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The Life Management Initiative Towards User-centric and Personalized Service Provisioning

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Outview



- “Freedom of speech” - and information about yourself
- Technology developments
 - Mobile Telecom, Cloud Services,
 - Internet of People, Things and Services (IoPTS)
- Privacy in the Internet Era
 - Business models and Convenience
 - Privacy protecting laws
- The Life Management Initiative
 - The Innovation Challenge of the Future Internet Services Ecosystem
 - From Information silos to user-enabled access
 - Initiatives & Authorities - ranking
- Way ahead

“These days”

All people should be allowed to connect to and express themselves freely on the Internet.



- The United Nations' Human Rights Council unanimously backed that notion in a resolution on 5 July 2012. All 47 members of the Human Rights Council including China and Cuba signed the resolution.

“These days”

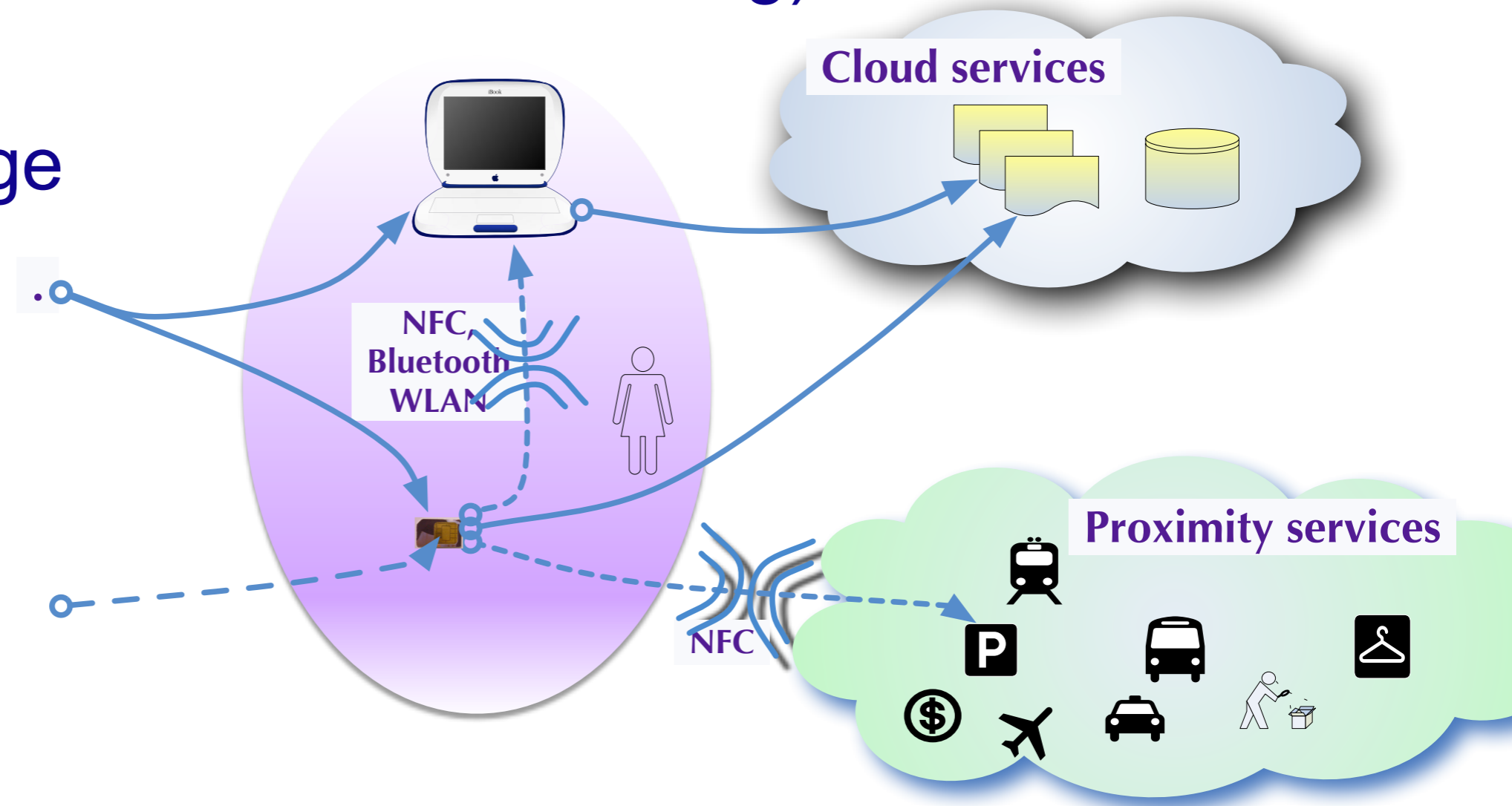
Most people do express themselves freely on the Internet.



