IATA AVIATION DATA SYMPOSIUM
ATHENS, GREECE  25 – 27 JUNE 2019
PAYMENT & FINTECH
Opening Remarks

Juan Ivan Martin, Head of Digital Finance, IATA
Payments & Fintech
-Opening Remarks-

Aviation Data Symposium

Juan Iván Martín
Head of Digital Finance
FDS - Transformation

Athens, 25 June 2019
Change Drivers

- Society
- Technologies
- Environment
- Economy
- Politics
Payment riddle

Convenience

Security

Cost

Cost

low

high

Security

high

Convenience

low

Classic Wire transfer

Card

Apple Pay

Optimal proposition
During this Track

- Bank
- Card Scheme
- Airline
- Blockchain SME
- Payments SME
- Revenue Accounting SME
- Fintech
- SME
- SME
- Revenue
- Accounting
- SME
What is IATA doing?

A digital airline vision for finance and distribution

- NDC
- ONE Order
- NewGen ISS
- TIP
- ID Management
- Digital Finance
Fintech areas of application
Blockchain in Aviation

Provenance
Certification
Codifying
Agreements
Tokenizing
Value
Identity
Management
IATA Coin

Moonshot:
Real time cross border payments at cero cost
IATA Coin - Pilot
IATA Coin - Conclusions

- Tech works
- Data and cash-flow acceleration
- Too soon
- Risk Adversion
- Systems not ready
Thank you!

- Juan Iván Martín
- martinj@iata.org
- www.iata.org
The big picture: Facts, Figures, Market trends & regulatory framework

Pascal Burg, Director, Edgar, Dunn & Company
Today we will discuss key payment trends and their implications for Airlines.
What are the demand-side trends among the two types of customers in a payment transaction: (a) buyers and (b) airlines?
On the buyer side:

1. Younger consumers are different from previous generations

Younger Consumers More Willing To Enjoy Life

... and spend

Taxis & Ubers – 53%
(Middle: 29%; Older: 15%)

Fancy Coffee – 60%
(Middle: 40%; Older: 29%)

Eating Out – 79%
(Middle: 66%; Older: 56%)

More Willing To Move To Person To Person Commerce

% of respondents who used P2P lodging sites in the last year

Source: Charles Schwab survey: "I spend money on...
Note: Survey categorizes Millennials (younger); Gen X (Middle); Boomers (Older)

Source: Goldman Sachs Survey
Millennials and especially Gen Z are the first “mobile natives”, which influences their decision-making behavior and relationship to money.

In 2015, Millennials became the #1 source of global income, spending, and wealth creation.

76% of Millennials’ financial engagements are mobile.

68% of Gen Z reads at least 3 reviews before making a first-time decision – 16% reads 9 or more reviews.

60% of Millennial consumers are willing to share their bank account credentials with third parties.

25% of Gen Z is working part-time, 23% does odd jobs and other short-term work, and 22% earns their allowance.
2. **Mass affluent consumers** are showing a notable and sustained growth that could be addressed by Airlines.

**Rapid growth in mass affluent consumers**

<table>
<thead>
<tr>
<th>Year</th>
<th>Consumer Numbers in Billions</th>
<th>Consumer Spending in $ Billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>3.0</td>
<td>34,814</td>
</tr>
<tr>
<td>2020</td>
<td>3.8</td>
<td>42,279</td>
</tr>
<tr>
<td>2025</td>
<td>4.6</td>
<td>52,234</td>
</tr>
<tr>
<td>2030</td>
<td>5.4</td>
<td>63,854</td>
</tr>
</tbody>
</table>
3. The higher growth is coming from consumers in developing economies such as China or Indonesia

Annual additional passengers from 2017 to 2037:
- **China**: 1 billion new passengers
- **US**: 481 million
- **India**: 414 million
- **Indonesia**: 282 million

Source: IATA
On the airline side:
Increasing focus on managing payments more strategically and on leveraging payment data

Airlines are increasingly leveraging data to reduce payment costs AND increase payments-related revenues

**A. Reduce payment costs**
- Control usage of Agent’s VANs
- UATP issuance

**B. Protect existing revenues**
- Reduction in decline rates using algorithm-based smart routing
- Reduction in «false positives» based on fraud models/machine learning

**C. Generate additional revenues**
- Co-brand cards/prepaid
- AFOPs* in non-card markets
- Surcharging

*Alternative forms of payment
Today we will discuss key payment trends and their implications for Airlines

Key Payment Trends

Demand Side Trends

Supply Side Trends

So What? – Best Practices
Supply-side trends: What are the relevant payment trends?

