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Four key drivers of change: payment-related markets trends and opportunities

A. Changes in customer/merchant behaviours
B. Technological developments
C. Regulatory changes
D. New players & emerging payment methods
Four key drivers of change: payment-related markets trends and opportunities

A. Changes in customer/merchant behaviours

B. Technological developments

C. Regulatory changes

D. New players & emerging payment methods
## Change driver A: major changes in customer / merchant behaviour (1/2)

<table>
<thead>
<tr>
<th>Potential change</th>
<th>Description</th>
<th>Implications for Airlines</th>
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</table>
| **Expectation for simple, fast customer payment experience** | • Travelers are looking for convenience, simplicity, relevance and choice – anywhere, anytime, anyhow – for planning, booking and paying a trip, to their time at the airport, in-flight  
• Increase in self-service in terminals (e.g. multi-service kiosks, self-boarding service, etc.) | • **Airlines** should meet expectations of today’s connected passengers: pay with their relevant local payment methods in local currency |
| **Travelers (and cardholders) continue to be interested in loyalty and rewards** | • Having a reward programme attached to payment cards (e.g. cobrand cards or prepaid cards) is becoming an absolute necessity e.g. in Europe and Asia as consumers expect it  
• Airline and loyalty program-connected credit cards remain the top-of-wallet payments vehicle | • **Airlines** should integrate loyalty and rewards into the payment experience (e.g. part-payment in miles) |
| **Emergence of mobile-initiated booking and payments (e.g. smartphone booking, SPG app, Apple Pay, wearables)** | • Significant developments of mobile-based wallets (e.g. Apple Pay) in the travel space – e.g. by linking into expense mgt systems, mobile payment enables better policy mgt at POS and real-time payment data reporting  
• New form factors such as wearables (e.g. iWatch) are expected to generate significant volume in the future | • Include mobile-initiated payments in flows, including NDC |
## Change driver A: major changes in customer / merchant behaviour (2/2)

<table>
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| Influence of retail: omni-channel purchases (e.g. KLM’s social media payments) | • Consumers are adopting new purchasing habits, mixing sales channels and points of interaction  
  • Travelers increasingly expect a channel-agnostic experience  
  • KLM: first airline to let passengers pay ‘socially’ via Facebook or Twitter | • Airlines should support passengers' omnichannel purchase experience (online, offline, mobile, and call centre) for purchases and refunds |
| Emergence of Internet of Things (IoT)                                           | • Strong development of new IoT-led use cases  
  • IoT will have a potential to change the way customers live, travel, and operate businesses  
  • For airlines, there are projects to improve passenger experience, identification at check-in, baggage handling, equipment monitoring, and generating fuel efficiencies | • For airlines, IoT presents multiple opportunities to improve operational efficiency and offer increased personalisation (deliver more connected experience) to passengers - but might need to change business models |
| Large merchants taking control of transaction routing                           | • Large merchants have become increasingly active in payments (e.g. on-us / direct-to-issuer routing in some cases) to decrease payment acceptance costs and improve efficiencies | • Similar to other large merchants, airlines could consider direct routing of card transactions to large issuers in some cases |
Four key drivers of change: payment-related markets trends and opportunities

A. Changes in customer/merchant behaviours  
   ![Image of a card and hands]

B. Technological developments  
   ![Image of a smartphone and keyboard]

C. Regulatory changes  
   ![Image of a key]

D. New players & emerging payment methods  
   ![Logos of PayPal, Amazon, Apple, Facebook, Google]
### Change driver B: major technological developments (1/2)

<table>
<thead>
<tr>
<th>Potential change</th>
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<th>Implications for Airlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offering Near Field Communication technology beyond payments in air travel</td>
<td>• Beyond the flight search process, airlines are displaying efforts to also make the payment process far simpler (e.g. the low-cost carrier, JetBlue became the first airline to accept contactless payment via Apple Pay in-flight in 2015)</td>
<td>• <strong>Airlines</strong> could use NFC technology for mobile-based boarding passes, access control and payments</td>
</tr>
<tr>
<td>Changes in cardholder authentication technology</td>
<td>• New technologies enabling new authentication methods for remote payments (e.g. voice or TouchID-like authentication for online)</td>
<td>• <strong>Airlines</strong> could consider partnering with providers enabling real-time cardholder authentication during an online transaction</td>
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</table>
## Change driver B: major technological developments (2/2)

