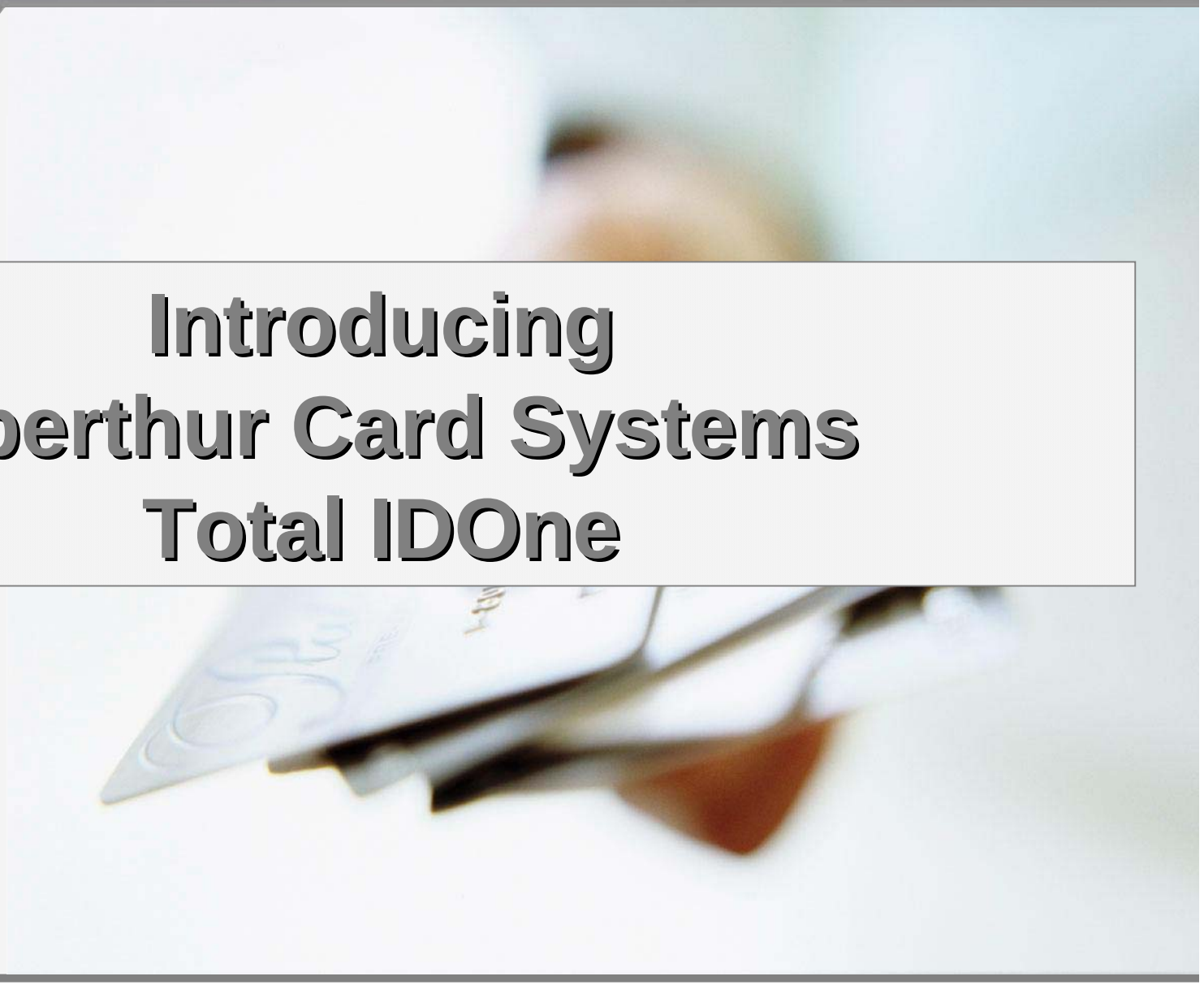
Oberthur Card Systems

The Key to an Open World



Introducing Oberthur Card Systems Total IDOne

Oberthur Card Systems Product Offer

Best breed of smart card technologies

id-one

Generic name of Oberthur Card Systems' offer for government markets

- High-tech plastic card body
- Security printing
- Dual and Hybrid card manufacturing
- Card Operating Systems
- Smart Card applications
- Software integration
- Services & Personalization

