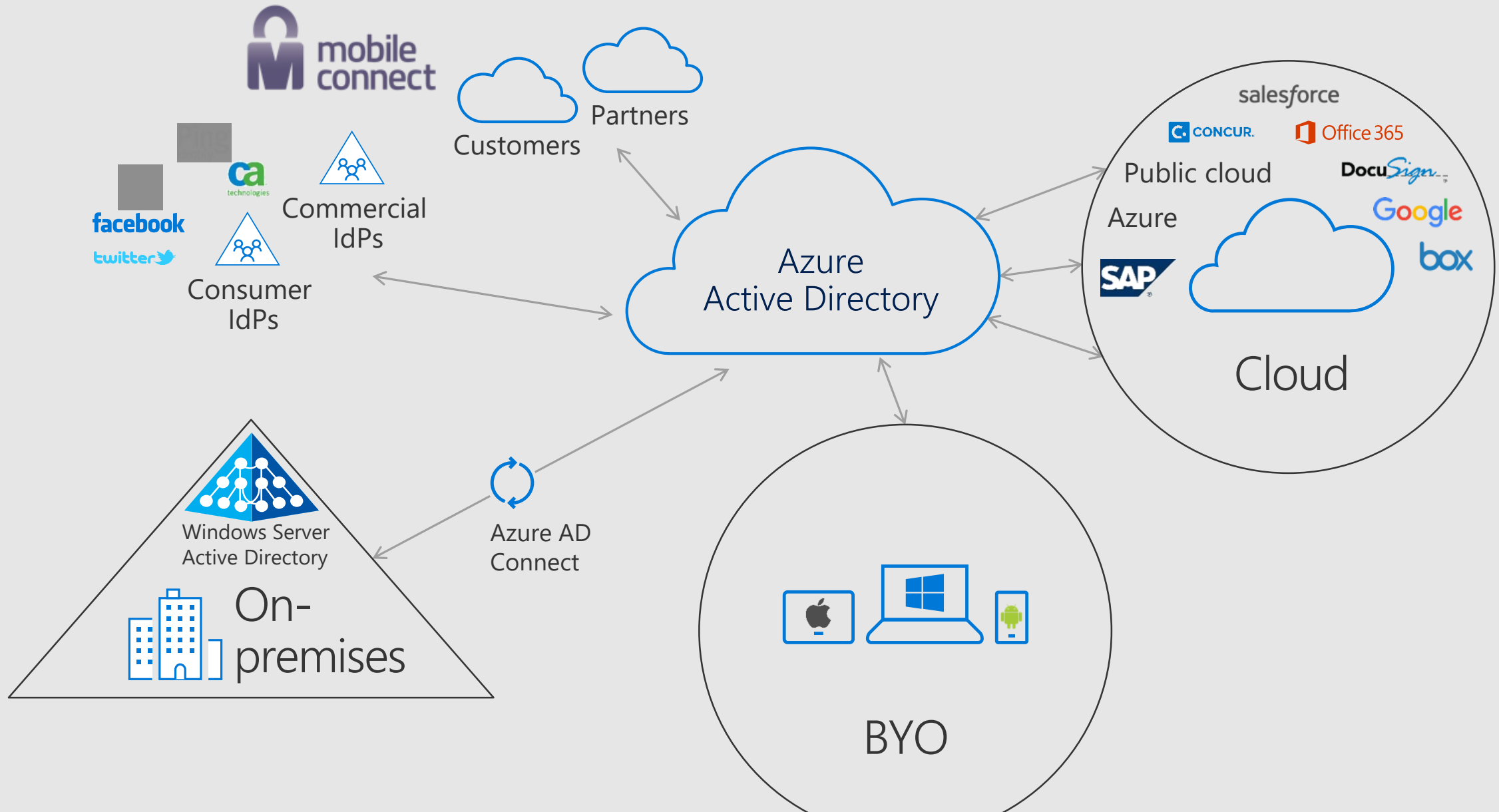
Morgan Webb
Senior Program Manager
Identity



