



## Aktiver Schutz von Patientendaten in mobilen e-Health Clouds

Tom Pfeifer | Next Generation Networks | 18. VDE/ITG Fachtagung Mobilkommunikation

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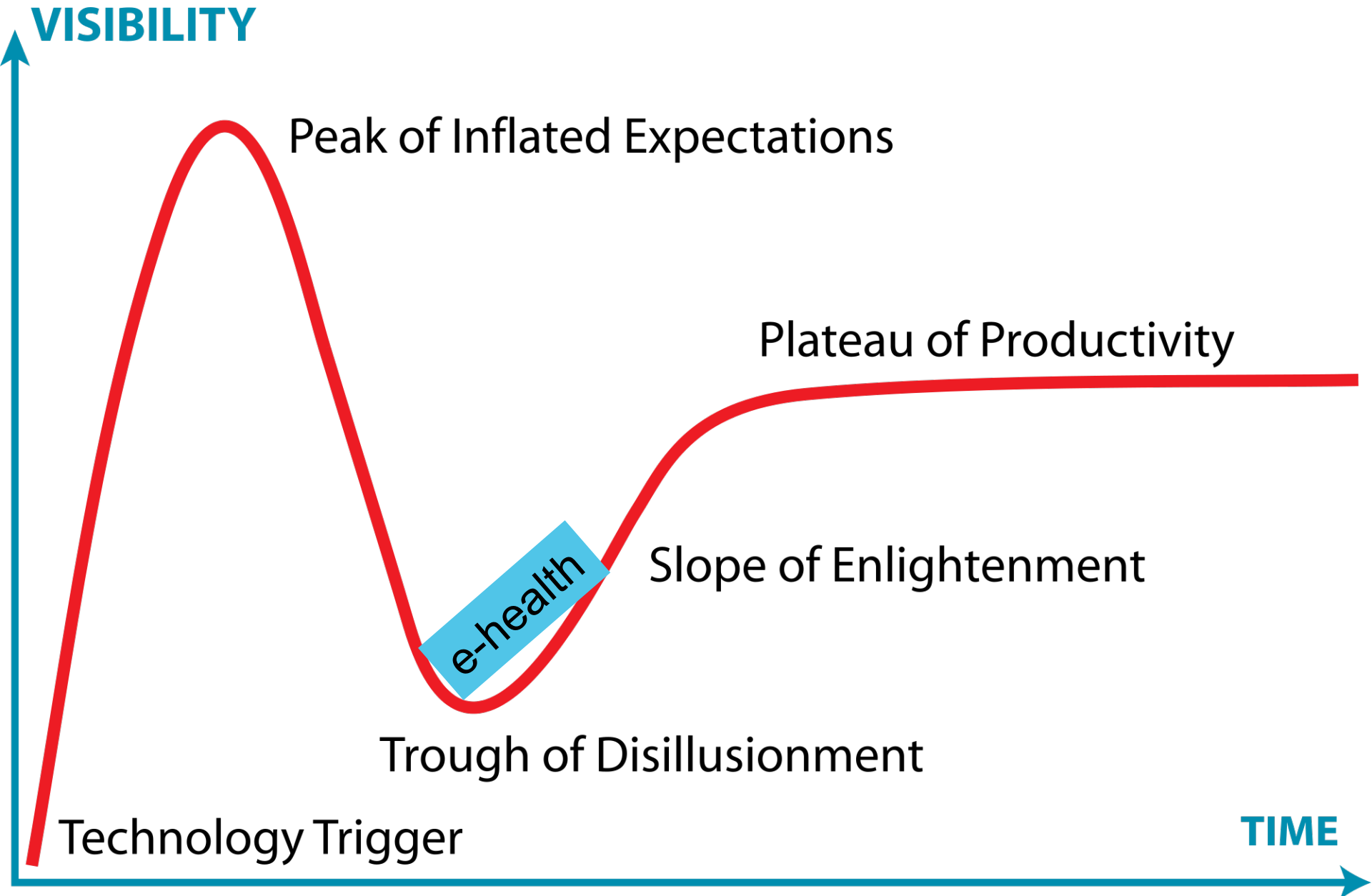
# Aktiver Schutz von Patientendaten in mobilen e-Health Clouds

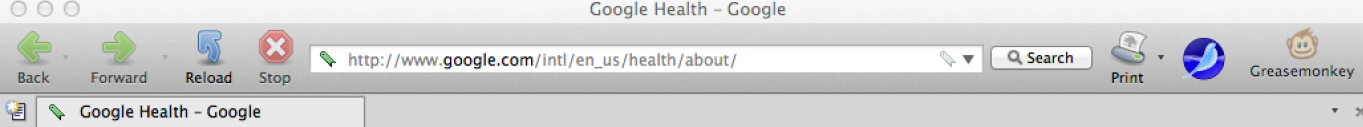
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Armin Schneider, Technische Universität München  
Thomas Jell, Siemens AG

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(gekürzte Fassung)

# Gartner Hype Cycle





## Google Health has been discontinued

Google Health has been permanently discontinued. All data remaining in Google Health user accounts as of January 2, 2013 has been systematically destroyed, and Google is no longer able to recover any Google Health data for any user. To learn more about this announcement, see our [blog post](#), or answers to frequently-asked questions below.

### Frequently-asked questions

#### 1. Is there any way to retrieve my Google Health data from Google?

No -- all remaining user data has been permanently and irrevocably deleted from the Google Health system starting on January 2, 2013. Google is no longer able to recover any Google Health data for any user.

#### 2. What happened to my Google Health data?

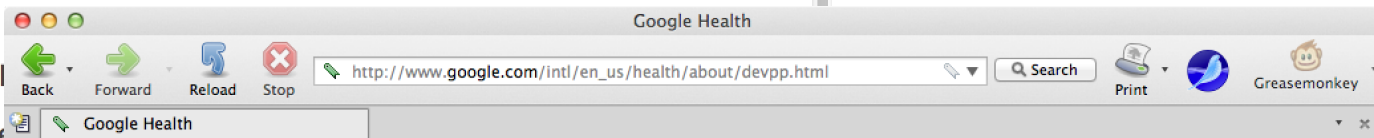
All Google Health user accounts have been systematically deleted from Google's servers.

#### 3. I want to keep tracking my health data. What are my options?

There are a number of options available to continue tracking your health data via another personal health record.