Oberthur Card Systems

The Key to an Open World

ID-One Cosmo 64 V5 Dual

- 72K EEPROM
- Javacard 2.2,
  - Include support for Dual interface cards
  - More compact code (= smaller applets)
- Global Platform 2.1.1
  - Higher security
- Dual interface (ISO 7816 & ISO 14443)
- FIPS 140-2 LEVEL 3 Certifications in both contact and contactless (Cert 449 – July 2004)
- Common Criteria CC EAL level 5+ (August 2004)
- Security already assessed by the NSA
- Support extra high communication speed in contact
  - 64 times faster than current CAC
- Support high communication speed in Contactless too
- Enhanced cryptographic features
  - 3DES tripe keys, AES, RSA, Elliptic Curves…
- Biometric Match On Card
  - Support major MOC algorithms (Precise, Cogent, ID3 etc…)
- Available **NOW**

PIV-II applet for ID-One Cosmo 64 v5.2 Dual

- Complies with SP 800-73
- Optimized for PIV-II (“End Point”) for better performances
  - **10% more compact code than « PIV transitional »**
- Support Multiple key values for a given Key Type
  - **Ex: One PIV authentication Key with RSA 1024 and one with RSA 2048**
  - **Give Agencies freedom to select the cryptographic algorithms they want to use.**
- Additional features added for flexibility and security
  - **Secure Messaging for personalization**
  - **Sharable interface for PIV data objects to avoid data duplication between applets**
  - **Change PUK**
  - **Global PIN verification without leaving the PIV application**
  - **Support for EF.DIR and read binary**
  - **Etc…**
- AVAILABLE TODAY as an Applet for ID-One Cosmo 64 Dual

Card Printing: Pros & Cons of Using White cards

- Pros
  - Shorter lead time to purchase
  - Artworks applied during personalization
  - Personalization with standard Desktop card printers
  - Multiple artworks possible
  - Minimize inventory issues
  - Great flexibility to change artworks

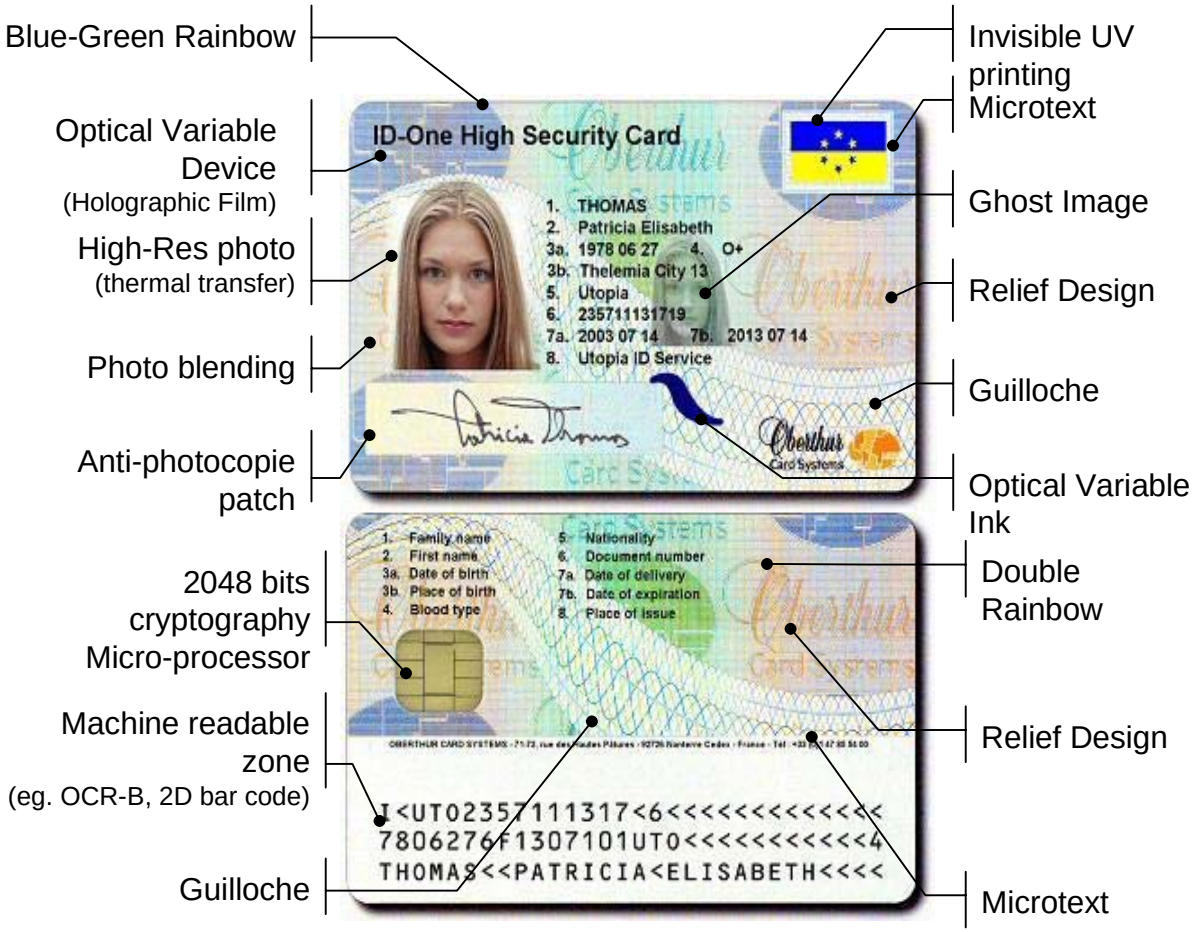
Card Printing: Pros & Cons of Using White cards