- New payment players
- Payment technology
- Payment regulation
1. New technologies such as API access to bank data (via “open Banking”) and Instant Payments create new opportunities for Airlines

Singapore - World’s first unified payment QR code, the **SGQR** is compatible with 27 payment schemes

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Groupe BPCE now offers instant payments to customers

Wednesday 4 July 2018 | 10:30 AM CET

With **Natixis Payments**, Groupe BPCE has become the first banking group in France to offer instant payment to its customers.

Instant payment allows for the completion of account-to-account payments within 10 seconds. Groupe BPCE’s introduction of this new service – a first in France – offers many advantages for all categories of banking and insurance customers, be they individuals, merchants, companies or administrations.

In addition, Air France and Natixis Payments are today announcing a partnership that places Air France at the vanguard of efforts by French merchants to foster the take-up of instant payment. Through the partnership, Air France customers in Europe will soon be able to buy flight tickets or pay for a service with this new means of payment.
2. New players offer new alternatives, but also create a more complex ecosystem

Alternative Forms Of Payment (AFOPs)

New Types of Players

**GOJEK**
“Motorcycle ride-hailing phone service”
2010

“One app for all your needs”

Source: PYMNTS.com
3. New regulations: it is key to understand the regulation changes in order to potentially gain a competitive advantage (e.g. SCA exemptions in EU)

Wide range of EU payment regulations

SCA*

Interchange Fees

PSD2

In other markets, regulators are also reducing interchange fees ...

*Strong Customer Authentication
Today we will discuss key payment trends and their implications for Airlines

Key Payment Trends

Demand Side Trends

Supply Side Trends

So What? – Best Practices
So what?

Do you have a dedicated payments team to ... ?

Leverage Payment Data and Opportunities

Mitigate Potential Threats
EDC would suggest a three-phase approach to pro-actively manage payments with a P&L focus …

**Phase 1**
360° Payments Diagnostic / Audit
- What - Identify priority payment opportunities

**Phase 2**
Future State / Roadmap
- How - Steps to do it? Payment projects on roadmap

**Phase 3**
Roadmap Execution
- On-going usage of payment data and focus on payment optimisation
... and build the internal set-up and partner relationships to be able to pro-actively manage payments and leverage payment data.
Edgar, Dunn & Company (EDC) is a global strategy consultancy focused on payments and with a Travel practice since 2002

EDC: International consultancy focused on payments and on travel

- Founded in San Francisco in 1978, the firm is widely regarded as a trusted advisor to its clients, providing a full range of strategy consulting services focused on payments.
- Travel payments practice since 2002, working with the entire travel value chain, including airlines, IATA, card issuers, merchant acquirers, etc.
- If you want to discuss payments-related topics with us: pascal.burg@edgardunn.com

Shaded blue countries represent markets where EDC conducted client engagements.
What can you do with Payment Data?
How to extract value from customer transactions

Joseph Pabst
Vice President, Airline Risk Management, American Express
Networking Break
The art of predicting

Conrad Lennard, Sr. Exec, Featurespace
The Art of Predicting

Created for The IATA Data Symposium, Athens, 2019

Conrad Lennard

Tuesday 25th June 2019
30 YEARS OF RESEARCH
Prof. Bill Fitzgerald and David Excell
Inventors of Adaptive Behavioral Analytics

17 major banks globally
including 4 of the 5 leading banks in the U.K.

120 MILLION consumers protected from fraud

A NEW WAY TO FIGHT FRAUD
Featurespace’s world leading Adaptive Behavioral Analytics focuses on understanding customer behavior at a granular level – so fraudulent behaviour stands out.
Capital One U.K.'s use of TSYS Foresight ScoreSM with Featurespace named ‘Best Security or Anti-Fraud Development’ at The Cards & Payments Awards 2018

Best performing models in all areas of fraud having won every PoC we have entered (12 in 2018)

50.4 BILLION events processed per year
About Featurespace

- Male
- Female
- Heavy
- Light
- Nervous
- Relaxed
- Happy
- Sad

On/Off
Lines
Reset
Info
The main fraud prevention solutions available today show significant differences regarding their performance.

