

THE FUTURE OF NFC: KEY CONDITIONS FOR SUCCESS

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The dawning of the Near Field Communications (NFC) era will open up a whole new range of mobile opportunities and significantly simplify the way consumer devices interact with one another. Clearly, we are all convinced that NFC technology has an enormous potential and that the possibilities are countless. Even if NFC is still a relatively young technology, the expectations - fueled by the many pilots, reports and encouraging forecasts – are sky-scraping.

TODAY'S STATUS

NFC pilot initiatives are mushrooming all around the world, it's hard to keep track of them but even more difficult to identify the ones that are really successful and fit for commercial introduction. There's different reasons why NFC hasn't taken off massively until now...but if we look at the past year, NFC is starting to make its move.

New technologies have the potential to create new trends and transform user habits and visibly, NFC has the potential to do so: enhance communication, speed up connections, receive and share information and make fast and safe payments. The ongoing introduction of affordable NFC handsets will feed consumer attention and accelerate the commercial uptake. However, there's more essential conditions that need to be fulfilled to enable the viable business models that will satisfy everyone.

TRUST IS EVERYTHING!

During the last decades, consumers have shifted from cash payments to electronic payments, primarily debit and credit card payments. While the replacement of cash by an electronic card-based purse failed (somewhere in the dark nineties), NFC is universally considered to be the complementary technology that would enable the smart phone to replace our good old leather wallet. Nonetheless, before consumers will embrace NFC and mobile payments, they need to have unconditional confidence in the technology. Clearly, products and services need to be reliable and universal: someone traveling from Brussels to Dubai should be able to use his device in the same way as he would do in his home town. Strangely, quality and interoperability are "forgotten" yet key factors in the success and global uptake of our future "do-it-all" communication vehicle, the mobile phone.

In 2004, the NFC Forum was formed to advance the use of Near Field Communication technology by developing standards-based specifications, ensuring interoperability among devices and services, and educating the market about NFC technology. The Forum now has 140 members, including manufacturers, applications developers, financial services institutions,...all working together to create a foundation for NFC products and accelerate the uptake of the technology.

It is not sufficient however to have an industry association or standardization body evangelizing the rules. It is compulsory for the industry to implement these specifications if we want NFC to become the killer technology we would like it to be.

A recent Alcatel-Lucent report shows that people born between 1977 and 1998 (the so-called Millenium

Generation) are keen on paying with their mobile phones, but interestingly, when payment of larger amounts come into consideration, the image and reputation of the provider seems quite important. What's more, the report shows that this generation has more trust in the likes of PayPal, Facebook or Apple. There's obviously a mission here for the traditional stakeholders in (mobile) payment applications: the financial institutions and mobile operators.

WHY IS TESTING SO IMPORTANT?

More than with established technologies, testing of compliance to industry specifications is indispensable: as described above, quality assurance and interoperability are absolutely critical. Testing eradicates failures and issues that can lead to costly modifications post-launch, not to forget that each error involving end-users has an immediate impact on service levels that can adversely damage image and reputation. Getting the right test solution will safeguard the future of the technology: quality consistency, regression testing, interoperability, future-proof, faster time-to-market, and more.

Most providers of NFC products or services, however, lack the knowledge and internal capabilities to assess the true complexity of testing transactional mobile systems and how to interpret the test results. Understandably, testing is not their core business while companies such as Clear2Pay, among others, can build upon years of experience and have conceived a specialised range of tools and services that are readily available.

NFC product or service providers will need to prove compliance to the industry rules and pass certification tests at the official NFC test laboratories. Providers can prepare in-house for certification by using the available official NFC test tools. The first wave of the NFC Forum certification testing is dedicated to the digital layers of the technology:

- Listen Device Test Suite: covers all NFC Forum test cases where the NFC-enabled device behaves like a contactless tag.
- Poll Device Test Suite: covers all NFC Forum test cases where the NFC-enabled device behaves like a contactless terminal, allowing to communicate with an NFC tag
- Peer-to-Peer Device Test Suite: covers all NFC Forum test cases where two NFC-enabled devices transfer data in active or passive mode and in target or initiator way.

Making sure the community follows the same rules is the only way to achieve global interoperability and to create a genuine, trustable ecosystem: just like consumers go for quality-label products in their favourite grocery store, they will equally opt for NFC Forum labelled products. Providers will be sure that their mobile products and services will reach the broadest possible market and that they will work effectively around the world.

CARDS TODAY, PHONES TOMORROW

Some of us probably remember the days when cash was the absolute king of the world (let's be honest: it still is in some parts of the globe), and we have all used magnetic stripe cards which have been replaced by chip-based cards in large parts of the world (again: still a lot magstripe cards out there), while countries such as the US are migrating to contactless smart cards.

It is quite interesting to see that we plan to slide once more, now from smart card-based to phone-based payment transactions, and it seems NFC is the harmonizing technology that will morph our feature-packed smart phones into the ultimate payment gizmo. We are far from being there however, NFC itself is not sufficient to create the perfect mobile solution. Also, the migration path from smart cards to mobile payment is quite different from precedent migrations and far more complicated. Clearly, NFC has the power to bring different industries together (payment, mobile, transport,...) but this convergence proves extremely complex:

- a multitude of players are involved such as application providers, SIM manufacturers, Trusted Service Managers, Application Providers, security application providers, and more.
- not fully compatible standards and communication protocols
- creation of an efficient ecosystem
- legacy applications need mapping to new technologies
- legal requirements, regulatory organisations
- lack of the appropriate infrastructures
- ...

Fortunately, lessons from the past have been learned and there are today companies around who have gathered the indispensable expertise to guide and ease the move to new payment technologies. Such service providers can take care of behind-the-scene processes such as concept papers, functional specifications, RFI's, RFP's and technical complexities. Also, prototypes can be built to simulate specific situations and check the impacts without having to modify application infrastructures and without having to evaluate in a live environment.

There's a multitude of factors at play that can break or make NFC, but let's not forget the consumer: we need his absolute belief. Regardless of the underlying technology, it's the consumer that will decide if it all fits his lifestyle. Once consumers are convinced and get used to mobile payments for daily financial transactions, the real migration from cards to mobile phones can start. Might still take some time though ...

For further information please visit www.clear2pay.com/carddivision or email: info@clear2pay.com