Robert Blumenthal
Chief Identity Officer



Identity as the Control Plane



MOBILE CONNECT CANADA

- Secure smartphone app authenticator (SAA)
- Deeply linked to telco-based authentication and IDV
- Multiservice account recovery and lifecycle management
- Supports web, mobile and call-centre channels
- National deployment planned for 2019

Bell

TELUS

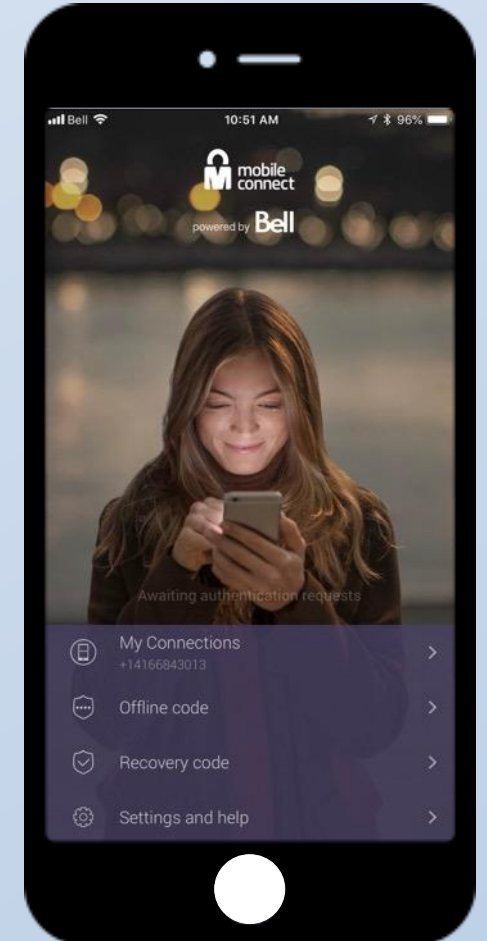
Koodo
mobile

Virgin
mobile

ROGERS

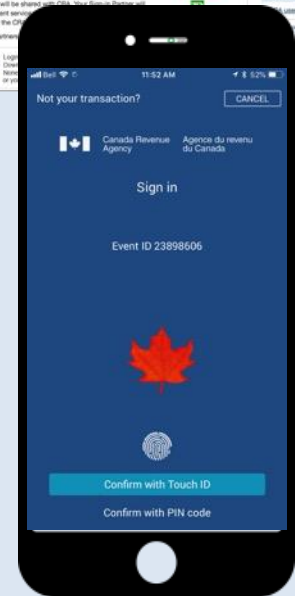
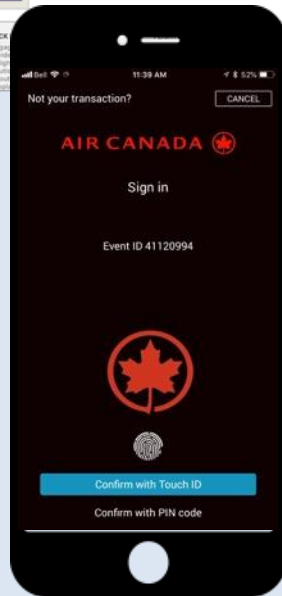
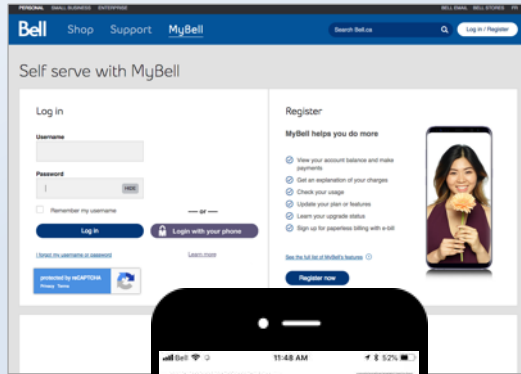
fido

