

AFSCM Press Kit

THE AFSCM AND MOBILE CONTACTLESS TECHNOLOGY

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THE AFSCM, DEVELOPING MOBILE CONTACTLESS IN FRANCE

I – AN OVERVIEW OF THE ASSOCIATION FRANÇAISE DU SANS CONTACT MOBILE

The AFSCM (Association for Mobile Contactless in France) is a not-for-profit organization governed by the French 1901 Act. It was established in April 2008 by the three mobile operators Orange France, SFR and Bouygues Telecom. It groups together all of the stakeholders in the mobile contactless technology sector in France and actively works, in close cooperation with the latter, towards harmonious development of this market, for the benefit of consumers.

The primary objectives of the AFSCM are:

- Facilitating the technical and commercial development of contactless mobile services
- Promoting their benefits, to businesses and private individuals

The AFSCM works within the framework of special commissions charged with preparing technical and marketing publications for the association in order to accelerate the implementation of contactless mobile services in France. The association actively works towards the establishment of an open ecosystem made up of interoperable services and devices.

II – AFSCM MEMBERS

The AFSCM is open to all stakeholders in the market and is organized around three divisions:

- Mobile operators: Bouygues Télécom, Orange France, SFR, NRJ Mobile
- Service providers: Airtag, BNP Paribas Personal Finance, Crédit Mutuel Centre-Est, Laser, Société Générale, Veolia Transport
- Manufacturers (handsets, SIM cards): Atos Worldline, Business Anywhere, Gemalto, Oberthur Technologies, Connectings, Prylos, Sagem Orga, Innovision, Multimedia Business Services

III – AFSCM ACTIVITIES

- Technical specifications

The AFSCM has designed an open solution, based on international standards for mobile NFC services. The infrastructure established thereby enables interoperability of services and devices. This strategic choice contributes to the fast development of mobile NFC in France as it lays the foundations for a competitive market proposing services and devices.

The same approach, once adopted in other European countries, will facilitate the emergence of a united European market of mobile NFC services and devices. Consumers in France and in neighboring European countries would therefore be able to use their NFC-enabled mobile phones as well as mobile contactless services anywhere in Europe.

The AFSCM has published its technical specifications aimed at all parties involved in France and abroad in the mobile NFC value stream: application issuers, IT specialists, SIM card and mobile handset manufacturers. The AFSCM specifications are available for download, free of charge, from its web site at www.afscm.org.

- Coordination of “Mobile Contactless Nice”

Due to be completed in spring 2010, “Mobile Contactless Nice” is a large-scale pre-commercial roll out of mobile contactless services. French mobile operators will market the first NFC handsets for use by several thousand customers. These customers will be able to discover, for the first time in France, a multi-service offer of mobile contactless services, benefitting from the support of mobile operators.

- The marketing specification set



Cityzi™ is a brand created by the AFSCM to facilitate the recognition and adoption of mobile contactless technology by the general public. This symbol will serve to guide customers towards locations where they can use trusted mobile contactless technology. The Cityzi™ marketing toolset is composed of Cityzi Trademark Usage Guidelines and graphics which can be used on mobile NFC handset screens, on NFC tags, in advertisements and marketing



material, both in print and at point of sale locations. Cityzi usage requires a royalty-free trademark licensing agreement with the AFSCM (see p10 & 11 for further information about Cityzi™).

Cityzi™ will be launched in Nice before the summer of 2010.

MOBILE NFC IN THE WORLD AND IN FRANCE

France is the only country which, through the AFSCM, regroups as many stakeholders around a single solution and an open mobile NFC ecosystem. The AFSCM is today a pioneer in Europe for the development of the mobile contactless service market.

I – CONTACTLESS MOBILE SERVICES ACROSS THE WORLD

- An established market in Asia

Mobile contactless is rooted in daily life in Japan, which is a pioneering and leading country in the domain. The Felica contactless mobile system, offered since 2004 by NTT DoCoMo and Sony, was available on 48 million compatible telephones sold at the end of 2007, with around 10 million active users of the service. The handsets are commonly used on the Tokyo rail and metro service, in some supermarkets to pay for purchases, by brands for their digital loyalty programs, or in the security sector. Similarly, Korea launched mobile NFC in 2006 and already has 12 million users of mobile contactless payment services.

While in Asia, mobile contactless services have been launched with a proprietary solution, involving a limited number of companies, the AFSCM is promoting an open solution based on international standards.

Mobile NFC pilot programs have recently been launched recently in China, notably in Shanghai and Beijing.