#### 4. Why was Google Health discontinued?

Please see our [blog post](#) for more information.



[About Google Health](#)

[Frequently Asked Questions](#)

[Google Health Privacy](#)

[Help Center](#)

[Terms of Service](#)

### Google Health Developer Policies

**Note:** The Google Health Data API was [officially deprecated](#) on June 24, 2011 and has been discontinued as of January 2, 2012.

Last modified: September 2, 2010 ([view archived version](#))

### DATA USE POLICY

The Google Health APIs enable institutions to send access and copy health information from users' Google Health profiles after permission has been granted. Google takes the privacy of its users' data very seriously, and all institutions wishing to connect to Google Health must abide by the policies outlined below, as well as applicable law.

# Google Health


# Microsoft HealthVault

focusing on the 'simpler' market of Ambient Assisted Living



Explore HealthVault

Discover apps & devices


Sign up or sign in 



## Announcing HealthVault for Windows 8

Set and track health goals, and manage health info using the power of your desktop or tablet PC. [Get it from the Windows App Store](#)

Take control of  
your health.

Start now 

## What is HealthVault?

Microsoft HealthVault is a trusted place for people to gather, store, use, and share health information online. [Learn more](#)

Organize your family's  
health information.

Be better prepared for  
doctor visits and  
unexpected  
emergencies.

Create a more complete  
picture of your health,  
with you at the center.

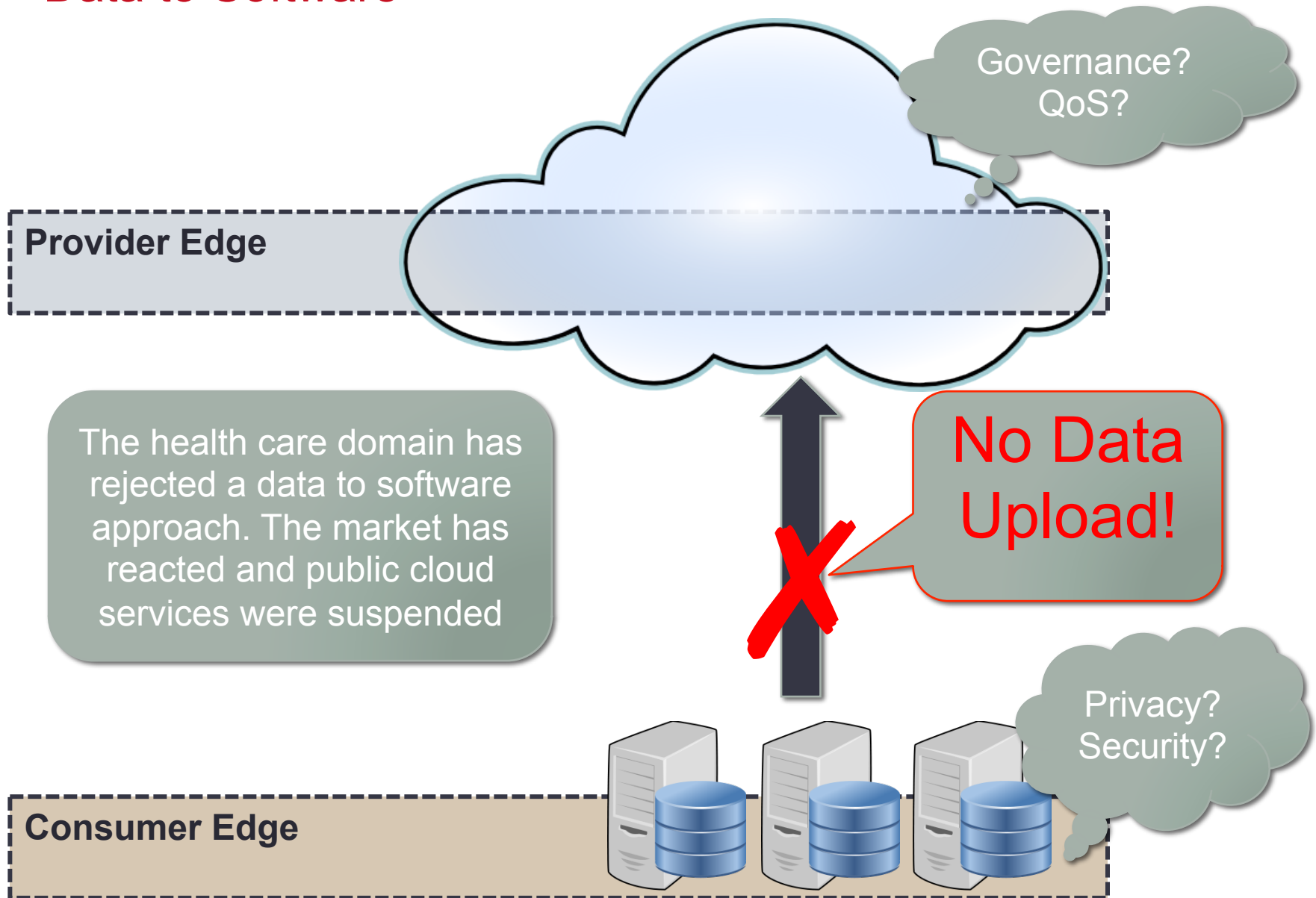
Achieve your fitness  
goals.

