Customer Case Study

Orange Near Field Communications (NFC) Payment

Mobile Connected Life Experiences

EXECUTIVE SUMMARY

COMPANY PROFILE

Orange is the key brand of France Telecom, one of the world's leading telecommunications operators. With almost 140 million customers, the Orange brand covers Internet, television, and mobile services in the majority of countries where the Group operates.

COMPANY HISTORY

Orange plc was formed in 1995 as a holding company for the Orange group. France Telecom formed the present company in 2001 after acquiring Orange plc from Vodafone and merging its existing mobile operations into the company. In 2006, France Telecom merged its mobile telecommunications and Internet services under the single brand offering of Orange.

Executive Summary

In partnership with three other providers, Orange launched a trial of CityZi Pass in May 2010, in the city of Nice. CityZi is a new method of enabling mobile subscribers to purchase and validate tickets on public transport, purchase items in shops, and accumulate loyalty points. It also provides tailored local information such as news and bus timetables. The service offering brought together four telecom operators (Orange, Bouygues, SFR, and NRJ mobile), a smartphone manufacturer (Samsung), a transit operator, three banks and the city authorities to implement a Near Field Communications (NFC)-based contactless ticketing service.

This service is among the boldest NFC implementations in Europe to involve telecom service providers, and its success could have wide-ranging implications for the nascent technology. The key success factors are a) the scale of the trial and the roadmap for further deployment and b) the involvement of multiple partners (both national and local) across the eco-system.

With a focus on security, simplicity, and end-to-end service quality, the trial has been deemed a success; from an initial user base of around 3000, the service was subsequently deployed to more cities. In February 2011, an ambitious target of 1 million users was announced for the end of 2011.

Challenges/Opportunities

This service puts forth a number of opportunities to Orange and the partner service providers:

- The use of NFC technology in mobile phones for contactless services, particularly in the area of payment, has considerable potential with momentum around trials and technology increasing over the last few years.
- The French association of contactless mobile technology and services (AFSCM) assembles all the different required members of the NFC eco-system and acts as a coordinating body and catalyst for the development and commercialization of new services. The development of a multiple-partner approach has been key to the success of this pilot. The involvement of AFSCM as an umbrella organization was crucial to effective collaboration and coordination.

Along with the opportunities above came the following challenges:

- Developing effective business models for NFC-based services, which provide sufficient income/benefits for all parties involved.
- Driving consumer awareness and adoption of contactless mobile services through the development of easy-to-use smart-phones, simple services, and effective marketing
- Orange and other service providers faced the challenge of deploying the service in other French cities over the course of 2011 in order to hit their target of 1 million users by the end of the year.

> "In the South of France, a satisfaction rate in excess of 90% was recorded from the user sample selected. Travellers were particularly keen on being able to pay for their fare anywhere at any time (…) time savings, no need to queue. (…) This immediately makes public transport a more obvious, easy and attractive choice. Again, mobile technology is a media accessible to all…."
> **—Dominique Descolas, BPass Project Manager**

Alliances/Partnerships

- The CityZi pilot and service deployment has been carried out under the auspices of the AFSCM. This is a nonprofit organization established in 2008 by French operators Bouygues Telecom, Orange France, and SFR, which aims to facilitate the technical development of interoperable NFC mobile applications and promote their benefits to the general public, service operators, and technology firms. Members include service providers and industrial partners such as Atos Worldline, Orange Business Services, and Snapp
- Samsung was the handset partner for the Nice trial and selected its bestselling mid-range smartphone, the S5230 model. Samsung has worked closely with Orange in particular to develop NFC. In February 2011, Orange announced that it will market the Samsung Wave 578 for further service deployment in Spain, Poland, and France
- Key to the success of the pilot has been the involvement of both industrial partners and service providers. This participation includes three of France's major banks (Credit Mutuel, Societe Generale, BNP Paribas) and local transport provider, Veolia Transport.

Experience Innovation

- **The use of popular mid-range smartphones**. Rather than utilize new, high-end smartphones, the trial involved a popular mid-range smartphone that had already achieved widespread consumer acceptance (the S5230 has been one of Samsung's top-selling devices).

Figure 1. CityZi on Samsung Smartphone

- **Simple payment services with wide availability**. CityZi services entail using the phone for utility-type services augmented with rich content and on-demand advertising:
- Payment for retail and transport at both points of sale equipped with compatible payment terminals and also online
- Real-time access to bus and tram timetables and local tourist information
- Access to operator app stores (see below) for additional services
- **SIM-based security and service initiation**. The CityZi Pass services and payment process are based on SIM-controlled security and service initiation. New applications can be downloaded to the SIM cards of customers. For example, Orange customers also have access to the Orange app shop, maps, and messenger service, and the telco intends to add new services.
- **Open architecture**. CityZi has implemented an open architecture and standardized "Over The Air" installation process, which enables new service providers to join the project.

Success Factors/Metrics/Monetization

- The development of effective business models for contactless/NFC services has been challenging, but a number of telcos regard NFC as an important new revenue source for the long term.
- Orange in particular has big ambitions for NFC. It aimed for over 50 phones of its smartphones to be NFC compliant by the end of 2011 and is developing NFC-based services elsewhere. In February 2011, the telco launched Orange Cash in the United Kingdom. This prepaid account can be used at any MasterCard accepting merchant equipped with a contactless point-of-sale terminal, for example petrol stations and retail stores.
- The exact details of revenue share are not available for the Nice NFC pilot, but this particular implementation utilizes the SIM-card as the linchpin of revenue flows. This arrangement can potentially involve:
  - Banks and other service providers paying a fee for storing their secure applications on SIM cards
  - Telcos can also charge for the use of their networks by service providers to download/manage apps and delete apps on lost/stolen phones.
- It is too early to quantify revenue potential from the CityZi implementation, but the key factor in this case is the mass deployment strategy that will be implemented this year as the service is deployed in a further nine cities in France and by Orange in its other European markets.

Company Background

- Read Orange overview

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