

FIA – eID Management: Network motivations

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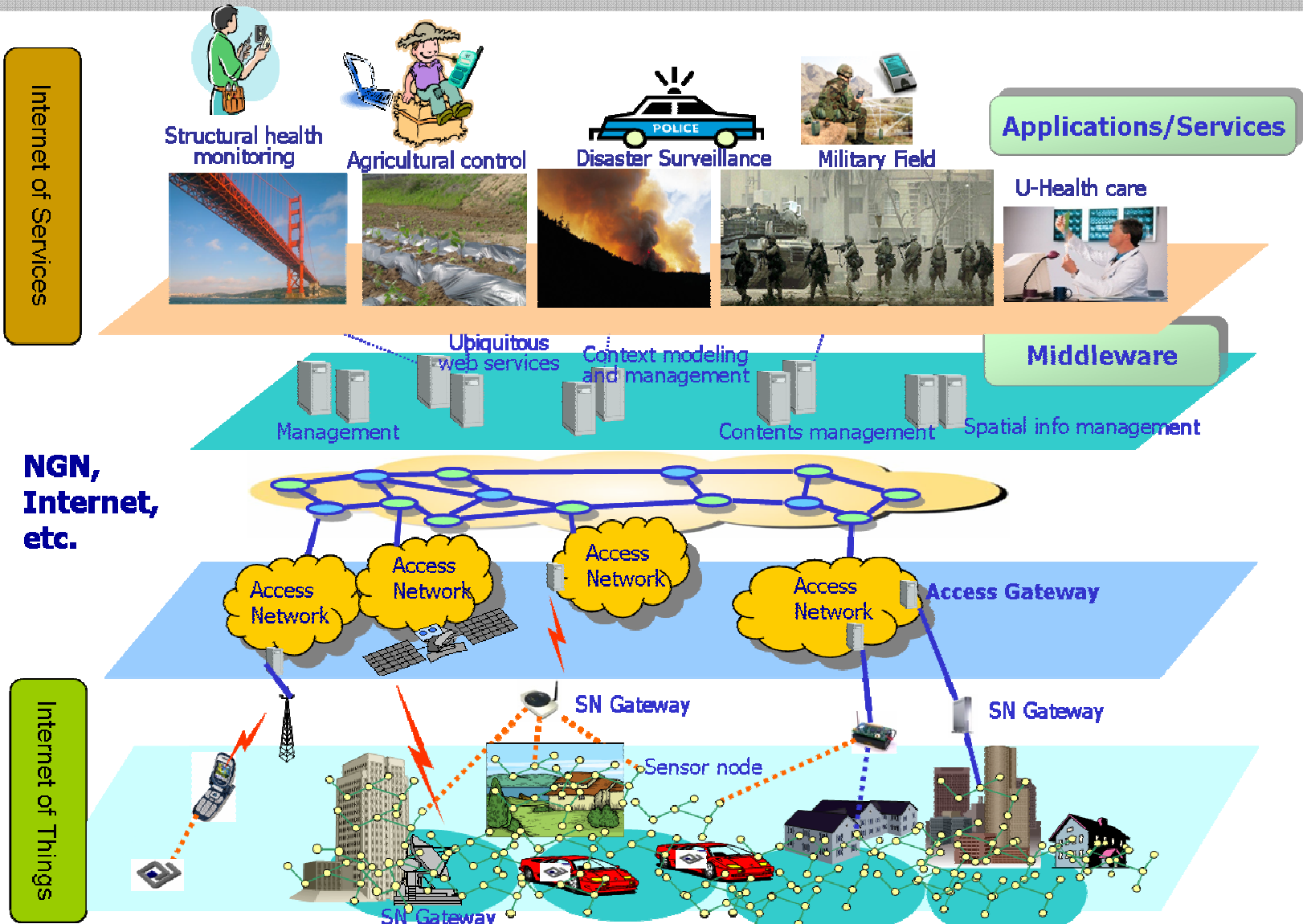
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Numbers

- Today Google indexes 1 trillion of web-pages
- 100 billion clicks per day and 1 million instant messages per second
- 5 years of existence guaranteed to the web 2.0 and social networks more than 125 million users