# Gartner Report 2012: Technologies that will unlock long-awaited technology scenarios

## Smarter Things

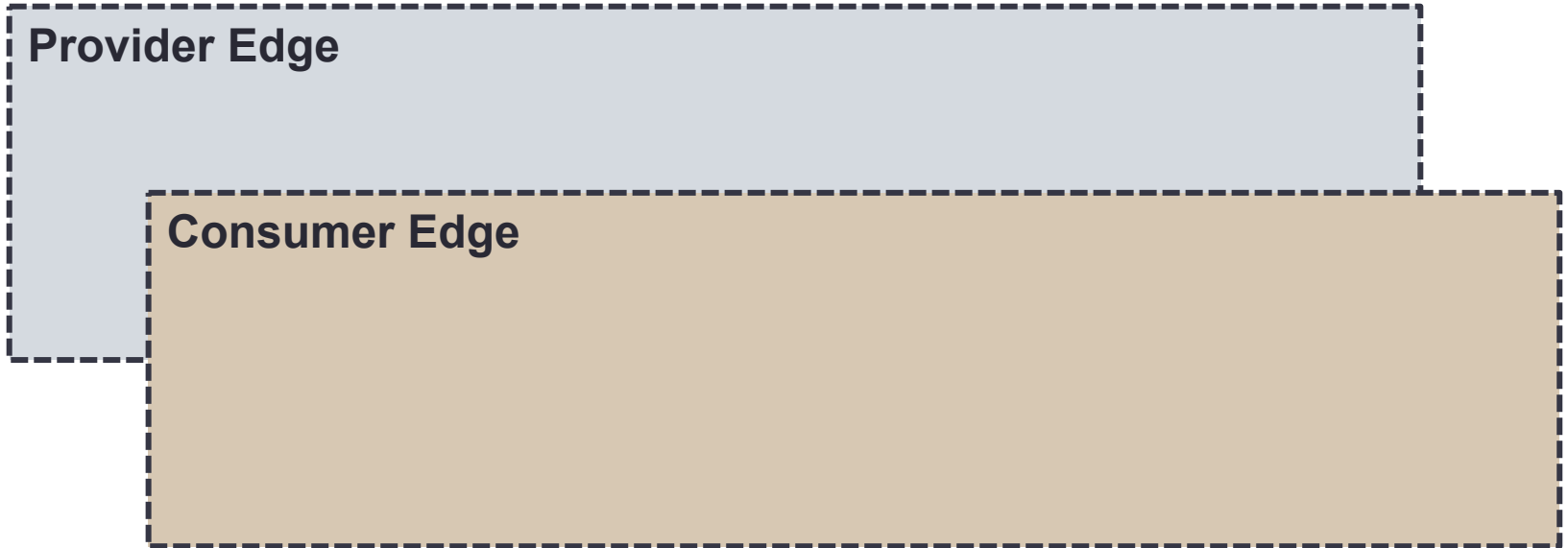
A world in which things are smart and connected to the Internet has been in the works for more than a decade. Once connected and made smart, things will help people in every facet of their consumer, citizen and employee lives. There are many enabling technologies and trends required to make this scenario a reality. On the 2012 Hype Cycle, Gartner has included autonomous vehicles, mobile robots, Internet of Things, big data, wireless power, complex-event processing, Internet TV, activity streams, machine-to-machine communication services, mesh networks: sensor, home health monitoring and consumer telematics. The technologies and trends that are the tipping points to success include machine-to-machine communication services, mesh networks: sensor, big data, complex-event processing and activity streams.

