

# Sensors & Communication

No Wires no Worries!



# Who am I?

A&D SC  
Sensors &  
Communication



**S**

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# The most common wireless technologies...

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## Wireless LAN

### Range

- up to 100 m.

### Data rate:

- up to 54 Mbps

### Frequency band:

- 2,4 GHz or 5 GHz

### Power consumption

- high



## Wireless HART

### Range

- 30 - 100 m.

### Data rate:

- about 250 Kbps

### Frequency band:

- 2,4 GHz

### Power consumption

- low



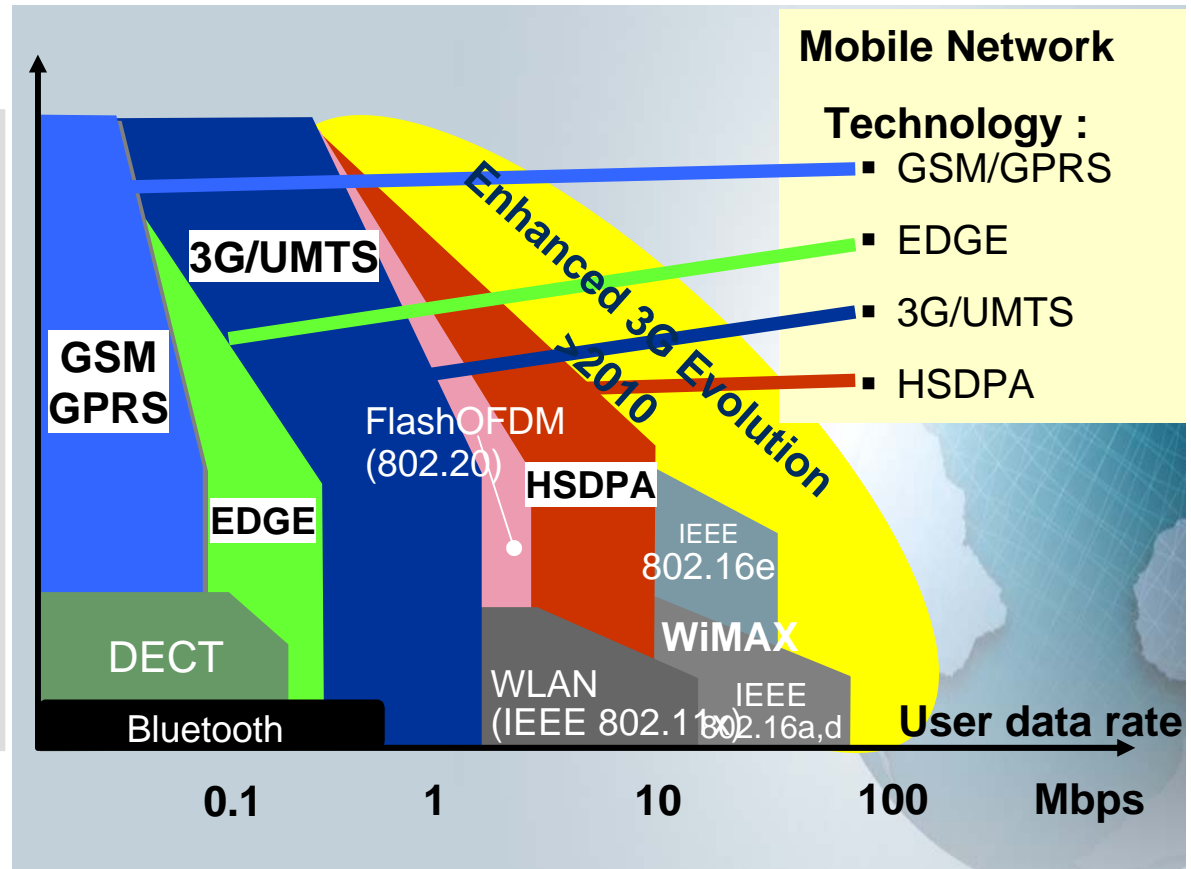
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# Wireless networks...