- Rules-Based Fraud Prevention
- Machine Learning Fraud Prevention
- Featurespace Adaptive Behavioral Analytics

**Rules-Based Fraud Prevention**
- Performance drops drastically as fraudsters change their MO
- High maintenance costs
- Difficult to manage due to the number of rules required and their complexity
- Cannot prevent new types of fraud
Traditional “Machine Learning” Fraud Prevention
- Frequent retunes needed
- Done quarterly or even yearly
- Model performance may drop dramatically between retunes
- Cannot react quickly to fraud attacks that happen shortly after retune

Featurespace Adaptive Behavioral Analytics
- Self-learning models
- No manual retuning required
- Truly adaptive
Our Customers

Top 25 US Bank
TSYS
Worldpay
MIT

E-Commerce Merchant
IATA

Danske Bank
European PSP

ComeOn

Leading UK-Based High Street Bank
Digital-Only Challenger Bank
PaddyPower Betfair
GoCompare

UK-Based Bank
goHenry
Vocalink

Credit Reference Agency
Close Brothers
Clear Bank

Contis

Global Credit Card Issuer
Global Issuing Bank
Worldwide E-Commerce Merchant
Betfair Australia
Building a new transactional fraud detection system with a global credit card issuer with over 1m U.K. customers

<table>
<thead>
<tr>
<th>70%</th>
<th>80%</th>
<th>39%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in genuine transactions declined</td>
<td>Reduction in genuine transactions declined CNP</td>
<td>Reduction in fraud losses</td>
</tr>
</tbody>
</table>

Number of false positives using Adaptive Behavioral Analytics

![Graph showing number of false positives before and after using Adaptive Behavioral Analytics. The graph indicates a significant reduction in false positives over time.](image_url)
Merchant monitoring for one of the world’s fastest growing global acquiring networks

“What is particularly clever about Featurespace’s system is that it can learn from new types of fraud; allowing it to keep up with the ‘arms race’ against innovative criminals.”

- Felicity Hannah, The Independent

Reduction in daily chargeback value: 58%
Decrease in daily mid level alerts: 60%
Reduction in average fraud value: 58%
Offering a real-time risk management solution to the trade organisation for the world’s airlines

“IATA has a fundamental responsibility to protect the financial systems that make today’s integrated global air transport network possible.

Safer selling is a key component of IATA’s NewGen ISS program and this agreement with Featurespace will provide IATA’s customers with an additional layer of security.”

– Juan Antonio Rodriguez, Director, Financial and Distribution Services Operation, IATA

IATA represent 290 airlines, with a passenger count of 2.7b

…that’s 82% of total air traffic

International Air Transport Association (IATA) selected Featurespace to enhance their selling environments’ safety as part of the NewGen ISS program. A key feature is the Remittance Holding Capacity (RHC).

In 2019 ARIC will score over 216M transactions per year. ARIC scores 95% of the world’s travel agent airline ticket card sales

In 2019 ARIC will score 95% of the world’s travel agent airline ticket card sales
Open Banking

Benjamin Madjar, Director, Deutsche Bank
IATA Aviation Data Symposium & AI Lab

June 2019
What is Open Banking?

- Banks will have to open up their own systems to incoming API calls from licensed and regulated TPPs to collect account information and instruct payments for consumers.

- **Push Payments** is one particular service enabled via Open Banking, enabling real or near real time payments via SCT, SCT Instant or local ACH, avoiding card networks and other PSPs, creating a cheaper alternative to card based payments.

- **Open Banking** is deployed in Europe under PSD2 (Revised Payment Service Directive).

Specific regional examples:

- EU is pushing for open banking API's through PSD2.
- National Payment corporation of India, launched a set of APIs in 2016 to create a payment ecosystem.
- In Australia, banks have been asked to open up their architecture and share access to data to competition by July 2018.
- In US, banks have offered API based solutions in collaboration with third party players.