Trends for tomorrow

eID Management

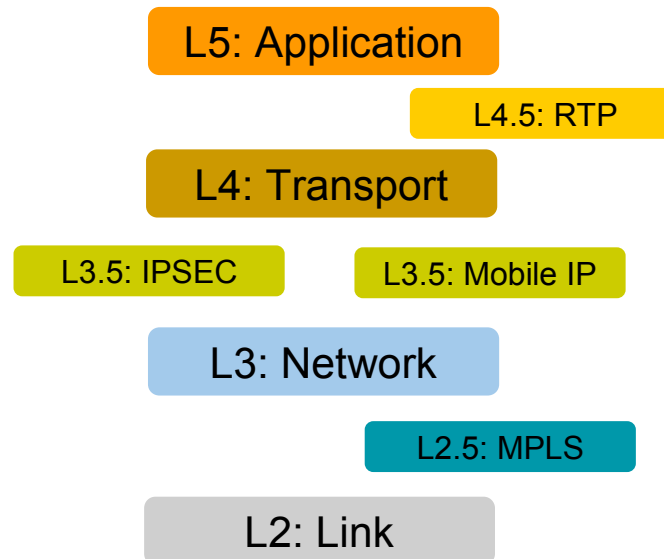


Trends for tomorrow

- Internet of things
 - Blurred border between physical and virtual worlds
- Always-on
- Intelligent information
 - Will change consumer behaviour
- Richer human and virtual interactions
 - Simpler devices
 - Multiple devices
- Open platforms
- New Identities/Identifiers/Addresses
 - Dynamically compound,
 - Dependent on context, location, services, etc..

Network architecture actual status

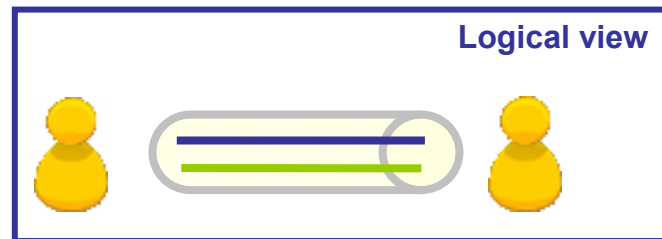
- The infrastructure of the internet has evolved but its underlying architecture has not
- until now, new features on actual network architectures lay down on adding new sub-layers
 - No coherent scheme



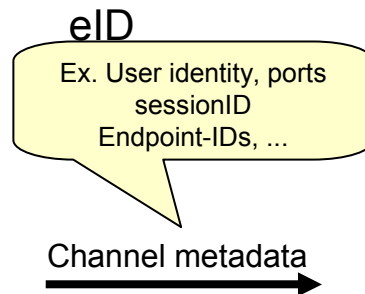
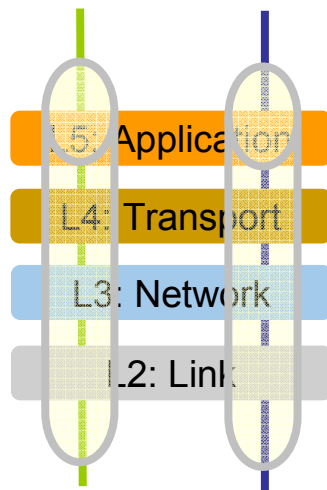
eID Management functions are spread over all the layers **→ unworkable!**

No common meaning

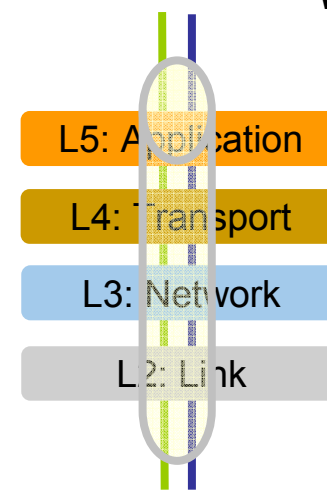
- Semantics of channels at different layers cannot be combined as one session or applications sharing the same task



What is...