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## Mobility / Range

Vehicle	High speed
	Vehicular rural
	Vehicular urban
Walk	Pedestrian
	Nomadic
Fixed	Fixed urban
	Indoor Personal area

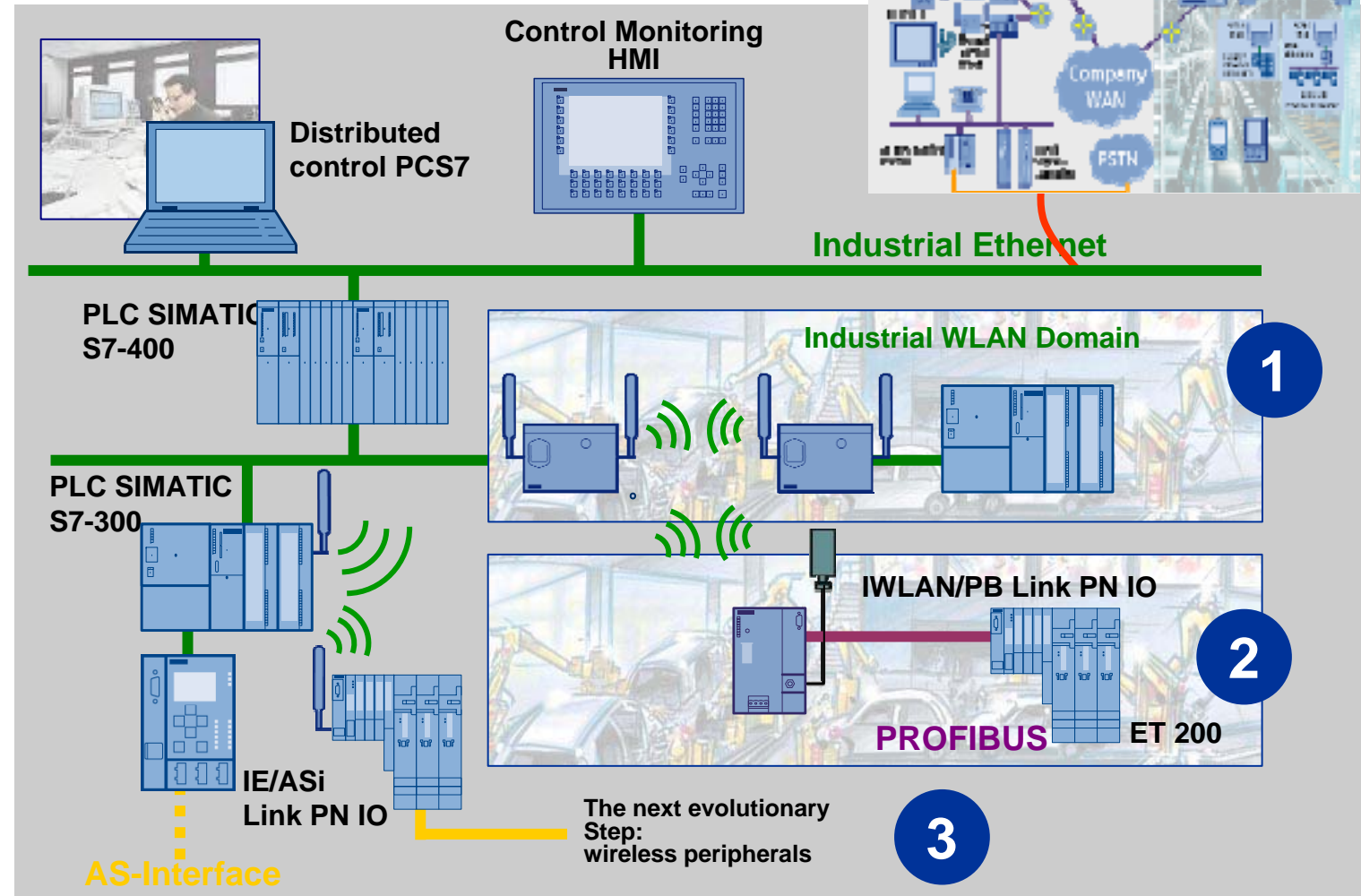
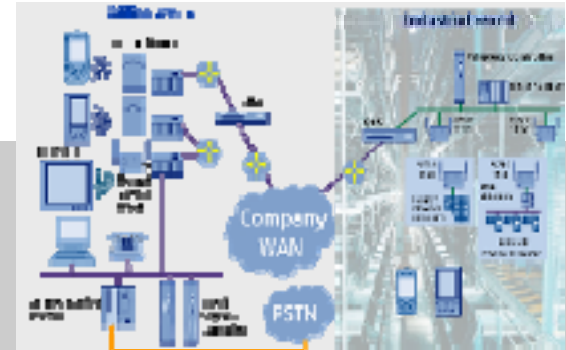


