NFC: The New Dimension of Mobile Ticketing and Access Control

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SKIDATA Group – Who We Are

1977  SKIDATA founded
First SKIDATA™ automated ticketing system for ski resorts

1985  Market branch-out into Car Park Management systems

1991  Entry into Event Access market (trade fairs and exhibition centres)

1997  Expansion into Fairs/Arena/Amusement segment

2001  New 100% owner: Swiss-based Kudelski Group

Today  Leading worldwide provider of IT-solutions for ticketing, People & Car Access management
Why Mobile Ticketing?

- **Enhanced convenience** for visitors and venue operators
  - Mobile = intelligent, reusable personal item
  - High market saturation
  - Suitable for targeted short-term marketing activities
  - Easy interaction & instant response – anywhere, any time
  - Fast, cost-saving ticket delivery

- **Security & fraud prevention**
  - Hardware-based secure element prevents copying
  - Mobile device well guarded by owner; rarely shared
  - Ticket permissions can be easily blocked
  - Mobile Ticketing ordering & use enhances security through personalisation (e.g. hooliganism prevention ...
How does Mobile Ticketing fit into the picture?

EVENT Systems
PARKING Systems
SKI Systems
Mobile Ticketing Methods
SMS, Bluetooth

- Mobile Phone Texting (SMS)
  - **PRO**
    - Mobile flexibility: ticket booking from anywhere
  - **CONs:**
    - Only pre-booking; no machinereadable ticket on device (relation to physical data carrier requ.)
    - Complicated procedure
    - Low acceptance
    - Commercially unsuccessful

- **Bluetooth**
  - **PROs**
    - Widely used standard; well accepted
    - High data transfer rate
    - Security (protocol level)
  - **CONs:**
    - Separation over short distances impossible (Long-range ≤ 10m)
    - Unsuitable for ticketing
Mobile Ticketing Methods
SKIDATA™ 2-D Barcode Ticketing

- Pre-stage to more versatile NFC technology

- Benefits
  > Mobile flexibility & security
  > Immediate proximity to reader allows for separation (touch&go) with limited usability
  > Machine readable ticket on mobile
  > Reuse of existing infrastructure on mobiles possible

- Reference installations
  > **Fairs**: CIEC Beijing (CN)
  > **Stadiums**: Aston Villa ▪ Benfica Lisbon ▪ Austria Wien ▪ Rapid ▪ Dubai WTA & ATP Tournaments ’07
  > **Amusement**: Legoland ▪ Efteling ▪ O2 Music Flash concerts
Mobile Ticketing
SKIDATA™ Direct to Access (DTA)

Customer logs into Direct Access Portal

Customer selects from available booking methods

Booked tickets are deposited at entrance gate for customer

Customer is identified by permission

Direct Access Portal (DAP)
- Personal Account
- Booked Access
- Booking Engines
  - Stadium
  - Mobile
  - Ticket Office

Internet, Call Centre

Point of Access

Access Systems
NFC: Functionality is the Key

- NFC-enabled Mobile Phone
- Full Smartcard Security
- Payment - Mobile Transactions
- Access and Ticketing
- SmartPoster
Mobile Ticketing Methods
NFC: A new World Standard!

Intuitive connection between devices:
Virtual Smart Interface
NFC Use Case: Sports Stadium

Example (vision for the future): Allianz Arena, Munich, Germany (Venue of FIFA World Cup 2006 Opening Match)

- **Capacity:** 69,000 seats
- **Ticketing:** GOB, T-Systems
- **Ticket Media:**
  - Barcode tickets
  - RFID (ISO 14443, mifare)
- **Hardware:**
  - 105 standard checkpoints
  - 14 special designed VIP checkpoints
  - 73 Handheld Terminals
- **Clients:** MSG, Bayern München, 1860 München
NFC Use Case (Vision): Sports Stadium

- **Event Ticketing**
  - Purchase tickets via NFC SmartPoster or directly
  - Transfer tickets to NFC mobiles of friends and family
  - Enjoy convenient admission through NFC gates

- **Payment**
  - Use integrated NFC payment throughout stadium (Concessions, catering/restaurants)
  - Pay parking fees at NFC pay-on-foot machines or at exit

- **Parking**
  - Use NFC device as parking permit for prepaid/reserved parking (visitors, VIPs, staff)
  - Admission & parking on the same device
  - Get parking validation at concessions
NFC Use Case (Vision): Sports Stadium

- **Information**
  - Get details on upcoming games/events, etc. (NFC SmartPosters, Info Terminals)
  - Download multimedia content (ring tones, fan photos, video streams, etc.)
  - Receive dynamic information (club news, occupancy status, parking directions, etc.)

- **Ticket Tracking**
  - Enhanced security through personalisation
  - Lost/stolen NFC tickets can be blocked/erased instantly

- **CRM, Loyalty Marketing ("Living Ticket")**
  - Collected consumer behaviour/preference data can be used for targeted marketing
  - Season pass holders can be contacted directly (promotional messages, offers,....)
NFC
Ideas and Roadmap

- **Smart Posters**
- ‘Combo packages’, e.g.–
  - Airline Ticket + Airport Parking + Hotel
  - Concert Ticket + Parking
  - Match Ticket + Public Transport + Payment @ stadium
- etc.
SKIDATA & NFC: Where We Are Headed

As NFC standards develop...

- Integrate NFC convenience across multi-applications
  - Offer Bundled Solutions for end consumers
  - Ticket readers/coders (desktop coders, gate terminals, etc.)
  - Integration of NFC pay devices (attended pay stations, pay-on-foot terminals, etc.)

- Increase industrial design efforts towards intuitive usability of NFC applications in an unattended mode

- Set up NFC trials to qualify NFC technology in its various application settings
SKIDATA & NFC: Where We Are Headed

SKIDATA NFC Applications will serve many business segments:

- Stadia/Arenas
- Fairs/Exhibition Centres
- Amusement Parks/Attractions
- Airports
- Shopping Centres
- Professional Car Park Operators
- etc.
thank you
for your kind attention!

We provide convenience
and help people make money