- Cons
  - Lower Security
    - *White card stock widely available*
    - *Personalization using “any” COTS card printer*
    - *Reduce the range of security print features*
    - *Lower resolution*
  - Higher scrap rate during issuance
    - *Dust and contaminations highly visible*
    - *Special handling and care (white cotton gloves)*
    - *Heavy cleaning maintenance on printers*
  - Lower flexibility to change/add card manufacturers
    - *Customer artwork vs contactless technology locations.*

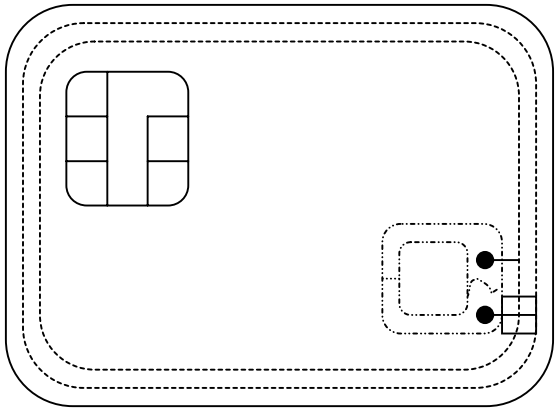
Card Printing: Pros & Cons of Using White cards

- Recommendations
  - Have all fixed data printed during manufacturing
    - *The less you have to print during issuance, the faster it is and better is the yield.*
    - *Allows artwork over contactless components*
      - *Hybrid chip, antenna, bridge etc…*
    - *Add a security background*
  - Make sure variable printed data are in a printer friendly location
  - Beware of security laminate that bring the card outside of ISO specs (extra thickness)
  - Work with card manufacturers when defining your artwork to validate feasibility ahead of time.

Example of Security Print features

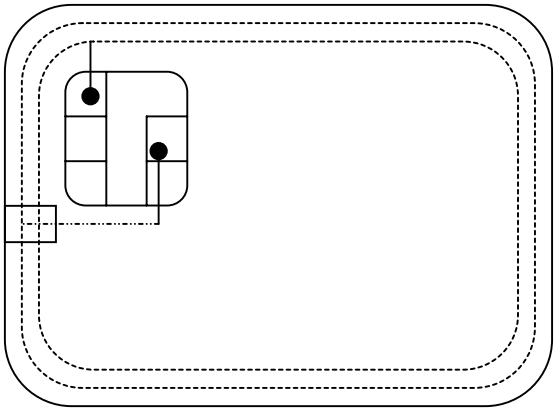


Card Choices: Hybrid vs Dual



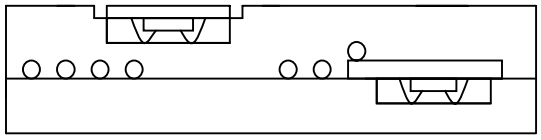
HYBRID = 2 MODULES

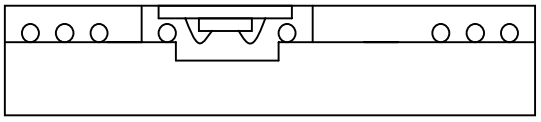
(1 CONTACT / 1 CONTACTLESS)



