

# Connected Living & Carriers Capability Openness

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# Content



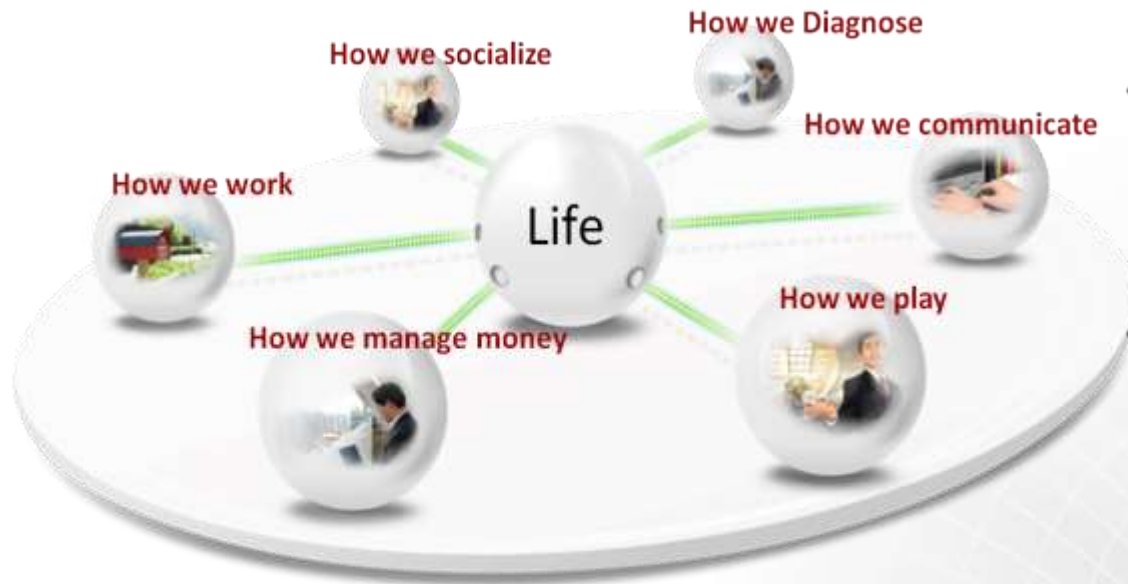
**M2M market trend and Huawei vision**

**Huawei M2M E2E solutions**

**Huawei M2M use cases**

**Huawei M2M innovation labs**

# The Changing Role of Communications in our Society



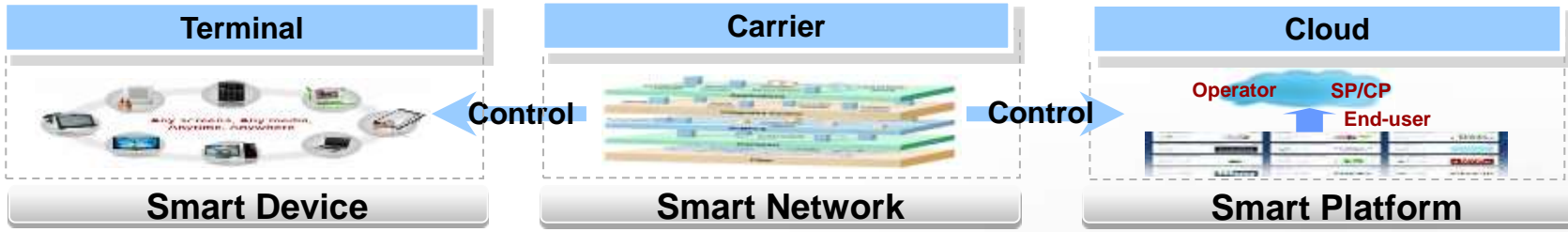
- Customers requirements are challenging carrier's capabilities...
  - *Work, socialize, learn, manage money...*

- **Velocity and change is increasing**
  - *What I use*      *Solutions with value*
  - **Why I use it**      **Data with relevance**
  - *Where I use it*      *Devices with convenience*
- **Carrier's existing foundational capabilities**
  - *Access to customers*
  - **Charging, provisioning, .... services**
  - *Connectivity but with guaranteed QoE*