# Data to Software



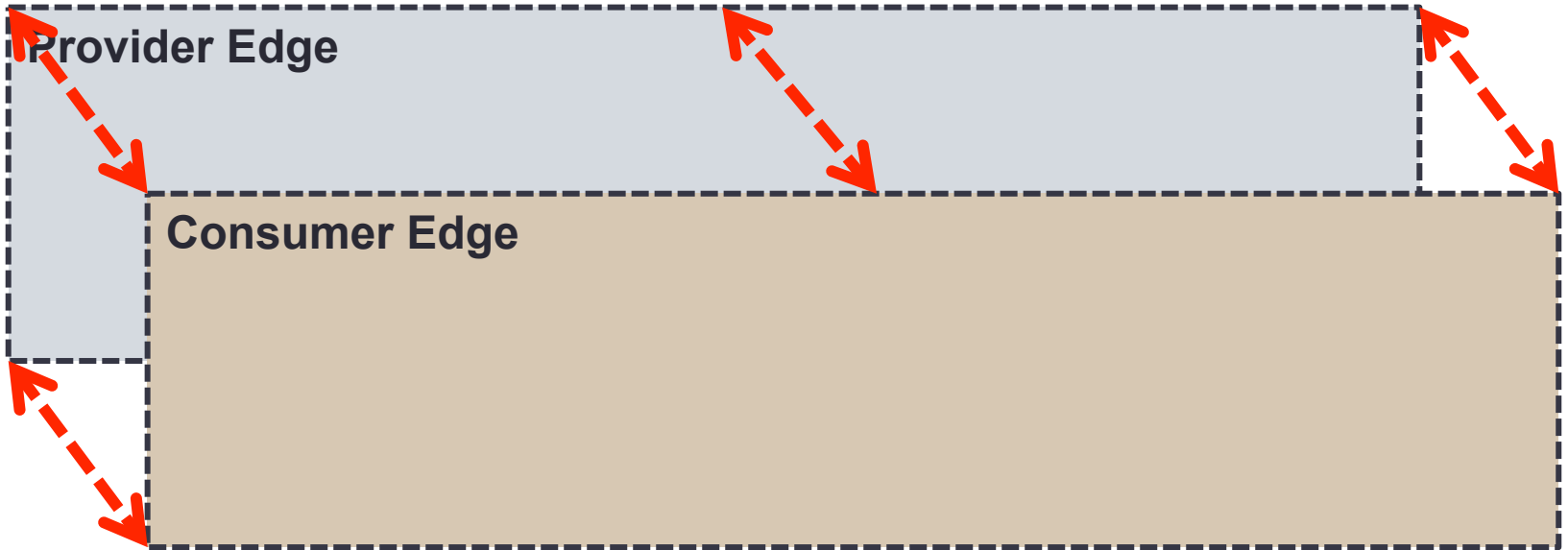
~~Data to Software~~

Software to Data S2D

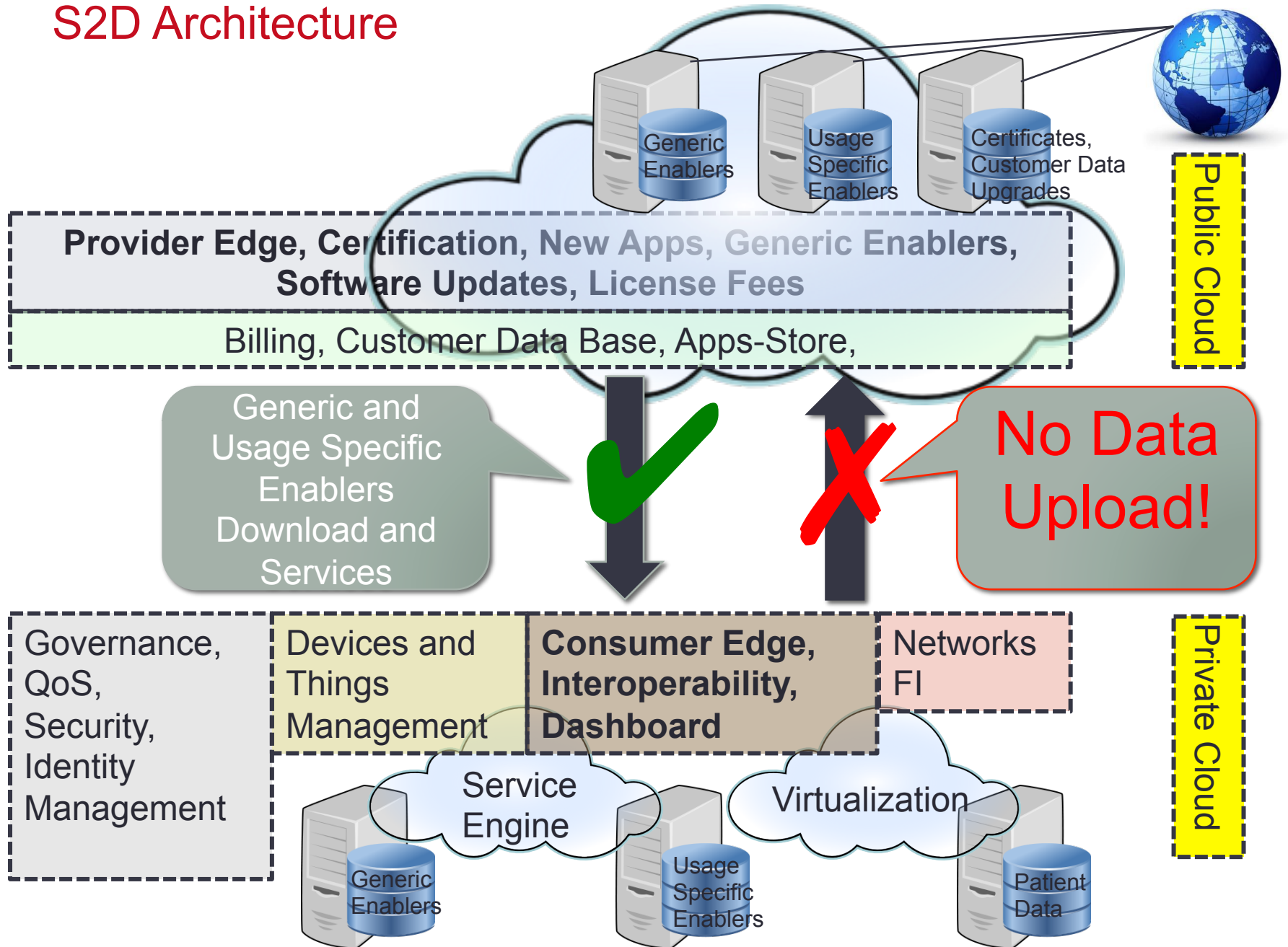




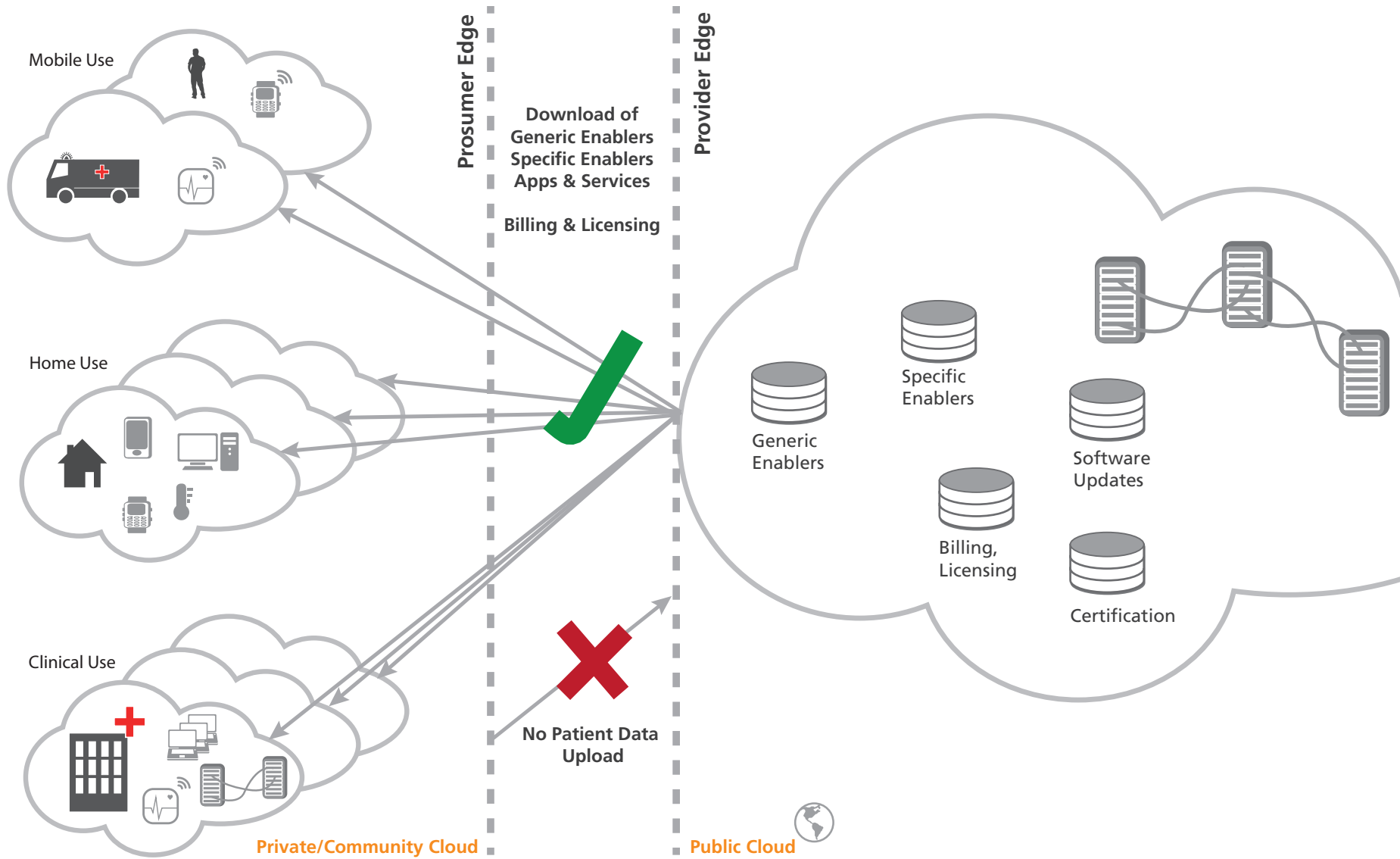
# Focusing on the Interaction of Provider and Consumer