DUAL INTERFACE = 1 MODULE

(WORKING IN CONTACT / CONTACTLESS MODE)





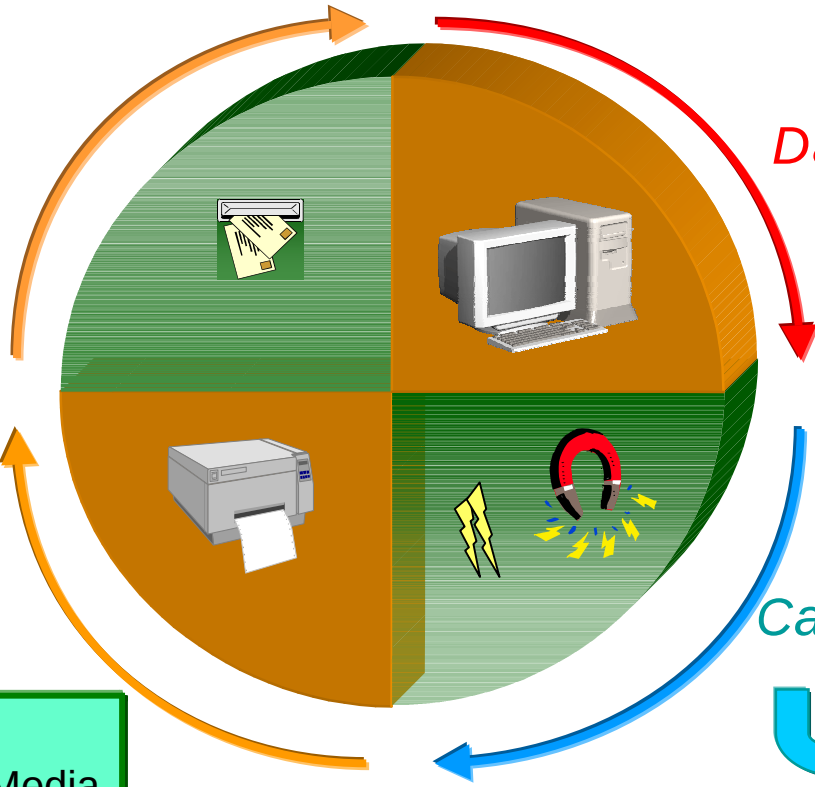
Hybrid vs Dual Interface

- Hybrid Pros
  - Larger choice of chips
- Hybrid Cons
  - Logistic issues (2 chips vs 1)
    - *Chip delivery leadtime*
    - *Portal to be upgraded to support 2nd chip*
    - *Data synch between contact & CL*
  - Issuing stations to be retrofit for contactless personalization
  - The card cannot be FIPS 140 certified
    - *DESFIRE chips currently not compliant with FIPS requirements*
  - Twice as many point of failure
  - More expensive to produce

- Dual Interface Pros
  - Single chip solution
  - Easy transition from Contact to CL
  - No second chip to manage in the Portal
  - No need to retrofit issuing station with CL readers
  - Higher security than Hybrid
  - Full FIPS 140-2 LEVEL 3 certification
  - Cheaper to produce
- Dual Interface Cons
  - New concept
  - Customer education needed

PIV Centralized Issuance

Available today from Oberthur



Procurement

- Pin Mailing
- Card Delivery
- Packaging

Data Preparation

- Prepare Card Profile
- Prepare Cardholder Data

Fulfilment

- Inserts - Carriers
- Direct Marketing Media
- PIN Mailer

Card Personalisation

- Graphical Personalisation
- Magnetic Personalisation
- Electric Personalisation

Our Locations

Oberthur Card Systems of America has production sites all over the country from Virginia to California including a state-of-the-art 106,000 square foot facility near Los Angeles for the manufacturing & personalization of both magnetic stripe and smart cards.

Thank You For Your Attention

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