

A global NFC solution provider
A key partner for 'Nice, Ville NFC'



Oberthur Technologies' 'NFC Now' meets the requirements of the NFC ecosystem

Ranking as a trusted supplier to more than 5,000 banks, mobile operators and transport authorities, benefiting of 10 years of experience in remote administration platforms and a leader in integrated and secured personalization, Oberthur Technologies has a true expertise to answer the needs of the NFC ecosystem.

Participating actively in the development of specifications that could lay the basis of a global standard, we are among the first in the industry to offer a complete NFC services suite. Our offer bridges technical gaps and simplifies business relationships among a growing number of new business partners.

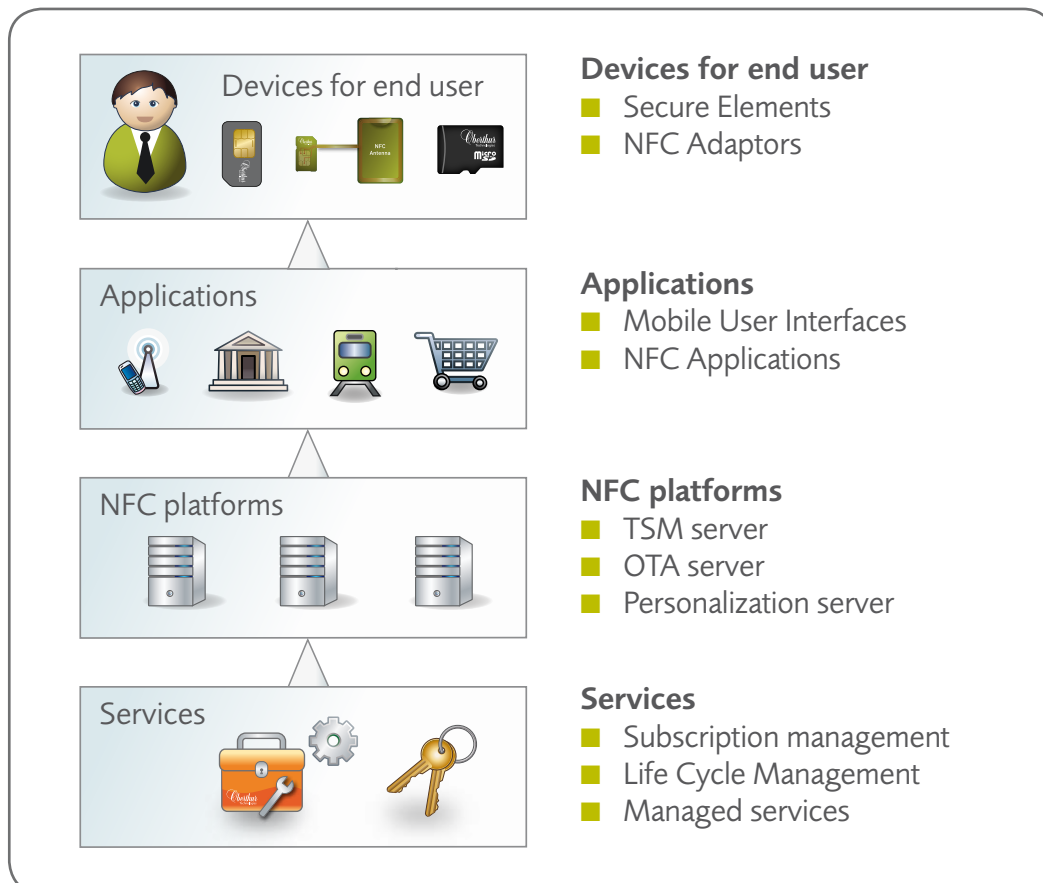
Oberthur Technologies' offer includes NFC-enabled SIM cards, a set of ready-to-use NFC applications, NFC service administration platforms as well as an

Oberthur Technologies' fully managed NFC service, if needed.

All requirements to launch an NFC service are covered, starting with customer subscription, followed by remote application download and personalization. 'NFC Now' also answers all post issuance lifecycle use-cases like mobile lost, re-found or change. The provided customer care interface allows each actor to control its dedicated services.