lucky
mobile



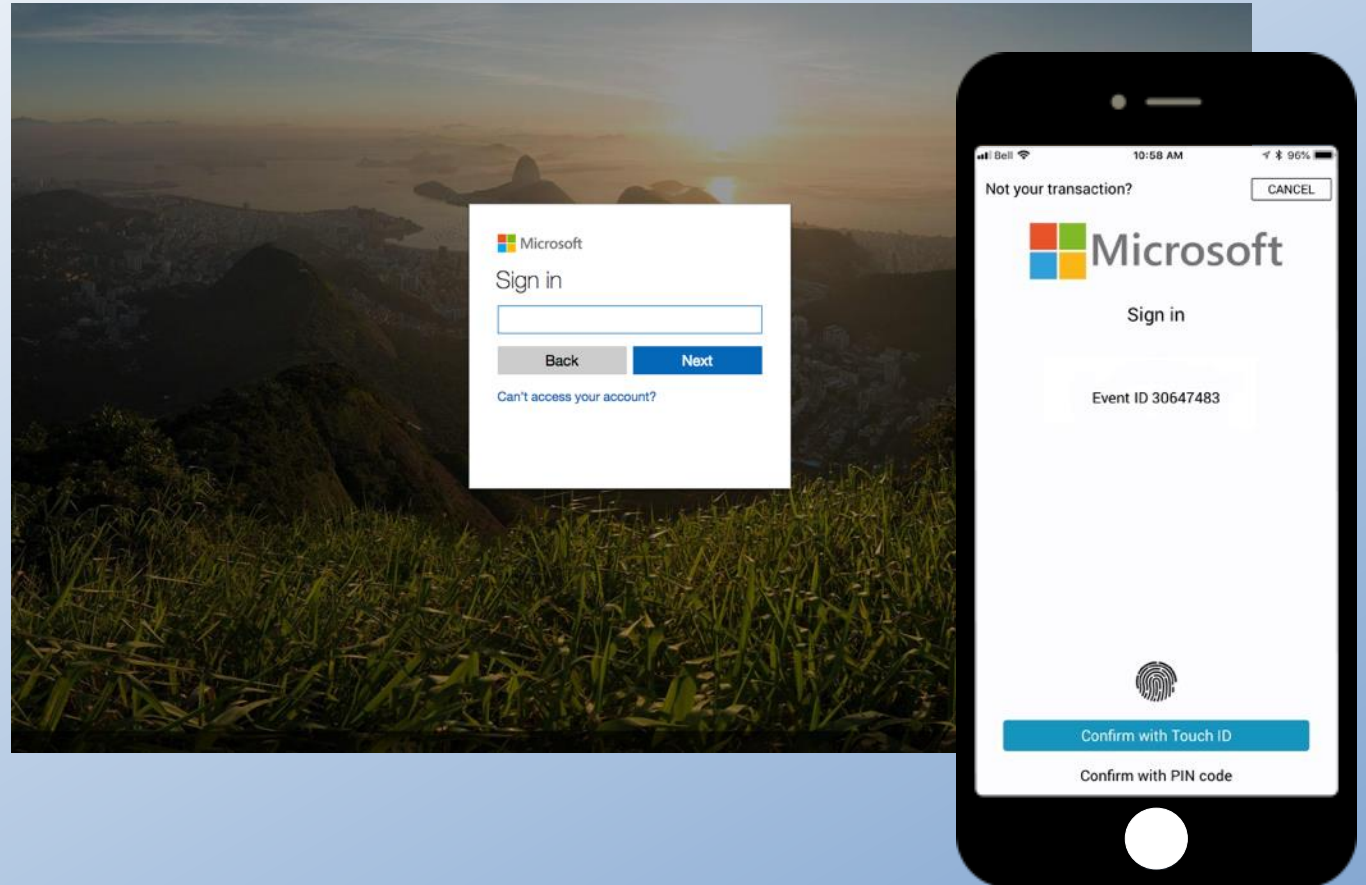


TRANSACTIONS WITH SERVICE PROVIDER BRANDING, DEVICE BIOMETRICS OR PIN



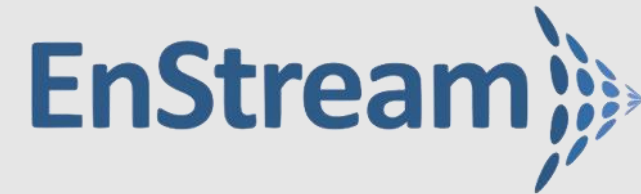
MICROSOFT PRIVATE PILOT

- Step-up authentication using Mobile Connect BYOD / BYOC
- Microsoft Azure, Azure AD, Office 365
- Configuration option for Administrators in supported markets
- Options for password-less authentication