<table>
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</table>
| Emergence of tokenisation to replace PANs | • Tokenisation: best practice to save / replace card details (PAN) by a token  
• Allows more secure transactions and new use cases for mobile payments and IoT | • **Airlines** face challenges with securing customers’ card data within their IT systems - tokenisation could reduce PCI DSS scope (e.g. if the airline tokenises all incoming card data) |
| Emergence of new customer-facing devices (e.g. m-POS) | • Customer expectations are increasing (e.g. omni-channel)  
• mPOS, kiosk, are new points of interaction to facilitate payments | • **Airlines** could increasingly equip their crews with more sophisticated mPOS in-flight solutions |
| Emergence of i) multi-merchant / multi-acquirer POS and of ii) “thin client” POS terminals with applications residing on a central server | • Currently used in niche segments among a small number of merchants (e.g. a few doctors or lawyers sharing a single POS terminal)  
• Would either involve multiple “instances” on a traditional POS terminal, or could leverage the emerging “marketplace” POS terminal being introduced by the likes of Ingenico | • **Airlines** could work with POS terminal manufacturers to pilot multi-merchant POS terminals and influence emergence of such technology |
Four key drivers of change: payment-related markets trends and opportunities

A. Changes in customer/merchant behaviours

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**Change driver C: major regulatory changes (1/5)**

<table>
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<tr>
<th>Potential change</th>
<th>Description</th>
<th>Implications for IATA &amp; Airlines</th>
</tr>
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</table>
| New rules driven by MIF regulation and PSD2 | • MIF: European regulation of card interchange fee and of other structural items (e.g. application selection at POS, separation of scheme and processing)  
• It is also indicated in the MIF regulation that merchants will have to inform customers of the acceptance and non-acceptance of card payment methods or other payment instruments of a payment card scheme, e.g. merchants will have to indicate that they accept all Visa cards, with the exception of Visa commercial cards on their website, before the payment checkout page, (see extract of regulation below); in a physical store, at the entrance of the shop and at the till  
• PSD2: significant changes with "access to account" opportunities | • Regulatory changes will dramatically impact airline payment economics. (e.g. co-brand revenues might decrease, merchant fees might decrease on some cards, product proposition might be diluted, new opportunities for AFOPs, etc.). Airlines will also be required to clearly indicate to travellers card payments or other payment instruments of a payment card scheme accepted or not in order to comply with the MIF requirements |

**Note 1:** this section is mainly focused on major regulatory changes in Europe as nearly 50% of the BSP volume settled occurred in Europe; in addition, Europe is a very active region in terms of developing payment regulations and implementing new rules

**Note 2:** MIF Article 10 “Payees that decide not to accept all cards or other payment instruments of a payment card scheme shall inform consumers of this, in a clear and unequivocal manner, at the same time as they inform consumers of the acceptance of other cards and payment instruments of the payment card scheme. Such information shall be displayed prominently at the entrance of the shop and at the till. In the case of distance sales, this information shall be displayed on the payee's website or other applicable electronic or mobile medium. The information shall be provided to the payer in good time before the payer enters into a purchase agreement with the payee.”
## Change driver C: major regulatory changes (2/5)