and their devices and sensors tell even more

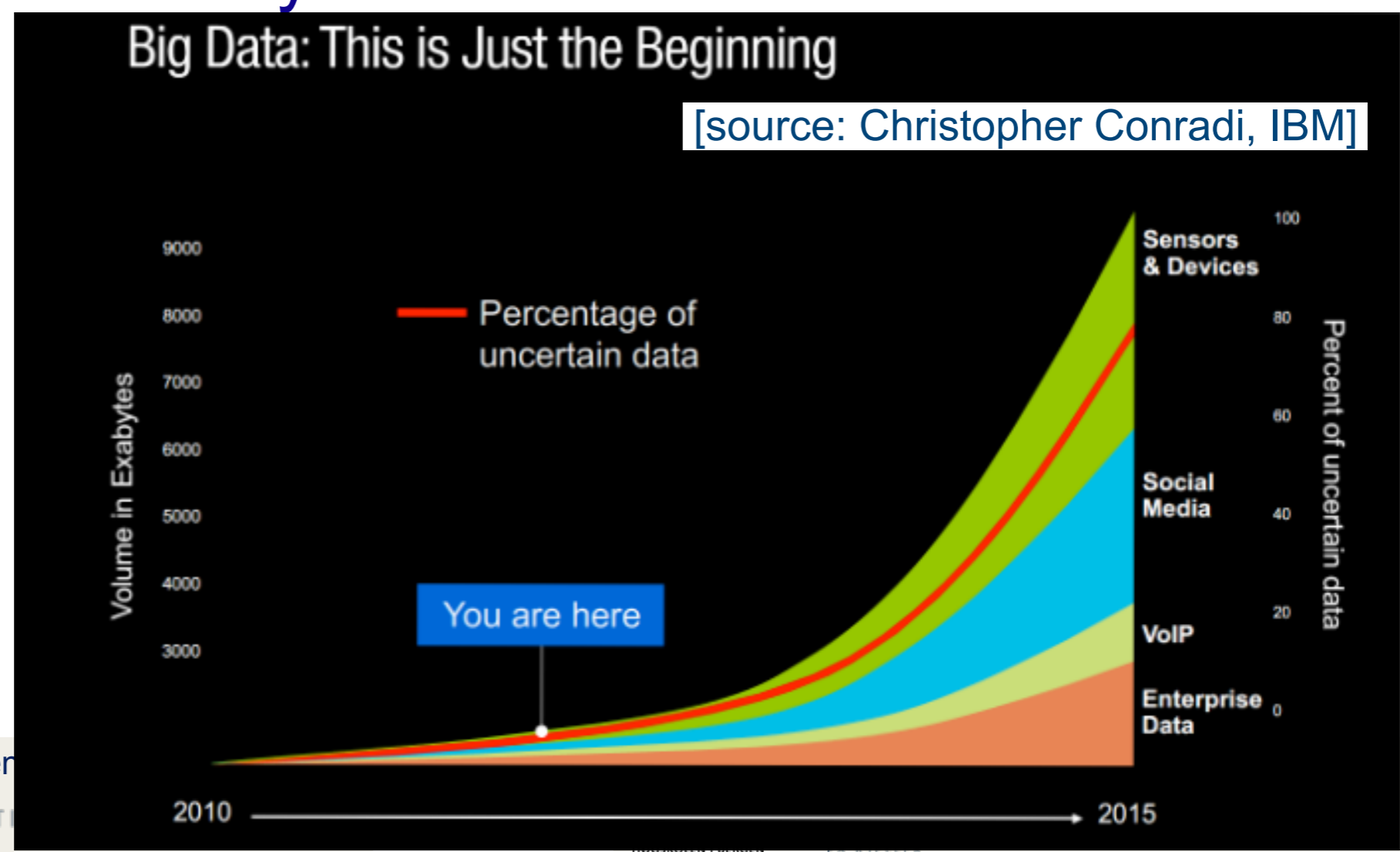
Technology developments

- Distributed privacy-relevant information
- PC, Phone, Pad, ...
- Car, home (automatic meter reading)
- Sensors
- Internet usage