Morgan Webb
Senior Program
Manager Identity



Robert Blumenthal
Chief Identity Officer

Discussion: Intelligent authentication; US carriers make headway on challenging unauthorised access

Moderator:

Ana Tavares Lattibeaudiere

SVP and Head North America, GSMA

Bill O'Hern

Senior Vice President & Chief Security Officer, AT&T

Michael Goo

Vice President & General Manager, Emerging Businesses T-Mobile

Doug Garland

Vice President, Innovation & Partnerships, Sprint

Pavan Challa

Director of Product Management, Verizon

Intelligent Networking with a
Owner-Centric design.

CLAYSTER

ENABLING NEXT THE GENERATION INTERNET

DEBUNK MYTH No.1

M2M \neq IoT





IoT is not a Cloud game

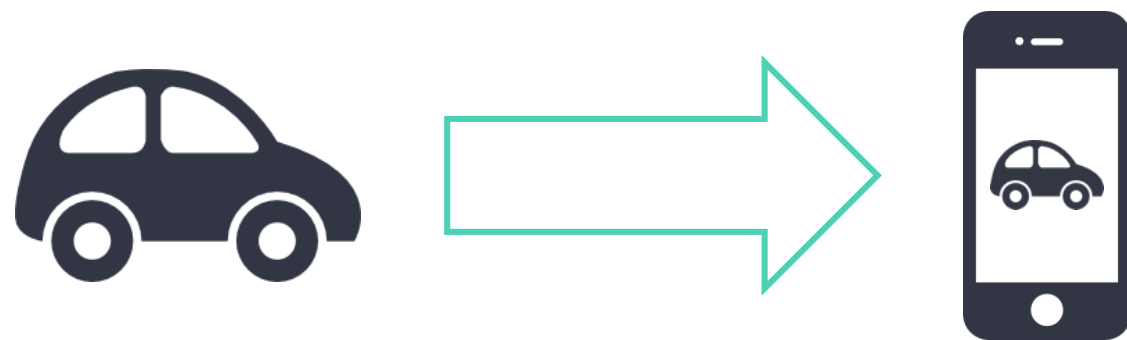
It is a **Network** game



CLAYSTER

DEBUNK MYTH No.2

Product -> Service



A close-up photograph of a person's forearm and hand. They are wearing a gold-colored smartwatch with a black strap. The watch's screen is black and displays a large red heart icon in the center, which is a common symbol for heart rate monitoring. The person's hand is visible, with a small tattoo on the back of the hand. The background is a blurred cityscape with tall buildings.

Access to device data will be
controlled by its digital owner



What is IoT?