- Projects and experiments led elsewhere in the world

Elsewhere in the world, many pilot programs are being led to test the many uses of mobile NFC. In the US, pilot programs in the transport sector enable passengers to pay for travel passes with their mobile phones. These programs have been developed by some banks and transport companies in San Francisco, Atlanta, New York and Washington. In the UK, the government has launched recently a public consultation on NFC. Currently, only bilateral partnerships have been implemented in the UK. As for Germany, the “Touch and Travel” project offers paper free travel tickets which has been approved by around 500 testers. The pilot program is due to be rolled out across Germany in early 2010.

II – A MOBILE CONTACTLESS ECOSYSTEM OPERATIONAL IN FRANCE

France possesses many assets for a fast development of mobile contactless services:

- Choice of a non-proprietary solution, which is open and interoperable
- Powerful industry in the smart card sector
- Involvement of powerful, internationally renowned industrial stakeholders: banks, retail groups and mobile operators in particular
- Quality of its public transport system, its businesses and a successful development of contactless technology in France in this sector (5 million contactless cards, 50,000 card reader devices)
- Support of public authorities and the government: establishment of the “Contactless Mobile Services Forum” in 2008, NFC technology is placed at the forefront of the 2012 Digital France plan and included in the public dialogue on “Internet of the future” led between May and July 2009
- Coordination of the efforts of all stakeholders under the aegis of the AFSCM.

As a result, a dynamic ecosystem has flourished around the AFSCM specifications in France, including:

- **Stakeholders from the telecommunications sector**
 - o Mobile operators, ensure the security of the SIM card and mobile customer support
 - o Mobile network operators provide a secure environment for installation and execution of mobile contactless applications.
- **Mobile NFC application providers, service providers:**
 - o Mobile NFC application issuers offer mobile contactless services to the mobile customers equipped with NFC-enabled handsets.
- **Stakeholders in the electronic/IT sector**
 - o Mobile NFC handset manufacturers
 - o SIM card vendors



- Manufacturer of readers that are rolled out by service providers in buses, stations, stores and other locations where mobile NFC services can be used.
- Manufacturer of NFC chips on-board the mobile handset
- Mobile application developers, contractors of application issuers
- TSM companies, contractors of application issuers or mobile operators.

- **The standardization bodies**

Standardization bodies can accept contributions from organizations such as AFSCM to elaborate and publish international standards. In addition, they look into future developments of NFC services.

“MOBILE CONTACTLESS NICE”:

PRE-COMMERCIAL LAUNCH OF MOBILE CONTACTLESS SERVICES

I – A MOBILE CONTACTLESS MULTI-SERVICE OFFER

In spring 2010, “Mobile Contactless Nice” is set to be the pre-commercial launch of a mobile NFC multi-service offer. In the framework of this project, the first commercial mobile NFC handsets will be marketed to 500,000 residents in the Nice metropolitan area along with a set of very useful mobile NFC applications.

“Mobile Contactless Nice” builds on many successful mobile NFC trials led in France over the past years (cf. p15). These experiments notably aimed at testing the technology and its use cases. The initiative led in Nice is markedly different due to the scale of the project in addition to its commercial dimension:

- It is not merely focused on a single application such as ticketing or in-store payments
- It relies upon a large sample of users: thousands of customers, compared with between 50 to 400 testers during experiments
- For the very first time, the experiment brings together the three French mobile operators Bouygues Télécom, SFR and Orange
- The scope of the initiative covers the entire urban community of Nice, including the city as well as the 24 neighboring communes
- NFC-enabled mobile phones shall be commercially distributed in France for the very first time during this period.

II – MANY ASSOCIATED PARTNERS AND A VARIETY OF SERVICES TESTED

The AFSCM is responsible for coordinating this project which additionally involves the City and Urban Community of Nice in addition to many other local and national stakeholders:

- Veolia Transport
- The mobile operators Bouygues Télécom, SFR, Orange and NRJ Mobile



- Crédit Mutuel, Société Générale, BNP Paribas
- Airtag, specialist in Mobile NFC loyalty applications
- Connecthings, specialist in NFC tags

The first services on offer within the framework of “Mobile Contactless Nice” will include:

- Public transport: ticketing, passenger information
- Promotion of local heritage and education: e-campus project
- Trade and retail: local bank transactions, mobile loyalty and couponing programs
- Cultural/tourist information: museums

III – A REHEARSAL OF THE COMMERCIAL ROLL OUT OF MOBILE CONTACTLESS SERVICES

Considered as being a general pilot run, “Mobile contactless Nice” could soon be followed by other commercial roll outs of mobile contactless services in France and in Europe. Many stakeholders have expressed their interest for this project or indeed for a rapid development of new services using NFC technology. Following their initial pilot experiments, the cities of Caen and Strasbourg are planning a wider development of contactless mobile services in their regions. Jean Paul Huchon, President of the Local Council for the Ile-de-France region (Paris region), expressed the desire to launch a mobile NFC solution in the local transport sector. Finally, the retail sector – through the Ergosum project which aims at harmonizing the mobile NFC customer point-of-sale experience – is also investigating the development of this technology with a view to offering new customer services and to reducing costs.



