

**MIKE HENDRY** MA (Cantab) MBA CEng MIET

---

Payment Systems Consultant

24 January 2008

National Payments Plan Consultation Response  
Payments Council  
5th Floor  
Mercury House  
Triton Court  
14 Finsbury Square  
LONDON EC2A 1LQ

Dear Sirs

Thank-you for the opportunity to respond to the National Payments Plan Consultation.

I have been involved in the development of innovative payments products in the UK for over 25 years, working for banks, card schemes, service providers and retailers, as an independent consultant and as a Director of the Chip and PIN Programme and member of the APACS70 Maintenance Group. My specialist areas are chip cards, e-payments and transaction security but I can also bring insights from my experience in working across the service providers and user sectors.

In the attached response I have attempted to answer nearly all the questions but inevitably my expertise is more relevant to some than others. I feel that my answers to questions 14, 31, 39 - 40 and 46 - 48 reflect that expertise in particular.

Yours sincerely

Mike Hendry

---

Eastlea, Felix Lane, Shepperton TW17 8NN, England

Telephone: 01932 248628 | VAT Reg. no. 384 1012 78

**Q1 The Payments Council is minded to develop a proactive industry plan to manage what it sees as the irreversible decline in cheques. Do you agree that a plan for cheques should be developed?**

Yes, it is important that alternatives be developed for all types of payment currently effected by cheque. The displacement (and eventual withdrawal) of cheques must be supported by both the providers and users of the service, so that it requires neither price-distorting subsidies nor competitive “descriptions” of the benefits and drawbacks of alternative methods.

**Q2 For which types of payment currently made by cheque do new alternatives need to be introduced?**

This requires a formal study of payers, payees, signatories, amounts and value dates. However cheque payment types that are currently difficult to replicate include:

- Deposits, in particular those that are held but not cashed, but which may be triggered by one of a series of events, e.g. a no-show, damage or price rise;
- Company cheques requiring two or more signatures;
- Payments effected via intermediaries, e.g. brokers or solicitors;
- Payments by small clubs and associations.

**Q3 Would it be acceptable for the National Payments Plan to include a target date of 2018 for the closure of the cheque clearing (on the assumption that acceptable alternatives to cheques have been developed)?**

Yes; the existence of an end-date would help to accelerate the development of alternatives. The Swedish example suggests that if the plan includes price incentives as well as innovation, full migration can take place in less than 10 years.

**Q4 What sort of education of users is needed to support the migration away from cheques?**

Both personal and business users respond effectively to price signals; the primary role of education in this case is to explain the reasons for the change in pricing structure and the way in which alternative methods can and should be used to replace cheques.

However this should be against a background of wider financial education that dispels myths about “free” services and explains concepts like bundled pricing and life-cycle costing. Encouraging financial institutions to play a part in this education process and to use appropriate terminology at all times would reduce the scope for misinformation.

**Q5 Do you agree that, as part of the National Payments Plan, there should be an objective review of the future of the Cheque Guarantee Card Scheme?**

Yes, that would be a necessary part of any national plan for cheques. The technology behind this unique scheme has been completely overtaken.

**Q6 What other actions, if any, should there be in the National Payments Plan in relation to cheques?**

If not included in the activities described in Q1, an estimate of the all-up costs of the cheque payment service should be made in order to ensure that prices correctly reflect the full costs, and not only marginal costs as in many cases today<sup>1</sup>.

Another key activity in this plan will be to understand where cheque payments will migrate to. Although there is plenty of capacity in the back-office and switching infrastructure for electronic payments, many

---

<sup>1</sup> The figures used by the Cheque Working Group were based on academic studies, mostly in other countries. A set of benchmark figures should if possible be agreed for the UK.

forms of substitute payment will make use of front-end systems which either do not exist today or may have significant capacity constraints. It will be important to understand how the chart “UK Payment Markets Forecasts – volumes by method” in section 2.2 will change as the plan is brought into effect.

**Q7 Do you agree that, as part of the National Payments Plan, there should be an objective review of the future of the paper credit clearing?**

Yes: although paper credits will not necessarily follow the same trajectory as cheques – there is probably more room for individual institutions to automate their credit processes – the clearing itself will become a significant drag on efficiency and mechanisms are needed to ensure that banks that innovate faster are not required to subsidise their less innovative peers.