Non-Legal Identity



Legal Identity



Non-Legal Identity



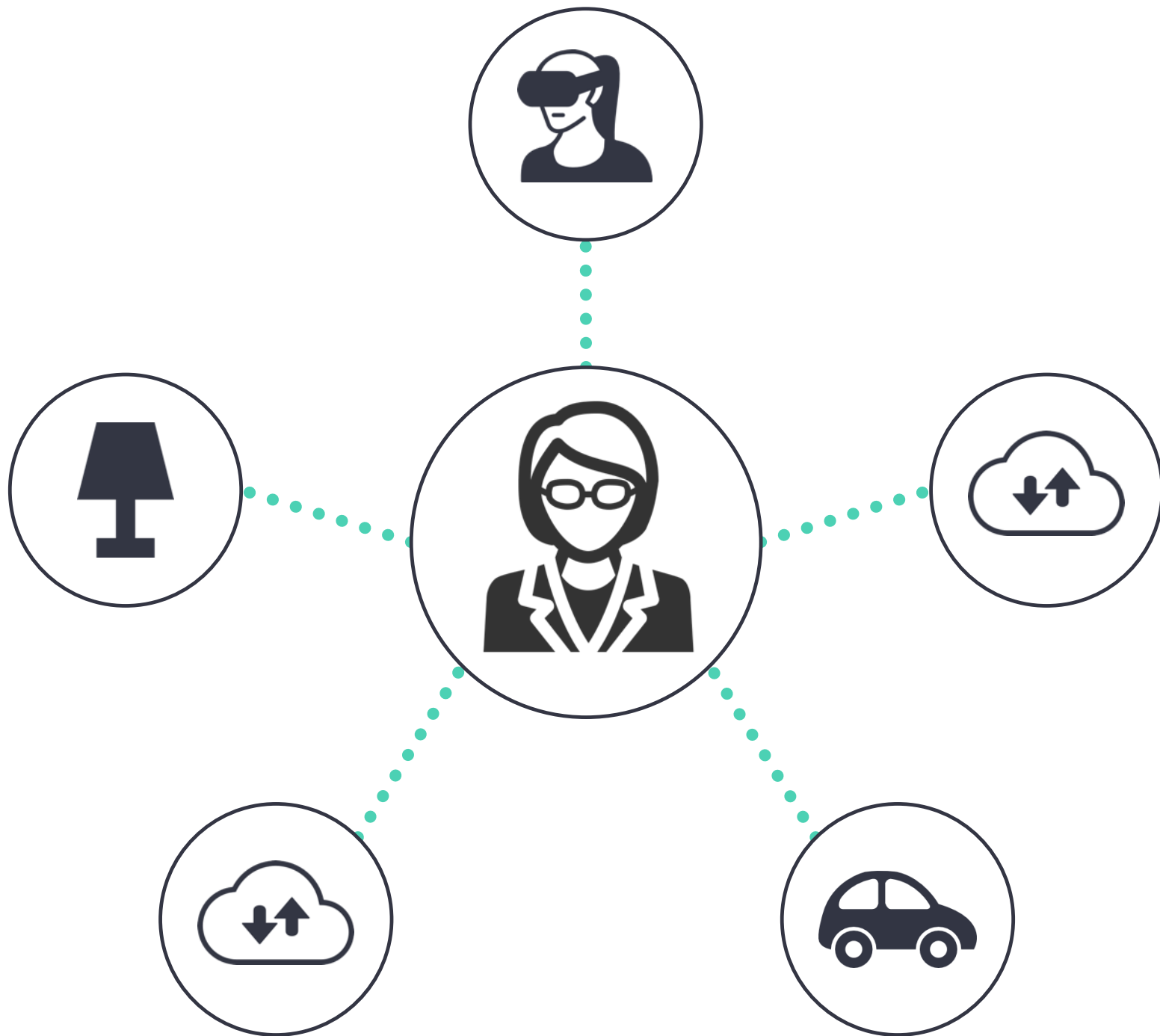
Legal Identity

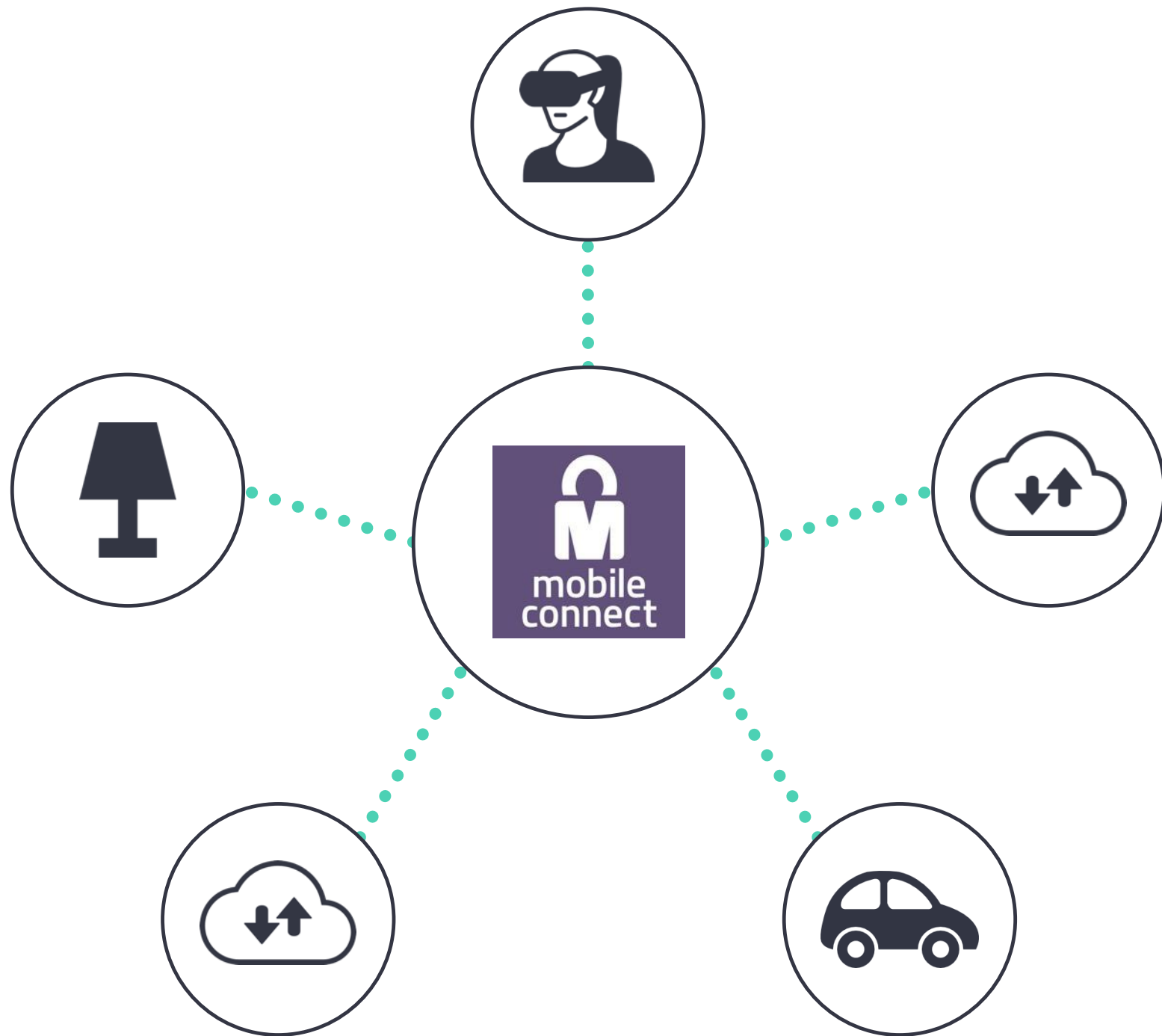


Non-Legal Identity



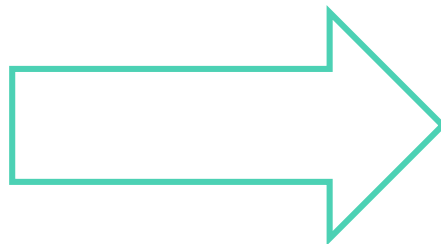
Legal Identity







How do we (*network owners*)
make money?



