

INCITS 504

PIV Extended Capabilities (PIV+)

Ketan Mehta

March 3, 2015

Agenda

- INCITS 504 Standard - Genesis
- INCITS 504 Tool Set
- Use Cases / Benefits

Did You Know?

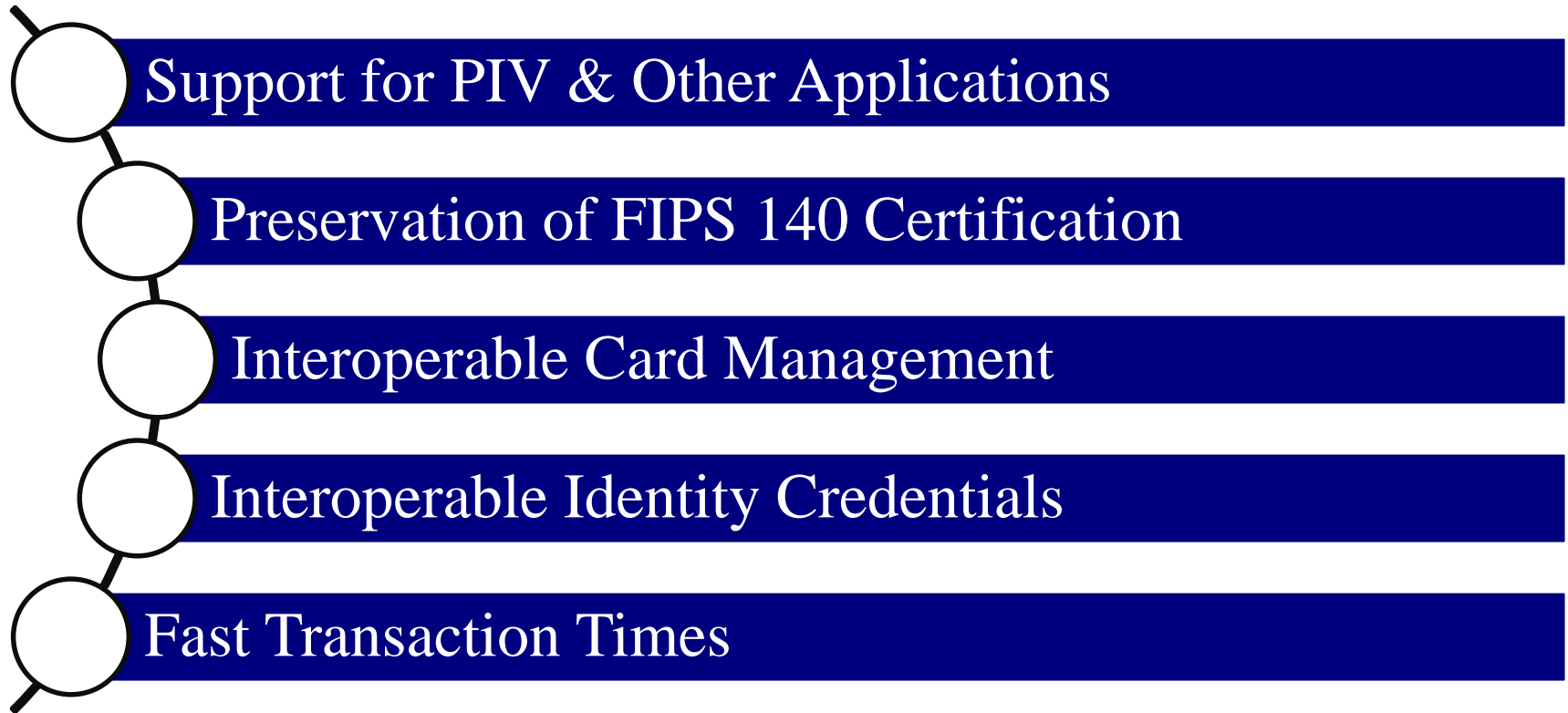
SMART CARDS (ICC) COMES IN MANY FORM FACTORS