**How Telecoms can stay in the leading position ?**

**Carrier must move towards ICT!**

# Huawei M2M position and strategy



**Better Connection: A well-managed platform to recognize user segment and application content**

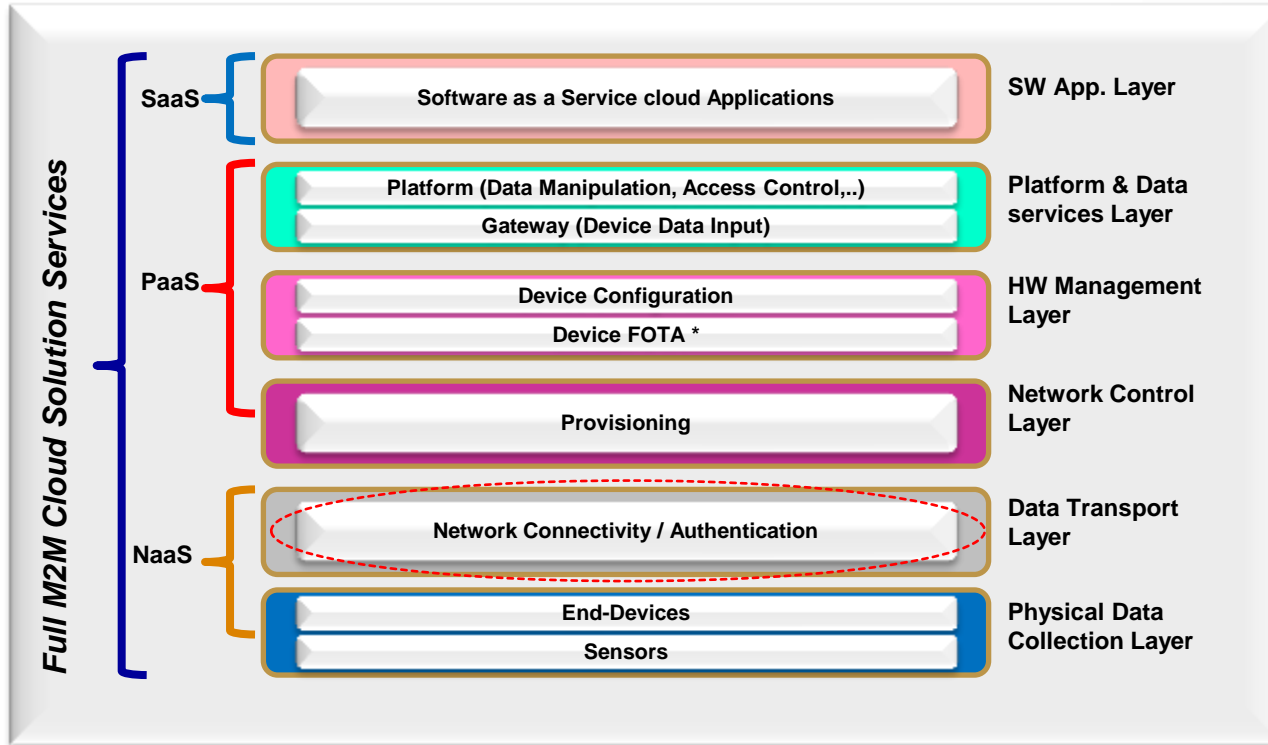


- 5. Service Layer (expanding)
- 4. Enabler platform Layer
- 3. Network Infrastructure Layer
- 2. M2M gateway Layer
- 1. Terminal Layer

<b>Enabler Platform solution</b>	Multi-industry convergence, Open architecture Management Service
<b>Network solution</b>	Customized network for M2M applications customized features
<b>Terminal Solution</b>	Modules: Best network adapted, high reliability Devices: Competitive industrial solution