=

Revenue



Owner



≠

Revenue

Access to value is where your
new business lives



Car Management

Insurance

In-Car Delivery



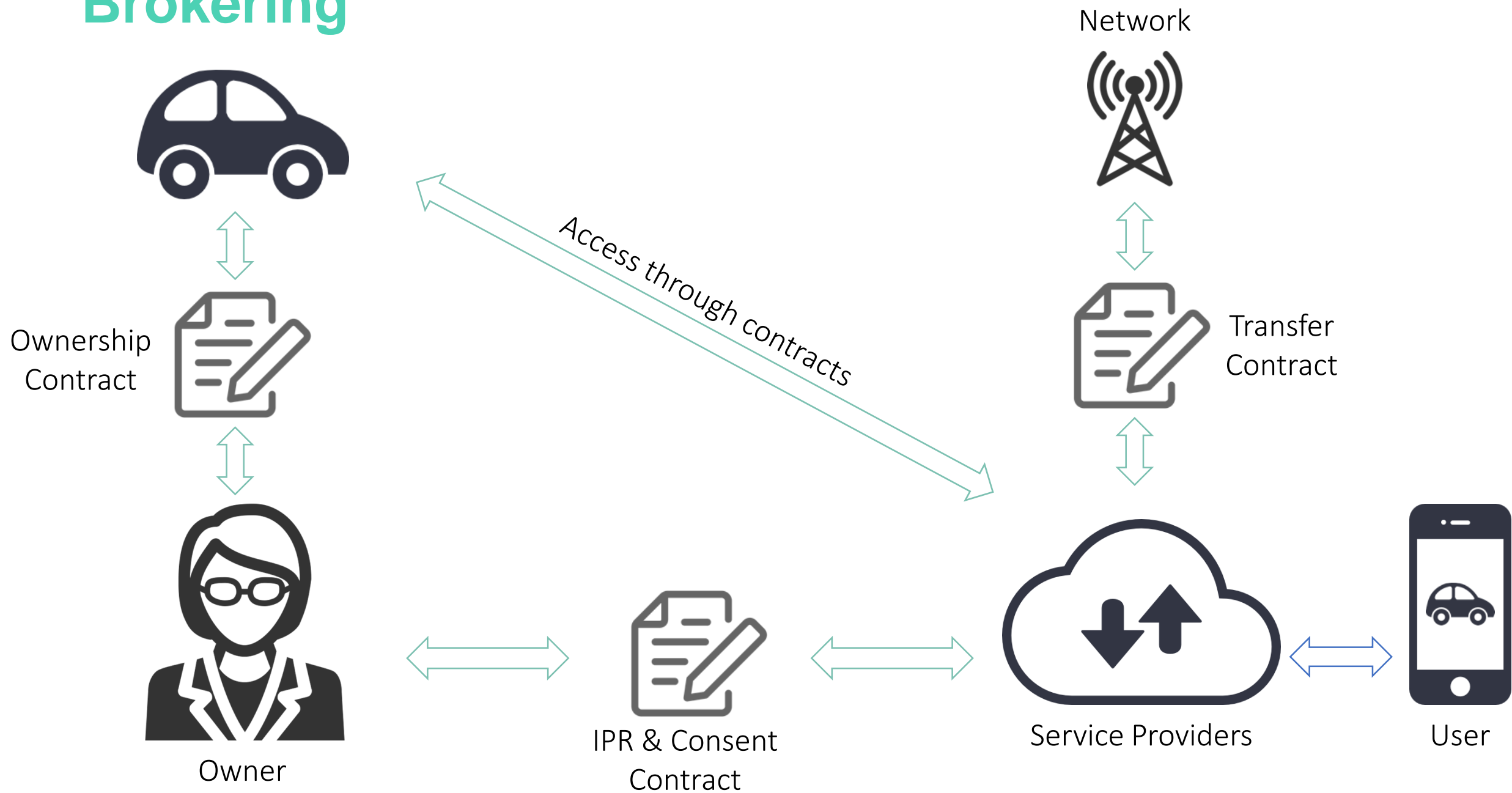


CLAYSTER

A person wearing a light blue button-down shirt is seated at a desk, signing a document with a dark pen. Their left hand rests on the paper. The scene is dimly lit, with a dark background. The text "Contract brokering" is overlaid in white, centered on the image.

