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EU-US Summit Series on Cyber Trust  
Workshop on System Dependability & Security  
**Balancing Security & Privacy  
in Dynamic Wireless Networks**

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1. Challenge → 2. Challenge

Targeting Reusing Id

### Mafia Fraud Attack



PKI



"Trusted" Person

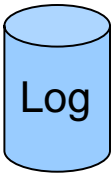
4. Response ← 3. Response

"Chip"

5. Biometric Verification

Identity Theft  
Foreign reader  
Blometric identity

Triggering – id leak  
User not involved

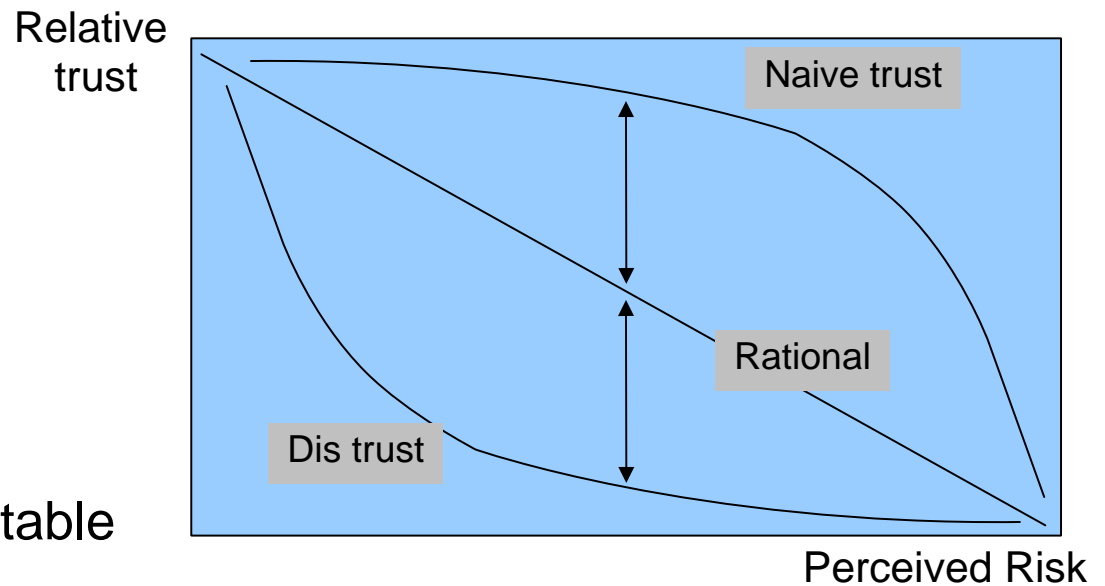


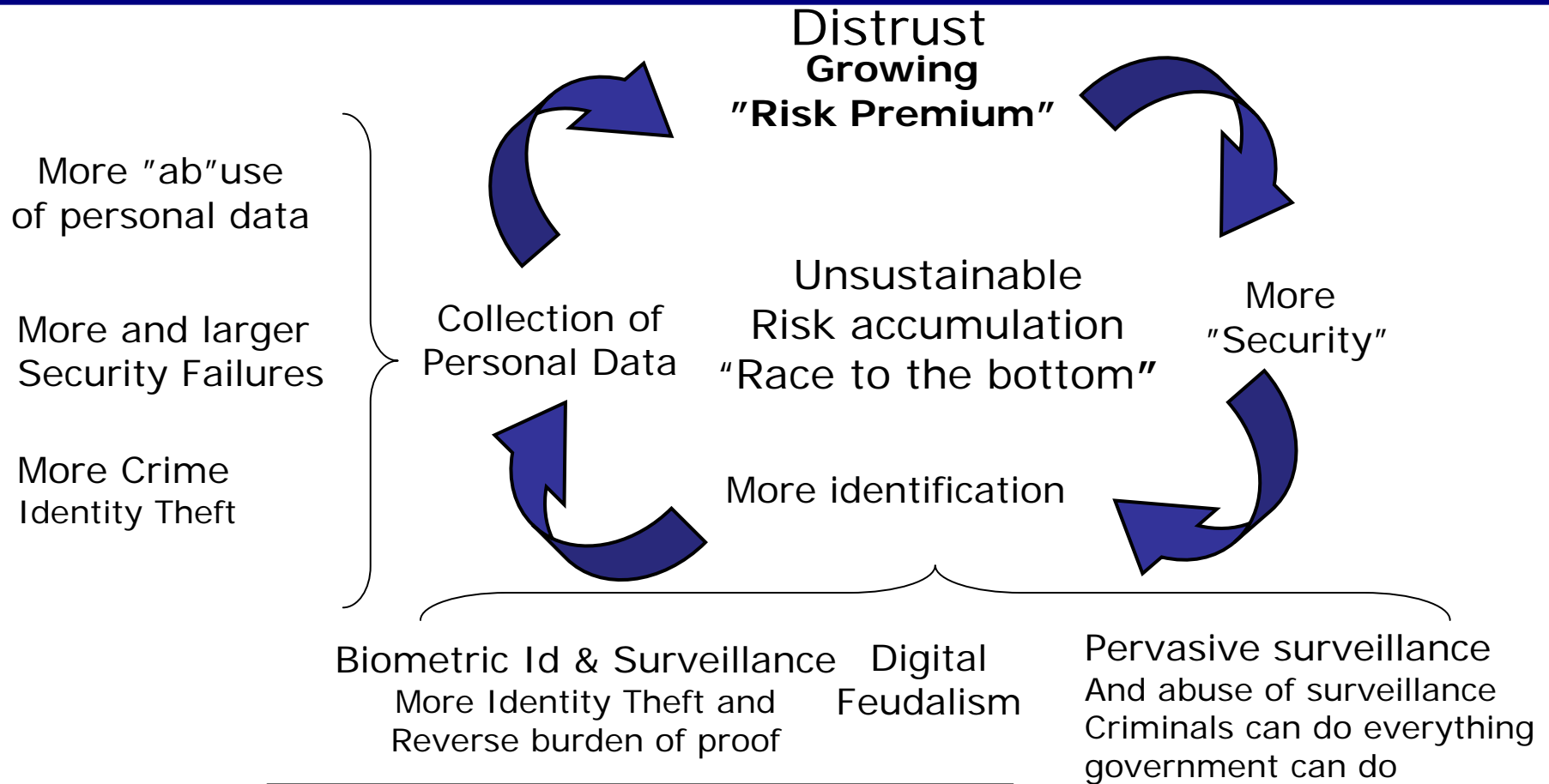
Tracking  
No log security



# Trust = Amount of Risk willingly accepted in a context

- Technical - accepted dependence
- Users want:
  - Convenience
  - Value for money
  - Control (no risk)
- Risk is growing
  - Ubiquitous
  - Online integration
  - Targetted attack is profitable





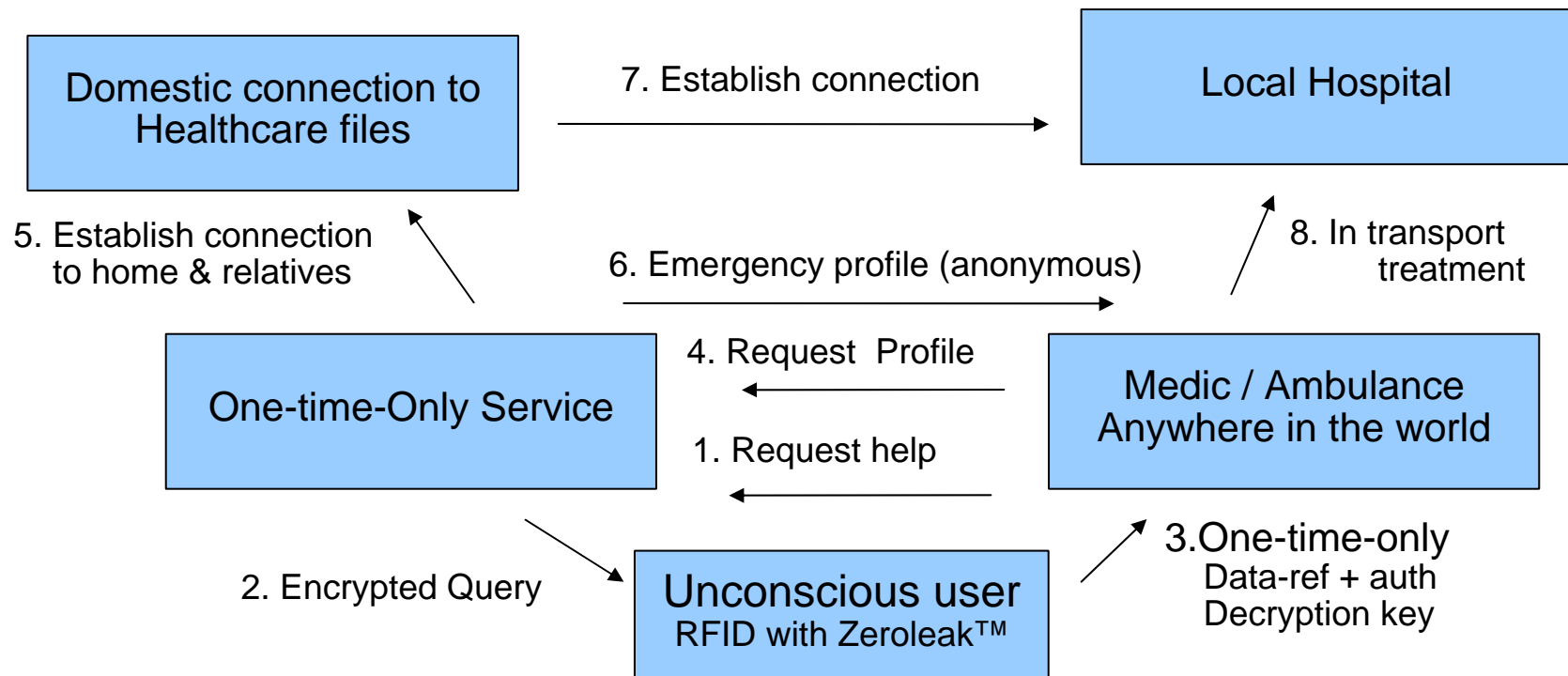
**Stop the race to the bottom !**  
Dependable User-centric Id Mgt.