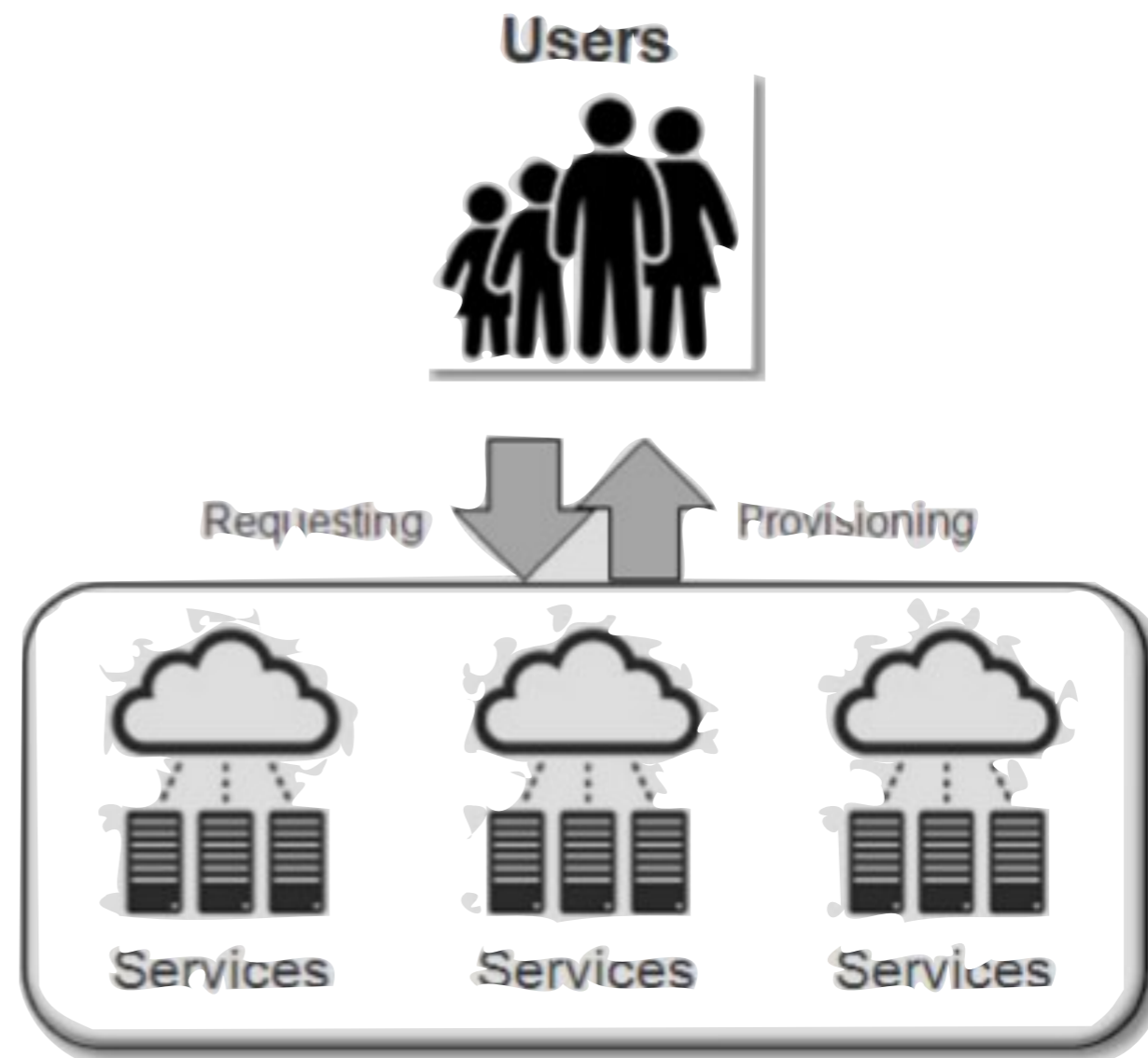
The “Things” and big data

- “Things” become socially intelligent
 - yes, without doubts
 - requires new trust model
 - measurable security
- Growing IoT market - broad connectivity
 - essential openness of smart “everything”
 - security, privacy,



