

eDriver's License

The Convergence of Identity in Society and the future role of the Driver's License



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What is the role of identity in society?

The State issued Driver's License

- ✧ Originally intended as proof of driving competence
- ✧ In reality, it is our main form of ID
- ✧ Making State Driver's License jurisdictions the defacto Identity Proofing & Identity Providers for their citizens.
 - ✧ States also issue multiple Licenses & Benefit credentials to citizens:
 - ✧ e.g. Driving License, WIC, Medicaid, Fishing, CHL, CHIP cards....
- ✧ Fraud, identity theft and tampering continues to thrive



U.S. Driver's License position in the Identity Ecosystem

- ✧ UT Center for Identity: Mapping the Identity Ecosystem



Convergence

- ✧ A plastic card has many limitations
- ✧ Adding a secure electronic chip can do many things:
 - ✧ Becomes an electronic document authentication factor
 - ✧ Can be read electronically & securely
 - ✧ Can minimize the data read by knowledge of reading device
 - ✧ Can contain multiple firewalled identifiers for other purposes



What does an ID document need to do for citizens?

- ✧ Needs to be able to visually verify the document
 - ✧ Electronic Document Authentication is exponentially better (e.g. ePassport)
- ✧ Needs to ensure document is in hands of rightful owner
 - ✧ Linking the credential by facial photo
 - ✧ Have the credential also in the chip (e.g. ePassport)
- ✧ Needs to have consent by the holder for its usage and presentation
 - ✧ PIN ensures the owner is present and protects the information.
- ✧ Needs to verify identity in the online world, too
 - ✧ Online Identity authentication is weak (re:NSTIC)
 - ✧ Add a digital credential for the citizen

EDL & eDL : Terminology

EDL

Enhanced Drivers License

- Unique to US Market
- DHS: Contains simple UHF RFID chip with a unique identifier
- Does NOT contain advanced security mechanisms
- For Land/Sea border crossing to/from Canada & Mexico
- Can be read up to 30 feet away by UHF readers

eDL

Electronic Drivers License

- Global security solution
- Contains a secure microprocessor chip secured by advanced algorithms and encryption (same mechanism for ePassports, eHealthcare, eIDs)
- Enables secure, electronic verification and can be used online
- No battery – inert when not connected. Cannot be read by RF
- Privacy Enhancing with multi-purpose capabilities