# S2D Architecture



# S2D Architecture



## FI-PPP: Future Internet Public-Private Partnership

- FI-WARE (EU/FP7 - finishing) has developed GEs. An indicative catalogue is available at <http://catalogue.fi-ware.eu>
- Specifications are made available from the FI-WARE wiki <https://forge.fi-ware.eu>
- FI – Social Technological Alignment Research [FI-STAR] (EU/FP7 – starting) will test the GE approach in 7 clinical scenarios in e-health, in 7 different EU countries

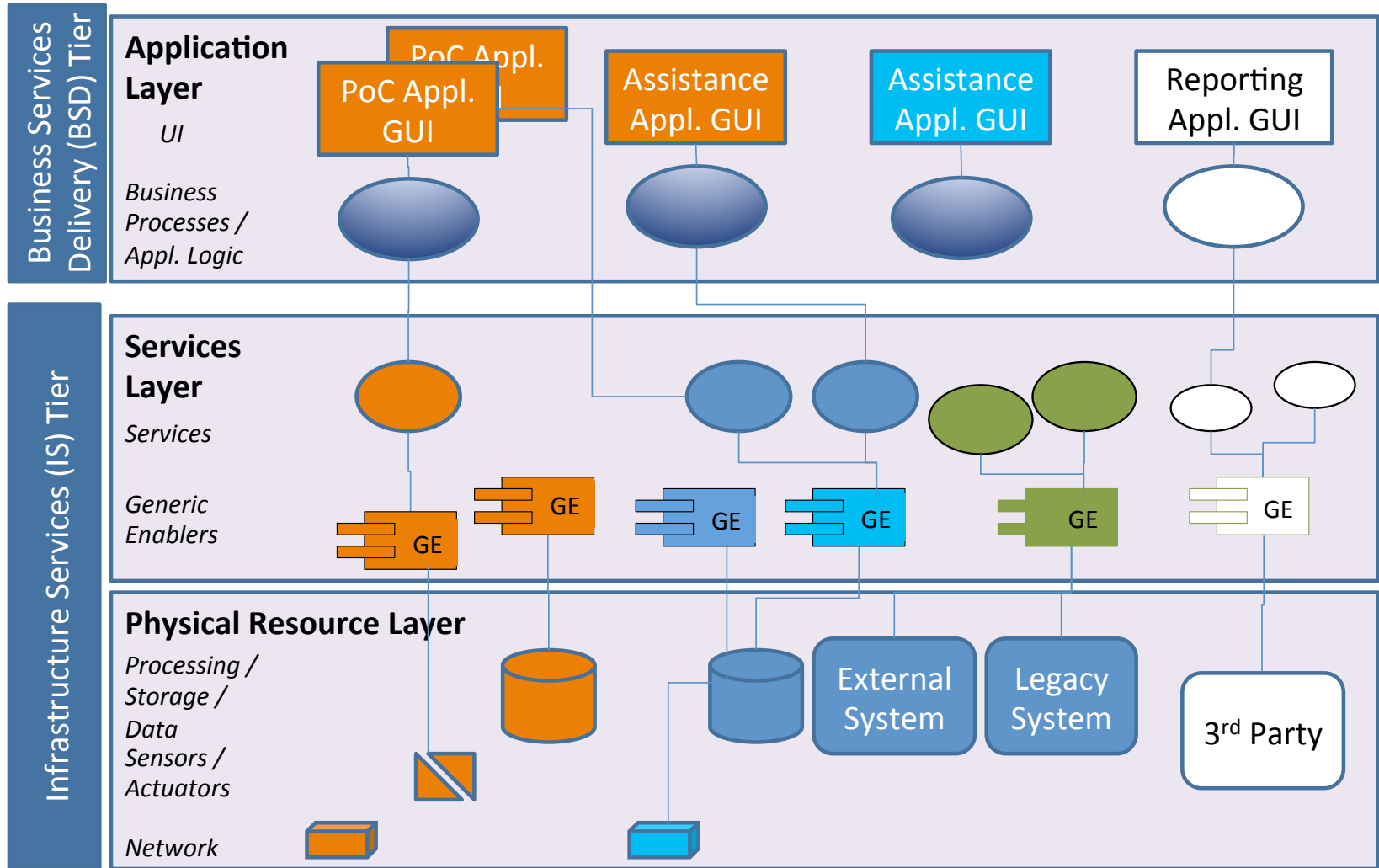
# FI-STAR Use Case Scenarios

Location	Focus
Spain	Mental health
UK	Tagging and tracking of Pharmaceuticals and consumables
Germany	Operation theatre: Device management, RFID, Barcode
Romania	Cardiology, Rehabilitation
Italy	Data management
Poland	Cancer, Rehabilitation
Norway	Diabetes