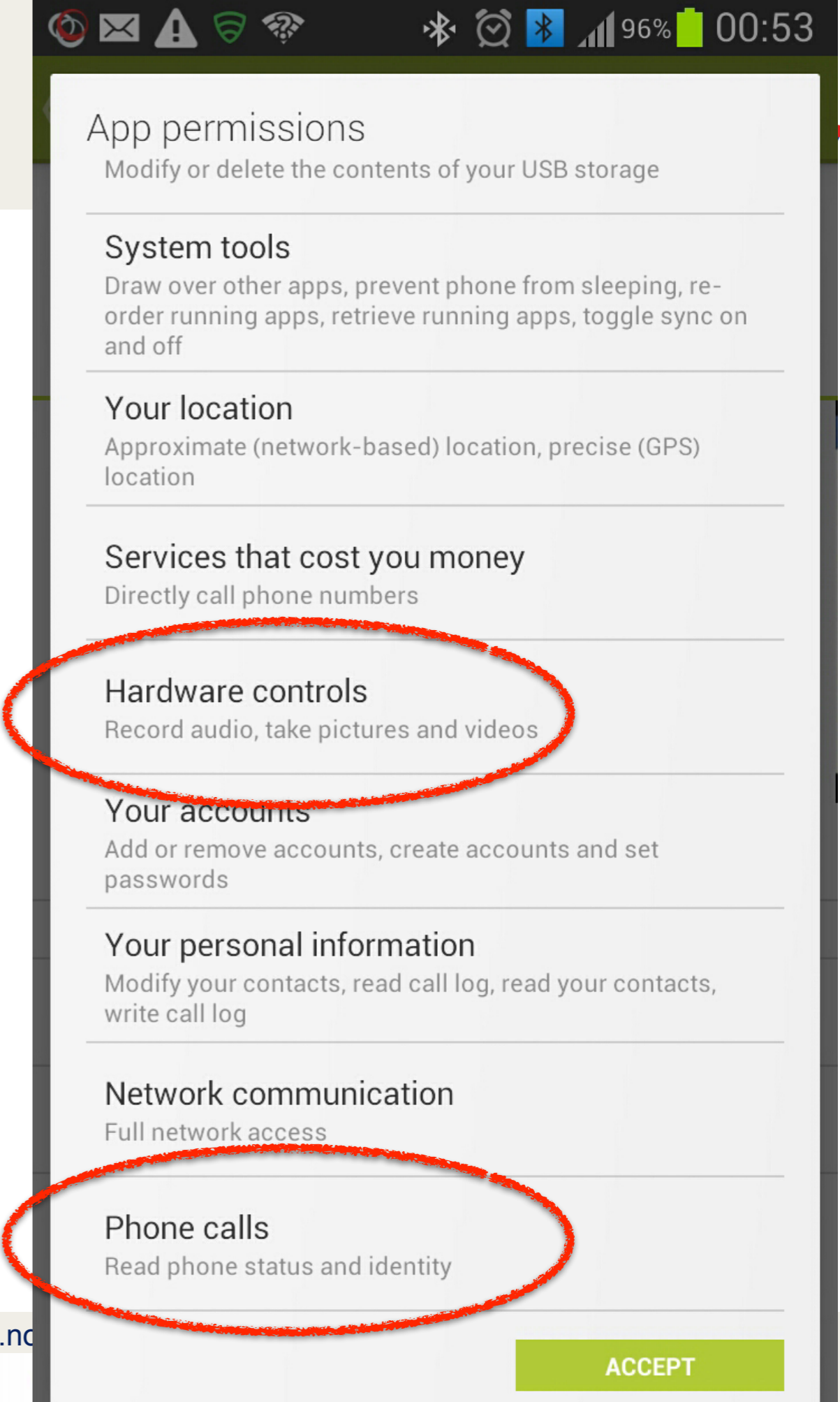
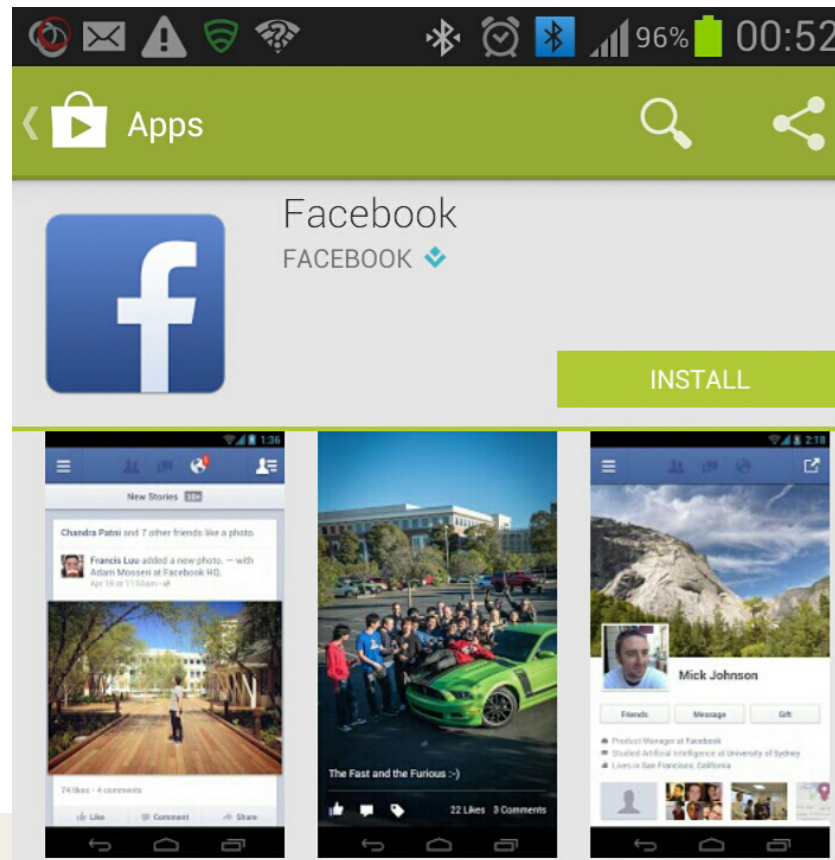
Internet service usage