# M2M Service Model

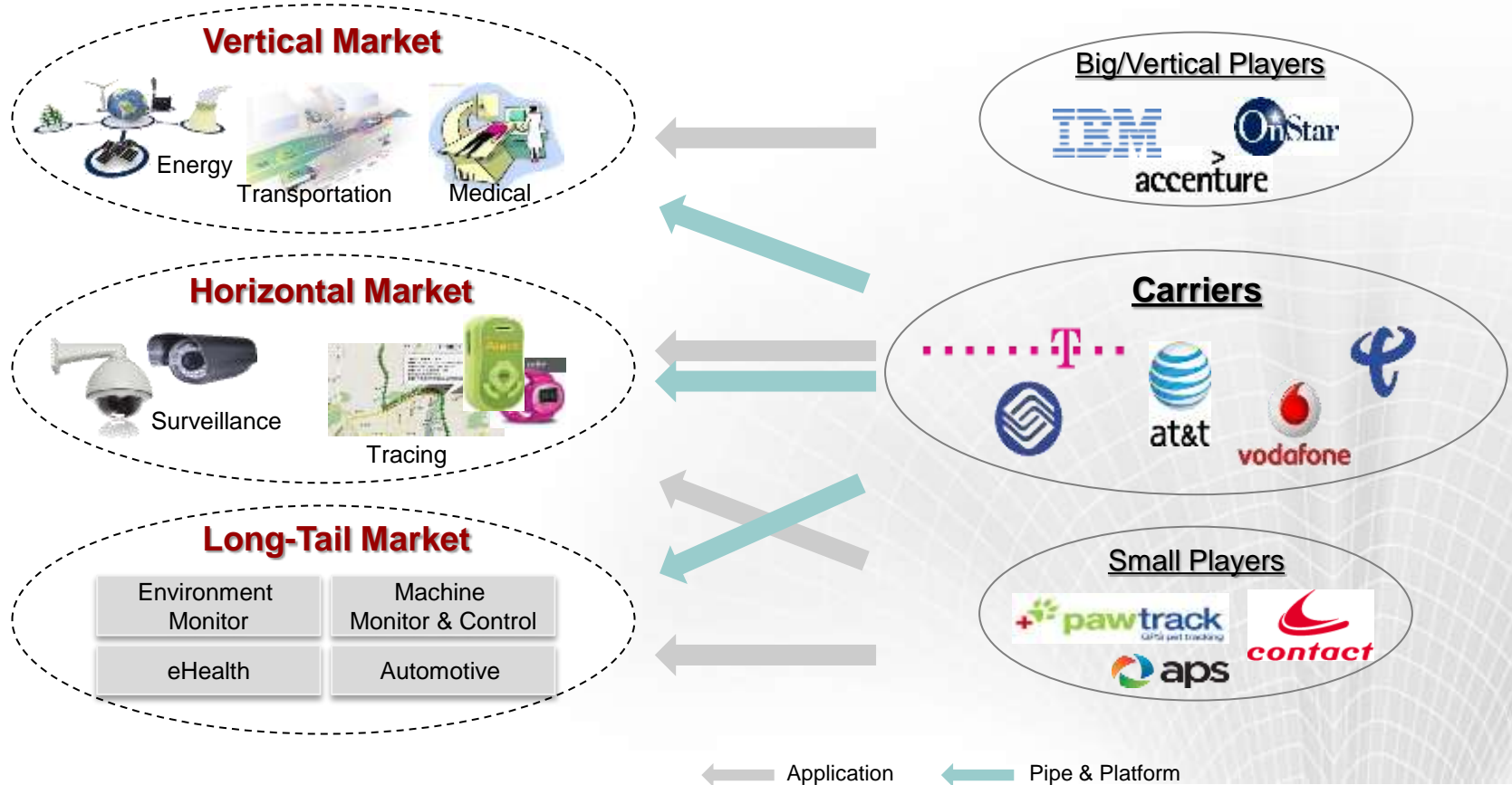
Operators considering to enhance their M2M service offering by enhancing their connectivity management



Offering Services such as:

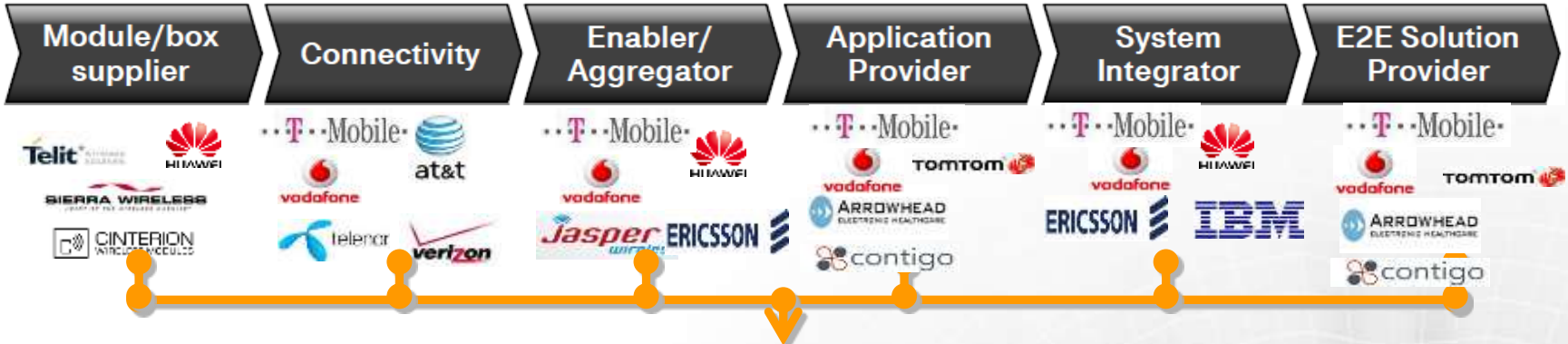
- NaaS
  - Dedicated M2M network.
- PaaS
  - Offering to M2M enterprise customers platform as a service such as self provisioning, reporting and OTA.
- SaaS
  - Cloud Services Offerings for managing enterprise customers data. **Important to look at Big Data and the future of Data centers virtualization and solutions.**
- Moving towards Full M2M **Cloud based Solution.**

# M2M market strategy: Different Approach to Different Market



# Carriers' main opportunities on M2M

## M2M specific Value Chain



Main opportunity	Service class	Service Content	Service Object
Industrial customer, For example Oil company, electricity company, only need Pipe service	Smart Pipe service	Real-time Connectivity Diagnostics, Automated Provisioning, Device management..	Industrial customer, System integrator
Consumer/Family/SME, individual requirement, Fast time to market	Enabler Service	APIs for Developers and Enterprise Customer, Cloud Platform for Apps	Industrial customer, System integrator, Application Provider, Device Vender
Specific Industrial market, for example government public market, need strong integration capability	Integration Service	Fulfill the specific customer requirement, integrating with Partner solution, Creating new service for customer	Industrial customer

