

Open Smart Card Infrastructure for Europe

V2



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Part 2-1b: ePayments: Migration of EMV/CEPS, status and roll-out plans: e-Purse situation in Europe

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eEurope Smart Cards
Trailblazer 5

EMV MIGRATION SYNCHRONIZATION IN EUROPE

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e-Purse situation in Europe

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A. Introduction

One of the TB5 objectives, set from its initial stage, has been to evaluate the possibilities of migration from national e-Purse schemes to “**e-€uro**”, in order to accompany the introduction of the €uro in Europe with its equivalent in electronic form.

The reason behind this objective was to try and avoid a situation in the EU where interoperability of payment means would be achieved through cash whilst more modern tools like e-purses would remain non-interoperable.

Adequate tools seemed to be available to achieve this **e-€uro** programme:

- the Common Electronic Purse Specification was in its finalisation stage, and could serve as the basis for the unification of the then emerging national e-purses;
- the Geldkarte programme had achieved a massive deployment of cards in Germany, but was hesitating on deploying the corresponding terminals, thus opening a three year time-window for the migration of the largest e-Purse card base in Europe to acceptance in a Europe-wide scheme;
- the British Mondex scheme was making openings to join a Europe-wide programme, since it had enjoyed limited success in EU, whilst its deployments in other parts of the world would open additional markets to interoperability;
- Proton in Belgium was offering its recognised longest presence in the field to fine-tune conditions for migration to CEPS.

Considerable efforts were deployed by TB5, to try and accommodate the various requirements that came to light during the discussions. Whilst TB5 did not achieve the **e-€uro** objective, it is however fair to say that it has drawn together significant information on the underlying issues to contribute to any further efforts which may be undertaken.

B. e-Euro Migration barriers

Below are a number of identified barriers for e-Euro migration in European countries and indications of how the organisations undertaking the projects attempted to overcome them.

B.1 *Technology vs Payment programme*

For existing technologies like Geldkarte, Mondex or Proton, CEPS was but one more attempt to solve the technological incompatibility of various e-purse programmes throughout the world.

CEPS has in this respect achieved the integration of a number of e-purse features into a specification, but did not address the payment programme issue, which was not in its mandate. It was then left to the various national bodies to define their positions with regard to such e-purse programme, based on their own requirements. The DUCATO field test, which was fully based on CEPS, was presented in TB5 and showed the successful completion of its work. It proved on a large European scale the consistency of the CEP specification and the interoperability capability on all levels.

The European Central Bank had properly identified the “technology only” risk, and had issued a “**Report On Electronic Money**” in August 1998. This document, however, was not intended to be a payment programme requirement, and carried little risk for those who would not follow it.

One of the issues that was raised within TB5 on the concept of e-Euro, and which could not be settled revolved around the issue of “e-cash” vs “e-transactions”. Since two technology providers were taking these different solutions as core to their respective commercial propositions, the debate would have shifted onto the competition field, and away from a scheme operation’s viewpoint.

B.2 *e-Purse and key operators*

Mass Transit, Tollway and Mobile Telephone Operators were invited to TB5, to discover whether they might participate in a unified e-Euro programme where they could significantly contribute to the usage of the card habit. It turned out that the timing of such proposal was not right.

- Mass Transit Operators still had to work on an attractive business case for banks to join in;
- Mobile Telephone Operators were engaged in the UMTS licenses’ auction sales, which mobilised their cash capacities, leaving e-purse as a perceived competitor for them, rather than a potential partner for growth;
- Tollway Operators approached by TB5 offered no representative body that could speak for all, some initiatives having been taken in various countries, which were only starting to identify potential benefits.

The net result was that major operators for the potential take-up of e-purses had to be left aside, with the banks taking the route of furthering national e-purse schemes at a claimed “minimal cost”.

B.3 No business case or no business model?

One of the commonly heard comments on e-purse in the banking community is that “there is no business case for e-purse”. Whilst results from existing schemes may seem to confirm such statements, no new payment tool has ever shown a positive business case in less than 10 years, which is not yet the length of time the oldest e-purse schemes have been in use.

Similarly, the issuance of cards only by banks remains the rule, and this approach has been shown to address only about 10% of the number of transactions; in the EU an average of more than 70% of the number of transactions is still performed in cash.

This might show that a different business model needs to be looked at for e-purse, which banks are not yet ready to consider for a number of reasons.

B.4 The “competition” of EMV for bank resources

EMV migration, as it was clearly identified during the works and discussions conducted by TB5, has now become the priority for banks and card issuing financial institutions. Most of their resources in the field, which are linked or related to payment tools, are devoting time and efforts to ensure the proper progress of the EMV migration.

e-Purses are thus left on the “backburner”, including in recently started countries like France, where the bulk of the national scheme deployment is done on the backbone of renewal of bank debit cards, where the national e-purse scheme is added.

Deployment of acquiring terminals for e-Purses is thus likely to be slowed down by this “EMV competition” until bank resources and agreed business model(s) are available again.

C. e-Euro Migration drivers

C.1 Consumer Convenience

At a time when the Euro is being widely used, e-Euro seems to be a unique opportunity to offer the convenience of the e-Purse to European consumers. Convenience remains a key promotion argument of all e-Purse programmes in Europe.