A COMPREHENSIVE MARKETING TOOLSET TO FACILITATE ADOPTION OF MOBILE CONTACTLESS TECHNOLOGY

I - CITYZI HELPS YOU SPOT WHERE YOU CAN USE YOUR NFC-ENABLED MOBILE PHONE

The AFSCM has launched the Cityzi™ brand to help customers identify the locations where they can use their mobile contactless handset in trust. Cityzi™ will appear, for end users, as graphics which can be seen on mobile NFC handset screens, on NFC tags and on marketing material in locations where contactless mobiles services can be used.

Cityzi™ signals also the compliance of a service or a device with the AFSCM specifications, ensuring the interoperability of mobile contactless services and handsets.

II – A DISCRETE BRAND AVAILABLE TO SERVICE PROVIDERS AND MANUFACTURERS ALIKE

As a mark associated with the AFSCM specifications, Cityzi™ has positioned itself as a low profile brand. It does not aim to sidestep the brand of the application issuer, but is rather a reference point for the mobile user, a mark of compliance and compatibility for applications and equipment.

III – WHAT CITYZI™ OFFERS:

- **Solid commitments:**
 - To provide a simple ready-to-use marketing tool set to application issuers
 - To develop the awareness of mobile contactless services and reassure customers that services are interoperable and supported by mobile operators.
 - To facilitate access to services as soon as they are installed on the mobile handset (Cityzi™ icon and list of Cityzi™ services available on the phone)

- To support customers throughout the application life cycle.

- **Some distinct graphics**

Cityzi™ is recognizable via four graphics:



A logo which shows the compatibility of a service or a contactless mobile device with AFSCM specifications



A reference logo displayed in all places where these services can be used, notably in shops. The “ici cityzi” logo, displayed on a shop window or entrance door, or close to an NFC mobile payment device, means that you can:

- pay using your mobile in this shop,
- and/or use your loyalty cards cityzi™
- and/or get practical information by placing your mobile in front of a reader



A target mark designates the NFC tags inserted within objects, bill boards, etc...). It allows customers to recognize instantly the information points within the city. The user approaches his/her mobile phone close to the NFC scanner to automatically access to the practical information offered.



An icon visible on the mobile phone menu offering a single-click access to the list of cityzi applications installed on the handset.

THE TECHNOLOGY BEHIND MOBILE CONTACTLESS SERVICES

I - MOBILE NFC: A SIMPLE, INTUITIVE AND SECURE TECHNOLOGY

- NFC, a tried and tested technology

NFC, or “Near Field Communication”, technology is at the very core of the emergence of contactless mobile services. It enables data to be collected and exchanged from a distance of a few centimeters using radio frequencies. This enables simple interactions without objects needing to come into contact. Mobile NFC is a result of the convergence between tried and tested technologies that are widely used: RFID and contactless cards.

- The open solution selected by the AFSCM

Based upon international standards, the open solution recommended by the AFSCM consists of integrating mobile telephones with an NFC chip and a SIM card as a secure element, enabling applications and user data to be stored securely. Customers merely need to wave their mobile phone in front of the scanner or NFC payment terminal, or even an NFC tag to trigger an intuitive, predictable result, such as confirming access, paying for a purchase, sending an SMS, accessing a mobile internet site, etc.

- A level of security identical to that of smartcards

Many contactless bank cards are now deployed across the world. The AFSCM works is aimed at bringing the SIM to the same level of security as chip and pin solutions used on bank cards. The information contained in NFC telephones is secure and confidential: nobody, aside the customer, can access this information. The data which is transferred during exchanges or transactions is encrypted. The risk of fraud is moreover reduced because frequent use of a mobile phone throughout the day makes it much easier to observe if it has been stolen or lost. In such an instance, the customer can simply call his/her mobile operator so as to suspend both the services and the number. The customer can then easily benefit from remote installation of his/her applications and transfer of data to a new mobile phone, thanks to the mobile network.