- Focus on silo
- Business through knowledge of users



Mobile service usage

- Facebook example:
 - record audio
 - read phone status and identity
- For what?



From Laws of Identity to Privacy by design



- 7 laws of identity
 - (1) User Control and Consent, [by: Kim Cameron, Microsoft]
 - (2) Minimal Disclosure for a Constraint Use,
 - (3) Justifiable Parties,
 - (4) Directed Identity,
 - (5) Pluralism of Operators and Technologies,
 - (6) Human Integration, and
 - (7) Consistent Experience across Contexts
- Requires extensions for mobile/ambient environments
 - (8) Identity layer as own identity [by: Mario Hoffmann, Fraunhofer]
 - (9) Ease of use of identities
 - (10) Scalability

IT has understood

“at least some of them”



It „would be a strong milestone...to have an all-inclusive uniform privacy law...that would give consumers control over their personal information. This would increase their confidence in providing information to legitimate businesses and other organizations.“

Bill Gates, March 2007

Privacy observations

taken during the European Identity Conference EIC'2013



Post-Privacy: Yet to come or has it already arrived?
Dr. Karsten Kinast, LL.M., KuppingerCole

Tackling the Identity Explosion: Getting a grip on Customers and Partners
Kim Cameron, Microsoft

You can Shelve your Big Data Startup Plans if you don't have Privacy Covered - A Standards Perspective
Dr. Laurent Liscia, OASIS

Can "App" Phones Help Users to Manage their Identity and Privacy?
Prof. Dr. Kai Rannenber, Goethe University in Frankfurt

topics from the European Identity Conf 2013

The Center for Wireless Innovation Norway - CWIN.no - Enabling Collaborative Research

Ten commandments to protect privacy



- International Separation of Powers
- Telecommunications Secrecy
- Data Austerity
- Right to Anonymity
- Virtual Right to be Alone
- Right to Security
- Restriction on Secondary Use
- Transparency
- Access to one's personal data
- International Complaints Resolution

Source: Alexander Dix
Berlin Commissioner for Data Protection
and Freedom of Information, April 2007