USED BY MANY INDUSTRIES

- Mobile Phones – Subscriber Identity Module (SIM) for GSM.
- Financial – Chip-and-PIN, Payment system for debit, credit, and ATM cards.
- Transit – Contactless payment (e.g., Washington DC Smartrip® Card).
- Identity – ePassport, International Drivers License, PIV
- Home entertainment – Set-top Boxes

INCITS 504 Genesis

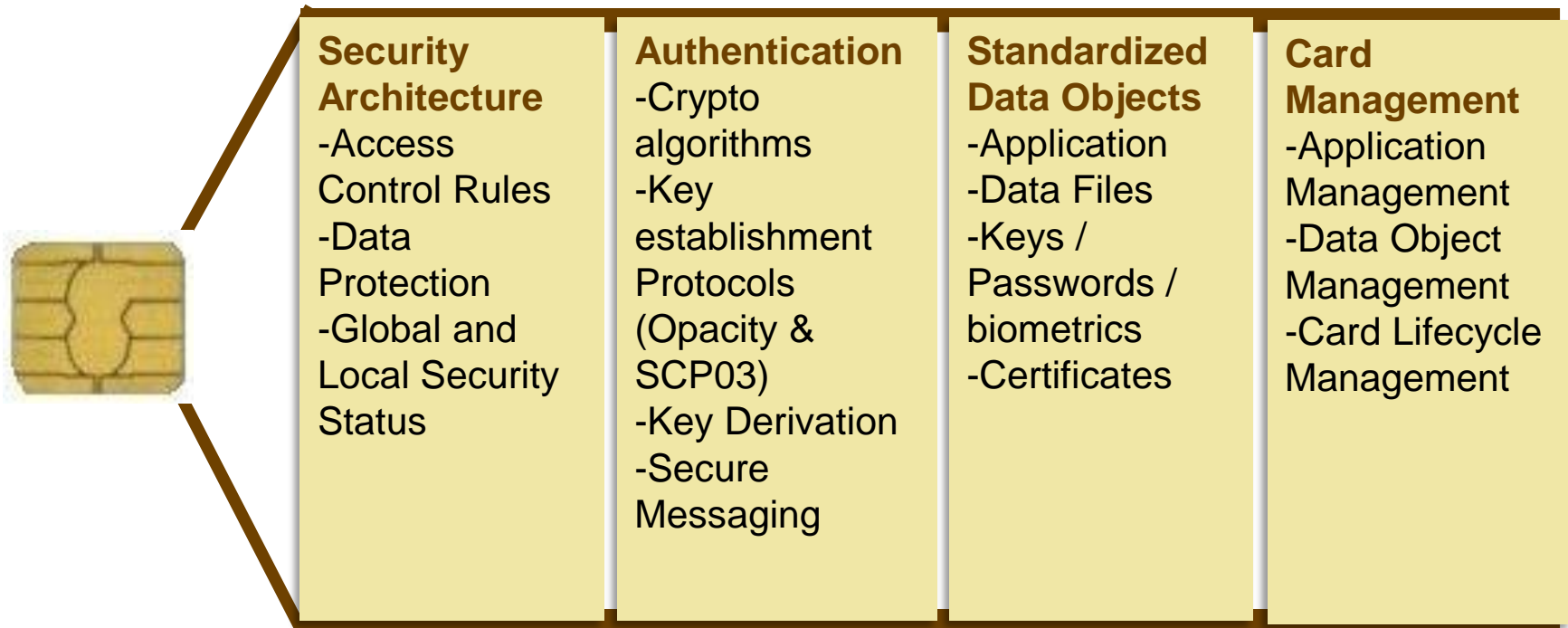


- INCITS 504 is a set of tools necessary to create identity credentials.
- INCITS 504 is a Platform NOT an Application (no application data).

GICS Genesis (cont.)

