# Securing the deployment of the internet of things

Smart World Event Malmö, Sweden



Axel Hansmann, VP Strategy and MarCom 16 September 2014



#### Create a smarter world with IoT where:



 people can depend on and trust the technology surrounding them



 connectivity brings people and ideas closer together



 quality of everyday life brings more convenience and enjoyments



- enterprises can optimize processes and manufacturing





we leavea cleanerplanet forfuturegenerations



# The making of a smarter world calls for concerted efforts from public and private sectors

# Harness Connectivity and Mobility

providing pervasive access to information, media and online services through smart devices and machines

# Boost Economic Developments

fostering innovation in consumer shopping experience as well as industrial processes

# Improve Life Expectancy

enabling remote healthcare I and safety assistance at home and around the city

#### **Enhance Public Services**

providing citizens withstate-of-the-art e-governmentservices for more administrative

convenience

#### **Streamline Immigration**

providing secure, electronic immigration and border management services to enhance travelers' and visitors' experience

#### **Promote Sustainability**

optimizing resources usage with smarter energy

with smarter energy

I management and di

management and digitization of paper documents

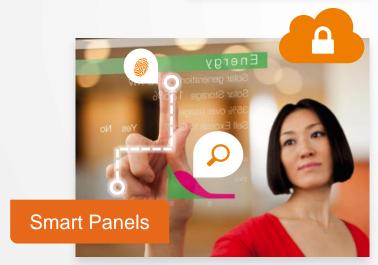
#### **Improve Commuting Experience**

integrating smart technologies into transport & traffic systems



## Harness connectivity and mobility with Smart Devices

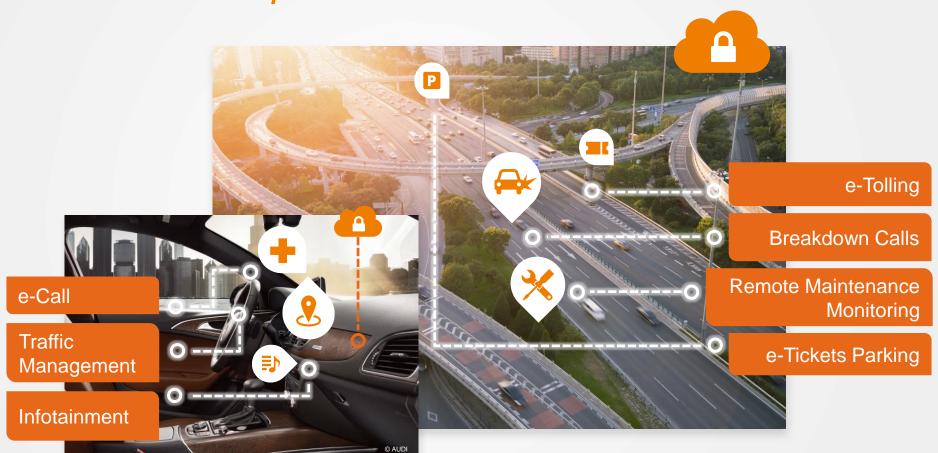






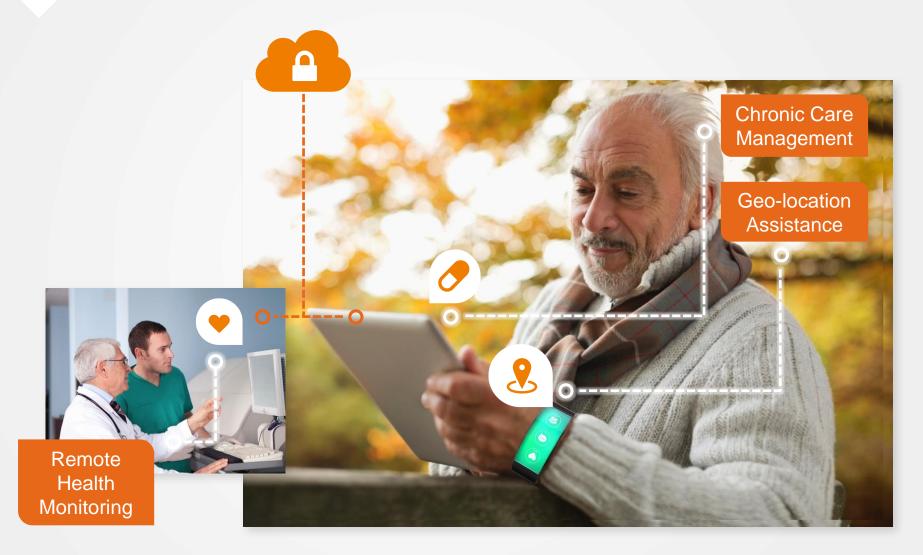


## ☐ Improve commuting experience with Smart Transportation





## Improve quality of life with Smart Healthcare





# Promote sustainability through *Smart Energy*





# Boost economic development with IoT solutions that drive *Smart Industrial Management*





## Harness connectivity and mobility with Cloud Infrastructure





## Building a state-of-the-art trust infrastructure



- Use of state-of-the art digital encryption and tamper-proof secure elements to store and manage sensitive data