Outview



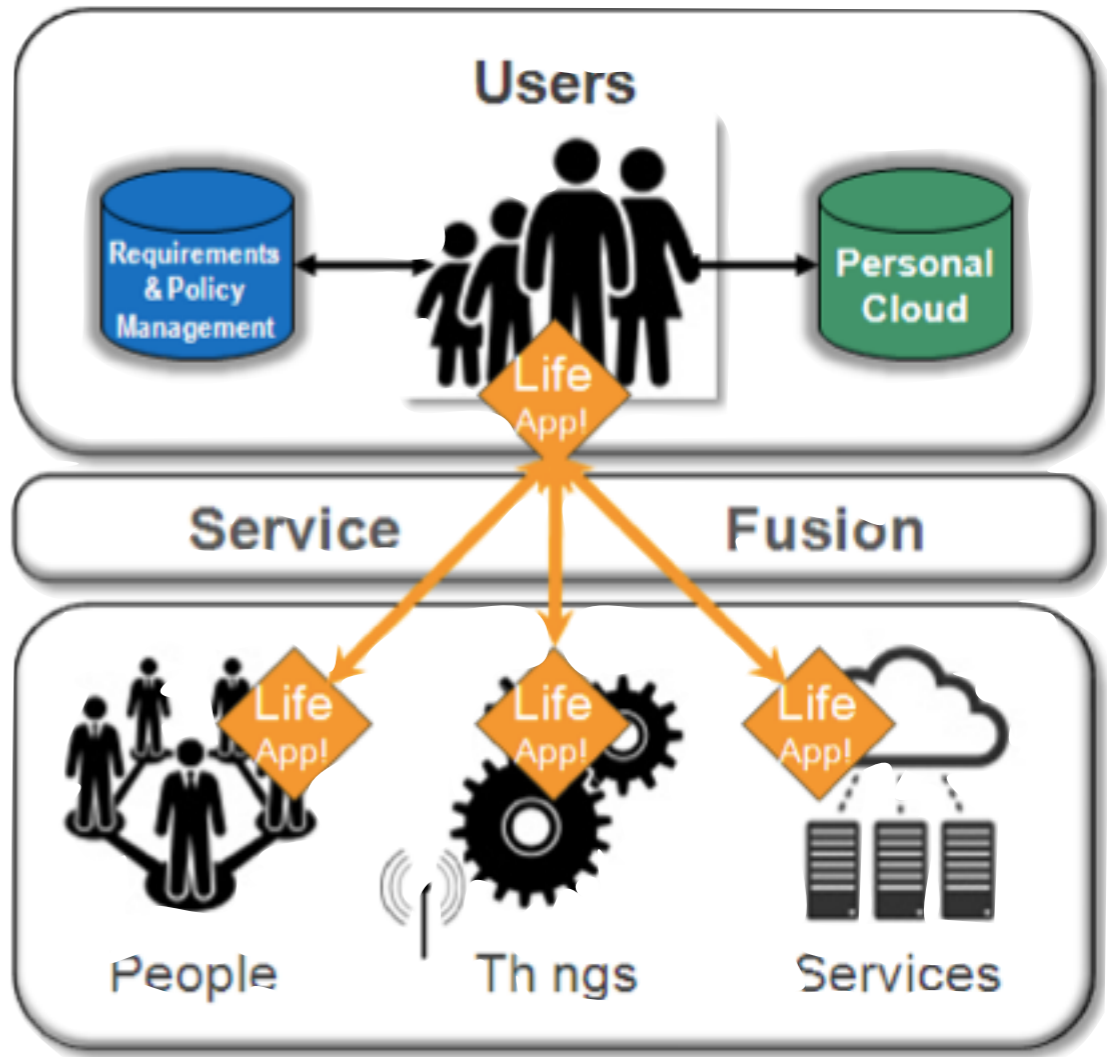
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Life Management Initiative

Topics to taken care of

- personal context-aware secure services matchmaking
- secure, privacy-preserving and interoperable profiles management
- multi-lateral security in service orchestrations
- dynamic user requirements engineering
- preferences hierarchy modelling
- digital footprints and the right to be forgotten
- dynamic policy management
- personal clouds; data authenticity, integrity and transparency in the Big Data world
- security and trust in social media;
- usable security, and the usability of security