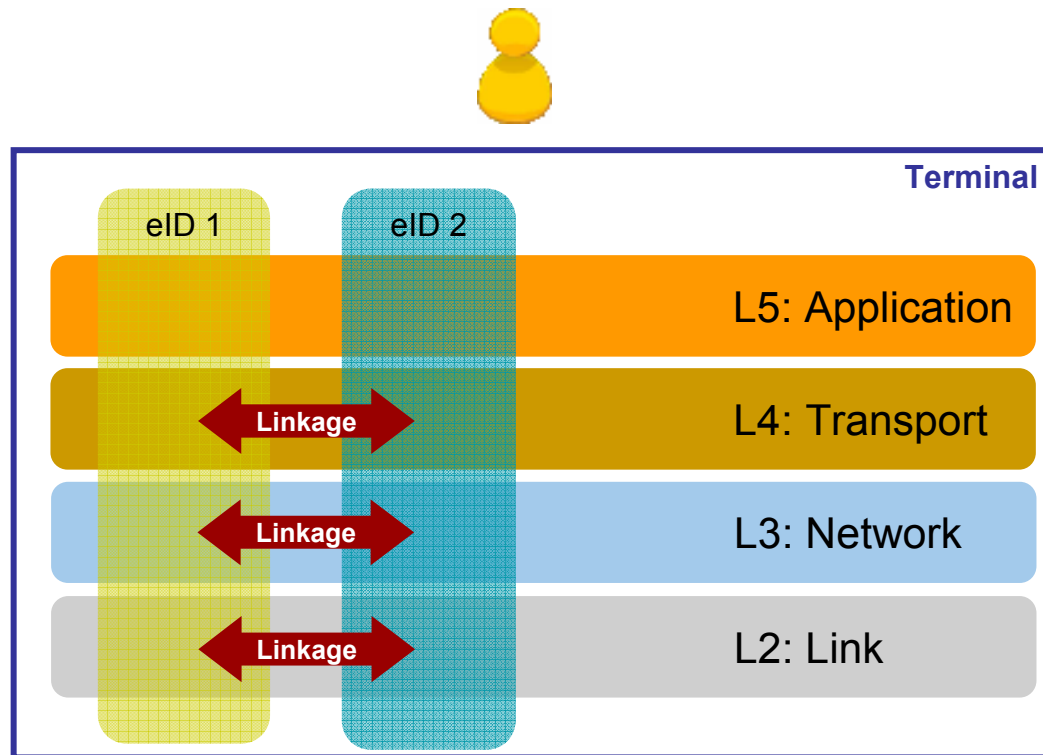


What should be...



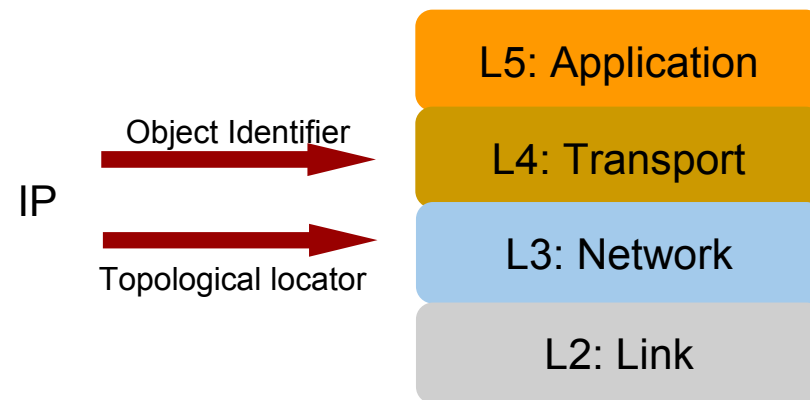
Linkage between IDs

- Scenario: Two identities in the same terminal



Addresses and identification

- Digital entity is tightly coupled to its delivery channel and device
 - Reachability is not independent of devices
- Doesn't support dynamically compound of identities/identifiers
- Identifier/Locator overload
 - Results in interdependency between the identity of an end-host and its location



“Some” requirements for the future

- Addressing accountability
- Privacy-friendly, trustworthy, device-independent, network-independent connectivity
- Allow ad hoc collaboration without neglecting privacy and trust
 - Federation
- Identity based routing
- Symmetrical relations between users and providers