**Q8 The Payments Council believes that the National Payments Plan should be developed on the assumption that cash will remain a major payment method for the foreseeable future. Do you agree?**

This is probably a valid “most-likely” case, but since cash carries such a heavy weight in the mix today, to rely solely on that assumption would inevitably lead to an unambitious plan that yields few incremental benefits relative to today. Other scenarios in which the UK adopts a leading role (alongside Iceland or Estonia today) in actively promoting the use of alternative payment methods should also be explored.

**Q9 Should the issues of the supply and quality of notes and coin in circulation be within the scope of the National Payments Plan? If so, how should they be addressed?**

This is outside my field of expertise but I imagine it is regarded as an operational issue by the Bank of England, rather than a strategic one.

**Q10 What other actions, if any, should there be in the National Payments Plan in regard to cash?**

The use of cash in machines (ticket machines, drinks dispensers, launderettes etc) is very inefficient and results in much vandalism and theft. But the incentive for any one operator to move to fully cashless operation is limited by the lack of a single form of payment with near-legal-tender status. The National Payments Plan should consider how changes to the status of alternative forms of payment, for example contactless cards, might promote greater use of these instruments.

**Q11 What improvements would lead to the greater take-up of direct debits by users?**

More consistency and clarity of information both when initiating a direct debit and at the time of payment, e.g. in the presentation of the advance warning.

**Q12 Would you support the introduction of a time-limited guarantee for direct debits in place of the current unlimited guarantee?**

No strong views as long as the limits are clear

**Q13 If so, what time limit do you think would be appropriate?**

Approximately three months

**Q14 What measures to improve the accuracy and end-to-end delivery of reference information, with internet and telephone banking payments and with other direct credits, could usefully be introduced?**

It is very unlikely that any single method could be devised to check the accuracy of supporting information, while an increasing number of applications, particularly in the B2B domain, require large amounts of supporting information that cannot realistically be carried across the payment networks. It is therefore likely to be more relevant to focus on synchronising and cross-referencing the payment transaction with the parallel channels that will carry these additional data. Automatically generated

unique references (preferably with date-time stamps) that can flow in each direction will be required to prove origination and completion, in addition to free-format “remittance data” – e.g. the SEPA 140-character field.

**Q15 Are there any other enhancements you think should be made to direct credits?**

Paypal and other front-end services have been successful largely because of their use of a single username (in Paypal’s case the email address) which “masks” the card number or bank details. The issue of privacy is regularly raised by consumers and a suitable way of masking account details (e.g. by allowing me a unique reference at my bank) would improve uptake of consumer-to-consumer direct credits as well as small business payments.

**Q16 What opportunities would you identify to exploit the ATM infrastructure for non-cash transactions? How should these be reflected in the National Payments Plan?**

It is important to distinguish between the existing infrastructure of interoperable ATMs, deployed mostly on the High Street and in CTNs for rapid cash withdrawal, and other, more function-rich kiosks that may also exploit the Link, Visa and MasterCard networks or message infrastructure. The majority of existing bank-owned ATM sites are more suitable for very short transactions that do not hold up a queue, but many independent ATMs, or machines in branches, could be used for longer, more interactive transactions.

The Canadian and Spanish experiences are particularly instructive: in Canada ATMs and debit cards are used for all account management functions, including setting up direct credits and debits, requesting foreign currency or foreign payments. Some ATMs are provided with seats for an extended session. Customers are happy with this as it often saves them time travelling to their branch and the ATMs are open 24 hours, but the majority of them do still make retail payments using their Interac card.

Spanish banks have introduced a wide range of services, often in partnership with local businesses or even universities. As a result, several transaction types are more convenient at an ATM than elsewhere; this drives customers to ATMs but they then withdraw cash rather than using their card for retail payments. The result is sometimes less efficient – for the bank as well as the retailer – than if they had gone to a retail outlet; for the consumer the difference is probably very small.