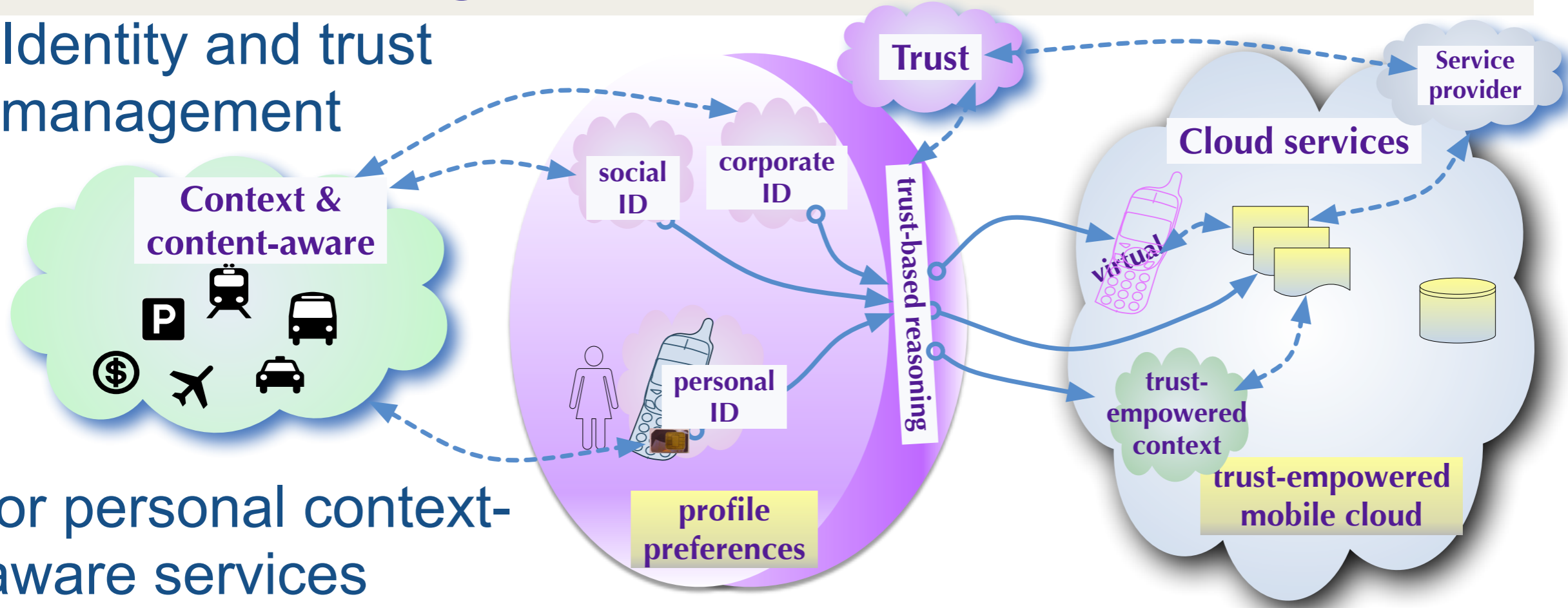
Life Management Platform



Internet of People, Things and Services (IoPTS)

User management

Identity and trust management



for personal context-aware services

- personal context-aware secure services matchmaking
- secure, privacy-preserving and interoperable profiles management

- dynamic user requirements engineering
- preferences hierarchy modelling
- security and trust in social media;
- digital footprints and the right to be forgotten

Mockup Supporting LifeApp



Personal Information Assistant



Creating

Editing

Sharing

Closing

Following

Registered users



Registered environments



Registered services

Google	FRIEND SCOUT 24
LinkedIn	Landeshauptstadt Mainz eGov
facebook	DB BAHN
amazon.de	Deutsche Bank

SAVE
CLEAR
CANCEL

Personal Information Assistant



Creating

Editing

Sharing

Closing

Following



Name: Alice^{family}

Status: Birthday warning

Gifts: <Favorites>

<Last presents>

<Others>^{family, friends}



Name: Thomas^{friends}

Status: Check it out

News: Latest <video>

Cool <location>

"I got the <ticket!>"



