

Space Economy meets Information Economy

GLIS 2016

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Secretary General

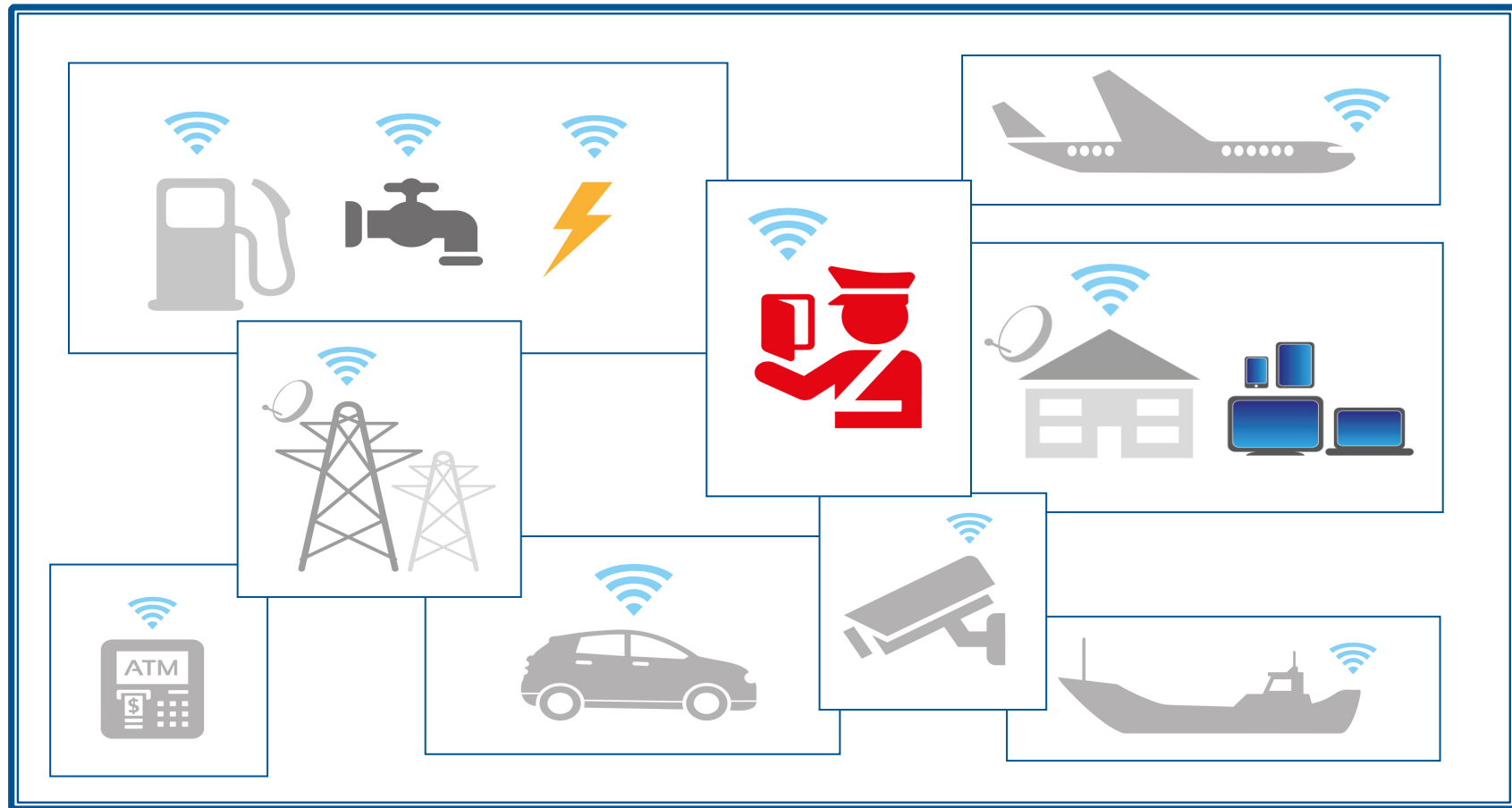
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21 operators – Europe – Middle-East - Africa

“A Network of Networks”



