

Expanding Multi-Application capability with NFC

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2017 Fare Collection/Revenue Management
& TransTech Conferences

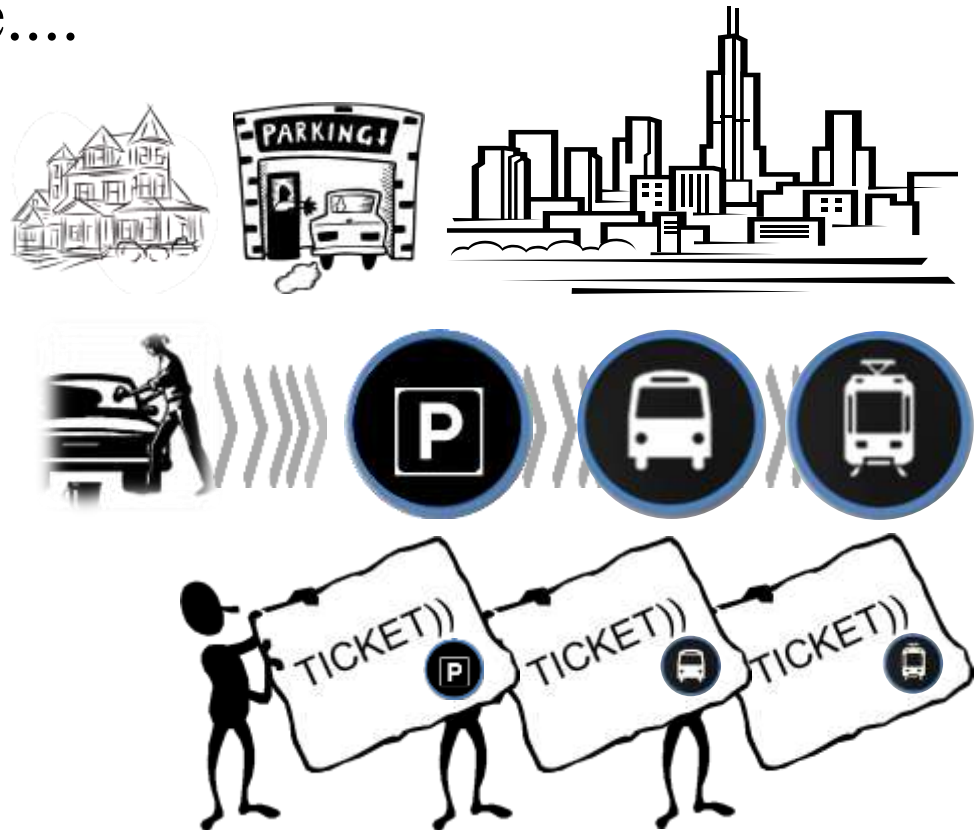


Trends in Smart Mobility - Worldwide

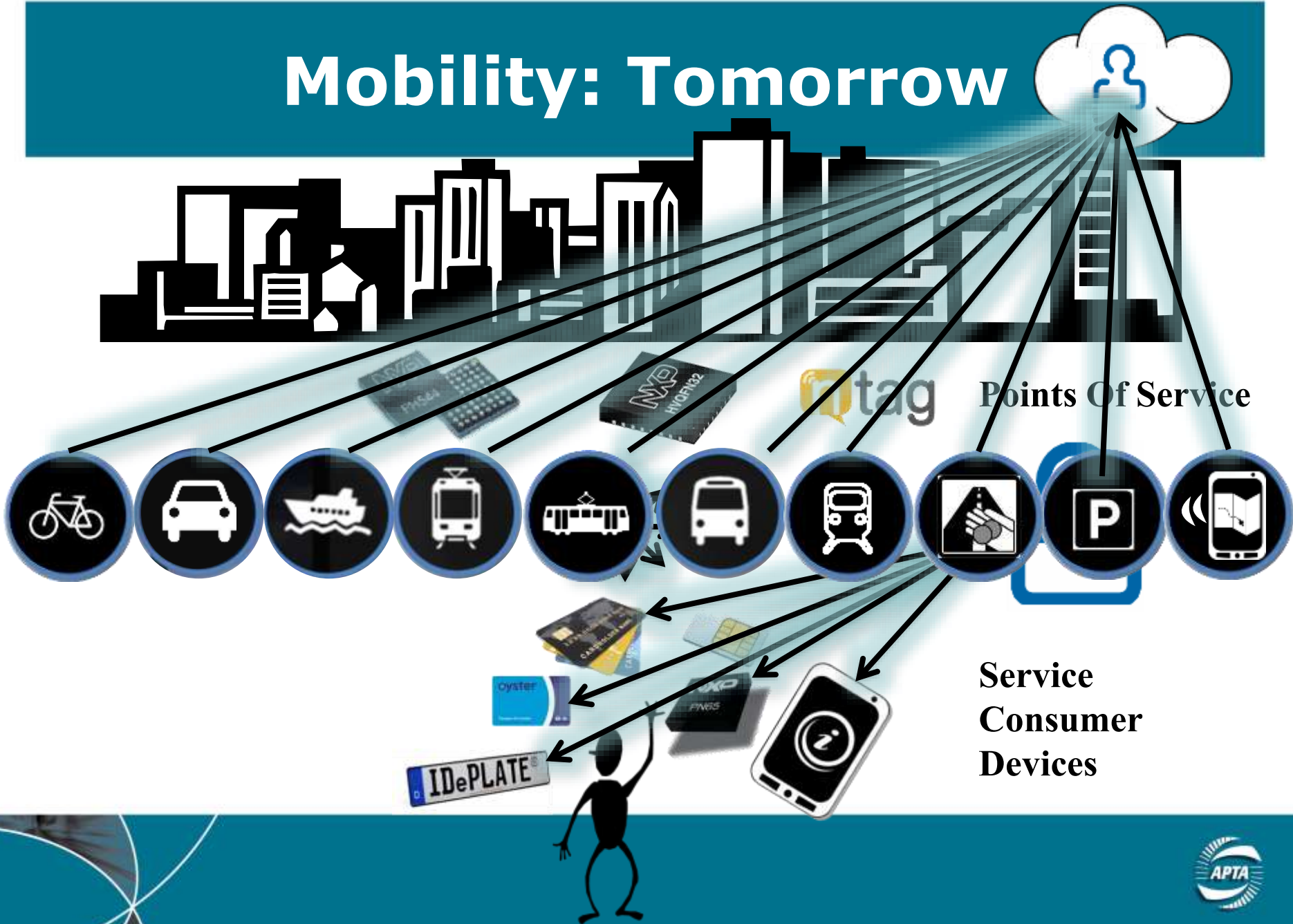
- AFC systems moving to backend centric systems
- AFC systems migrating to higher security media
- Passenger information going mobile
- Strong interest in ticket loading & top-up via NFC mobile devices
- Integration of transit cards with bike sharing, car sharing & parking
- New capabilities related to passenger flow in ungated systems and ridership experiences
- AVI going towards passive UHF technology with security

Mobility: Today

- Leaving from home....
- using private car.....
- Parking.....
- Changing to public mass transit
- ticket for different services