Name: Boss^{company}

Status: On business trip

News: 5 new <emails>

Meeting postponed

→ <new date>



Name: Brutus^{pets}

Status: Sleeping

Finder: <lifecam> <map>

SAVE
CLEAR
CANCEL

Service dimension



Life App! Support

Dynamic Service Adaptation

Use Case 1

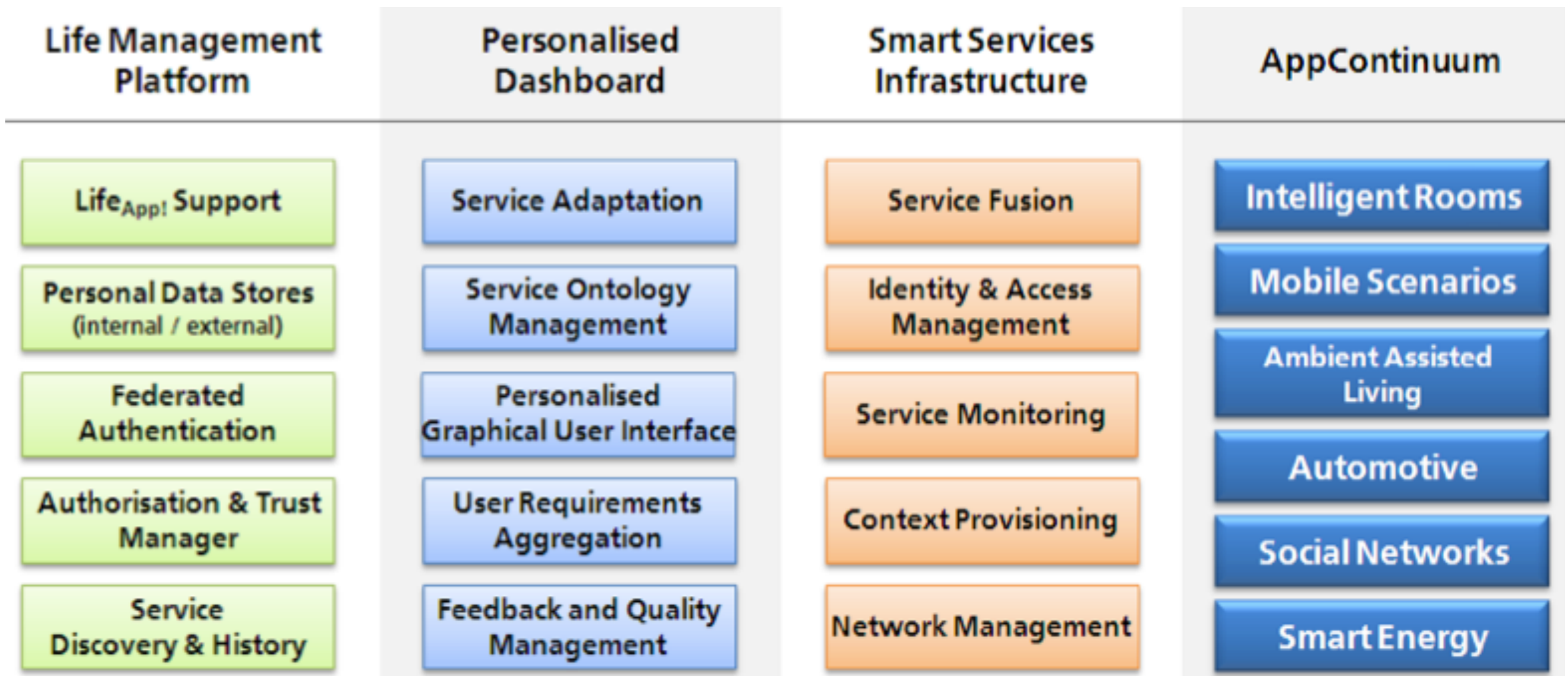
Use Case 2

Service Fusion

Agile Service Creation

(1) Life Management Platform, (2) Personalized Dashboard, (3) Smart Services Infrastructure, and (4) AppContinuum

Research challenges



- supported by initiatives and standards, e.g. authorization & trust management through: **Kantara's User Managed Access (UMA)** protocol, **OAuth2.0**, **U-Prove technology**, and the **Higgins 2.0 framework**

An overview

- Privacy by design
 - Canada
 - The Netherlands (QIC foundation)
- Focus of relevant actors
 - European Identity conference
 - Microsoft
 - Standardisation (OASIS,...)
- Evaluation of privacy
 - BackgroundChecks.org
 - Ranking

These 5 countries were ranked best for privacy (infographic)



Spain, the Czech Republic, **Iceland**, **Norway**, and Slovenia

Conclusions



- Internet and Mobile developments haven't created the Post-Privacy era
 - Internet growth and silo business models
 - Mobile Apps with “allow all” for “not defined”
- Legislator attempts to regulate
 - main challenge: competency to execute laws
- Consolidated Approach: Life Management Platform
 - a user-centric representation of preferences
 - driven by policies
 - adaptable to the services world
- Based on known standards
 - requires common view for the app-world

Join us....

The more important is a **common understanding** how a **standardised** Life Management Platform is supposed to look like and how to **integrate** it in the Future Internet of People, Things, and Services!

→ Join the

Life Management Initiative