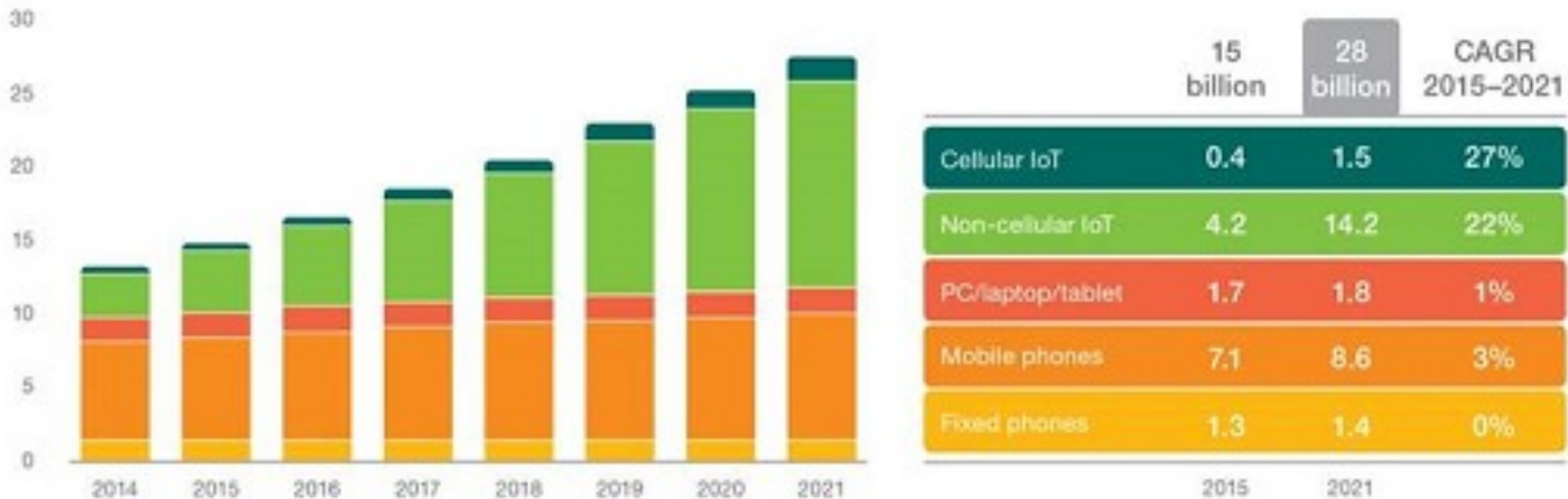
“A Continuum of Software, Industry & Networks”

Information Economy Evolution

Example: Internet of Things (IoT)

Connected devices (billions)

Source Ericsson Mobility Report 2016



- ❖ Information Economy moving at incredible pace - people accessing information / entertainment on different devices & in different contexts
- ❖ Ericsson says IoT is expected to surpass mobile phones as the largest category of connected devices by 2018

Millions of connections implies:

- ❖ More **vulnerable networks** - as number of entry points into networks increase
- ❖ **Congestion** - from increased traffic
- ❖ **Risk of a Digital Chasm** - still millions without connectivity
- ❖ Need for **sustainable business plans**

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- Satellites are a Physical Private Network with inherent resilience
⇒ provides back-up to increase security of 5G networks
 - Capacity off-load for terrestrial networks, especially for video
 - Service availability in remote areas
 - Specific functionalities like multicasting that provide efficiencies to lower costs



In & around the home: Connected things, emergence of 4KTV



In the car: Safety services, infotainment, map updates, differential GPS & telematics



In the air: Flight safety & security, in-flight entertainment

At sea: Oil rigs, ships: Connectivity indispensable to reduce costs, crew welfare, passenger connectivity



Resilience

Ubiquity

Mobility

- **Satcoms are increasingly relevant to the Information Economy**
- **Satellite Communications are evolving at an incredible pace: classic satellites => HTS => VHTS: better service at lower cost**
- **Even ground equipment is evolving: e.g. small flat antennae for connected cars**
- **We need to see more integrated & hybrid solutions that leverage terrestrial & satellite technologies**
- **Satellite Operators need to expand the way they do business to create new business opportunities**