<table>
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| Reduction in interchange fees, following MIF regulation | • Interchange caps: 0.2% for consumer debit cards; 0.3% for consumer credit cards; both cross-border and domestic card-based payments; in-scope: card transactions at POS, Internet, mobile  
  • In-scope: 4 party schemes; 3 party schemes working with external issuer/acquirer or co-branded with a non-payment brand; *out of scope: 3 party schemes; commercial cards*  | • *Airlines* could also benefit from some of regulatory changes (e.g. merchant fees might decrease, option to move to an interchange ++ model, etc.)                                                                                                                                                  |
| Surcharging will be restricted                         | • The proposed PSD2 will potentially supervise and restrict the rules regarding surcharging (which is not allowed when interchange is within the scope of the MIF regulations)                                                                                                                                                                         | • Surcharging in compliant manner will get even more complex for *airlines*                                                                                                                                                                 |
| Changes in security requirements                      | • Increased security requirements (e.g. EBA guidelines/mandates for strong authentication)  
  • EBA to set guidelines and prepare regulatory technical standards on security for payments with regard to strong customer authentication (2-factor authentication)                                                                 | • *Airlines* must make sure that both POS/remote solutions need to have high level of security, use strong authentication and that they comply with regulatory changes                                                                                                                                 |

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*Interchange caps: 0.2% for consumer debit cards; 0.3% for consumer credit cards; both cross-border and domestic card-based payments; in-scope: card transactions at POS, Internet, mobile  
  In-scope: 4 party schemes; 3 party schemes working with external issuer/acquirer or co-branded with a non-payment brand; *out of scope: 3 party schemes; commercial cards**
Change driver C: major regulatory changes (3/5)

Overview of markets where surcharging is allowed

- Markets (partially) allowing surcharging

  ![Map of Europe highlighting countries allowing surcharging](image)

  **April 2016**

- Regulated payment instruments cannot be surcharged (see Article 62.3)
- Non-regulated payment instruments are in principle ‘surchargeable’
  - 3 party systems
  - Commercial cards
- Member States might opt to ban or limit surcharging on payments
- Surcharging correctly will get even more complex

Source: IATA (Christophe Kato / Philippe Morin)
## Change driver C: major regulatory changes (4/5)

<table>
<thead>
<tr>
<th>Potential change</th>
<th>Description</th>
<th>Implications for Airlines</th>
</tr>
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</table>
| Emergence of POS standards such as nexo | • POS standard, including EPAS-ISO20022 based communication protocols  
  • Allow merchants to use one unique IT standard for proximity payments across all countries and channels  
  • Simplifies IT processes, generate savings and gain time to market | • **For airlines**, potential to generate savings for travel agencies / airlines if pan-European roll-out |
| ERPB – instant payments | • Emergence of instant SEPA Credit Transfer Scheme SCT\textsuperscript{inst}  
  • Rulebook ready by November 2016 and implementation by November 2017 | • **Airlines** could consider offering travellers the possibility to use SCT\textsuperscript{inst} to pay for tickets a a new option alongside traditional card options |
| Scheme rule changes related to the merchant acquiring value chain | • Emerging model of “payment facilitator” / master merchant: an alternative acquiring model that supports payment processing for multiple commercial entities (“Sub-merchants”) by a single entity (the “Payment Facilitator”) | • **Airlines** need to ensure that rule changes and new business models can be handled by their business model and technical choices |
Change driver C: major regulatory changes (5/5)
Around 30 countries have built or are in the process of building “instant” payment architectures

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## Change driver D: major new players and emerging payment methods (1/5)

<table>
<thead>
<tr>
<th>Potential change</th>
<th>Description</th>
<th>Implications for Airlines</th>
</tr>
</thead>
</table>
| Digital innovators and disruptors are redefining the payment industry            | • Digital innovators: social commerce, social network; e.g. Facebook, Google, Amazon, Apple  
                                    | • Disruptors: mPOS providers such as iZettle, P2P players such as Pingit       | • Airlines could consider partnering with companies that are driving innovation, in order to stay "competitive". Partnerships with these companies might help airlines gain access to technologies and capabilities that make it easy for passengers to travel, buy and pay |
| Wallets (e.g. PayPal, v.me, MasterPass) can help increase conversion rates in specific countries (e.g. China) or channels (e.g. in-app) | • A wallet, used by travellers (e.g. for travel-related expenses), typically provides a more convenient payment experience (although, most of the wallets are currently “card-powered”)  
                                    | • In some countries (e.g. China with the likes of Alipay), wallets are adopted more widely than cards for customer-not-present purchases | • Supporting wallets could enable airlines to optimise their payment strategy (e.g. increasing conversion rates for mobile in-app transactions, acquiring new customers by offering local methods of payment) |
Change driver D: major new players and emerging payment methods (2/5)

