

FIA Trust and Identity Position on Networks

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Problems and Issues with today's Networks

- End of a communication is device, not the user or service
- Dealing with the explosion of objects or “things”
- Dealing with multiple identities and user roles
- Use of multiple devices in a communication
- Cross-layer use of Identities
- Security and in particular privacy
 - Dealing with personally identifiable data at the network level, i.e. IP and MAC addresses
 - Enabling OECD Guidelines on privacy
- No communication based on intention or eliminating resolution by the user

Identities part of the fabric of future networks

Identities part of the future network architecture

- Communication setup should be identity aware
- Routing should be identity aware

Mobility

- Make Identities represent entities not only devices
- Allow using identities across several terminals considering security and other capabilities and devices to use capabilities of other devices

Approaches to compare

- Evolution of the Host Identity Propocol
- Creation of Communication Sessions in the Network
- Revolutionary approaches, such as biological approaches

Specific Identity issues for the FIA

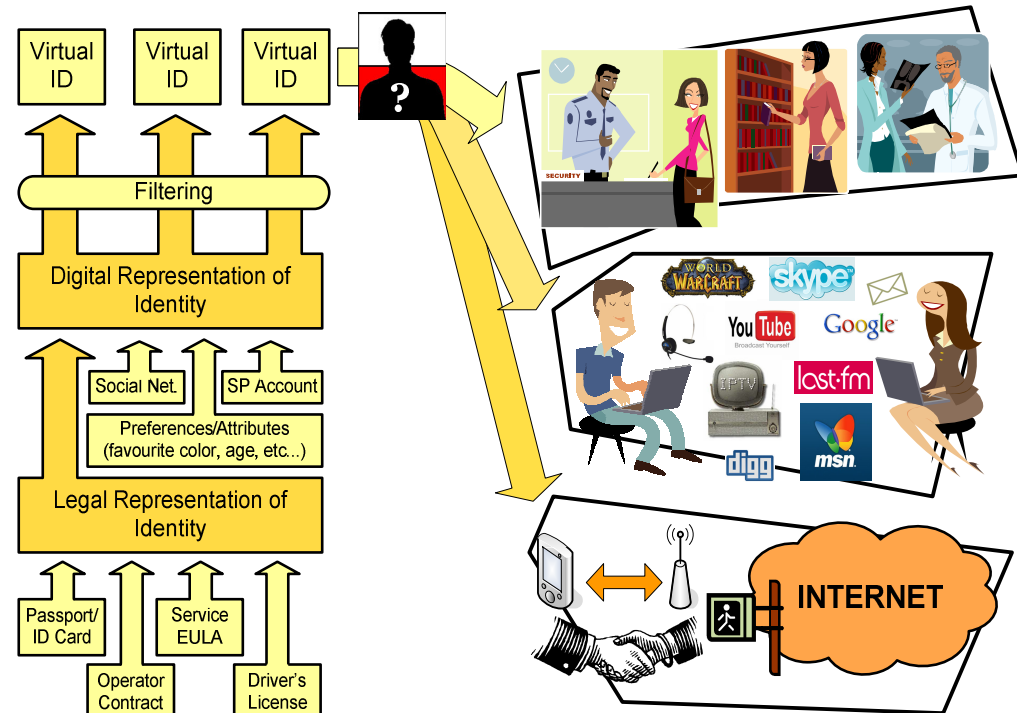
- Identity resolution
- Addressing and implications on routing
- Link to publish / subscribe approach
- Federation
- Creation, provision/registration, revocation of identities
- Management of attributes
- eID control, protection, monitoring, accountability
- Supporting legal and societal issues
- Context and roles
- Discovery support
- And of course: Security and privacy

Getting Identity Models to work together

- Approaches to Identity are still very fragmented
 - No consistent architecture of entities, identities, identifiers, attributes, roles, credentials
 - At least some agreed method of mapping or translating identities will be needed
- Several models of identity exist also in EU FP6/FP7 projects
 - Develop an agreed reference identity model
 - If needed develop translation scheme for interoperability

Identity as a convergence layer

- Consider cross-layer and cross-purpose model
- Consider the introduction of an identity plane
- Identities become the covering link between different domains
- Make identities usable consistently across domains, layers and purposes – as in real life
- One key aspect is using Identities for the convergence of networks, services and broadcast (EU FP7 iNEM4U)
- Ensure privacy and usability across layers



From EU FP7 SWIFT

Summary – Target for the FIA

- Identities part of the future network fabric in the FIA
 - Identities as the end point of communication and part of network addressing, routing and mobility
 - See long list on slide 4
- Interoperable Identity Model
 - Clear model comprising entities, identities, identifiers, attributes, roles, credentials
- Leveraging identities as a convergence layer
 - Identity plane supporting cross-layer operation and cross-purpose and cross-domain communication
 - Build on results of FP7 projects
- Make the network “disappear”