Note: basis is the respective carrier bandwidth of the technology

# The Wireless enterprise network...

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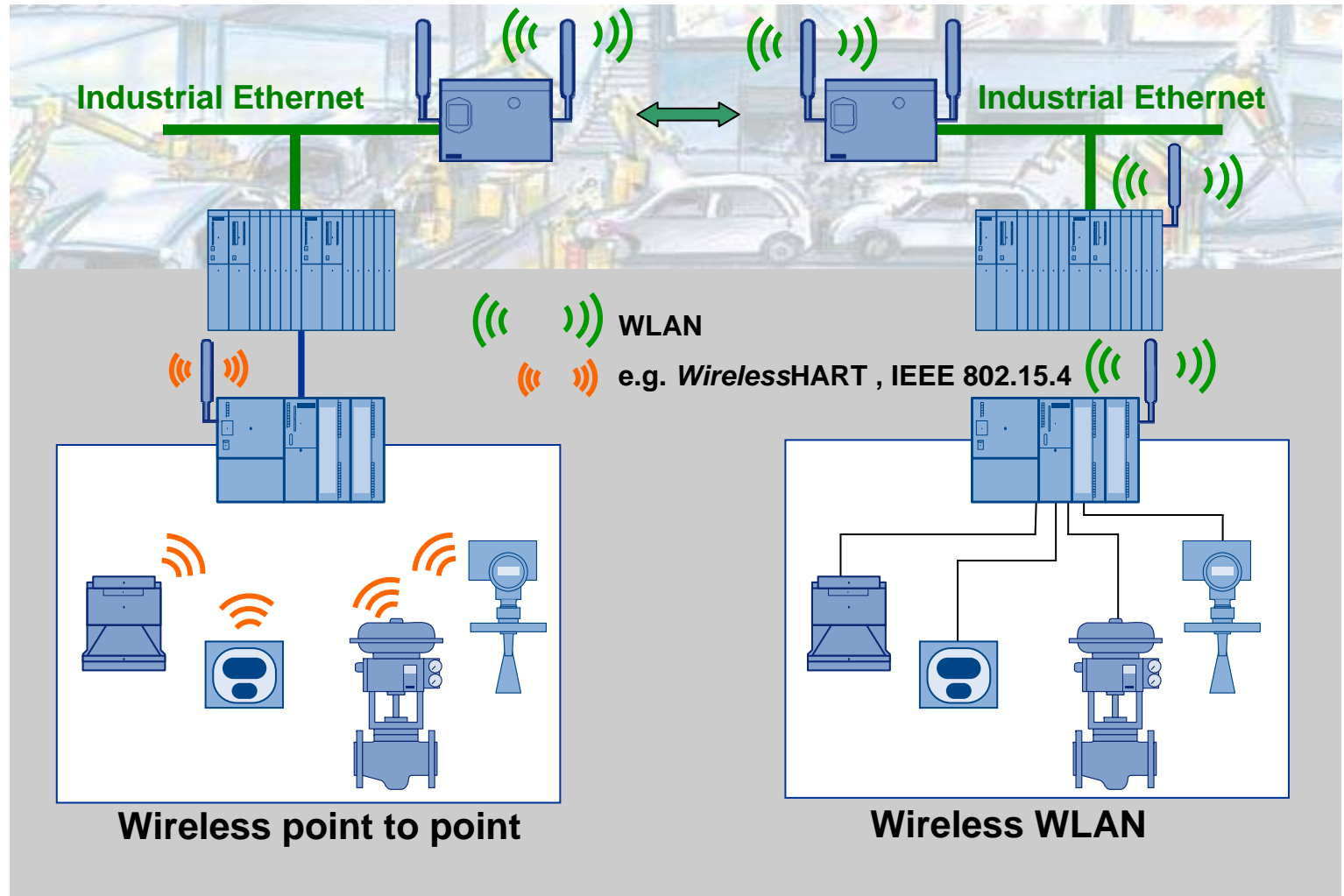
Wireless  
Enterprise



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# Wireless networks working together...