<table>
<thead>
<tr>
<th>Potential change</th>
<th>Description</th>
<th>Implications for Airlines</th>
</tr>
</thead>
</table>
| Entry of new acquirers (e.g. Ingenico, Worldline) | • Many organisations are trying to expand their role in the payments value chain  
• New players could enter or are entering the acquiring market (e.g. Adyen, Ingenico, Worldline) | • **Airlines** with new solutions to process transactions efficiently and possibly decrease some of their payment acceptance costs |
| Exit / outsourcing among existing acquirers    | • Traditional acquirers may consider that the acquiring market is not profitable enough and/or too complex  
• They could outsource or sell their acquiring portfolio to third party providers (e.g. First Data JVs with acquiring banks in the USA) | • **Airlines** to monitor the evolution of the acquiring market globally and assess the potential consequences for the industry |
Change driver D: emerging Alternative Forms of Payments (3/5) (AFOPs) that airlines could leverage in Europe

### Examples of AFOPs

<table>
<thead>
<tr>
<th>Germany</th>
<th>UK</th>
<th>Italy</th>
<th>France</th>
<th>Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Giropay (real-time bank transfer)</td>
<td>• Apple Pay (e-wallet)</td>
<td>• CartaSi (e-wallet 'MySi')</td>
<td>• Carte Bancaire</td>
<td>• Domiciliation Bancaria (SEPA Direct Debit)</td>
</tr>
<tr>
<td>• SEPA Direct Debit/ELV</td>
<td>• Faster Payment (real-time bank transfer)</td>
<td>• Contrass egno (cash-on-delivery)</td>
<td>• E-Carte bleue (virtual card)</td>
<td>• PayPal (e-wallet)</td>
</tr>
<tr>
<td>• PayPal (e-wallet)</td>
<td>• PayPal (e-wallet)</td>
<td>• PayPal (e-wallet)</td>
<td>• PayLib (e-wallet)</td>
<td>• PayPal (e-wallet)</td>
</tr>
<tr>
<td>• Sofort banking (real-time bank transfer)</td>
<td>• PaySafe Card (virtual card)</td>
<td>• Postepay (virtual card)</td>
<td>• PayPal (BPCE, Carrefour in Q3 '15)</td>
<td>• PaySafe Card (virtual card)</td>
</tr>
</tbody>
</table>

Note 1: EDC selected the top countries for IATA NDC based on the total BSP indirect and direct sales in 2014
Note 2: EDC has not indicated an exhaustive list of alternative payment methods but has included examples which could be of interest to airlines

Source: EDC internal knowledge; WorldPay; Adyen
Change driver D: emerging Alternative Forms of Payments (4/5) (AFOPs) that airlines could leverage in Asia Pacific

**Examples of AFOPs**

<table>
<thead>
<tr>
<th>Australia</th>
<th>South Korea</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bpay (electronic bill payment system)</td>
<td>Domestic cards (e.g. BC card, Kookmin, Hana card, Shinhan card, Hyundai card, Samsung card, Lotte Card)</td>
<td>Konbini (e.g. Lawson card, 7 Eleven card, etc.)</td>
</tr>
<tr>
<td>PayPal (e-wallet)</td>
<td>Kakao Talk app (in-app mobile payment)</td>
<td>PayEasy (online bank transfer)</td>
</tr>
<tr>
<td>POLi (online bank transfer)</td>
<td>Online bank transfer</td>
<td></td>
</tr>
</tbody>
</table>

**Note 1:** EDC selected the top countries for IATA NDC based on the total BSP indirect and direct sales in 2014

**Note 2:** EDC has not indicated an exhaustive list of alternative payment methods but has included examples which could be of interest to airlines

**Note 3:** Cash at convenience store (Konbini is the Japanese word for convenience). Japan has an extensive network of convenience stores, which makes this payment method very accessible to the Japanese shopper. During the checkout process, the shopper is provided with a unique payment reference. They then reference to print a voucher in the convenience store which he then settles at the till in the store.