This suggests that the focus should be on financial transactions such as bill payments (through the use of Electronic Bill Presentment functions) rather than pseudo-retail transactions which are probably better carried out in shops.

**Q17 Which other, if any, actions should there be in the National Payments Plan in relation to credit and debit cards and cash machines?**

Both of these areas are already quite competitive and less guidance is probably better than more; the main schemes are global in their scope and their evolution is determined by global factors – it is difficult and often counter-productive to seek to develop national variants. However the UK could – as a paid-up member of both the European and transatlantic clubs – help to narrow the gap between consumer and merchant expectations and current payment industry practice, particularly in relation to charges. As discussed in the answer to Q4, users’ expectations of charges must be made more realistic while banks must realign their charges to follow all-up (rather than marginal) costs more accurately. The Payments Council’s role in this should be that of a mediator and facilitator.

**Q18 What improvements should be made to the way in which payments in the wholesale markets are carried out?**

This is outside my field of expertise and I offer no comment

**Q19 What should the Payments Council do to ensure that users in the UK can take best advantage of SEPA?**

It is important to distinguish here between the impacts of the Payment Services Directive and those of the Single Euro Payment Area. For the latter, the best that the UK can do is to encourage banks to offer euro accounts and to “opt in” to SEPA instruments for all transactions between those and other euro accounts.

To take full advantage of the Payment Services Directive, the focus must be on allowing all businesses – both bank and non-bank – to set up new products and services. The Financial Services Authority has provided the model for risk-based regulation, and so it must be given a free hand: the obstacles to setting up a new payments business should be regulatory and risk-based, not legal. The UK could explicitly seek to take a lead in promoting and regulating new business models and services that can then be exported to other European countries; the Payments Council could help by facilitating an exchange of views on the business models and services required and the level of risk perceived for each.

**Q20 What issues does SEPA raise for your use of payments?**

SEPA’s answer to the incompatibility of account numbering conventions was to make all bank account numbers (IBANs) and sort codes (BICs) immemorably long and error-prone: this may permit interoperability but it actively discourages the use of the international account number. As above, a pseudonym or masking convention would reduce this problem.

**Q21 What improvements should be made to cross-border payments?**

Most UK consumers and small businesses (including mine) find it relatively difficult and expensive (15 minutes and £12) to make credit transfers to Europe, which they can do online in a few seconds to a UK account. Simply including a euro payment option for Internet banking users would be a major improvement; dollar and other common currencies could follow.

**Q22 What measures to enhance users’ efficiency should be considered by the Payments Council?**

I agree with the view of the Payment Systems Task Force that imposing standardised account number formats would probably not be cost-effective, however it is also true that wrongly-entered account details are a major source of inefficiency (and this will only become worse with BICs and IBANs). The Payments Council should therefore consider ways to minimise the frequency of manual account number entry (e.g. cards, tokens or selection from a list) and to permit online checking wherever possible (so that errors can be corrected at data entry time).

**Q23 Do you agree that at the present stage of market development the contactless and prepaid card sectors are best left to initiatives from individual payment service providers and the card schemes?**

It is important to distinguish between the technology used by contactless cards (for communication between the card and reader) and the business rules, operational processes and logic used for their acceptance. In principle the development of the technology should be left to the schemes and service providers, however there are some specific risks associated with the technology which must neither be exaggerated nor ignored. The Payments Council could still delegate to the service providers the obligation to examine, explain and put in place countermeasures for these risks.

At the operational level, however, there is already some confusion among cardholders and businesses as to the different features and rules of the various schemes (we must include Oyster and ITSO ticketing as well as Visa PayWave and MasterCard PayPass); while some variation in rules and business models is desirable, the operation should as far as possible be the same for all. The schemes (including the transport and private schemes as well as the open-loop ones) should be encouraged to develop common operational procedures and acceptance standards.

Prepaid cards are again less of a technology than a way of running an account. It is clear that the UK market is developing quite rapidly and in a very different way from the US market, with prepaid accounts filling several useful gaps for both consumers and businesses. It is important not to constrain the development of these applications and the account types they are spawning, which should again be subject to the levels of control and regulation appropriate to the level of deposits accepted.