Regulators are focused on bringing innovation to the payments world, create a level playing field and promote competition.
1. Open Banking (2/2)
New service models leading to improved client experience

**Open Banking**

- **Outbound**: Exposing bank APIs to third-party developers through Bank developer portals where third parties can import customer data, enable bank micro-services and build strategic partnerships that benefit their end customers.

- **Inbound**: Banks incorporating product and service features from third-party partners into their own offerings.

**APIs & Open Banking in numbers**

- **77%**: 77% of banks will have invested in API or Open Banking initiatives by 2019.

- **2x**: The number of existing APIs has doubled since 2014, and increased 4x since 2012.

- **€61bn**: Or 7% of the total banking revenue pool in Europe will be associated with Open Banking-enabled activities by 2020.

Source: McKinsey, Accenture open banking, Statista
2. PSD2 (1/6)
Increasing pan-European competition and improving customer rights

Main Objectives
- Promoting payment innovation and adjusting legal requirements
- Increasing the safety of payment transactions and payment services
- Increasing consumer safety
- Specifying scope and exemptions

Timelines
- 14 Jun 2019: Public Go Live
- 14 Sep 2019: Regulatory Go-Live

Key Stakeholders
- European Commission
- EBA (European Banking Authority)
- National Competent Authority
- BaFin
- National Governments in European Union

Key Changes
- Scope extended to all currencies, and to payments where only one provider is located in the EU/EEA
- It introduces strict security requirements for the initiation and processing of electronic payments, and for the protection of consumers’ financial data.

Consent
- It introduces so-called Third Party Providers (TPPs)

Strong authentication
- All TPPs with a „eIDAS“ certificate can access the PSD2 TPP API
New PSD II Services

1. Account Information Service (AIS)
   Conduct enquiries on accounts information to provide services on information

2. Payment Instrument Issuer Service (PIIS)
   Enquire about availability of funds in relation to specific payment instrument

3. Payment Initiation Service (PIS)
   Initiate payments from other accounts as a service for merchants

Use Cases (e.g.)
- Retail
  - Account Aggregation
  - P2P payments
  - C2B payments
- Corporate
  - Cash pooling
  - Liquidity management
2. PSD2 (3/6) - Payment Initiation Service (PIS)
IATA PAY Solution Overview

Why IATA Pay?

**Airlines**
1. **Risk free** (low fraud);
2. **Instant / near real-time settlement**;
3. **Eliminated interchange fee** costs.

**Passengers**
1. **Seamless** passenger experience;
2. **DB branding brings trust & confidence** to solution;
3. **Push Payments will be a familiar payment method** for passengers.
2. PSD2 (4/6) - Payment Initiation Service (PIS)

PIS as an Alternative to Credit Cards

<table>
<thead>
<tr>
<th>Factors</th>
<th>Cards</th>
<th>Push Payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Familiarity</td>
<td>Existing solution known to consumers</td>
<td>New payment method – will become more familiar over time as SCT</td>
</tr>
<tr>
<td>Benefits</td>
<td>Credit cards provide credit, travel insurance etc.</td>
<td>To be defined by Merchant – can be tailored</td>
</tr>
<tr>
<td>Trust</td>
<td>High trust – used many times before</td>
<td>Leverage name of DB branding, as well as Industry based solution</td>
</tr>
<tr>
<td>Cost</td>
<td>Merchant may charge booking fee, no SCT Inst. cost</td>
<td>SCT Inst. cost – this will fall over time as it becomes commoditised</td>
</tr>
<tr>
<td>User Experience</td>
<td>3DS is used for 2FA</td>
<td>Redirect user experience, potential to optimise through IBAN capture for frequent flyers Funds flow out of account real-time adds trust</td>
</tr>
<tr>
<td>Refunds</td>
<td>Refund and claim back from Merchant, however not real-time</td>
<td>Real-time refunds</td>
</tr>
<tr>
<td>Price</td>
<td>Charge between 1-2% for Debit Cards, and 2-3% for Credit Cards</td>
<td>Significantly cheaper, especially for higher transaction items</td>
</tr>
<tr>
<td>Finality of Payment (Risk)</td>
<td>Payment not typically final</td>
<td>Using SCT Inst., finality of payment &lt;10 seconds</td>
</tr>
<tr>
<td>Fraud</td>
<td>Card fraud of ~0.25%</td>
<td>Low utilising 2FA</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Typically D+1 – D+3</td>
<td>Real-time utilising SCT Inst. with real-time reconciliation</td>
</tr>
<tr>
<td>Integration</td>
<td>Existing integration</td>
<td>Can be integrated directly, or via certain Payment Gateways to minimise requirements</td>
</tr>
</tbody>
</table>
2. PSD2 (5/6)
Implications on GDPR, Data, Cyber Security (1/2)

GDPR

- GDPR is a regulation that requires businesses to protect the personal data and privacy of EU citizens.
- It came into effect in May 2018 and covers how data is collected, stored, processed and destroyed.