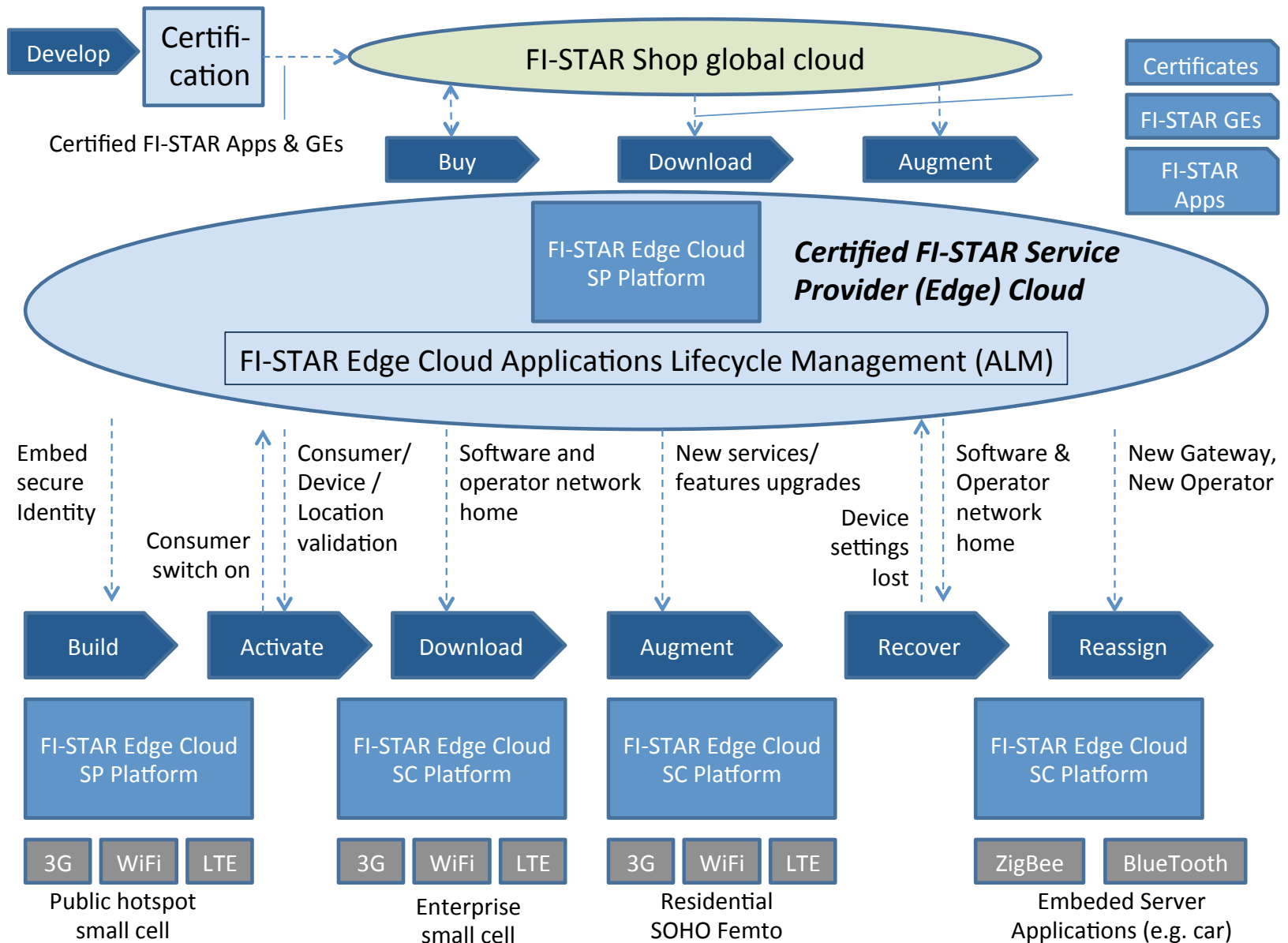
[www.fi-star.eu](http://www.fi-star.eu)