State Centric view *

One proofed
identity per
person

Secure
eDL/eID
document

Multi-purpose
state license

HHS benefits
card

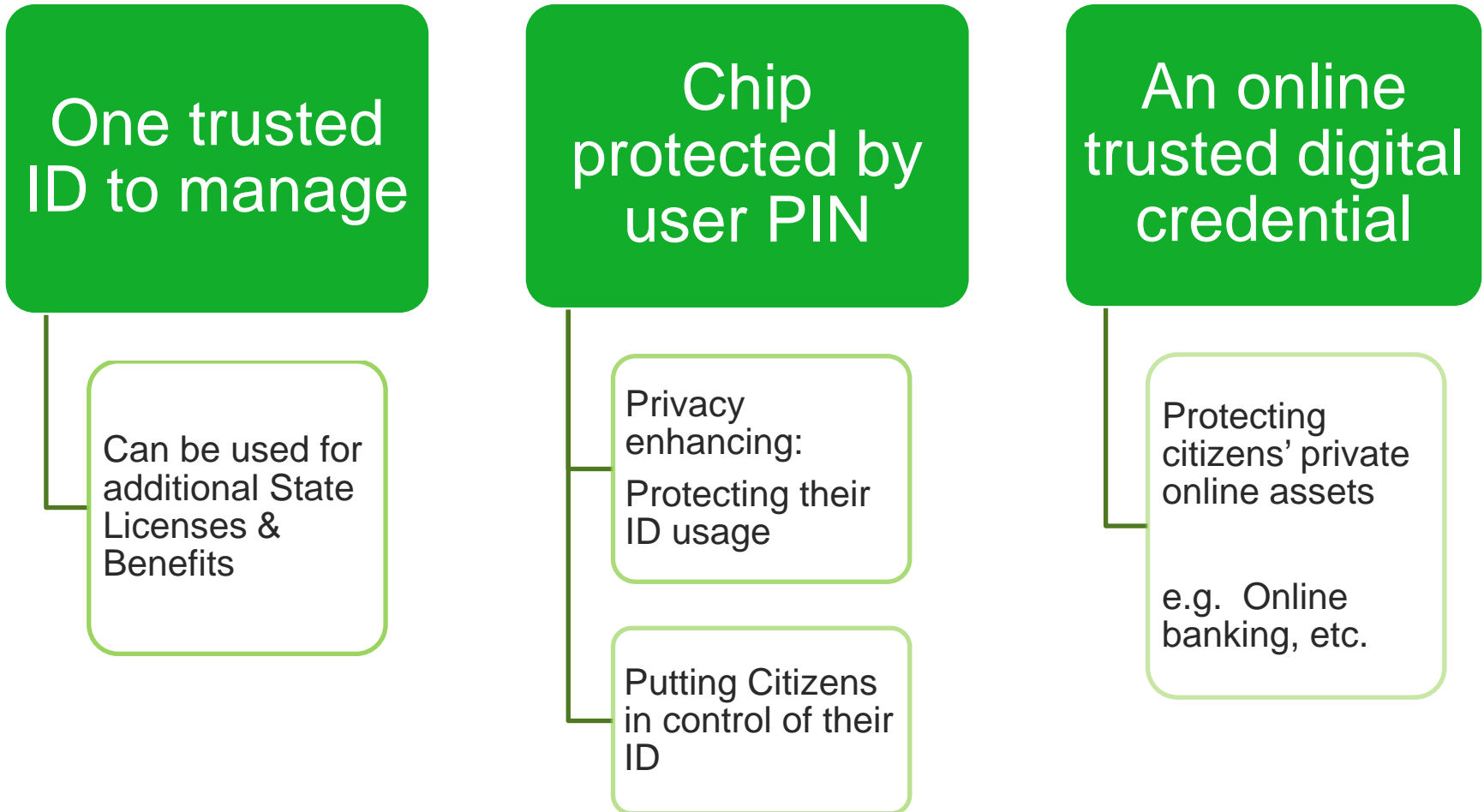
Enables
eGovernment
services



* NSTIC Grant to State of Virginia: Driving License Jurisdiction proofing Identity for Citizen Benefits.