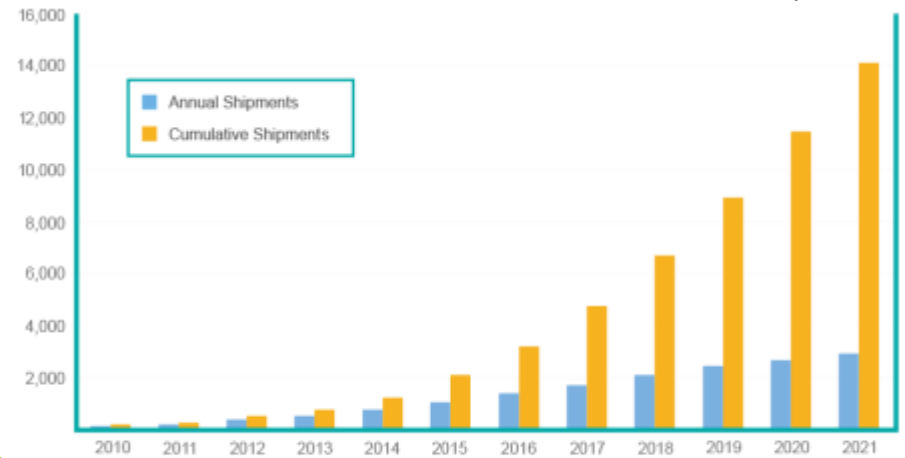
Mobility: Tomorrow



NFC: A different kind of wireless

- Market is exploding
- Across market verticals
- Critical Mass in certain markets

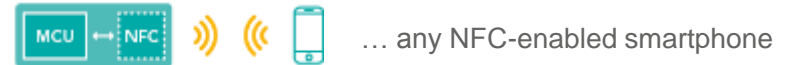
NFC-enabled Products, Total Annual and Cumulative Shipments



ABI Research, 2016

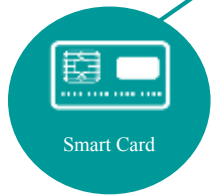


An NFC device can interact with ...