- GICS is a draft national standard developed by the B10.12 committee of INCITS (International Committee for Information Technology Standards) under ANSI/INCITS rules
- A multi-part U.S. National Standard (ANSI)
 - Chaired by: Defense Manpower Data Center (DMDC)
 - Part 1: Card Application Command Set (NIST)
 - Part 2: Card Administrative Command Set (HID Global)
 - Part 3: GICS Platform Testing Requirements (Exponent)
 - Part 4: Card Application Profile Template (Gemalto)
- Committee Members (past and present) Include:
 - American Express, Athena Smartcards, CPI Card Group, Defense Manpower Data Center (DMDC), Entrust DataCard, Exponent, Gemalto, Giesecke & Devrient, HID Global (ActivIdentity), ID Technology Partners, Infineon, Microsoft, NIST, NXP Semiconductors, Oberthur, Unisys, VeriFone, Global Platform

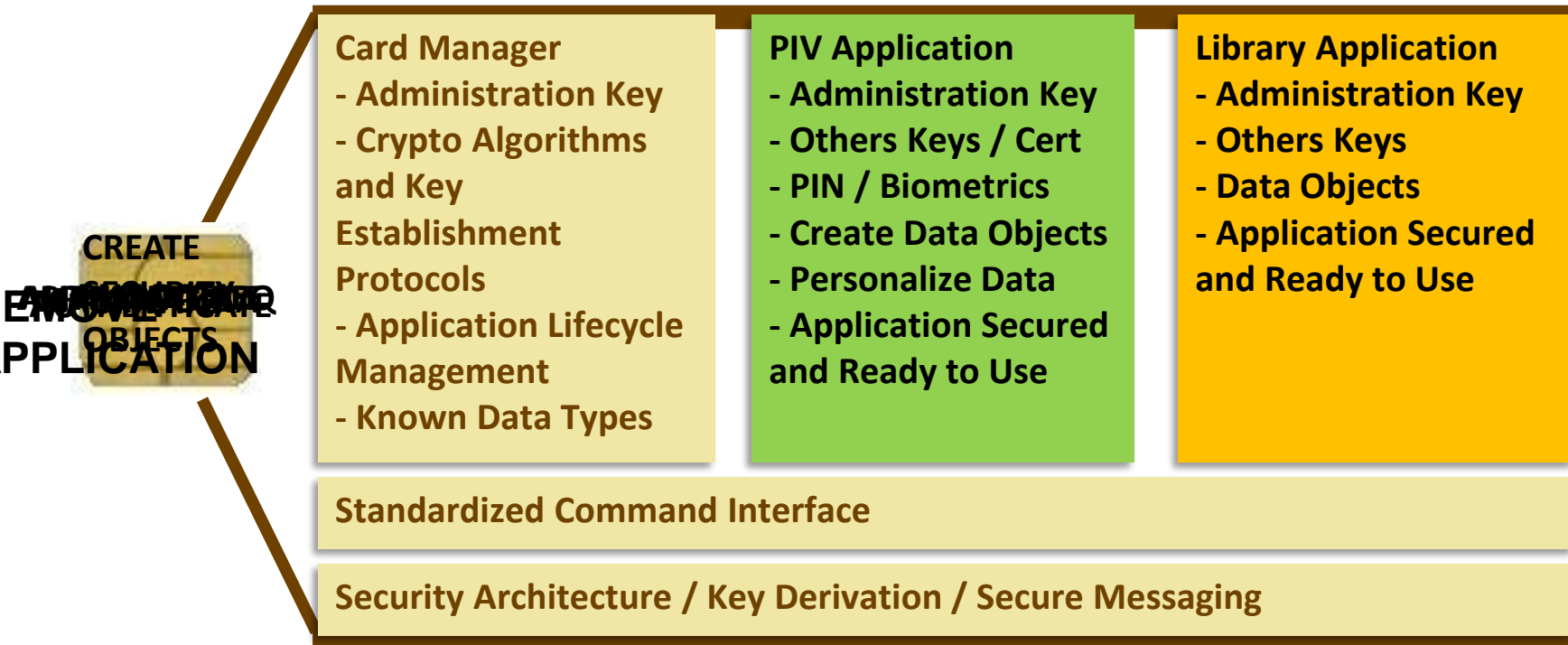
INCITS 504 – Tool Set



Parts 1 and 2 Platform Requirements

- INCITS 504 Part 3 Platform Testing Requirements
- INCITS 504 Part 4 Application Profiles Template

