

## CIPURSE Mobile Guideline V1.0

*Jörg Suchy*  
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# CIPURSE™ Key Benefits for Mobile Applications

- Especially designed for contactless card and NFC-based fare collection systems
- Vendor-independent (all card suppliers can support CIPURSE)
- Technology providers free to add functionality outside the common core (multi-application support)
- All CIPURSE products undergo rigorous certification testing by third-party organization (Keolabs)
- Incorporates advanced security (AES)
- Reader independent: Any compliant ISO14443 reader can be used

# CIPURSE is based on Standards

CIPURSE is build upon existing, proven and open standards

- ISO 24014: Interoperable fare management system
- ISO 7816: Smartcards
- ISO 14443: Contactless Communication
- AES 128: FIPS encryption standard

# CIPURSE V2 Tickets and Form Factors

**One specification** - CIPURSE V2 supports all kind of industrial Form Factors of contactless cards and NFC based products as well as ticket types in the same AFC System



# CIPURSE V2 Facilitates a Multi-Application Universe



# CIPURSE Mobile at a Glance

Java Card 2.1 or higher and GP 2.2 based CIPURSE Applet

## Over-the-Air & Over-the-Internet Support

- Application download
- In field application activation and de-activation
- Lifecycle management

## Designed for multi-application support

- CIPURSE, Payment, Access, Couponing, Loyalty and others on one Secure Element

## Form Factor independent

- Support for all kinds of form factors now and in the future

# CIPURSE™ Mobile

## Fast and convenient solution to introduce NFC Ticketing

- No CIPURSE Transport system upgrade needed
- No new specification needed (CIPURSE Mobile based on CIPURSE V2)
- Implementation to existing and new NFC Phones via OTA/OTI services
- No need for withdrawal of CIPURSE products from the field to introduce new services

## Made to meet customer requests

- CIPURSE Mobile & CIPURSE V2 support all kind of ticket types and form factors to meet various market and customer requirements

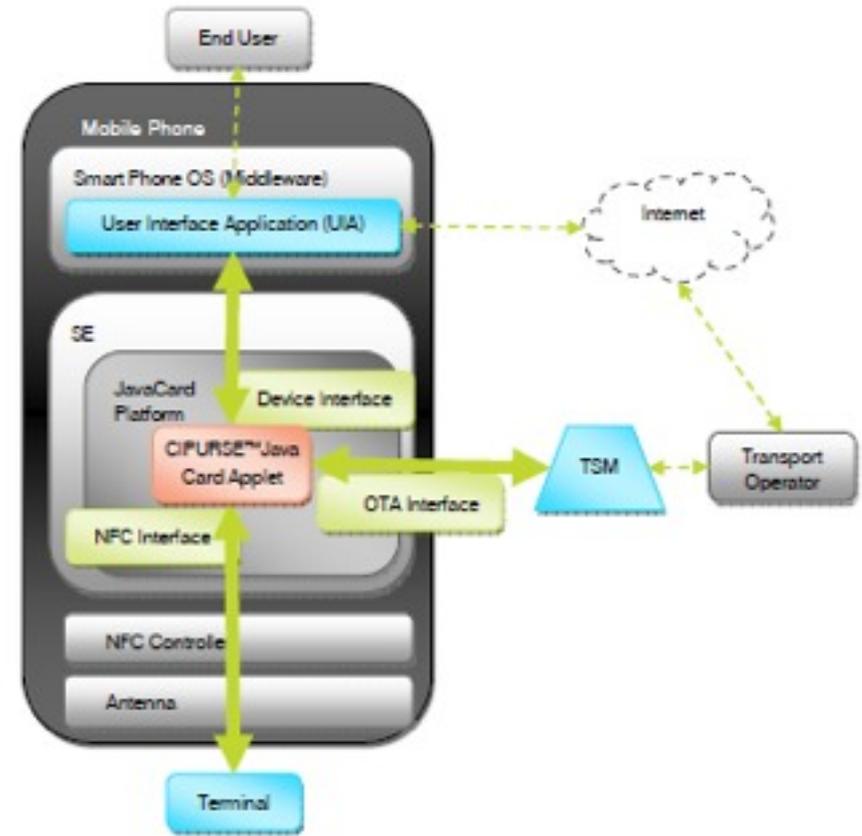
## Added Value Services Support to be part of CIPURSE Mobile