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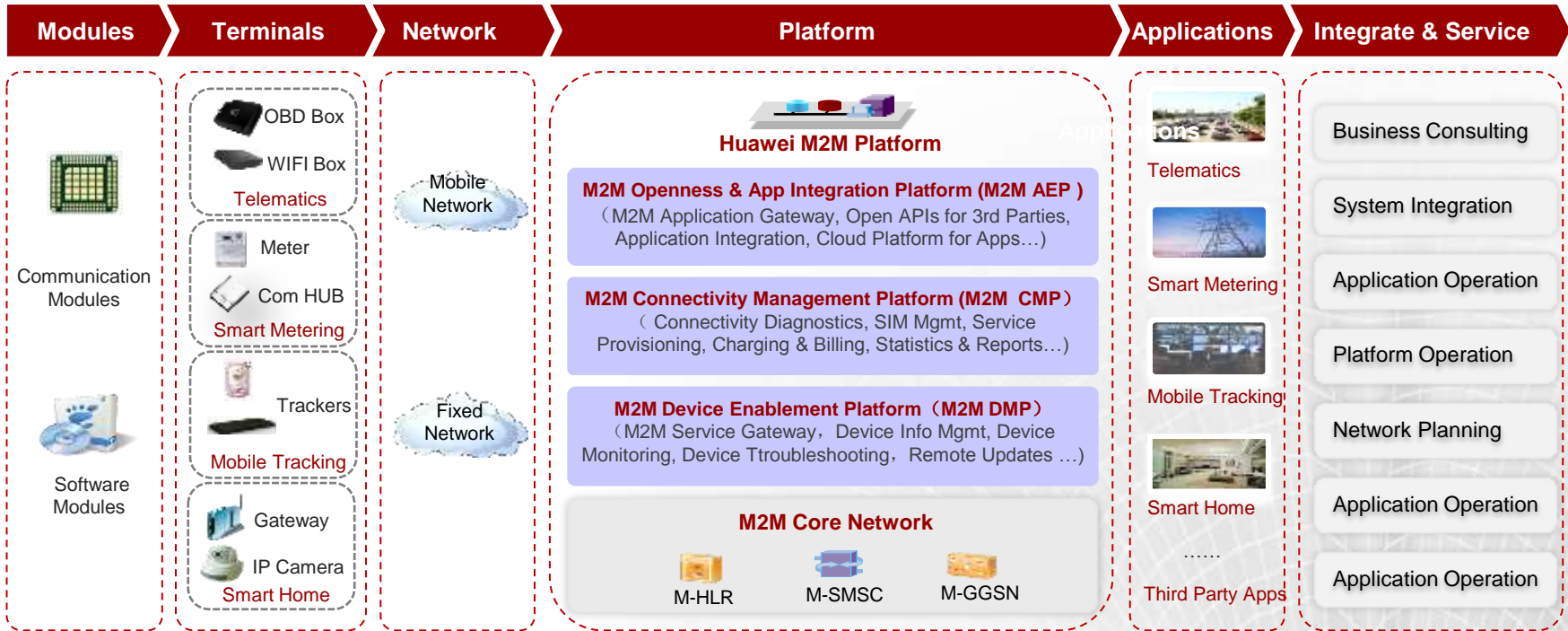
**Huawei M2M use cases**

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# Work together to explore the M2M market value

## M2M Market Value Chain



- Through the exploration and practice in the M2M field, Huawei has accumulated a wealth of experience.
- Huawei will cooperate with carriers to explore innovative business models together, and help our customers to get business success.

# Content



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# Smart Living

Video surveillance  
Entrance guard  
Infrared monitoring  
Magnetic induction  
Smoke monitoring  
Gas leak monitoring  
Emergency call

## Security

Light control  
Curtain control  
Socket control  
Gas valve control  
Condition monitoring  
Other appliances

## Automation

BMI Monitoring  
Body temperature mgt.  
Blood pressure mgt.  
Blood glucose mgt.  
Blood lipid mgt.  
Exercise mgt.  
Cardiogram monitoring

## Health



TV(Live & VOD)  
Music  
Game

## Entertainment

Video Call  
Asset tracking  
Education  
TV Shopping  
Bank serving  
Smart metering  
Energy management