Expand multi-application capability by Connecting Issuers & Providers

Operator / Smart Medium Issuers

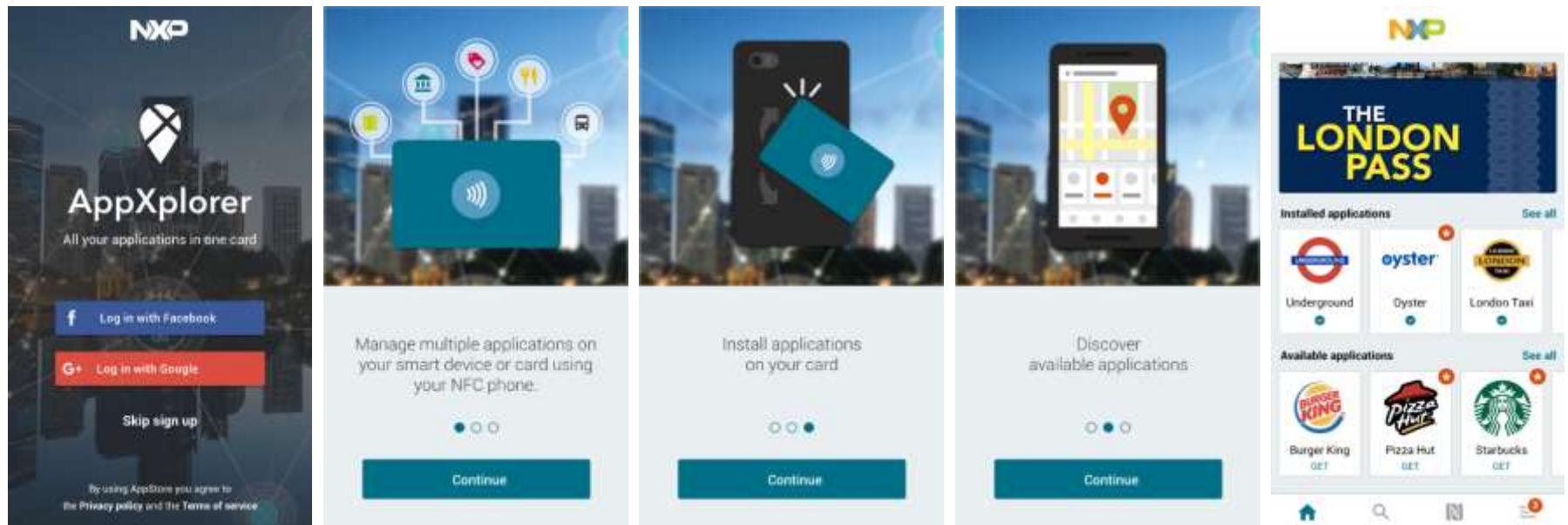


Application / Service Providers



AppXplorer Collaboration platform

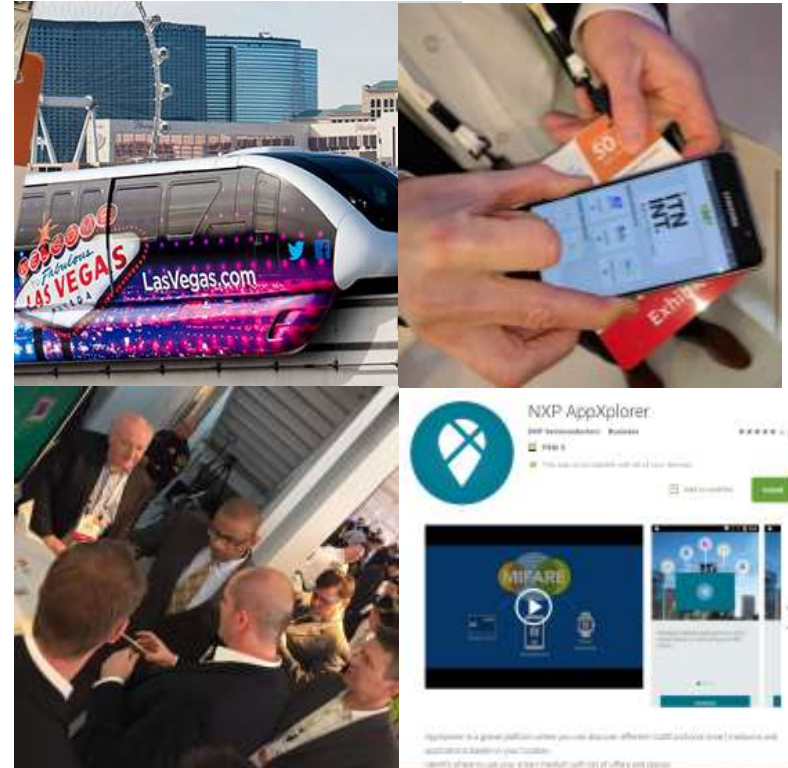
AppXplorer Smartphone Application UI



- End-customers of operators and application providers could manage content of their smart medium using AppXplorer mobile application and/or partner mobile applications.
- AppXplorer provides number of commercial opportunities to partners for enrich their core offering

Case Study: CES2017

- Contactless CES badge turns Sin City into smart city for CES 2017*
- More than 170,000 users with badge having Access and Monorail application
- 3,000 attendees used their CES badge as their key to a smart city for both CES and LVMC
- More than 10,000 rides on LVMC during CES using the badge as their ticket
- Enabled by AppXplorer
 - Platform uptime: 100%
- Experience featured to Anthony Foxx, Secretary of Transportation



* Source: <https://www.secureidnews.com/news-item/contactless-badge-turns-sin-city-into-smart-city-for-ces-2017/>

Smart Cities: Building on top of mobility

Istanbulkart

- 19M cards in circulation
- Max load value 300 TL ~ 100 USD
- Initial use with Bus, Metrobus, Trams, LRT, Funiculars, Subway, Commuter rail, Ferry, Seabus, city parking
- 2016 – BELBIM was awarded 15 years e-money license
- Payment at parking lots, theaters, taxis, movie theaters, cafes, restaurants, shopping malls and any other urban activities



Manila BEEP

- 1M cards deployed – after 6 months 100 M transactions
- Max load value 10000 PHP ~ 214 USD
- Initial use with LRT, MRT, P2P bus, airport transfer, Jeepneys,
- 2016 – AFPayments expanded to tollways, convenience stores, loyalty and micropayment
- Banks, mobile company now selling beep cards with additional features
 - GlobeCash, PayMaya (used for UBER)



Thank you!

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SECURE CONNECTIONS
FOR A SMARTER WORLD