Source: EDC internal knowledge; WorldPay; Adyen
Change driver D: emerging Alternative Forms of Payments (AFOPs) that airlines could leverage in Americas (5/5)

Examples of AFOPs

<table>
<thead>
<tr>
<th>USA</th>
<th>Canada</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACH</td>
<td>Interac cards</td>
<td>Bank transfer</td>
</tr>
<tr>
<td>PayPal (e-wallet)</td>
<td>PayPal (e-wallet)</td>
<td>Boleto Bancario (proforma invoice)</td>
</tr>
<tr>
<td>Cash via Western Union</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note 1: EDC selected the top countries for IATA NDC based on the total BSP indirect and direct sales in 2014

Note 2: EDC has not indicated an exhaustive list of alternative payment methods but has included examples which could be of interest to airlines

Source: EDC internal knowledge; WorldPay; Adyen
Innovative products such as a combined “frequent flyer card + prepaid FX” card launched by Air New Zealand
Mobile sites and smartphone applications are allowing customers to both book rooms and make payments

- Starwood Hotels Smartphone Apps (SPG App)

- Since 2010 was the first full year of the use of the SPG app
- Traditional payments types are accepted (such as Diner’s Club, JCB, Amex, MasterCard, Visa)
Example of wallet in the US with Apple Pay for proximity and in-app payments

Apple Pay - Example of contactless payments (JetBlue, Whole Foods, etc.)
Smartphones and tablets support new use cases and new benefits for consumers and for airlines.

- **Mobile Wallets**
- **NFC / Contactless**
- **Digital Assistants**
- **Loyalty / Coupons**
- **Alternative**
  - Pay with your name
- **Multi-channel**
Overview of “thin client POS with marketplace” offering

**POS Terminal**

- **Acquirer**
  - Card application
  - NEXO payment

- **App store operator**
  - App store, e.g.: ratings, insurance, prepaid tickets, etc.

**Settlement**

- **Acquirer (incumbent)**
  - Auth/capture
  - Settlement

- **Merchant**
  - Auth/capture

- **App publisher**
  - EMI
  - Settlement

- **Marketplace operator**
  - Commission to estate owners
  - Commission to merchants

- **App store operator**
  - NEXO payment

- **EMI**

**Original card purchase (e.g. meal)**

- **In-app purchase (e.g. prepaid taxi)**

*Note: EMI stands for Electronic Money Institution*
Co-brand cards can generate significant ancillary revenues for airlines (with “direct earn” or “indirect earn” programs)
Increasing array of regulatory issues puts the payments industry under pressure to adapt new or changed business practices.

- **Global**
  - Basel III Capital Norms
  - Basel III Liquidity Norms
  - Mobile Payments
  - Contactless Cards / NFC
  - ISO 20022 Standards in Payments
  - Access to Clearing
  - e-Invoicing
  - e-Government
  - Intraday Liquidity Regime
  - AML / ATF
  - International Payments Framework Association (IPFA)
  - Checks Transformation
  - CPSS-IOSCO
  - Foreign Account Tax Compliance Act (FATCA)

- **Europe**
  - EU Reviews of PSD I and e-Money Directive
  - SEPA / e-SEPA
  - European Current Account Switching
  - Internet Payments Security in Europe
  - Data Privacy and Payments
  - Payments Governance
  - Large Value Payment Systems Upgrades
  - Pressure on Card Interchange Fees
  - Real Time Retail Payments
  - Digital Agenda in Europe
  - Alternative Card Schemes
  - AIFMD

- **North America**
  - Dodd-Frank Act 1073 (Reg E)
  - Canada Task Force
  - EMV Adoption in the U.S.
  - Prepaid Payment Products Regulations in North America
  - U.S. Durbin Amendment
  - Canada Code of Conduct for Cards