  - Establish the role of a Trust Manager platform that can act as trusted third party to supervise transfer of sensitive information between service providers
  - Ensure that the systems being implemented are industrially robust, reliable and scalable with more users adoption, city growth and future innovations
- Create an open eco-system by leveraging recognized standards and certifications, so that innovation can thrive, with application developers and service providers able to cost-effectively develop and onboard new services



#### Reasons for attacking M2M and IoT solutions

Buzz and glory
"I did it"

FAME

Car industry
Utilities
Consumer electronic

Cyber terrorism

**BLACKMAIL** 

Utilities & energy distribution

**Governmental IT** 

Cyber criminality

MONEY

Utilities
Governmental IT
Car industry

**Fraud** 

MONEY

Utilities
Governmental IT
Telematics / Health



## Secure by design not in hindsight



The level of security of a system is the level of security of the weakest element

#### **Principles of secure communications**

**Authentication** 

I am always sure I know who I'm talking to.

Confidentiality

Nobody else shall get the information

Integrity

The message must not be manipulated

**Availability** 

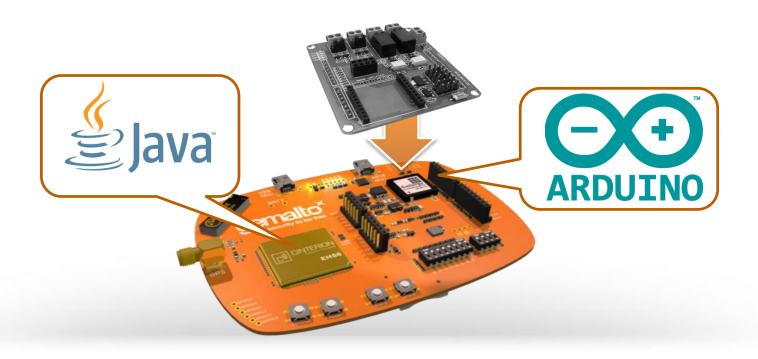
Can I always communicate when I need to?



# Calling all M2M/IoT Developers

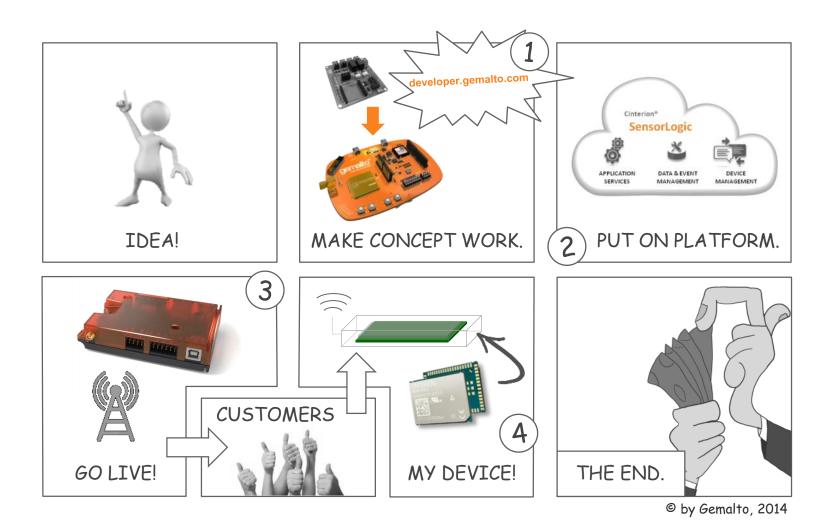


# The Cinterion® Concept Board - Bringing two communities to M2M



- > Hardware extensions via Arduino-style "shields"
- > Online Ordering through Gemalto Online Shop
- > Order for 99€ at www.concept-board.com

#### From good idea to good business in 4 steps





#### Gemalto enables connected business models







What will you connect?



## Let's go connect the world of tomorrow!

#### **Thank You**

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