II – MARKETING THE FIRST NFC-ENABLED MOBILE HANDSETS IN SPRING 2010

- **A range of mobile contactless phones by the end of 2010**

The first NFC-enabled mobile handsets shall be developed on a large scale in France in spring 2010, at the time of the launch of “mobile contactless Nice” marketed by four mobile operators, followed shortly afterwards, by a second product. Their price will be very similar to that of other mobile handsets marketed by the same operators within the same product range. By the end of 2010, the AFSCM estimates that a range of contactless mobile phones may be on sale on the French market.

- **Three operating modes for NFC-enabled mobile phones**

⇒ Card emulation mode: the mobile phone in this mode works as a smartcard with the sole exception being that communication is undertaken without contact, by very short-range radio waves. Whilst offering the same level of security as smartcards, mobile NFCs are able to store a number of cards and virtual content from particular providers (payment, transport, loyalty programs, money-off coupons, identity information, etc.).

⇒ Reader mode: in this mode, the telephone is able to read electronic label information (or “Tags”) displayed on street furniture (bus shelters, notice boards, etc.) or indeed on other physical media (intelligent posters, packaging, etc.). Fitted with a flexible aerial and a memory chip, this tag is activated by radio waves when the NFC-enabled phone passes within range. It emits information (URL for a mobile web site which the mobile web browser loads automatically, geographic coordinates of the location, etc.) or triggers an action (dials a number, sends an SMS, or launches an application, etc.).

⇒ Peer to peer mode: it is additionally possible to exchange data between two NFC-enabled phones, similar to Bluetooth, but in a much simpler and secure manner. This mode is used for applications such as money transfers, ticketing or passes, contents and information exchange (calling cards, etc.), multi-player games, etc.

MOBILE CONTACTLESS SERVICES SIMPLIFY DAILY LIFE

I – INNOVATIVE SERVICES WHICH ARE HIGHLY POPULAR WITH THE GENERAL PUBLIC

- Simplifying daily life

Mobile contactless services are set to radically simplify daily life in a number of areas: secure purchases, scanning transportation tickets and passes, paper-free ticketing, account management, access to useful information or local news, interactive dialogue with brands thanks to street furniture fitted with NFC tags, access to public or private areas, etc. For businesses, these contactless mobile services shall enrich the quality and added value of their offers, generate additional income, increase productivity and even contribute to cutting costs. Finally, the development of contactless mobile services shall be undertaken in France in full respect of the regulations in force in terms of respecting privacy and data protection (regulations established by the CNIL¹, the LME² and the LCEN³). In particular, the transmission of a mobile number or of geolocation data is required to be subject to prior consent of the customer (“opt-in” rule).

- Conclusive experiments

Many successful trials have been undertaken over recent years into contactless mobile services in Paris, Strasbourg, Caen, Rennes, Grenoble, Bordeaux and Marseille. Somewhat smaller in scale compared to the development in Nice in spring 2010, these experiments all confirmed that the technology functioned well and was well received by the general public. An overwhelming majority of testers deemed these services simple to use and providing high added value.

¹ *Commission Nationale de l'Informatique et des Libertés (CNIL) : French National Data Information and Freedom of Information Commission*

² *Loi de Modernisation de l'Economie (LME) : Economic Modernization Act*

³ *Loi sur la Confiance dans l'Economie Numérique (LCEN) : Confidence in the Digital Economy Act*

II - TRANSPORT: MOBILE NFC OR THE GENERALIZATION OF CONTACTLESS TECHNOLOGY

NFC-enabled mobile phones are set to accelerate the generalization of contactless services such as the Passe Navigo or the Vélib' card. Eventually, the telephone will unite all contactless transport passes for a single user. These cards will offer consumers a better all-round service notably thanks to using mobile internet, without connection breakdown.

Some examples of its uses

- On-line purchasing for transport passes, at any time: single tickets and passes may be stored on a mobile phone
- Scanning a transport ticket by passing the mobile in front of the handset reader
- Real-time consultation of public transport timetables, thanks to electronic tags placed on bus shelters, linked to a mobile site
- Purchase history, etc.

The advantages

- For customers:
 - Buying transport passes remotely (no more waiting in line)
 - Ease of mobile phones as a card support: people always carry a mobile with them
 - Access to information and services with high added-value (real-time traffic or service interruptions, recommended routes, tourist information, etc.), available in various languages
- For service providers:
 - Cost cutting, due to offering paper-free ticketing
 - Increased number of one-time consumers and major savings opportunities linked to customer handling, which can generate excessive costs for transport companies
 - Better understanding of customers: improved service offer, new services and special offers available (tourists, businessmen and women, etc.)
 - Reduced risk of fraud: customers are much quicker in realizing they have lost their mobile phone or are the victim of theft than with a card.