- **Asia Pacific**
  - National Payments Corporation of India
  - Renminbi as a Settlement Currency

- **Middle-East**
  - Mandatory Use of IBAN for Payments
  - Mandatory Shift towards UAE Fund Transfer System

Source: World Payment report
EBA (European Banking Authority) (1/2)

Objectives

- To develop security measures guidelines and review them regularly (at least every 3 years) because of the rising levels of fraud observed in internet payments
- To act in cooperation with the European Central Bank (ECB)

Latest version

- December 2014, was implemented as of summer 2015
- It applies directly to PSPs and indirectly to online merchants
- According to the EBA, one of the main differences between the PSD2 and the EBA guidelines is that the final Directive may potentially include provisions that require stronger security standards
- Topics addressed:
  - General security: risk assessment and control, monitoring and reporting, incident monitoring, traceability
  - Security measures: customer identification and stronger authentication, enrolments, log-in rules, data protection
  - Customers: education, notifications, access to information on the status of payment
- Excluded from scope of the guidelines are e.g. payments where instruction is given by post, telephone, voice mail or using SMS-based technology; mobile payments other than browser-based payments; payment transactions made by an enterprise via dedicated networks

Note: strong customer authentication is a procedure based on the use of two or more of the following elements: i) something only the user knows, e.g. static password, code; ii) something only the user possesses, e.g. token, smart card, mobile phone; iii) something the user is, e.g. biometric characteristic, such as a fingerprint

Source: EBA
Online merchants will need to verify the decision of EU Member States to comply or not with the EBA guidelines. The approach can vary country-per-country
- EU Member States will have to make the effort to comply with the EBA guidelines, but this will not be compulsory; unlike the PSD2 which will be transposed into the national legislation of each EU Member States and therefore more strictly enforced
- EU Member States are expected to notify the EBA on whether they intend to comply within 2 months after publication of the final guidelines

New requirements on PSP may lead to increased fees on merchants and changes to internal processes, systems, interfaces, documents

Stronger authentication measures applied to all online transactions could positively or negatively affect conversion rates on a per country basis and therefore impact merchants’ revenue

Source: EBA
The ERPB is a multi-stakeholder group chaired by the European Central Bank. Created in 2013 to replace the SEPA Council, it aims at fostering an innovative, integrated and competitive retail payment markets in the EU.

General topics addressed at the last meeting included instant payments, P2P mobile payments, technical standards on payment cards and e-invoicing:

- **Instant payments** are defined as electronic retail payment solutions available 24/7/365 and resulting in the immediate or close-to-immediate interbank clearing of the transaction and crediting of the payee’s account with confirmation to the payer (within seconds of payment initiation).

- Next meeting planned in November 2015.

Key summary for merchants:

- ERPB set up several working groups focusing on: SEPA Credit Transfer (SCT) and SEPA Direct Debit (SDD) post-migration issues, pan-European electronic mandates, person-to-person (P2P) mobile payments, mobile and card-based contactless proximity payments.

- **Instant payments**: ERPB members agreed that irrespective of the payment instrument on which they are based, instant payment solutions offered to end-users in euro should be developed at the pan-European level or, if developed at the national level, should at least be interoperable with those solutions based on the same payment instrument.

- **E-invoicing**: objective to implement and harmonise pan-European electronic invoice/bill presentment and payment solutions.
  - The members of the ERPB took note of the preliminary assessment of existing barriers to the implementation of these solutions and agreed to continue working on this topic with the aim to conclude on next steps in the meeting of the ERPB in November 2015.

Source: ERPB
What are instant, or real time, payments?

- ‘Instant’, or ‘real time’, payments refer to ACH processed credit transfers with immediate settlement and notification of availability of those funds.
Alternative forms of payment are becoming a ‘must have’ for airlines – as an example, Lufthansa now accepts PayPal in over 40 countries.

Source: Lufthansa’s website
Examples of new types of POS being launched by acquirers and/or other stakeholders

- **BNP Paribas pilot**
- **Ingenico – Telium Tetra**
- **Poynt**