

الأكار متت العربة تللع لوم والنكنولو جتا والنعل البحري

Arab Academy for Science, Technology & Maritime Transport



International Maritime Transport and logistics Conference Toward Smart Ports

13-15 March 2016 Hilton Green Plaza – Alexandria - Egypt

Presentation Title: INTERNET OF THINGS IN LOGISTICS: TOWARDS AUTONOMOUS LOGISTICS & SMART LOGISTICS ENTITIES

Name

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IOT Connecting the Unconnected

It's often said that we are witnessing the next

major st

When w

Connecting all things is possible. Change is coming.

Expand your reach.



industry

ve light

up "dark assets" - DHL

Contents

Concept & Vision?

What Made IOT Possible?

Applications & Best Practices

IOT in Logistics & Supply Chain

A Case of Collaborative Supply



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Concept & Vision



The term was first coined by Kevin Ashton – Auto ID center MIT

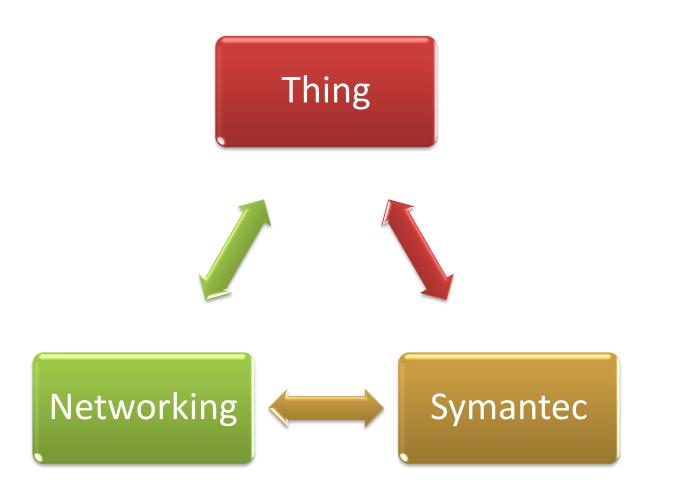
First official use in 2005 by International

Telecommunication Union (ITU)

IOT has so many definitions depending on the perspective.

Three perspectives of IOT

Major Perspectives of Viewing IOT



IOT or IOE



CISCO: IoE, the Networked Connection of People, Process, Data, and Things

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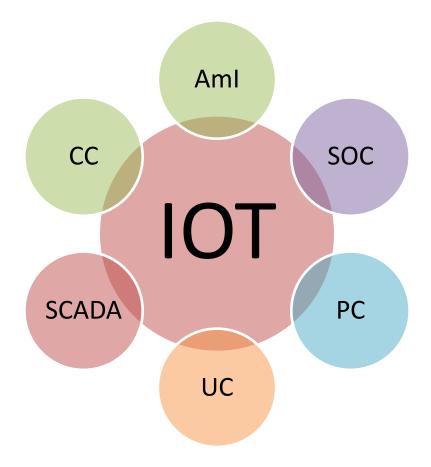


What Made IOT Possible

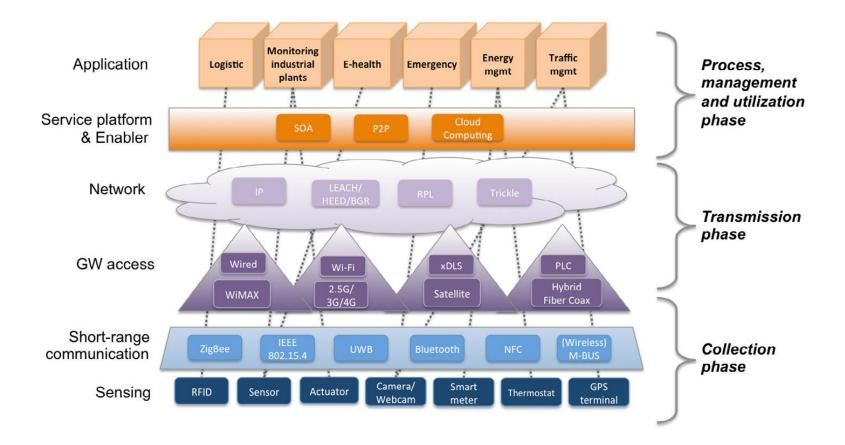
- Integrated circuit technology
 - Miniature
 - High computing capability
 - Low power
- Wireless technologies
 - Reaching everywhere
 - Low power