- Reduced quantity of ticket machines necessary, etc.

II – BANKS AND BUSINESSES: A NEW SIMPLE, RAPID AND SECURE PAYMENT METHOD

The foundations are in place to ensure the development and rapid uptake of contactless mobile payment in France with the application in France of the European Directive reforming payment services since 1 November 2009, with the strong involvement of banks and services which are in place and ready for development.

Some examples of its uses:

- Payment via mobile phone, for example in major shopping outlets or in car parks (on-line purchases, purchasing goods with local stores or in major outlets fitted with NFC readers, payment for car parking spaces in car parks with readers, etc.):
 - Payment using PIN code: the limit is set by the issuer of the mobile payment method.
 - Payment without PIN for small amounts, if desired by the customer
 - Guaranties and conditions identical to those of a typical bank card, for example in terms of payment limit
- Customer-relation programs become virtual: loyalty points programs, money-off coupons, gifts, etc.
- Strong authentication with mobile phones in managing on-line accounts, etc.

The advantages:

- For customers:
 - A simple payment method which offers the same level of security as smartcards (cf p12)
 - Reduced amount of time spent at checkouts
 - Simplified access to cards and customer benefits, all combined on a single mobile phone
- For service providers:
 - A simple and secure alternative sales channel, enabling new customers to be reached

- Smoother and quicker checkout times
- Reduction in the volume of small change handled, simplified account management (elimination of the risk of checkout errors, better monitoring of sales made, etc.)
- Limited risks of having cash in tills
- New method of locally promoting a business due to NFC tags displayed in the surrounding areas
- Customer relation programs are made virtual

III – LOCAL AUTHORITIES: SIMPLIFYING AND IMPROVING DAILY LIFE OF USERS

Local authorities will also benefit from the development of mobile contactless services. They will improve their contribution towards fighting against climate change by facilitating access to public transport for occasional users. Contactless mobile services will additionally enable the provision of better local and regional information to users and tourists, which can also be issued in various languages (tags displayed on street furniture to highlight the tourist attractions or cultural events close to the user location, etc.). They shall also contribute towards improving direct communication between elected representatives and local residents for example.

IV - MARKETING AND COMMUNICATION: EXTENDING AND CUSTOMIZING CONSUMER RELATIONS

By attaching NFC tags to products, physical communication media, street furniture or points of sale, brands lay the foundations for an improved interactive dialogue with customers. They open up the option of selling on-line: customers can, by passing NFC-enabled mobile phones close the indicated area on a display fitted with an NFC tag for instance, be connected to the mobile web site for that brand where products can then be purchased. Brands may also issue, in a simple manner, additional information regarding services or products (make-up hints, recipe tips by video, etc.) or even design new animated point-of-sale activities, whilst the consumer is in situ to purchase products (tests, additional information, competitions, etc.).

Moreover, mobile NFC technology opens the door to operating virtual customer relation management programs. An NFC-enabled mobile phone will be able to store all loyalty cards, bonus points and gifts in customers' phones, as well as providing a history of purchases which can be consulted at any time. Finally, thanks to mobile NFC, brands are able to send to opt-in customers more suited and personalized promotional offers.

V - TICKETING / CONTROLLING ACCESS / SECURITY: CLEAR AND SIMPLE USES

Users are able to use NFC-enabled phones at any time to purchase tickets for shows, sporting events, museums, etc. The ticket is then stored on the mobile phone. The customer then can simply scan this against an NFC terminal at the location where the event is taking place to gain entry.

Similarly, with a simple scan of your NFC-enabled phone, it is possible to enter or exit a controlled location by moving your phone in front of the NFC terminal. Mobile NFC is indeed able to unite all access badges for a single individual. This facilitates access management to private or public locations, such as businesses, car parks, residence (with the possibility of sending entry authorizations to third parties), libraries, gyms, buildings, etc.

VI – LOCAL INFORMATION MORE ACCESSIBLE THAN EVER

Contactless mobile technology also offers the availability to access local information by enabling mobile phones to interact with street furniture. In practice, users can gain direct access to internet sites and, for example, find out information regarding local traffic, weather, nearby restaurants, cinema listings, local news, and much more.

Contactless mobile has a vast range of diverse uses.

The possibilities are endless!