

Need for a glue in Internet of Things

23/10/2013

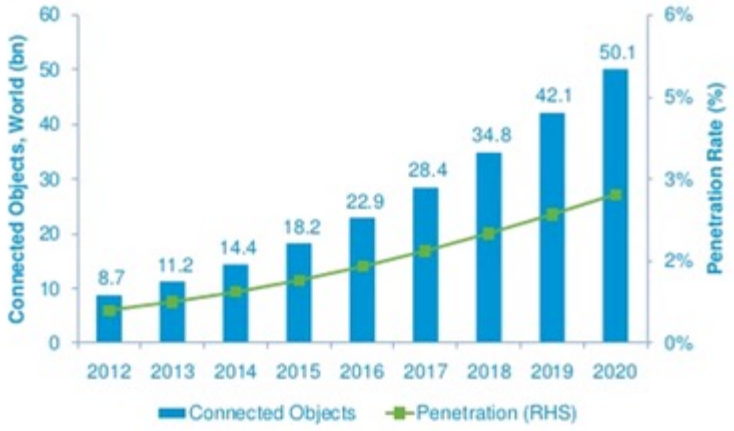



The
INTERNET
of THINGS

IoT – Teaser

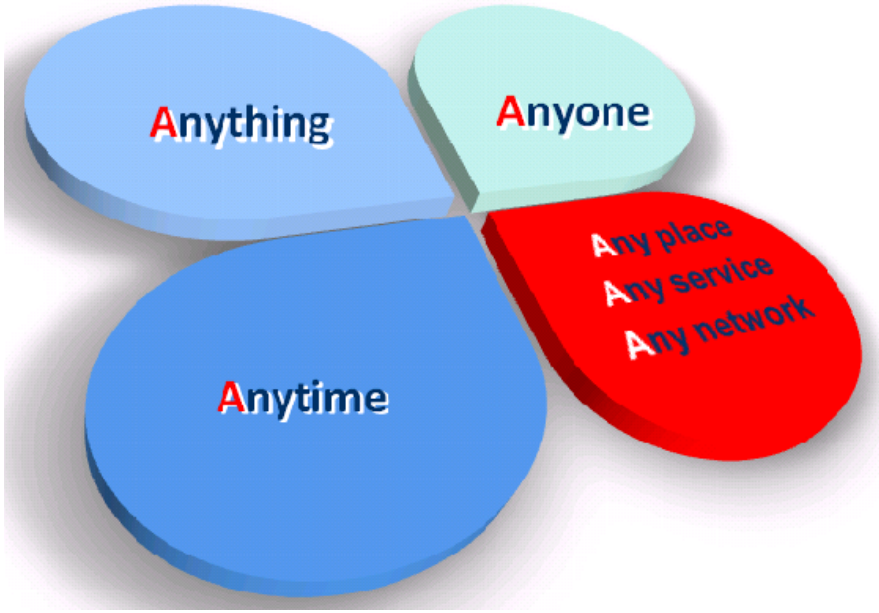
GSMA ANNOUNCES THE BUSINESS IMPACT OF CONNECTED DEVICES COULD BE WORTH US$4.5 TRILLION IN 2020

Number of Connected Objects Expected to Reach 50bn by 2020



Penetration of connected objects in total 'things' expected to reach 2.7% in 2020 from 0.6% in 2012

Source: CCS, 2013

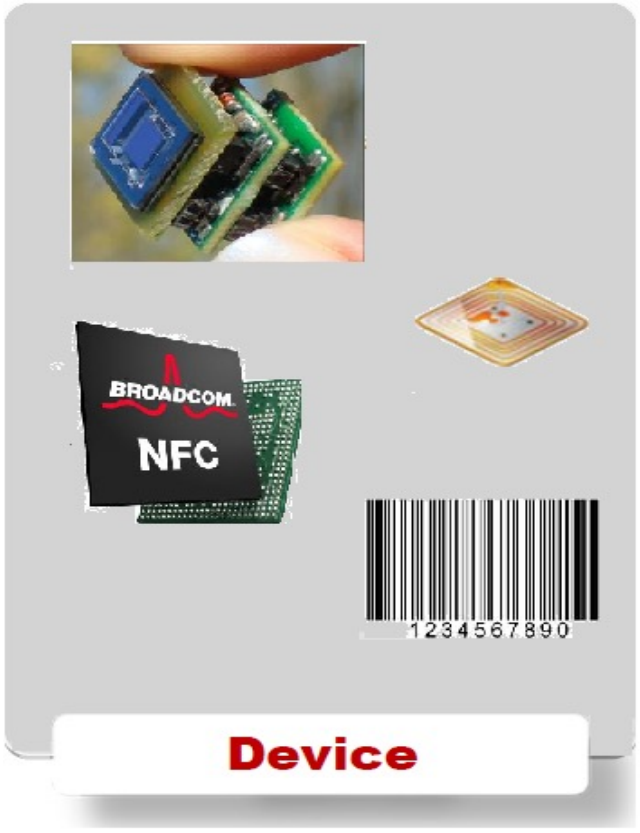


What is a thing ?