One of PSD2’s key requirements is that banks must add SCAs for all remote access to customer accounts. This means that when authentication is required, two of three factors will be applied: something the customer is, something the customer has and something the customer knows.

PSD2 isn’t limited to bank transfers, the card payments industry is also bound by PSD2 rules around Strong Customer Authentication.

Data

eIDAS: Electronic Identification, Authentication and trust Services – A set of standards for electronic identification and trust services for electronic transactions. This certificate will be granted by the competent authority.

Failure to implement these capabilities properly may also expose banks to potential loss of sensitive customer data and, under GDPR may lead to fines up to 20mn euros or four percent of worldwide group revenues.
2. PSD2 (5/6)
Implications on GDPR, Data, Cyber Security (1/2)

The cost of cybercrime will continue to increase as more processes, corporates and consumers globally go online.

- **2015:** 75%
- **2016:** 82%
- **2017:** 84%

**Potential cost of cybercrime globally**

$500Bn

**Avg. cost of a data breach for the average company**

$3.8 Mio

**Companies victim to at least one fraud in the past year**

1

2

3

Source: 1) Kroll, 2) Microsoft

Strategic pillars to combat cyber risk in Transaction banking:

1. **Customer awareness**
   - Education, thought leadership and regular updates on current fraud scenarios, countermeasures and best practices

2. **Secure client communication**
   - Information exchanges need to be protected from disclosure to and manipulation by third parties

3. **Strong authentication**
   - Strong means of authentication are required to ensure that only entitled individuals can retrieve information, initiate or authorize transactions on specific accounts

4. **Technical preventive measures**
   - State of the art technical capabilities are required to protect electronic banking channels from third party manipulation

5. **Fraud monitoring & detection**
   - Transaction flows are to be monitored to identify anomalies and unexpected behaviour to alert clients or competent authorities
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Revenue Accounting: final barrier

Mark Costa, Director, Deloitte
A global trend
The introduction of ticket taxes is taking place worldwide

- UK: $4400m
- Sweden: $231m
- Japan: $384m
24/7 Airline Operations
A non-stop stream of tax events, from across the globe
24/7 Airline Operations
A non-stop stream of tax events, from across the globe

- **Wifi**
  - Account for down-route revenue
  - Record and collect extra tax due

- **Bags**
  - 3rd party charges e.g. lounges & handling agents
  - VAT on Fuel
  - Crew Expenses
  - Record and collect extra tax due

- **Hotels**
  - Account for adjusted interline settlements and passenger taxes

- **Car hire**
  - Identify connecting pax
  - Lounges & Loyalty

- **Booking**
  - Interlining
  - Upgrades
  - Baggage
  - Passenger Taxes

- **Fly**
  - Disruption
  - Upgrades
  - Passenger & Airport Taxes
  - Refunds

- **Land**
  - BSP VAT
  - Airport and departure taxes
  - Reclaim VAT incurred by passengers

- **Duty Free**
  - Account for inter-airline payments

- **Parking**
  -
The Current Challenge
How to transform data from many sources into useful information?

- Coupon data is often incomplete, especially where other-airline coupons are present on the ticket.
- 'Missing' data leads to missed exemptions and systemic monthly overpayments.
- Manual adjustments can cost valuable time every month.

Endorsement fields are free text, but hold crucial data needed for reporting.