Oberthur Technologies' 'NFC Now' offer is composed of dedicated turnkey solutions for the different actors of the NFC ecosystem:

- Mobile operators
- Banks & financial institutions
- Transport authorities
- Retail groups



Oberthur Technologies 'NFC Now' offer

A new connected world

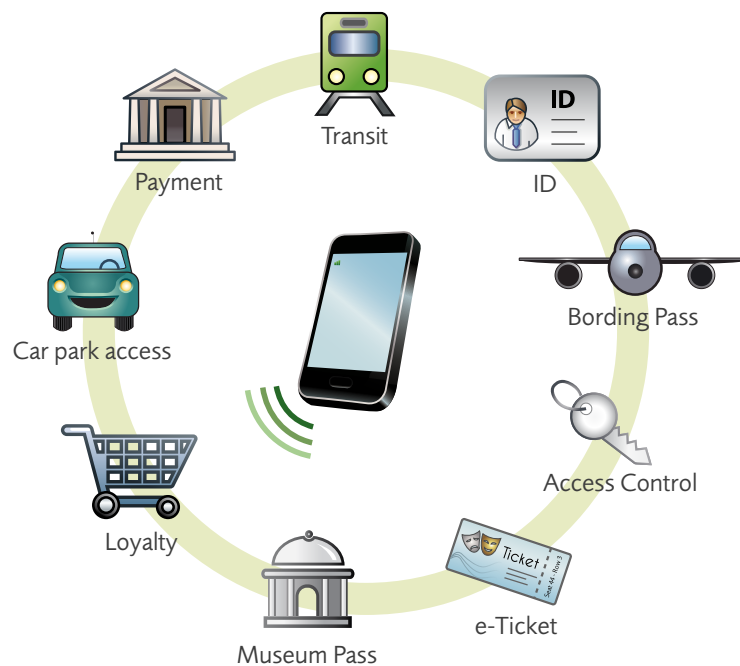
The emerging market of NFC services is taking a turn. Pilots conducted worldwide during the last five years showed the great interest of end-users but also demonstrated the limits of a one-to-one approach between a specific mobile operator and a single bank or transport authority. The challenge is now to develop an interoperable and standard solution that end-users can use whatever is their mobile operator, bank, transport authority or preferred shops.

What is NFC?

NFC is a new technology mainly used in mobile phones allowing short distance (2 - 4 cm) contactless communication to perform NFC payment, NFC access to transport networks, offices and car parks as well as NFC loyalty programs.

What is needed to run NFC services?

- An NFC phone or a regular phone with an NFC adaptor
- A secure element to store NFC applications
- A full set of NFC applications (payment, transport or retail)
- Mobile user interfaces to display or modify application information
- A dedicated NFC platform for each actor to administrate services remotely
- Contactless payment & transport terminals in the field to use these services



What are the benefits for the stakeholders?

Mobile operators	Banks and financial institutions	Transport authorities	Retail groups
<ul style="list-style-type: none"> ■ Subscriber's churn reduction ■ New revenue stream ■ NFC subscription fee and service stickiness 	<ul style="list-style-type: none"> ■ Convenience ■ Increase market share in consumer payment vs. cash ■ Phone is becoming stronger than the wallet 	<ul style="list-style-type: none"> ■ Reduce cash management and expand scheme to micro-payments ■ No need to issue cards anymore ■ OTA top-up and payment convenience 	<ul style="list-style-type: none"> ■ Expand the membership and usage of loyalty programs ■ Faster throughput ■ People always carry their phones when doing shopping

'NFC Now' for mobile operators

Renting out SIM space to third parties and paving the way for new use cases for the mobile phone will open new revenue streams to mobile operators.

Mobile operators play a key role in the NFC ecosystem where payment, transport and loyalty applications will be securely stored on the SIM card. For this market, Oberthur Technologies provides a new generation of SIM cards with NFC capabilities as well as NFC adaptors for phones already in the field.

Oberthur Technologies 'NFC Now' offer for mobile operators also includes an NFC platform for controlling SIM access by their partners. This NFC platform manages all interaction with these partners such as eligibility check (compatibility of the handset, available memory space on the SIM card...), lost/stolen-notifications, customer care, billing generation...

Oberthur Technologies also designs operator 'master midlet' for NFC phones so that banks, transport authorities and retail groups can efficiently run their specific 'service midlet' onto these phones.



'NFC Now' for banks and financial institutions

Issuing the 'top of the wallet' payment solution is the driver for many banks to propose NFC services.