Making the thing smart





Examples of a « thing » becoming smart



- Allergènes
- Origine : fr
- Prix : 0.50 €
- @ Auchan



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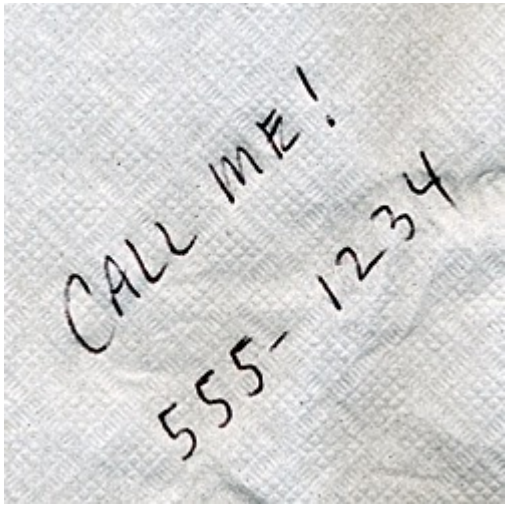


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IDENTIFIERS

Identifiers we use every day







Identifier Hierarchical Structure

- ✓ IP addresses : 129.113 7.156
  - ✓ Prefixes – IANA, RIRs, ISPs
  - ✓ Hosts – Configured by the network administrator
- ✓ Telephone numbers : 33 1 39 30 83 00
  - ✓ Country Code – ITU
  - ✓ National Destination Code
  - ✓ Subscriber Number
- ✓ Domain names : www.afnic.fr.
  - ✓ Unnamed Root – IANA
  - ✓ TLD - Registries
  - ✓ Domain holders

Identifiers for devices associated with « things » (1/2)



Hierarchical structure for device Identifiers associated with « things » (2/2)