Contract brokering

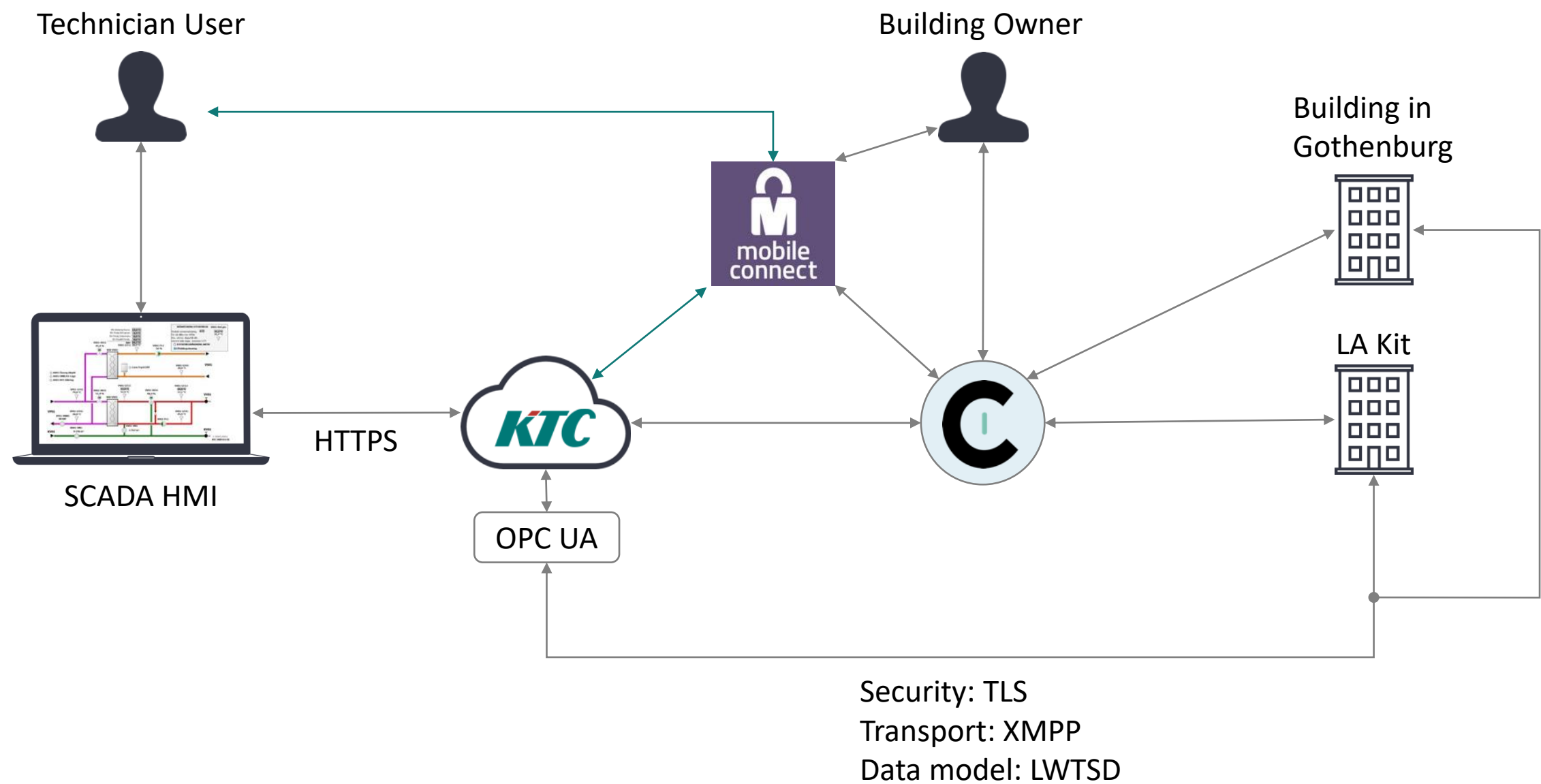
Brokering



A low-angle, upward-looking shot of a modern skyscraper with a glass facade. The building's sharp lines and reflective windows create a sense of height and architectural grandeur. The sky is filled with soft, white clouds, providing a contrasting background for the dark structure of the building.

Connected Building demo in the Innovation City

Use Case: Energy Management





CLAYSTER

RIKARD@CLAYSTER.COM
+46708774333

Discussion: Future identity trends: IoT and ID Management

Moderator:

Mark Harvey

Global Engagement Director, GSMA

Jim Greenwell

CEO & President, Danal

Simon Wakely

SVP for Mobile Security, Gieseke+Devrient

Anatoly Kvitnitsky

VP of Growth, Trulioo



Summary & Thank You