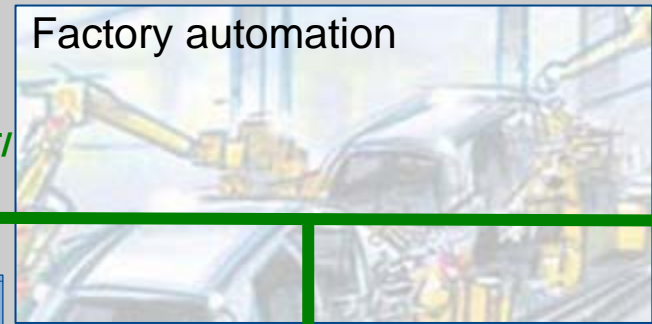
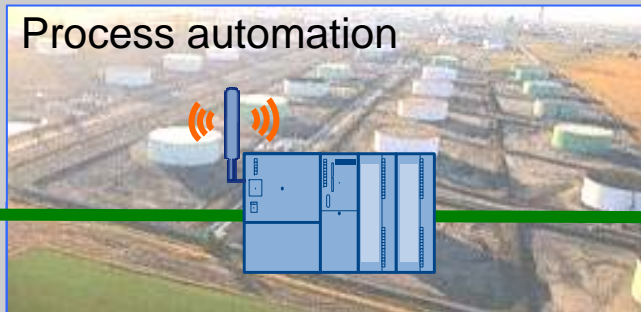
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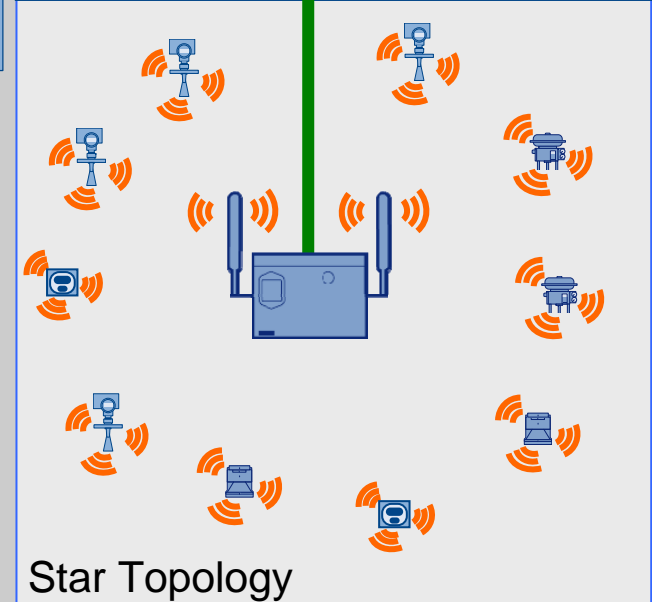
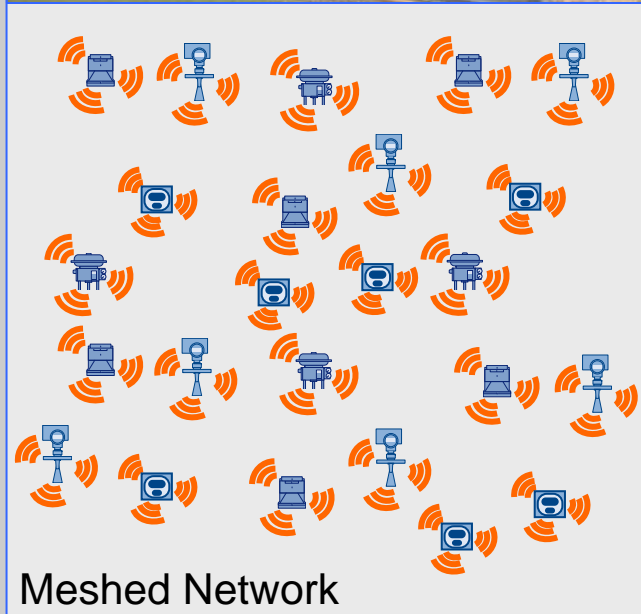
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# Two worlds two different topologies...