The focus for the regulator should be on the account not on the card as a payment method (the balances rather than the flows); the operation of the card and payment method should be subject to the common operational procedures and acceptance standards relevant to that card type (magnetic stripe, chip, contactless ...)

**Q24 What support, if any, could the National Payments Plan offer to the development of contactless cards? In particular, is further action needed to ensure that the standards for contactless cards meet the needs of all sectors of users?**

As described above, the technology standards are being developed in an international context and at this stage there seems no need for any intervention or additional technology standards.

However, also as mentioned above, there probably is a need for more co-ordination on operational standards and business rules – the type of co-ordination which has been performed for magnetic stripe and chip credit and debit cards by the Acquirers' POS Group and the APACS70 Standards Group. As with the introduction of chip cards there was a transitional need for additional consultation with users and the development of recommendations and guidelines, so also for contactless cards there are some areas where additional consultation and co-ordination (with bank and non-bank issuers and acquirers as well as acceptors and user groups) would ease and speed the introduction of the technology. These include ergonomics, use in specific sectors (notably hospitality, petrol and transportation), partial authorisation and top-ups.

The Department for Transport's plans for widespread interoperability of public transport ticketing (through ITSO) could be given a considerable boost by being integrated into the process of contactless card introduction; the boundary between payment and ticketing is quite thin and permeable.

**Q25 What support, if any, can the National Payments Plan offer to the development of prepaid cards?**

It is unlikely that the development of prepaid cards/accounts requires proactive support, but the Payments Council must keep track of, and in some cases anticipate, developments that may have regulatory or standards implications. New business models and applications are emerging very fast and a determined effort is required just to keep abreast of current developments.

It is important to distinguish between prepaid accounts and the cards that give access to those accounts. I have some concern that the "sponsoring" arrangements that allow unregulated non-banks to issue cards and manage accounts (provided a licensed bank issues the e-money) are too loose – one single failure could cause the collapse of the whole industry.

**Q26 What role should the Payments Council play in the development of mobile payment services, including setting the standards for mobile payments?**

As for contactless cards, the underlying technical standards are being developed at a global level, and although there are competing standards in some areas it would probably be wrong for the Payments Council to second-guess the outcome of that competition. There is also room for competing services to woo users and promote alternative visions.

However there will in the near future be situations – I cannot pinpoint any at the moment – where the development of a particular application depends on co-ordination between suppliers and the agreement of a single mode of operation in the UK. At that point, in order to avoid actions that might be anti-competitive, the Payments Council should co-ordinate suppliers and users to make appropriate recommendations or guidelines – it seems unlikely that there is any body able to enforce mandatory standards.

**Q27 In particular, do you agree that the National Payments Plan should support the development of mobile payment services between bank accounts?**

Yes, subject to the masking or pseudonymity referred to in my responses to Q15 and Q20.

**Q28 What principal characteristics would users find attractive in a mobile payment service?**

For most users, a key requirement is that the service should not be tied to one or more Mobile Network Operator (MNO), nor should the MNO play a commercial role in the transaction. Other requirements are similar to those for any payment, but speeded up to reflect the near-real-time nature and expectation of the mobile transaction: e.g. the ability to track a payment in near-real-time and see its value dating and final outcome.

**Q29 What role do mobile phone payments potentially play in providing alternatives to traditional forms of payment?**

It is tempting to see MNO accounts as pseudo-bank-accounts, and some users (caricatured today as teenagers but by no means restricted to this age-group) do use their mobile phone accounts like a bank account, seeking top-ups from parents and spending value on online goods. However I believe that this will in practice remain a small if significant niche: the risk management systems and regulation of this sector are not adequate for goods and services where marginal cost is a significant proportion of selling-price, and if these applications were to grow then they would attract the same level of regulation as banking.

For most people and applications, it is easier to see the mobile phone as one of several alternative channels for accessing payment products and services: the most effective form of promotion is therefore to make it easier, faster, safer and more cost-effective to access those services through the mobile phone. Security is actually higher on a mobile phone than on a home PC (if registered to the account, the phone or SIM card can act as a second factor in an authentication system) and this may compensate for what is today a much less attractive user interface.