# Logical Topology in the Hybrid Cloud for Software-2-Data

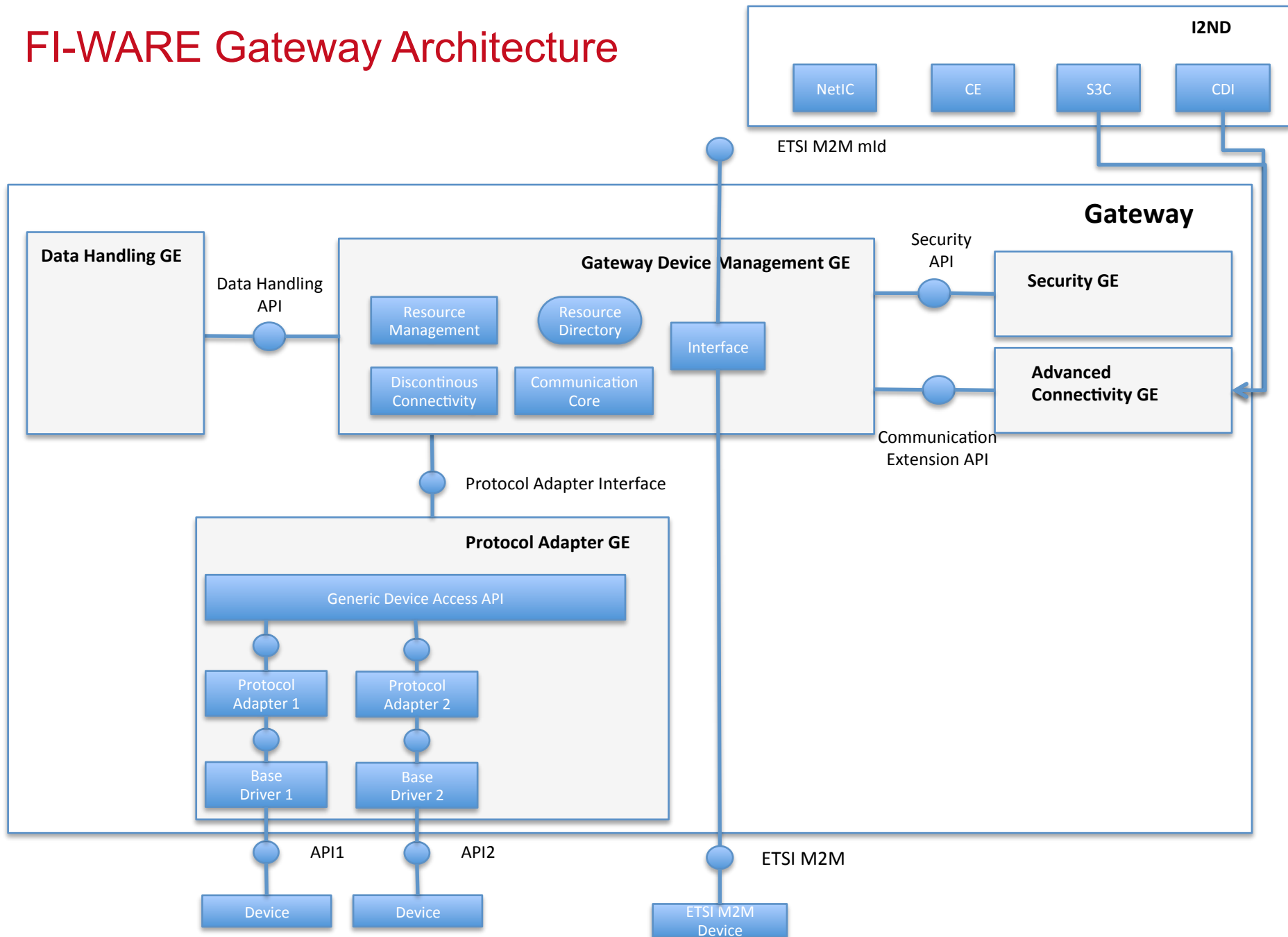


Service Provider
  Service Consumer
  Security & QoS
  Interoperability

# Functional Architecture in the Fi-Star Hybrid Cloud

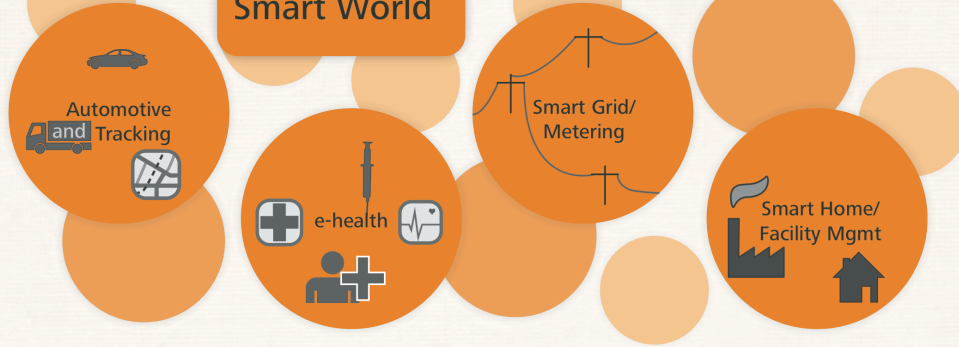


# FI-WARE Gateway Architecture

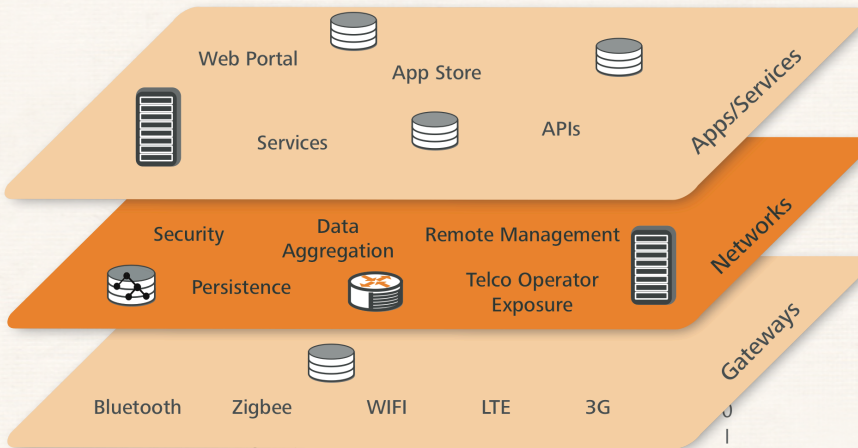




# Smart Cities Smart World



Open MTC



## ETSI-compliant M2M platform

- TU Berlin
- Fraunhofer FOKUS (NGNI)



- open interfaces
- open standards
- open for extensions
- source can be licensed



**Automotive**



**Security**



**Tracking & Tracing**

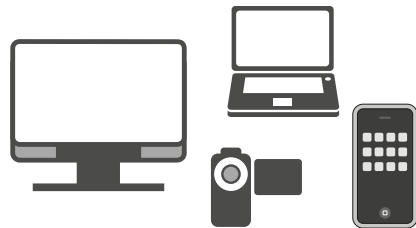
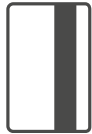