Along with the generic features mentioned above, Oberthur Technologies' 'NFC Now' offer for banks & financial institutions answers specific needs like secured remote personalization, PIN management and EMV parameter updates.

The Oberthur Technologies' NFC platform is hosted in our highly secured Service Centers certified by MasterCard and Visa.

The applications we provide are certified and comply with the latest standards for mobile payment.

Oberthur Technologies can also design service midlets giving banks the ability to deploy their mobile portal onto NFC phones.



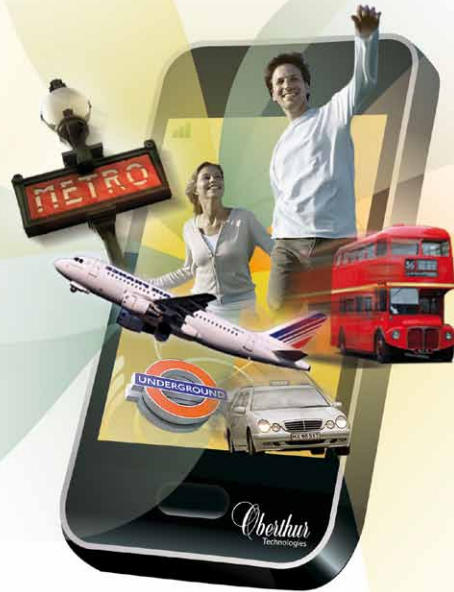
'NFC Now' for transport authorities

Reducing paper-based tickets and queues at counters are the key drivers for transport authorities to push for NFC ticketing.

To answer the specific needs of transport authorities Oberthur Technologies' 'NFC Now' offer includes applications such as Mifare and Calypso families as well as others.

Oberthur Technologies provides a complete NFC service for transport authorities allowing them to set up and maintain an attractive 'NFC commuter application'.

Oberthur Technologies also provides NFC tags which facilitate access to services like online timetables, ticket purchase or surrounding maps consultation.



'NFC Now' for retail groups

Using mobile phone— only device always in hand—for rewarding customer loyal behavior is innovative and effective to generate addiction.

Oberthur Technologies' 'NFC Now' offer enables retail groups to setup loyalty services such as online loyalty programs, dematerialization of gifts and money-off vouchers.

The NFC platform allows setup and management of NFC loyalty services.

Oberthur Technologies also provides NFC tags as part of this service package for retail groups to support marketing actions.



'Oberthur Technologies is among the first in the industry to offer a complete NFC service suite'

Oberthur Technologies has a unique experience to provide 'NFC Now'

A major actor in the payment market	<ul style="list-style-type: none">• A leading supplier of MasterCard and Visa• More than 5,000 banks and financial institutions• Expert in security (EAL4+, MasterCard, Visa)
An international SIM card vendor	<ul style="list-style-type: none">• Technology trusted by more than 250 mobile operators• One of two industry leaders worldwide• Latest technologies already available
A contactless payment expert	<ul style="list-style-type: none">• More than 40% market share in contactless smart cards in the US• Regularly selected for major new commercial launches• Many pilots around the world
A leader in integrated & secured personalization	<ul style="list-style-type: none">• A trusted player for hosting sensitive information• More than 20 years' experience in personalization• Unique global tool for all kinds of personalization of all smart card products personalized both in factory or through TelepathIC
An application developer expert	<ul style="list-style-type: none">• Expertise in Amex, JCB, qVSDC, Paypass, Calypso and MIFARE• Expertise in Midlet or SCWS for MMI purposes• Expertise in STK for flexible management of multi-NFC handsets• Expertise to provide application certifications
10 years' OTA platform supply experience	<ul style="list-style-type: none">• 65 references worldwide• Global OTA product range• Latest technologies such as BIP and OTA platform upgrade for NFC
An innovation-oriented partner	<ul style="list-style-type: none">• First in the industry to sell a 128kb card, a 1Mb card and first USB dongle incorporating a smartcard (AngellC™)• WebSTIC, a USB solution for secure authentication, meets the need to find the appropriate balance between security, cost and convenience
Partner offerings with global & local support capabilities	<ul style="list-style-type: none">• 6,000 employees worldwide• Over 30 service centers covering 5 continents• More than 600 million smart cards personalized per year



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