Indeed, major operators of automatic payment machines have also identified convenience as a key factor, and we now see the generalisation of card-based payments in car parks, public telephones, vending machines, etc... Such card-based payment tools are often starting as private solutions, and are then extended to open solutions using the national e-Purse scheme deployed in the country.

The fact that the conditions for take-off of the e-Euro e-Purse could not be found in TB5 would then seem more an issue of adequacy of the “time-slot” for introduction than one of convenience.

During 2002, TB5 witnessed an increasing number of statistics proving an exponential increase of e-purse transactions in countries with national schemes, especially in Benelux. In Belgium, for the first time after e-purse launch, the operator of the Proton scheme announced profitable results. This trend could not be analysed in detail but convenience played a major role, since the Euro has more coins and consumers abandoned rapidly their traditional currencies for electronic means of payment.

The continued growth of e-Purse use attracts new attention to e-purse from the stakeholders.

C.2 Competitive tactics

Till recently, technology has been a key argument in the selling of e-Purse solutions. Even technology-providers now recognise that generalisation of e-Purse cannot be based on selling technology, since it has proven, also in the field of e-Purse, not to be a durable argument.

Competitive positioning among technology suppliers is thus structured along the following axes:

1. Offering multi-application platforms, in order to prepare for the presence of e-purse on operators' cards (like telephone, mass transit and others)..
This, however, needs the same operators to agree with banks on the way to promote e-purses, or have their applications on Banks' e-Purses.
The fact that multi-application platforms would call for a somewhat higher price for the card, in an environment that has not yet defined its business case, is not seen as an obstacle to this approach.
2. Promoting non-bank, pre-paid, solutions implemented with major operators as a “lost opportunity” for banks. This approach triggers local banks' interest, whilst e-Purse had been till now more of a Banks' Associations' issue. It therefore contributes to the dissemination of the e-Purse concept, which does come as a surprise for such a solution, which has been around for almost 10 years.

TB5 looked also into Omnipurse, a EC funded IST project that combines CEPS with contactless ticket payments, but the project was in a too early stage to be of significance for TB5 at the time.

Competitive positioning among operators versus banks is structured along the following axes:

1. Use and amplify the impact of pre-paid proprietary solutions that they have developed previously to try and get around the “no business case” statement. The success of mass transport ticketing, initially in Eastern Asia countries, and their effort to transform contactless cards to e-purses, has attracted the interest of European transport operators. This was reported to TB5 by eEurope Smart Card TB9 on mass transport, and is now spreading in Europe too without banks being directly involved.
2. Approach the e-Euro issue from an operator’s point of view (e.g. Tollways) by defining operating rules for acceptance of payment tools at toll gates in a bank-like mode, where the ultimate responsibility lies with the bank.

These approaches contribute to the dissemination of the idea that not only is the need for e-Euro still there, but it is growing and gathering momentum, and that banks should take it more into consideration. They have not yet had a significant effect on the banks’ approaches, other than increasing the public perception of some individual bank initiatives.

The main issue seems to remain the “no business case” statement, which has not yet been demonstrated , nor explained in any documented detail.

C.3 Consumers are left aside

A rough estimate of the population living close to the former internal borders of Euro-zone states would give a figure in the range 10 to 20 million people.

One of the arguments of the financial community is that trans-border transactions for credit/debit cards within Europe are less than 10%. This argument implicitly says that 10 to 20 million citizens of the EU are left with the obligation to have multiple e-purse devices for a single service when they regularly cross borders of the Euro-zone states.

Similar figures can be drawn for EU citizens travelling in the Euro-zone countries for business and leisure.

This situation is clearly not complying with the freedom principles of the EU, and could possibly be raised by Euro-consumers as discriminating, thus creating a new thrust for financial institutions to reconsider the **e-Euro** opportunity.

D. Tentative Conclusions

D.1 *Timing*

The main conclusion that could be drawn from TB5 discussions on the **e-€uro** concept of an e-Purse is that the timing was not right.

As of the dates at which the work of TB5 began, the momentum of the migration to the €uro was gone, and the EMV wave was growing, leaving in banks and financial institutions little room available for considering the e-Purse products at large.

D.2 *Fit*

Close to 10 years after the start of intense discussions on existing products between payment schemes and their member banks, the decision of migrating to EMV had finally been taken at a global level. There was a clearly identified risk of overloading both the banks' sales forces and the relevant merchants, if both EMV and e-€uro were introduced at the same time.

The discussion initiated by TB5 on **e-€uro** did not fit therefore with the calendar of the banks in terms of payment tools.

D.3 *Next steps*

The follow-up to the work done in TB5 about the **e-€uro** could be viewed along the following key lines:

- Revisit with banks and potential partners the underlying business model along which the “no business case” statement is made, in order to allow the **e-€uro** concept not to be hampered by this argument;
- Evaluate the actual impact of non-compatibility of national e-purse schemes within the €-zone;
- Define conditions for the migration of national schemes to **e-€uro**, and derive the corresponding planning to follow-up on the EMV deployment.