**Q30 What other actions, if any, should there be in the National Payments Plan in regard to mobile payments?**

As for contactless cards (see my response to Q26), the key actions are to keep abreast of developments and to identify those moments where co-ordination and co-operation are required in order to deliver the best outcome.

**Q31 Do you agree that the Payments Council should indicate support for the work of the European Commission Steering Committee on e-invoicing and associated activity, including the development of international standards that facilitate supply chain efficiency?**

E-invoicing usually refers primarily to B2B invoices (as against Electronic Bill Presentment and Payment – EBPP – which refers to consumer bills, e.g. utilities). While the agreement of international standards for e-invoicing is a major benefit for supply chain efficiency, many industries already have such standards (under UN-EDIFACT etc) and there are several bodies already seeking to set standards. It is not obvious that there are any advantages in linking such standards to payments, still less in having them driven by the payment<sup>2</sup> – what we do not want is to force payment networks to carry invoice (line item) data. To be useful, an invoice must be accepted by customs and tax authorities; there are no signs that European, still less global, tax authorities can agree a single format for tax invoices.

It would be preferable to link with existing standards and to promote links that enable such parallel data streams to be synchronised with payment transactions. As described in my answer to Q14, the two key components are free-format “remittance data” and date/time stamps for initiation, receipt and completion.

**Q32 What role should the National Payments Plan play in moving this agenda forward?**

Proposing links and references (as in Q14 etc) and identifying and promoting existing e-invoicing standards would be very constructive. A national Electronic Bill Presentment and Payment system for consumer payments has been proposed, but it is probably preferable for this function to be performed by one or more competing commercial services. The National Payments Plan could encourage the development of such services.

**Q33 What other actions should be included in the National Payments Plan?**

See above

**Q34 What other payment innovations requiring action at industry level should be considered by the Payments Council?**

Although not strictly payment innovations, there are issues with payment at the growing number of customer-activated terminals, particularly where the amount is not known at the start of the transaction. This is probably only one example of a payment issue driven by a business model innovation. The Payments Council should in each of these cases determine the level of industry co-operation required to solve this problem (as against the extent to which it can be left to competing service providers). In the case described, there is a pressing need for an industry response covering a variety of payment media.

**Q35 What gaps are there in current financial educational initiatives in regard to payment matters?**

The most important single point for all consumers to understand is that “you don’t get owt for nowt”. If the misuse of the word “free” could be eliminated from all financial literature – and consumers educated to mistrust anything that says it is free – then all decisions would be placed on a stronger platform. All literature should stress the balance “what we get – what you get”, and customers should be strongly encouraged to seek that balance.

---

<sup>2</sup> Raising, financing and insuring invoices are much more costly and valuable activities than settling them



**Q42 Should minimum standards be introduced for authentication of remote transactions? If so, should a common measure of authentication be recommended/mandated?**

Minimum standards are desirable, and also preferable to a single recommended measure which could stifle innovation.

**Q43 How should the National Payments Plan address new technologies, such as biometrics, which may contribute to customer security?**

This is largely covered under the previous two headings; however the Payments Council may also play a role not only in monitoring developments in the biometric industry but also in giving a clear message to that industry as to the payment industry's business requirements (which most biometrics firms do not yet seem to have taken on board).

**Q44 What actions, if any, should the National Payments Plan include in regard to data sharing?**

Data sharing is increasingly sensitive, and it would be helpful for the Payments Council – in conjunction with other relevant organisations – to specify those classes of data that are considered suitable for sharing (with whom, under what conditions and with what precautions) and what should not be shared. This is probably adequate and preferable to a plan for data-sharing.

**Q45 How can the National Payments Plan help ensure that the burden of fraud prevention is shared equitably across payment service providers and users, including SMEs?**

In the answer to Q40 I recommended that a formal risk analysis be introduced for all existing and new payment methods; a key part of this is the identification of assets that are threatened and vulnerabilities in the systems used. "Fairness" would involve a reasonable balance of costs between the owners of the assets (often consumers) and those whose systems expose the vulnerabilities (often merchants and banks); in particular, those whose systems have a high level of vulnerability should be required to do most to mitigate the risk.