How accurate are your returns?
What happens today, every month?
Reliance on IT + regular, challenging month-end reporting process
Case Study
UK Air Passenger Duty
UK APD
An Overview

Payable on chargeable passengers departing the UK

<table>
<thead>
<tr>
<th>2018 rates</th>
<th>Economy</th>
<th>Premium Eco, Business or First</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band A</td>
<td>£13</td>
<td>£26</td>
</tr>
<tr>
<td>Band B</td>
<td>£78</td>
<td>£156</td>
</tr>
</tbody>
</table>

Not payable on exempt passengers or journeys

**Young persons**
- Unseated infants (under 2 years old)
- Under 12 years old for flights departing since 1 May 2015
- Under 16 years old for flights departing since 1 March 2016

**Connections**
- Transfers within the relevant time limits

**Others**
- Operational Staff, Deportees, NATO
## APD Data Compliance Matrix

**What are the data points involved?**

<table>
<thead>
<tr>
<th>APD</th>
<th>Flight Date</th>
<th>PAX Identifier</th>
<th>Young Person &amp; Infant Info</th>
<th>APD Charged</th>
<th>Exemption Reason</th>
<th>APD Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>Booking</td>
<td>PNR &amp; Creation Date</td>
<td>Number in Party</td>
<td>PAX Name &amp; DOB</td>
<td>Issuing Station</td>
<td>Flight Times &amp; Numbers</td>
<td>Action Codes</td>
</tr>
<tr>
<td>Tickets</td>
<td>Issuing Carrier</td>
<td>Ticket Number</td>
<td>Origin &amp; Destination</td>
<td>Carrier (Op &amp; Actual)</td>
<td>Conjunction Ticket No’s</td>
<td>Endorsements</td>
</tr>
<tr>
<td>Coupons</td>
<td>Issuing Carrier Ticket Number</td>
<td>Path No &amp; Sequence</td>
<td>Flight Times &amp; Number</td>
<td>Coupon Status Code</td>
<td>Origin &amp; Destination</td>
<td>RBD/Cabin</td>
</tr>
<tr>
<td>Check-in</td>
<td>PAX Identifier</td>
<td>PAX Identifier</td>
<td>Check-in Time</td>
<td>GDS/Action Codes</td>
<td>Infant Indicator</td>
<td>Flight Time &amp; Number</td>
</tr>
<tr>
<td>Boarding Gate</td>
<td>PNR &amp; Creation Date</td>
<td>PAX Identifier</td>
<td>Check-in Seq Num</td>
<td>Boarded Y/N &amp; Time</td>
<td>Lap Infant Indicator</td>
<td>Flight Time &amp; Number</td>
</tr>
</tbody>
</table>
The potential overpayment for just one daily flight over a year
Based on the configuration and load factor for a typical aircraft

<table>
<thead>
<tr>
<th>Load Factor 97%</th>
<th>Overpayment Rate 2.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>The proportion of seats across all classes that are full. We factor that 9% of these passengers will be exempt from APD for the purpose of this example.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total APD 1 Flight</th>
<th>Chargeable Pax 1 Flight</th>
<th>Overpayment 1 Flight</th>
<th>Overpayment 365 Flights</th>
</tr>
</thead>
<tbody>
<tr>
<td>£26,052</td>
<td>286</td>
<td>£521</td>
<td>£190,165</td>
</tr>
</tbody>
</table>

This illustration has been written in general terms and therefore cannot be relied on to cover specific situations; application of the principles set out will depend upon the particular circumstances involved and we recommend that you obtain professional advice before acting or refraining from acting on any of the contents of this document. Deloitte LLP would be pleased to advise readers on how to apply the principles set out in this document to their specific circumstances. Deloitte LLP accepts no duty of care or liability for any loss occasioned to any person acting or refraining from action as a result of any material in this document.
Solutions
What’s best in class?
Assurance across your route network

Using an analytics based approach, our tools are able to do a comprehensive review of your data, alongside our tax team advising on process change.

Check the accuracy of your source data

Take a fresh, deeper look through your historical data

Using your lookback to submit corrected returns

Reduce the time you are spending monthly on compliance processes

Use better tools to handle large volumes of data

Reduce Risk
Increase Accuracy
Monitor Compliance
Improve Insight
Ticket Tax Review

Onboarding

Completeness Checks

Consolidating APD working paper files

Import and map source data files

Analysis

Running Analytics

Testing

Identify extra exempt journeys

List of tickets to compare to APD return

Results

Report for discussion alongside PRA & Tax
Demo’s
Any Questions?
Thank you!