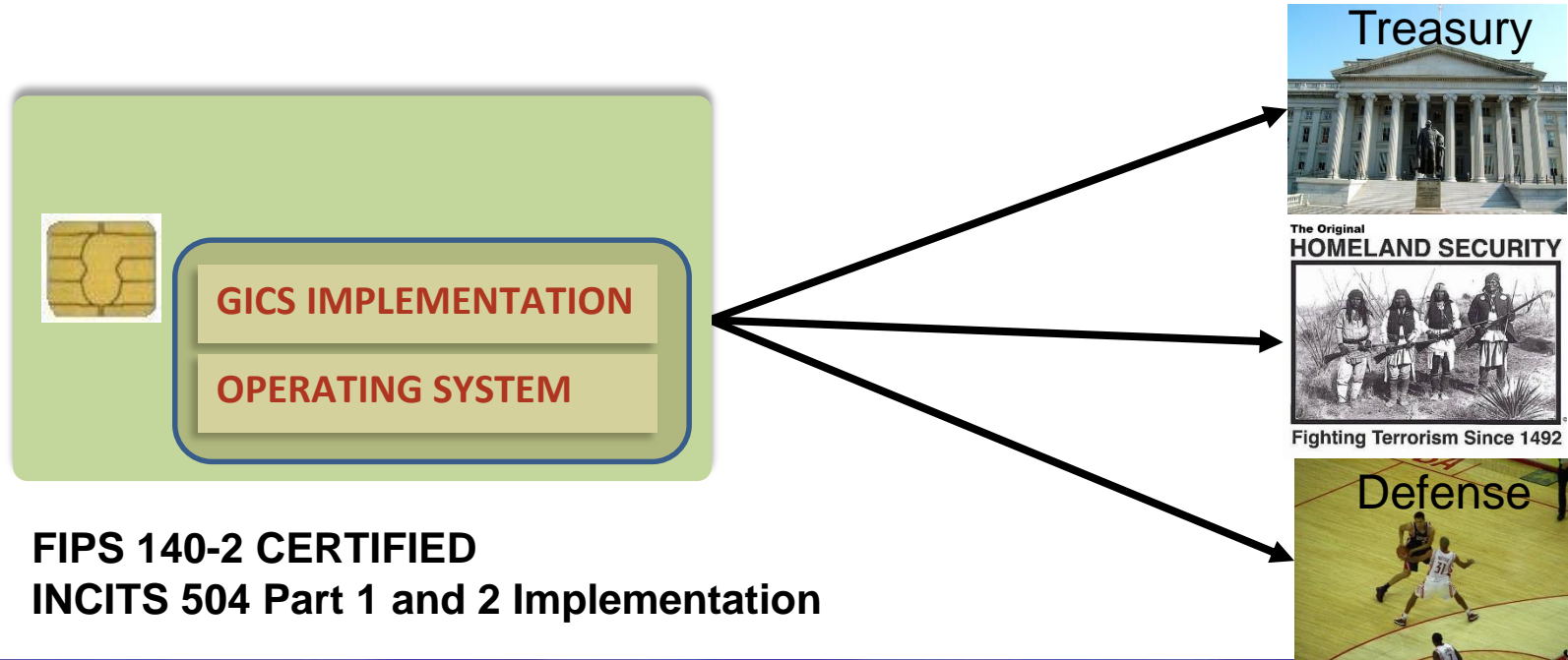
INCITS 504 – How It Works



Use Case 1

Maintain FIPS 140-2 Certification

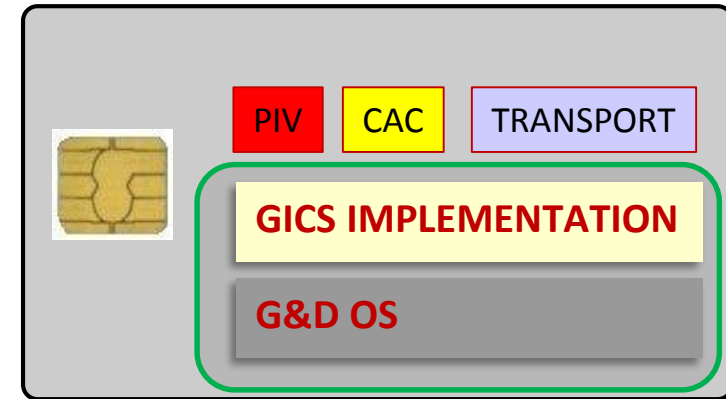
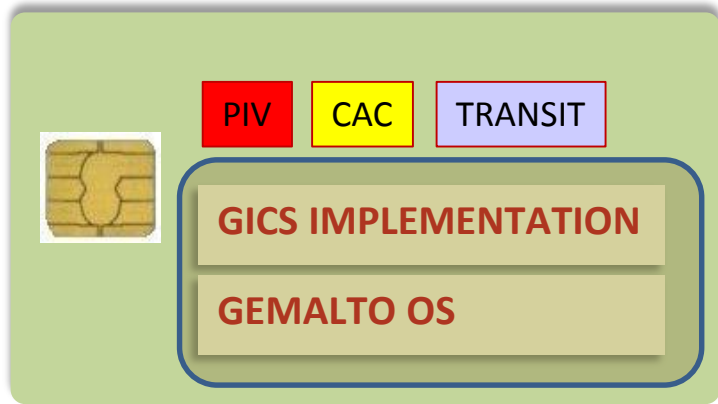
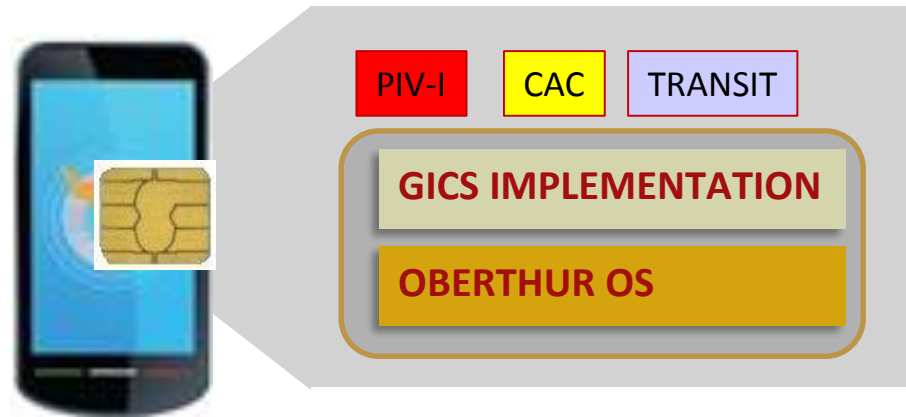
- GICS platform already includes tools to support many applications.
- Sell certified product in varying/tailored configuration to many customers.
- Sell the certified GICS Platform to many customers.