Many SMEs have discovered that there are fixed costs even in Internet businesses and this may have been misinterpreted as unfairness. However costs – particularly costs of fraud prevention – can be shared through the use of common portals and uniform authentication methods.

**Q46 What role should the Payments Council play in raising the profile of fraud and security issues and in lobbying government and the public authorities?**

I believe that fraud and security already have a sufficiently high profile in general terms; simply turning up the volume will not help. The task – which is a general rather than a payments-specific one – is now to help users and businesses focus on the issues that they can do something about. The first role of the Payments Council may therefore be to delineate the responsibilities of the payments sector, and also those of consumers and small businesses **as payment system users**.

The card payments industry has taken a lead<sup>4</sup> in implementing, and driving the implementation of, ISO standards for best practice in Information Security. These principles now need to be extended throughout the payments business, and indeed to any business that captures or stores payment or account details. The Payments Council should use its influence to promote these standards and principles.

---

<sup>4</sup> Through PCI-DSS

**Q47 What should be the role of standards in the National Payments Plan? Are the current principles as agreed by the Board a suitable base from which to start? What role should the Payments Council play in influencing international standards developments?**

The principles agreed by the Board are sound, but could be supplemented by two further principles along the lines:

- Adaptation or modification of an existing standard is to be preferred over development of a new standard unless that new standard delivers incremental benefits to all parties and can be implemented within a reasonable (e.g. five-year) timespan
- The Council will only support standards that are developed within a representative, qualified and sustainable governance framework

Some of the standards currently being developed within the SEPA programme would probably not meet these criteria.

It is easy to say that the Payments Council should seek to maximise the UK's influence on international standards development by ensuring that well-qualified and influential people attend meetings, take part in working groups and play an active role in drafting and commenting on standards during their development. However these are all very manpower-intensive activities and the well-qualified and influential people are also in great demand within their own organisations – many of which are not Payments Council members. The Payments Council must therefore establish a budget and a set of priorities for the areas in which it feels its intervention will be most helpful to the UK payments industry.

**Q48 What, in particular, should the National Payments Plan say about messaging standards?**

As expressed in my answer to Q31, I have strong reservations about extending the scope of payments messaging standards to include other categories of data – except in the most general way. For a payment message to carry full invoice data, it must also carry tax data and other parameters that have proved extremely difficult to harmonise at an international level<sup>5</sup> - a cross-reference system seems much more likely to succeed and would promote the further development of the already quite mature Electronic Data Interchange industry.

A more important development for the industry as a whole is the evolution of model-based structures and xml<sup>6</sup> messaging – in particular the Unified Financial Industry message scheme (ISO 20022). A significant piece of work is required to map the business and functional requirements of the existing APACS message standards into the ISO 20022 framework and this should be undertaken without delay.

It is worth noting the important difference between standards and implementation specifications: where multiple technical standards exist – or one standard with several options – there may quite often be a need for a UK agreement on those options that must (or must not) be provided in order to maintain the integrity of the UK payment systems. This may require a standing or *ad hoc* representative body qualified and enabled to make these decisions.

---

<sup>5</sup> So far only six countries' tax authorities have approved the tax invoice arrangements promoted by Visa Europe since 1998.

<sup>6</sup> Extended Markup Language

**Q49 Would you support an initiative, led by the Payments Council, to establish a better understanding of the costs of UK payments? If so, how do you think this should be taken forward? What supporting information do you think would be relevant for such an exercise?**

As indicated in my answer to Q6, I believe that some estimates more representative of the UK industry in 2007 would be a useful support to many parts of this plan; there are strict limits to the accuracy required for this, rather it is more important that the sources of cost are acknowledged and approximate costs are obtained for the larger sources. Amortisation of capital costs forms an important part of this debate, which too often focuses only on operational costs. A better understanding of where costs fall and their general level is essential to a reasoned discussion of benefits, risks and equity.

An independent, trusted body should be charged with collecting data (much of which is highly confidential at the individual business level) and aggregating it to a specified level of detail and accuracy but in such a way that no business' information can be deduced.