**Healthcare**

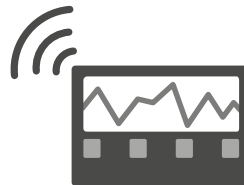
# M2M Segments



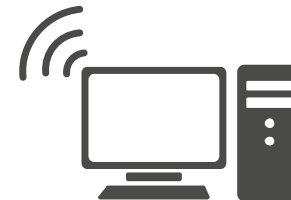
**Payment**



**Consumer Electronics**

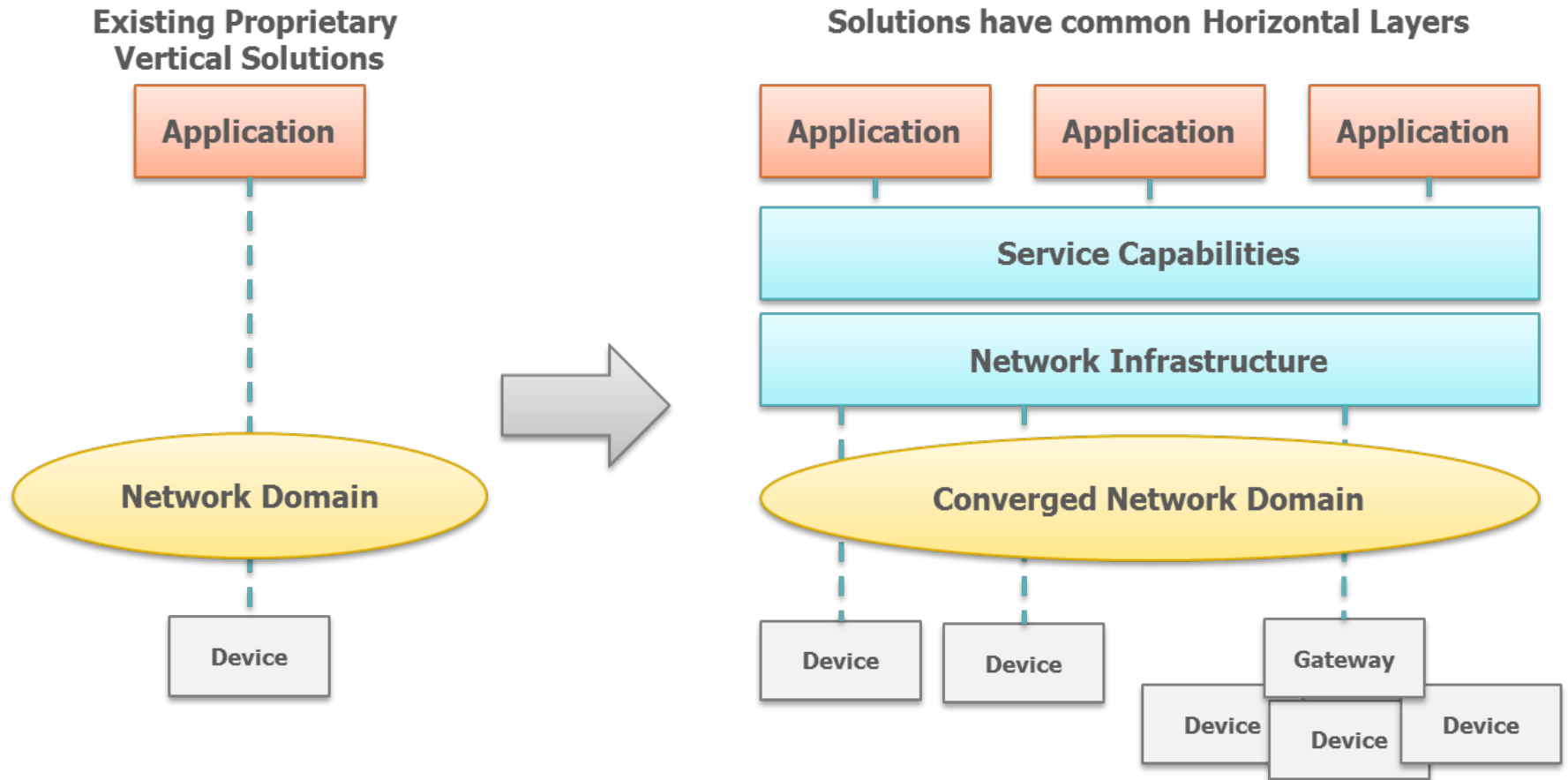


**Metering**

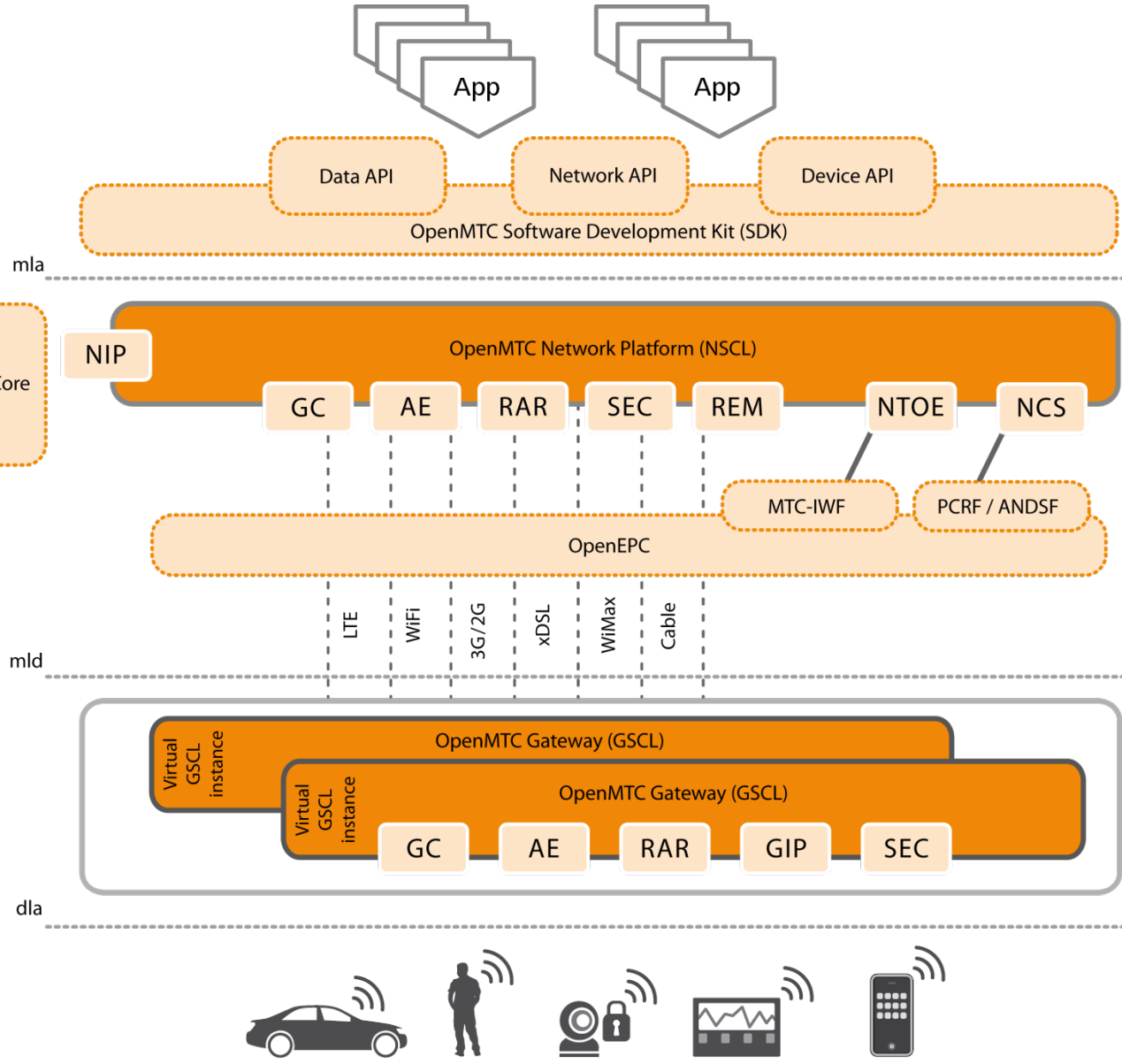


**Remote Maintenance  
and Control**

# Stop the Silo Mindset - Horizontal Approach for M2M



# OpenMTC Architecture



OpenMTC implements most of the features of ETSI TS 102.921 and 102.690 including a

- Network Service Capability Layer (NSCL)
- Gateway Service Capability Layer (GSCL)



... danke

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