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PROFINET/  
Ethernet

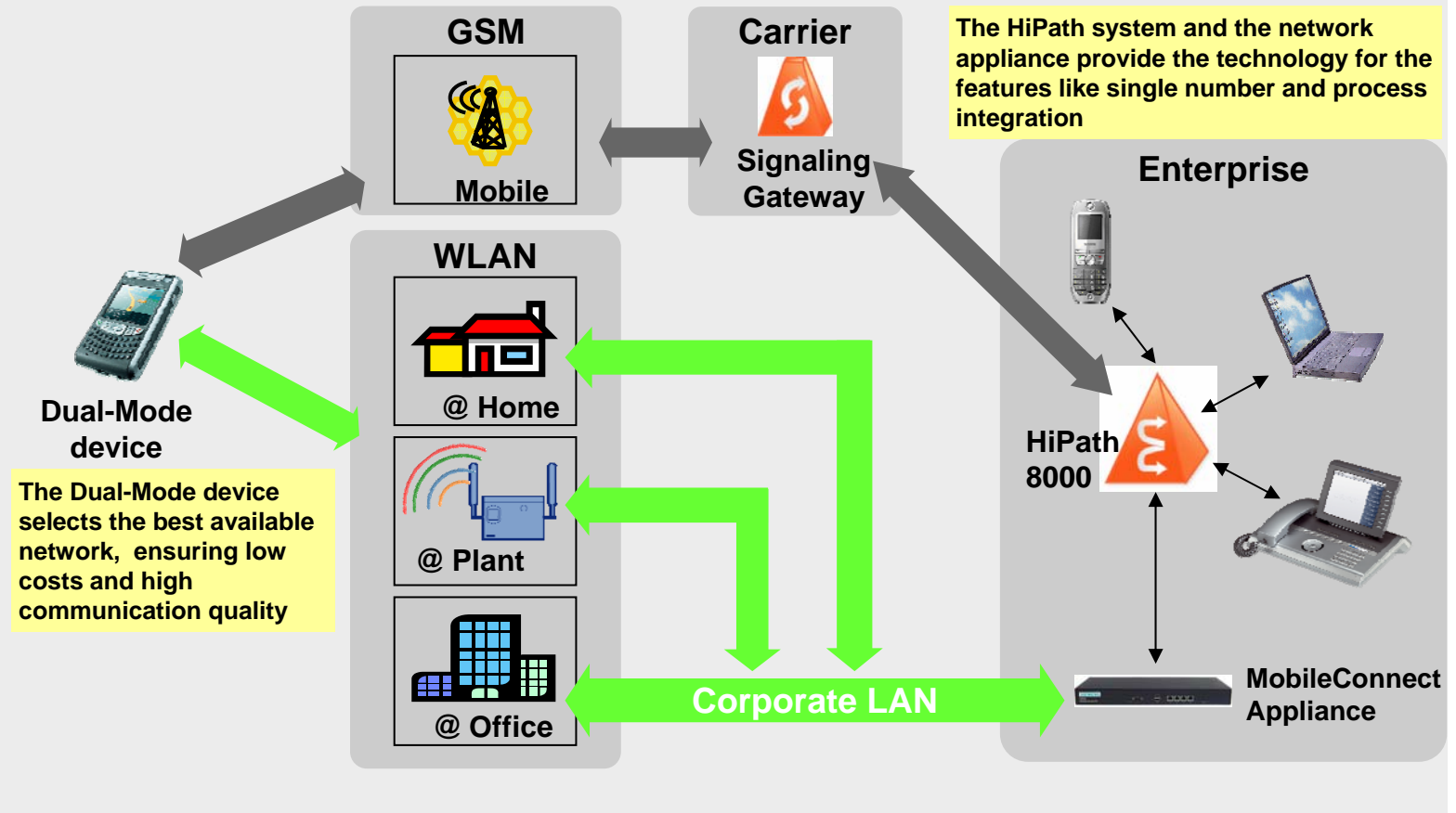


📶 e.g. *WirelessHART* , IEEE 802.15.4



# Integration of Voice and IC...

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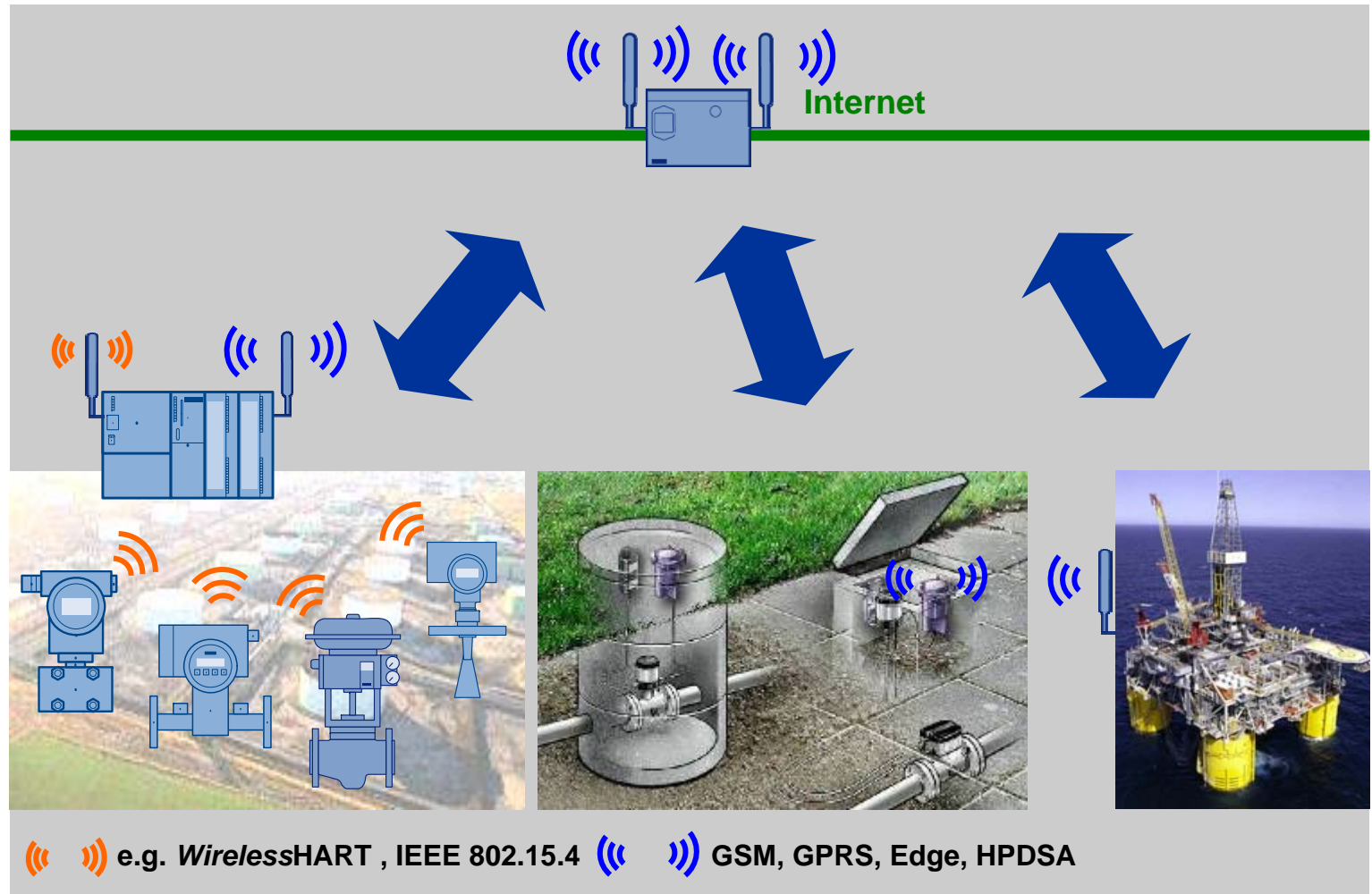


## Roaming between WLAN and GSM

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# Wireless long range sensor communication

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**Thank you  
for your attention**



**Any questions  
or comments**



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