Use Case 2

Card Management Interoperability

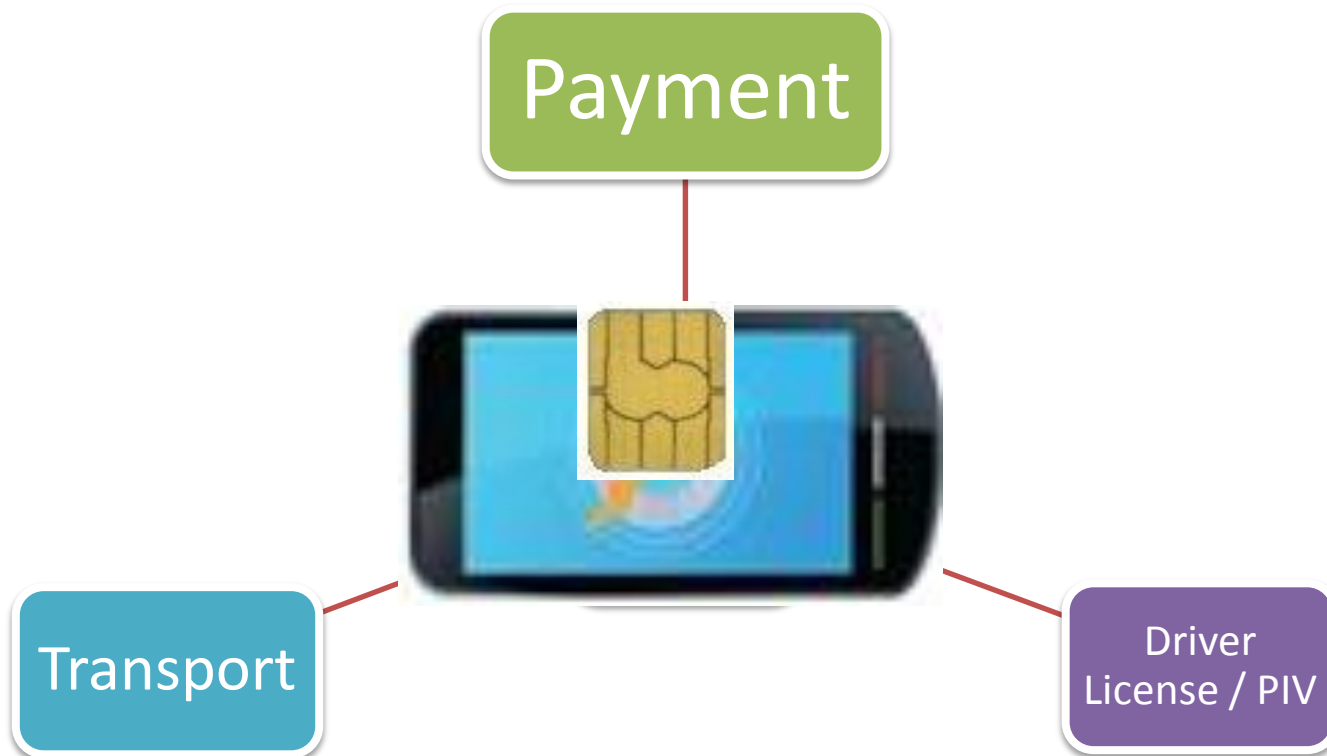
- Create and use IDENTITY CREDENTIALS on any GICS cards regardless of the manufacturer.



Use Case 3

BYOD (Wallet of Identities)

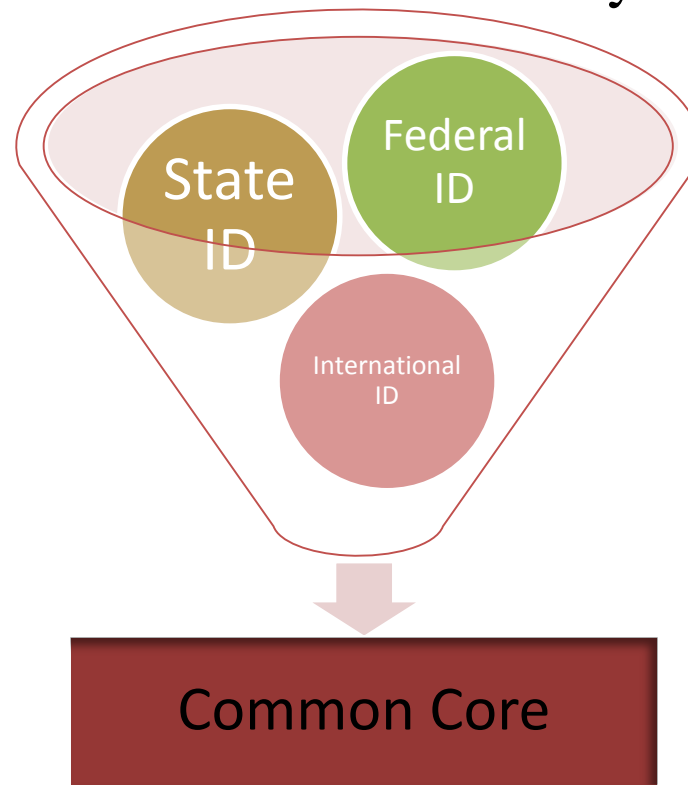
- INCITS 504 facilitates Local Application Management so different issuers can manage their own applications on the ICC.