## Living Assistant

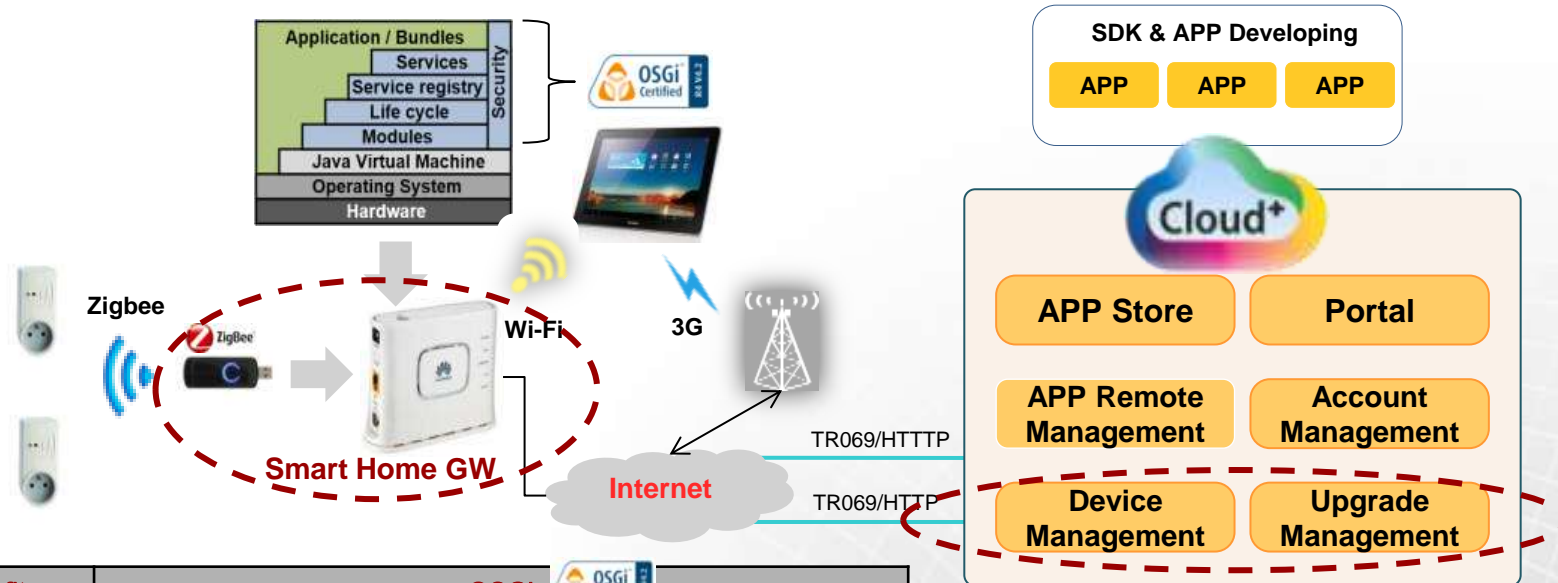



## Smart Home

## Media Center

Camera video storage  
Film/video storage  
Photo storage  
Private data storage

# Smart Home GW & Management

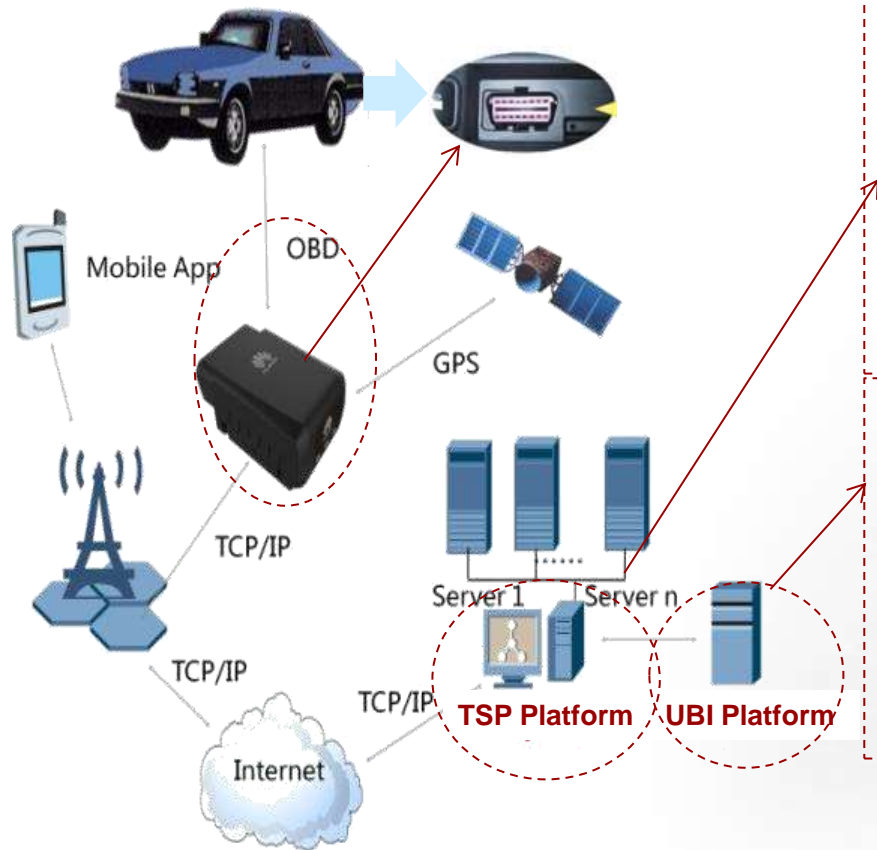


Benefits	OSGi 
<b>Standard</b>	Open modularity service platform based on JVM, adopted by HGI. It defines the APP remote management and security mechanism.
<b>Openness</b>	OSGi is Widely-used in Enterprise solution and home automation solutions.
<b>Mature on HG</b>	Smart Gateway based OSGi
<b>Environment</b>	Highly accepted by operators.
<b>Market</b>	Operator Marketing / Developers

- OSGi is planned to provide for service provider Marketing which conform the industry trends.
- Android is worth researching as it is the actual standard in consumer marketing.

**OSGi (Open Services Gateway initiative)**

# Vehicle OBD, TSP & UBI



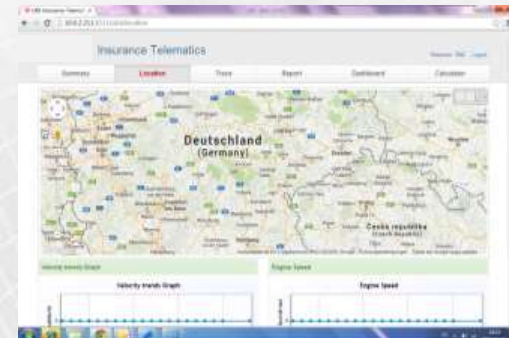
TSP Application Screen Shot



Other parameters:

Reporting time:	2013-08-02 07:22:41	Latitude:	33.333333
Longitude:	115.000000	Altitude (meter):	0.7
MAP air flow rate:	0	Throttle position:	18
Satellite fix:	03	GPS accuracy:	12.6
GPS status:	Locked	GPS last lock time:	2013-08-02 07:22:43
Acceleration:	100	Rotation:	1000
Temp. wheel/rotation:	-12	Vehicle Number:	
Fuel Level:	0	Serial:	01.0.0000