Mark Costa
Director
markcosta@deloitte.co.uk
Is Blockchain fit for Data?

Nicolas Kozakiewicz, Fellow, Atos
Cryptocurrencies will work...

(The Daily T

Worldline

...but maybe not like you think)
Currencies  =  Trade

- Exists since Humanity
- Base for Society
- Base for Commerce
Currencies = Mean of exchange, vehicle for Value

- Traded kg of bread for 2 kg of apples
- Traded meal for harvest day
- Needed a standard of conversion (1 Cur)

1 bread
2 apples
5 meal
1 day

(easy and immediate)
But both require that:

- **Users adopt that currency** (i.e. believes in its Solvency)
- **Exits a vast enough « merchand » network** (i.e. enough other users I want to trade with also believes in its Solvency)

It’s a **TRUST** matter mainly

- Solvency can’t
- Service embeds vaults, cashier desks, checks, cards, ATMs in... anything to make the flow between safely stored currency and payment seamless
bitcoin Era

- Response of Cyberpunks to the Digital Transformation
- Use Internet to replace the fiat currency system just like for the other businesses…

But…

Solvency

Backed up onto nothing
Full speculatory

Service

Slow (60’), not scalable not eco friendly, expensive…
Blockchain is the new multi-market trust-aceable protocol for End 2 End Digital Services.
in short
Blockchain Classical Context

Need to trace/log events or data / But without native trust

Common GOAL
Going to De/Centralized services

Centralized Governance

Decentralized Governance

Trust by Design

Master of data

Log in

Worldline
Assets

- Trusted-party free yet
- Secured by design
- Scalable by design
- Multi-tenant by design
- Easily interfaceable with ISs
- Stand alone (little traction with other services, simple APIs)
- Managed access to Data
- Easily Auditable by design
- Easily Evolutive by design
Example: Bitcoin

Blockchain plane

Authentication of all ←  →
Trace of all
Immutability of information
What’s next?

- Currencies are too slow & old and need to evolve
- Payment methods at risk with Digital Transformation
- (Current) Crypto-currencies are not the solution, but blockchain is valid

Forbes: Explaining Stable Coins, The Holy Grail Of Cryptocurrency (03/18)
Gartner: The Crypto Economy (Explaining Stable Coins) (05/18)
Deloitte: Stable coins : le début d’une nouvelle ère pour les crypto-monnaies (07/18)
BitPay: BitPay Introduces Stable Coin Settlements in Gemini Dollars and Circle USD Coin (10/18)
Bloomberg: Crypto 2.0 (Stable Coins) May Be Digital Cash You Can Actually Use to Buy Stuff (11/18)
Air Travel Use cases

- Hotel, restaurant, transportation vouchers
- Miles / Loyalty points
- Inter-companies legs compensation

- Close loop no-change « asset » management (like ticket restaurants)
- Close loop change « asset » management (like other currencies)
- B2B multi party compensation chamber
Stable Coin use case:

1- Ease of spending of digital fiat currencies

2- Gold value security
How to do this?

1. WL Wallet; WL Trusted Authentication
2. WL Wallet; WL Payment
3. WL Blockchain Origin
4. WL certification with external 3rd party
What technical assets?

Wallet
Strong Authentication
Payment
Blockchain Platform (with Auditor)
Acquiring Network
Retail presence & Solutions
Citizen Action

1. WL Wallet; WL Trusted Authentication
2. WL Blockchain Origin
3. WL Compensation chamber

- AMPL Metropolis Coin
- Acquire good deeds
- Euros or services
- Trusted 3rd party
- Good or service
- Purchase
- WL chamber

Worldline
No time to waste!

Let’s put this in practice!
Control your Data or someone else will

Moderator: Juan Ivan Martin, Head of Digital Finance, IATA
Benjamin Madjar, Director, Deutsche Bank
Mark Costa, Director, Deloitte
Conrad Lennard, Sr. Sales Exec, Feature Space
Nicolas Kozakiewicz, Fellow, Atos
Pascal Burg, Director, Edgar, Dunn & Company
Juliette Iles, VP Finance Strategy & ePayments, Emirates Group
Networking Dinner

Buses depart from the Lobby area at 19:00 Sharp