# Healthcare Emergency / disaster

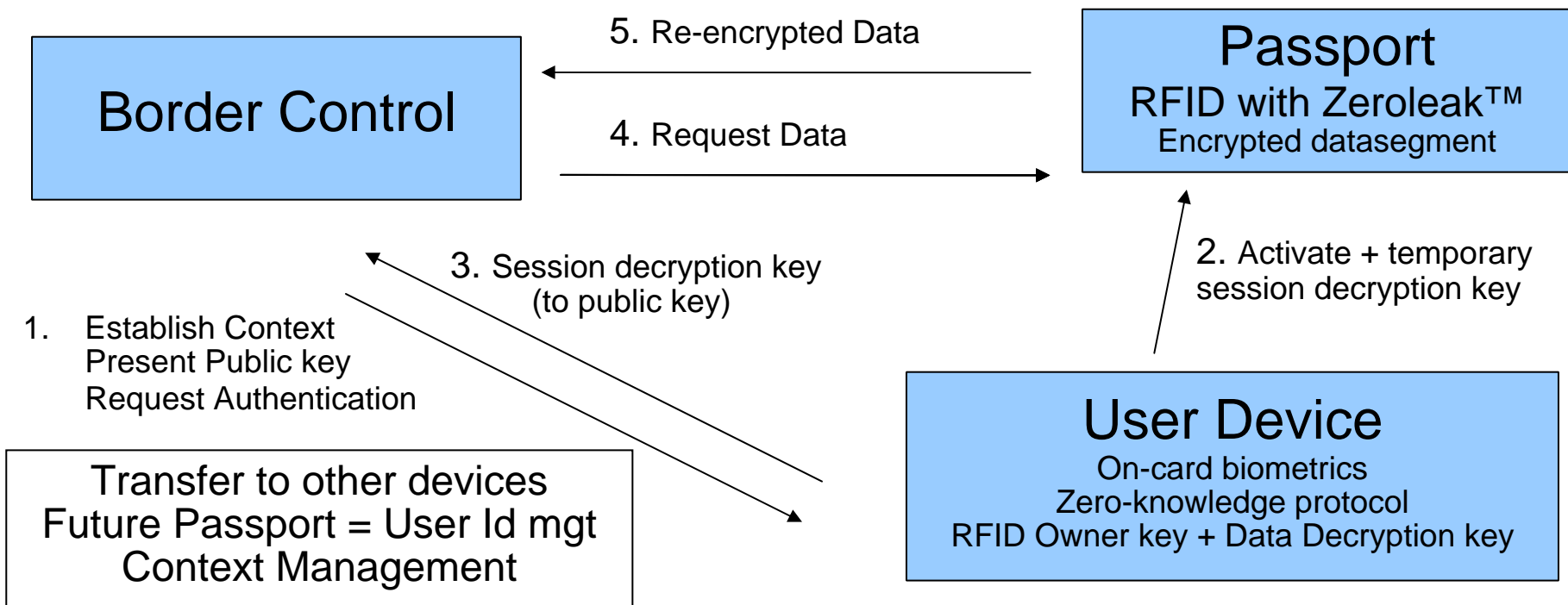
Stepwise one-time-only Identification





# RFID in Digital Passports

(User control of activation & passport revocation)





# Dynamic Security Context / Security Meta-model

## User Identity Devices – Control Context

Ability to manage channels and devices  
Ability to establish new, manage and negotiate Identity  
Shutdown capabilities are critical to security

## Devices – Adapt to user control

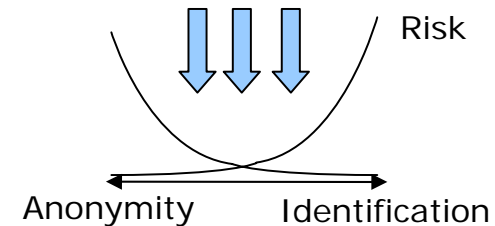
Protocols that doesn't leak identifiers – identity is deliberate  
Under user control – complex rules/negotiation/usability problem

## Application Security Management

Define security requirements and thresholds  
Resolve rather than identify users and devices

## Security Context Resolution

Negotiate Id root, authentication level, credentials, accountability  
Threat alerts dynamically raise requirements AND invasiveness



Balance Requirements through multi-key

- Enduser control
- Provider liability / SLA
- Fraud prevention
- Value creation

Security resolution based on  
**WHAT** you are rather than  
**WHO** you are