Use Case 4

CONVERGENCE

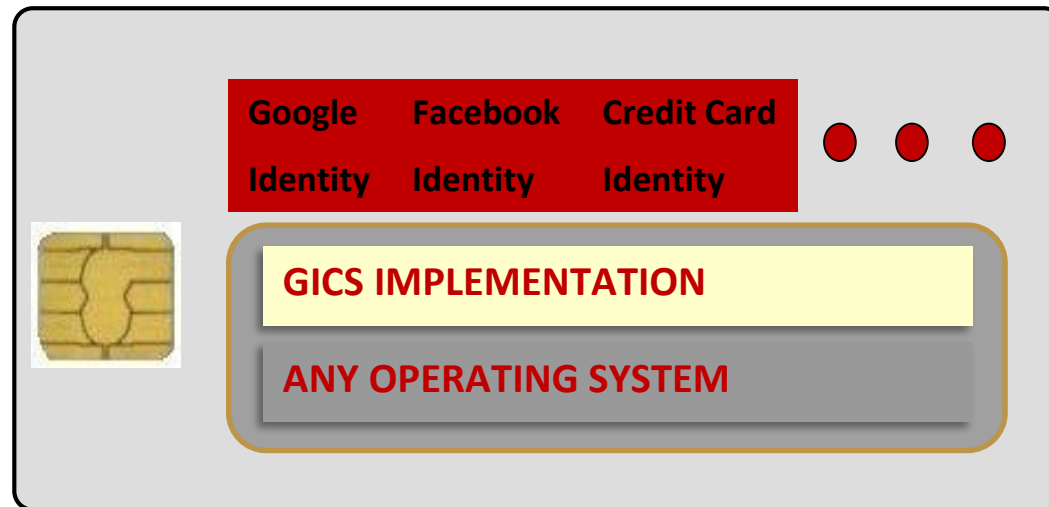
- There is a real chance for coordination and convergence of Federal, State, and International Identity Programs.






Use Case 5

Create Your Own Credential

- Consumer purchase the INCITS 504 card from a convenience store.
- Get IDENTITY BINDING from trusted Identity Provider.
- Unlock the card and personalize using home PC.
- Start authenticating to the websites.



Closing Remarks

- Identity Credential Convergence & Security
 - ICC – Secure, Portable, and Interoperable Hardware Security Module.
 - INCITS 504 provides the core for many applications.
 - ePassport and International Driving License specifications are converging at core.
- Emerging ICC Initiatives
 -   uses embedded ICC and is looking to add more credentials.
 -  Chip and PIN is coming to USA as per Executive Order.
 - VISA is looking at next generation protocols for Payment tokenization (i.e., unique and random token for each transaction) on ICC.
 - GSMA (telecom) is looking to improve security and enable multi-app Subscriber Identity Module (SIM) chips.

INCITS 504 Further Information

Next Steps

- Want to participate?
- Got an application on mind?
- Have a protocol to standardize?

To contribute be a member of B10.12

Contact: **Bob Gilson, irving.r.gilson.civ@mail.mil**

Questions: **Ketan Mehta, mehta_ketan@nist.gov**