SerialID:		SerialID2:	

UBI Application Screen Shot



Other company such as insurance could provide services via TSP by getting or sending the data to the driver

OBD (Onboard Diagnostic Device)  
 TSP (Telecom Service Platform)  
 UBI (Usage-Based Insurance)

# People Tracking



- ✓ Real-time Tracking
- ✓ History Track Query
- ✓ SOS Call
- ✓ Voice Monitoring
- ✓ Geo-fence & Security Path

## ✓ Real-time Tracking



## ✓ SOS Call



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# Effort on building Lab/Alliance/Partner

## Huawei M2M Lab



- Experimental environment for application & terminal connections to M2M platform.
- Accumulate potential M2M application resource and partnership resource for telecom carriers.

## Alliance and Partner



Alliance



Partner

### Alliance

- HUAWEI has built partnership with lots of industry partners

### Partner: eg. CMCC

Application	Platform	Terminal	Research
<ul style="list-style-type: none"> <li>• Mobile tracking</li> <li>• Smart city</li> </ul>	<ul style="list-style-type: none"> <li>• BSS/Core/National platform deployment</li> </ul>	<ul style="list-style-type: none"> <li>• Soft SIM chipset</li> <li>• M2M module/HGW</li> <li>• DTU</li> </ul>	<ul style="list-style-type: none"> <li>• WMMP</li> <li>• M2M plan &amp; roadmap</li> </ul>