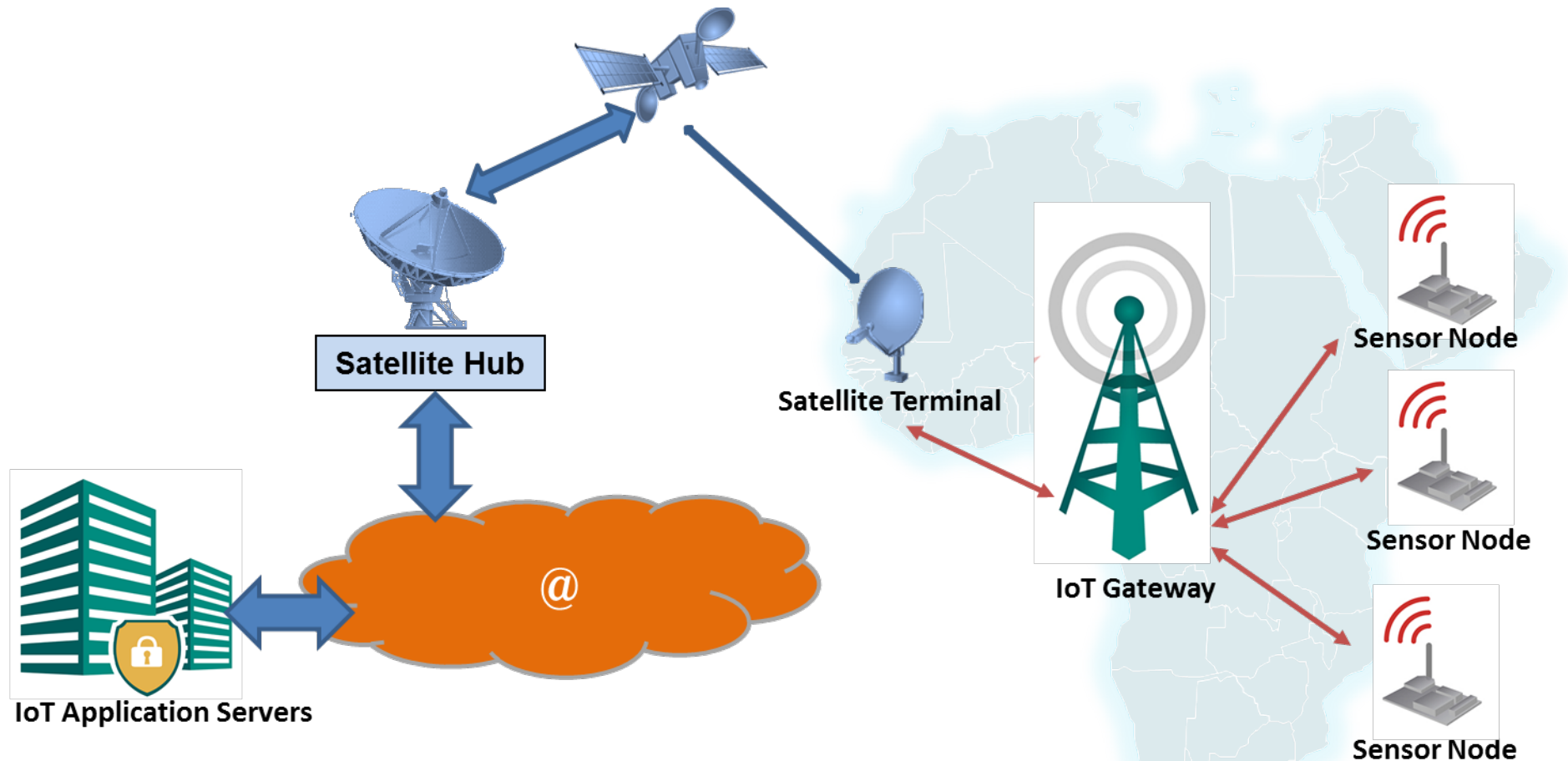
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Reserve Slides

‘A revolution in space...’

- ❖ High Throughput Satellites delivering 100x throughput of classic FSS satellites: from few Gbps to several hundreds Gbps
- ❖ Expand from C/Ku-band into Ka-band systems today: more than 100 Ku/Ka band systems by 2020
- ❖ More flexible satellites using multiple bands
- ❖ Future satellites carrying Q/V/W band payloads leading to Terabit satellites
- ❖ Potential for next-generation NGSO ‘constellations’ (1,000+ satellites)

⇒ **The price per bit has to come down to enable continued growth in a 5G eco-system**



Battery-operated Sensors
Deploy & Forget in remote areas
Typical applications: Water management, e-Farming