- CIPURSE Mobile for Couponing
- CIPURSE Mobile for Access Control
- CIPURSE Mobile for Loyalty

# CIPURSE™ Mobile - Ecosystem and Devices



Existing Business Model



Secure Element Independent

# CIPURSE Ticketing & VAS Solution

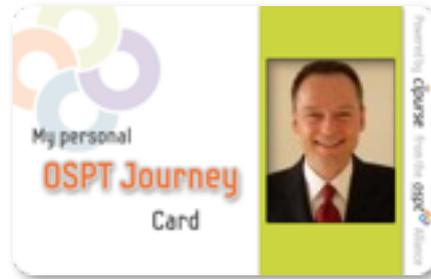
Live demo  
during  
MWC 2013



# CIPURSE Mobile is LIVE!



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## Future of Ticketing

# We are ready for the Market!



CIPURSE Mobile Guidelines  
ready for download at

[www.osptalliance.org](http://www.osptalliance.org)

# CIPURSE Market Outlook

“We expect to see CIPURSE deployments start in Europe and then follow in other regions as more cities see the benefit in smarter transportation systems. A broader and more flexible product range will help it to develop like MIFARE.”

*-John Devlin, Group Director, ABI Research 2012*



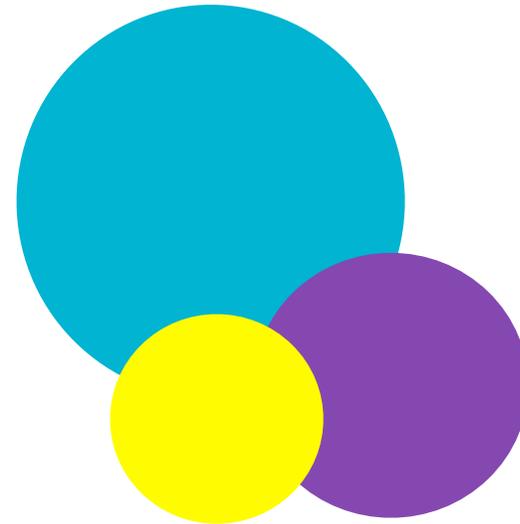
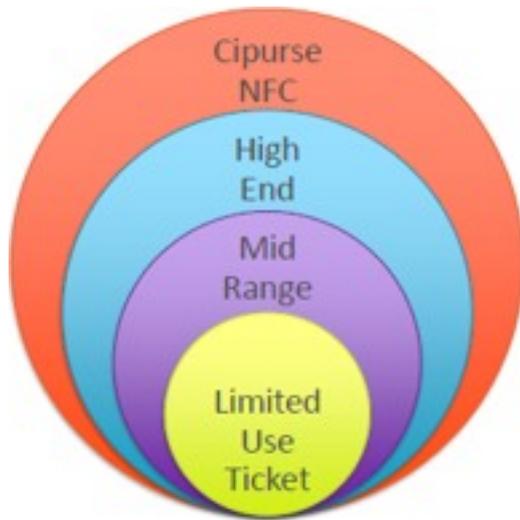
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# Thank you

For more information about CIPURSE™, please visit:  
[www.osptalliance.org](http://www.osptalliance.org)

# CIPURSE V2 vs. Other Solutions



- CIPURSE products are scalable
  - All specification levels use same memory structure, command set, crypto algorithm and protocol
  - Only CIPURSE guarantees coexistence of different specification levels (ticket types) running in one transportation ecosystem without changes
  - CIPURSE allows switching between specification levels (ticket types) and form factors in the transportation ecosystem
- Solutions are NOT scalable
  - Product levels have different memory structures
  - Different communication standards are used (e.g ISO 14443-3 and ISO 14443-4)
  - Security algorithms and command sets are different in throughout the product levels
  - It is not possible to use different product levels in the same transportation ecosystem without Software and/or Hardware changes. Expensive system changes are needed