# Huawei M2M-Solution Innovation LAB in Dusseldorf

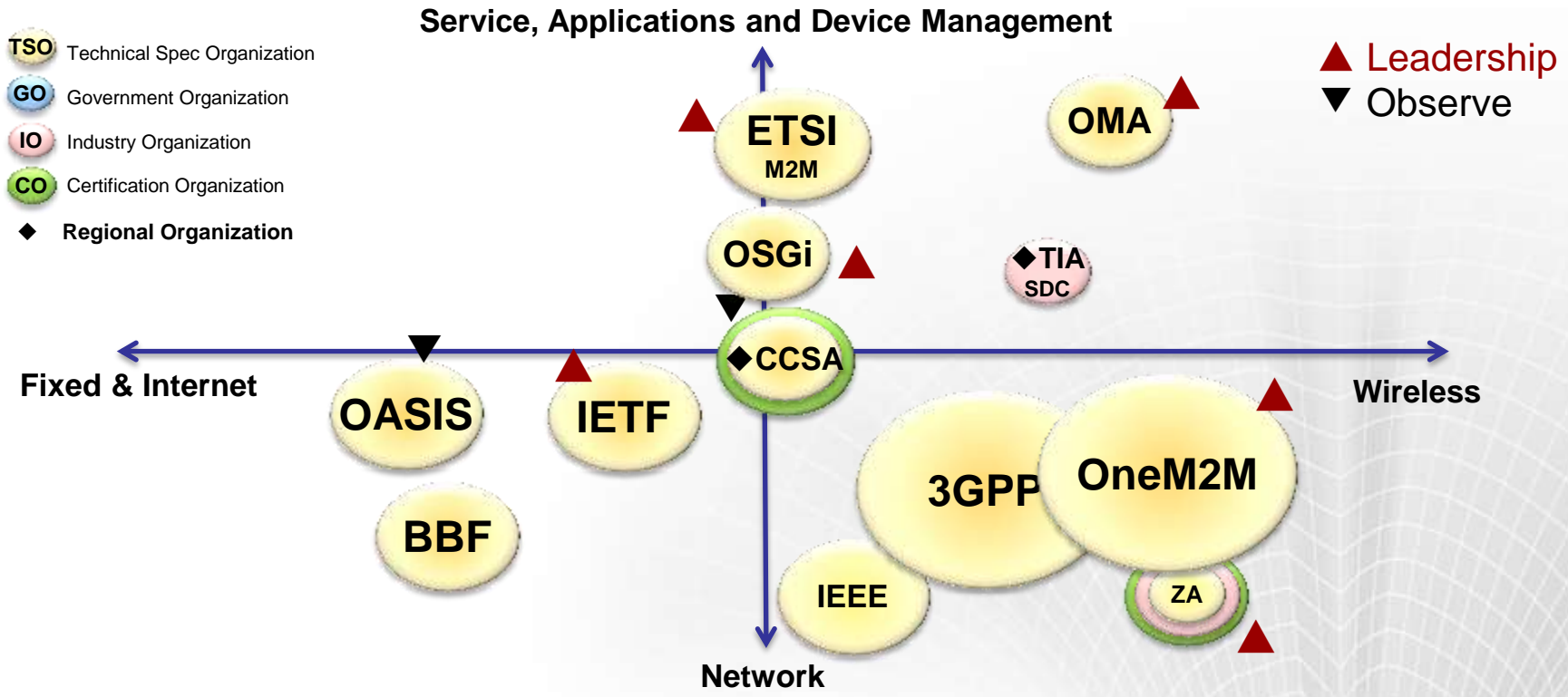
## NRW Economics Minister Garrelt Duin visit on 22nd April



Huawei Technologies shows how M2M-based systems Design of car insurance revolutionize An on-board diagnostics analyzes driving behavior and promotes not only risk-aware Driving, but also allows for individualized 'Pay-as-You-Drive' tariffs. The second Showcase, the 'Comms Hub, illustrates how smart meters ('smart meters') the transparency increase in energy consumption to reduce costs and emissions.

■ Reference <http://www.presseportal.de/pm/108888/2455523/dgap-news-nrw-wirtschaftsminister-garrelt-duin-besucht-ikt-unternehmen-mobil-vernetzt-auf-dem-weg/pe>

# Standardization Contribution



- HUAWEI is extensively involved in the discussion and development of M2M standards.

# Thank you

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