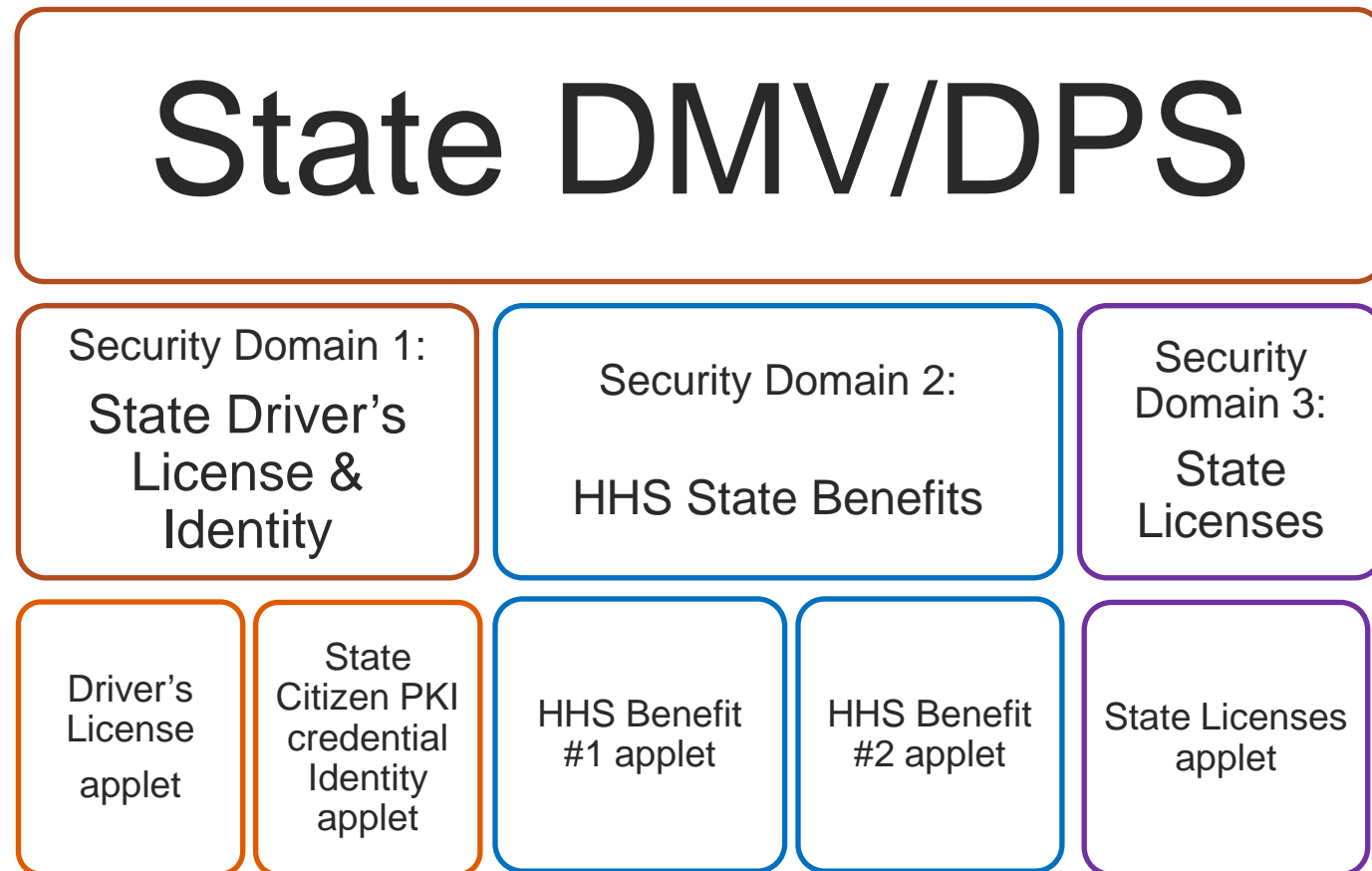


Citizen Centric view



Firewalling the information

Example of an Internal Architecture of an eDL chip



Driver's Licenses across the globe

North America

- EDL (optional in some states) with RFID chip used for land border crossing (USA, CAN, MX)
- Barcode / magstripe
- REAL ID – partial adoption
- Modernization and renewal of back-ends

Europe

- All member states to implement PC DL by January 2013
- Chip optional, trend contactless, most likely no fingerprints
- UK & Ireland preparing for eDL

Asia

- Mostly using laminated paper / PVC
- eDL deployed in India, Indonesia, Japan, and Australia (Queensland)

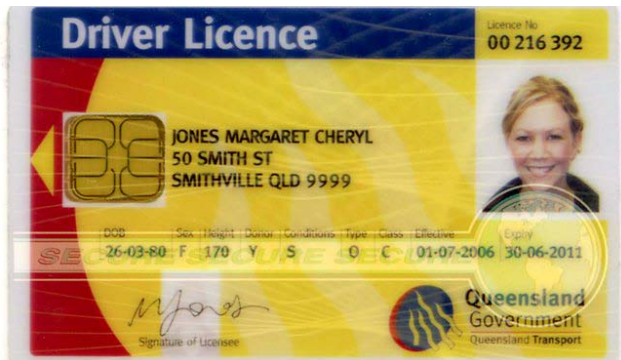
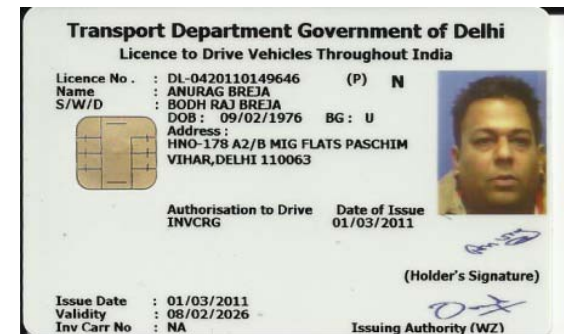
Latin America

- A few eDL projects (El Salvador, Mexico) to improve road safety and reduce fraud

Africa

- Slowly migrating to plastic based ID1
- eDL implemented in Morocco

eDLs in use today





Safer roads in Nuevo Leon, Mexico

Nuevo Leon, one of México's provinces, implemented eDL in 2006

- To address problems in document theft, ID theft and fraud
- Used as a main identity document, recognized by banks and other administrations

The Smart eDL enabled additional applications

- Entitles insurance bonuses by storing driving history
- Also blood type is stored in the eDL



Results

- Dramatic impact on road accidents: Fatalities, injuries and DUI* accidents all decreased significantly
- Fines & sanctions applied directly to the driver, not the vehicle
- No fraud cases reported



*Driving Under the Influence of alcohol



Summary

- ✦ Chip & PIN is coming to credit cards and debit cards soon (2015)
- ✦ The Payment infrastructure will be in place for Chip & PIN and can be adapted to read eDLs
- ✦ Adding a chip to a DL has many benefits for citizens and States, including eGovernment (online) Services
- ✦ Save money by converging Identity with State programs
- ✦ Proven and in use today
- ✦ Time to consider eDL in future plans for State Identity convergence.



Thank you

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