A Mirage of Different Technologies



Application Architecture



E. Borgia: Horizontal representation for IoT applications

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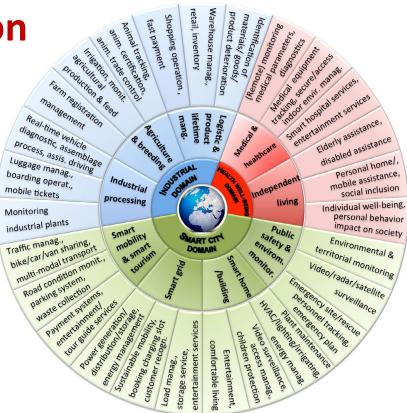


IOT Application & Best Practices

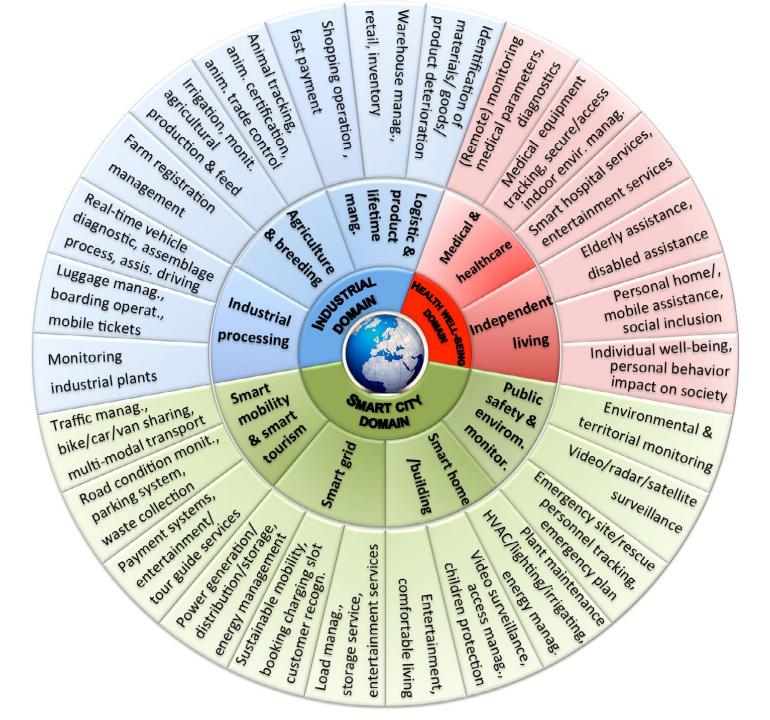
Main domains of application

- Industrial domain
- Smart city domain
- Healthcare & well-being

domain



E.Borgia: IoT application domains and related applications



IOT Application & Best Practices

Best practices

- Operational Efficiency
- Safety & Security
- Customer experience
- New business models

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IOT IN LOGISTICS AND SUPPLY CHAIN

IOT is Sensing & Sense Making in the world of

Logistics



Cisco Consulting Services, 2015

IOT IN LOGISTICS AND SUPPLY CHAIN

Some use cases:

- Warehousing operations
- Freight transportation
- Last-mile delivery



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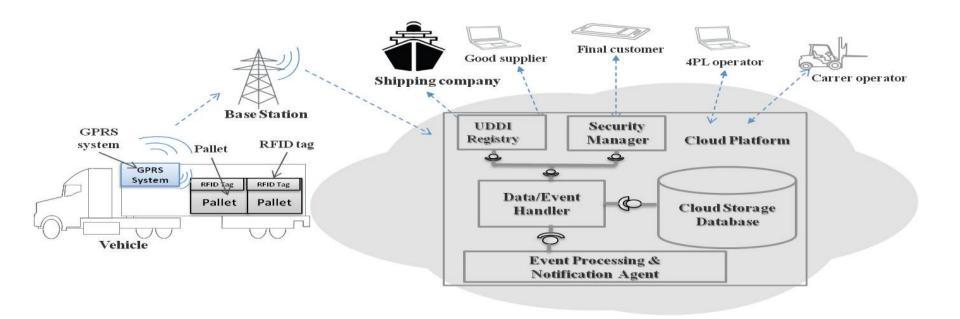
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THE CASE OF COLLABORATIVE SUPPLY CHAIN FOR TRACKING PALLETS AND CONTAINERS:



D. R. Gnimpieba, A. Nait-Sidi-Moh, D. Durand, and J. Fortin, "Using Internet of Things technologies for a collaborative supply chain: Application to tracking of pallets and containers,"