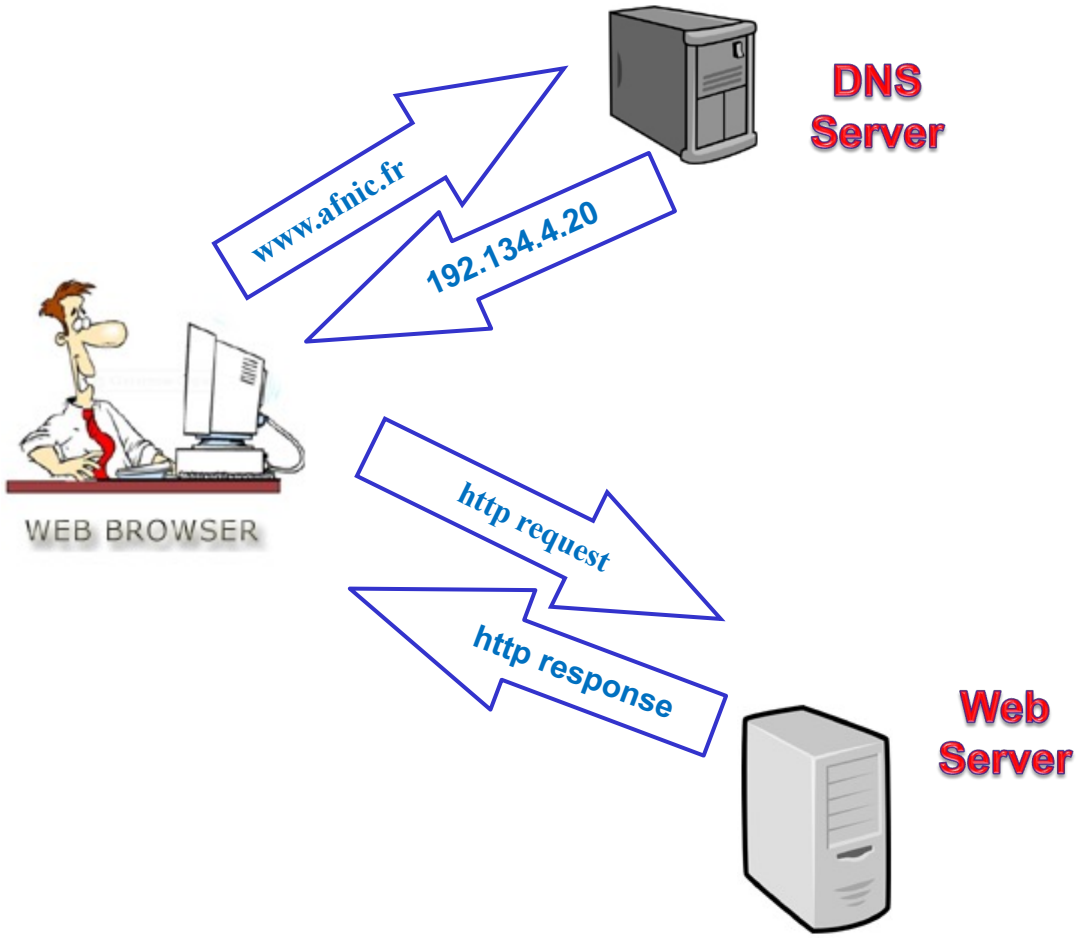
01.0000389.000162.000169740

Header	Company Code	Product Code	Serial Number
8 bits	28 bits	24 bits	36 bits

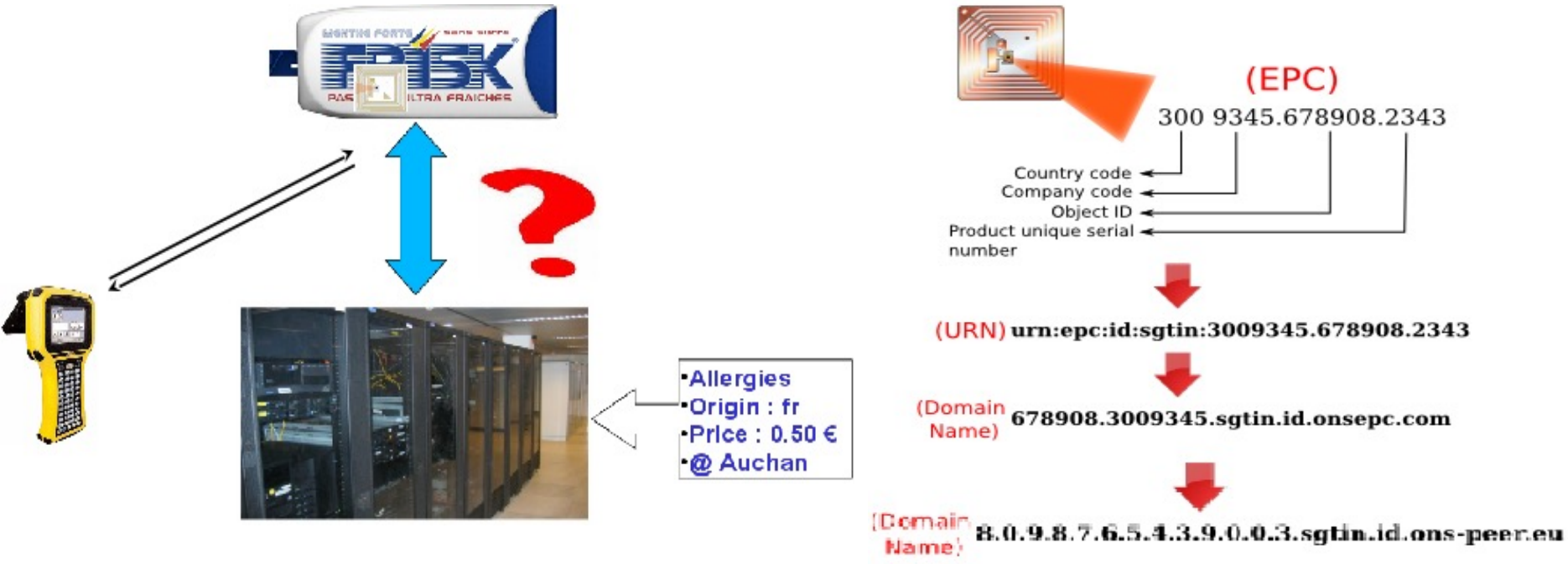
2001:0db8:3c4d:0015:0000:0000:1a2f:1a2b

Site Prefix	Subnet ID	Interface ID

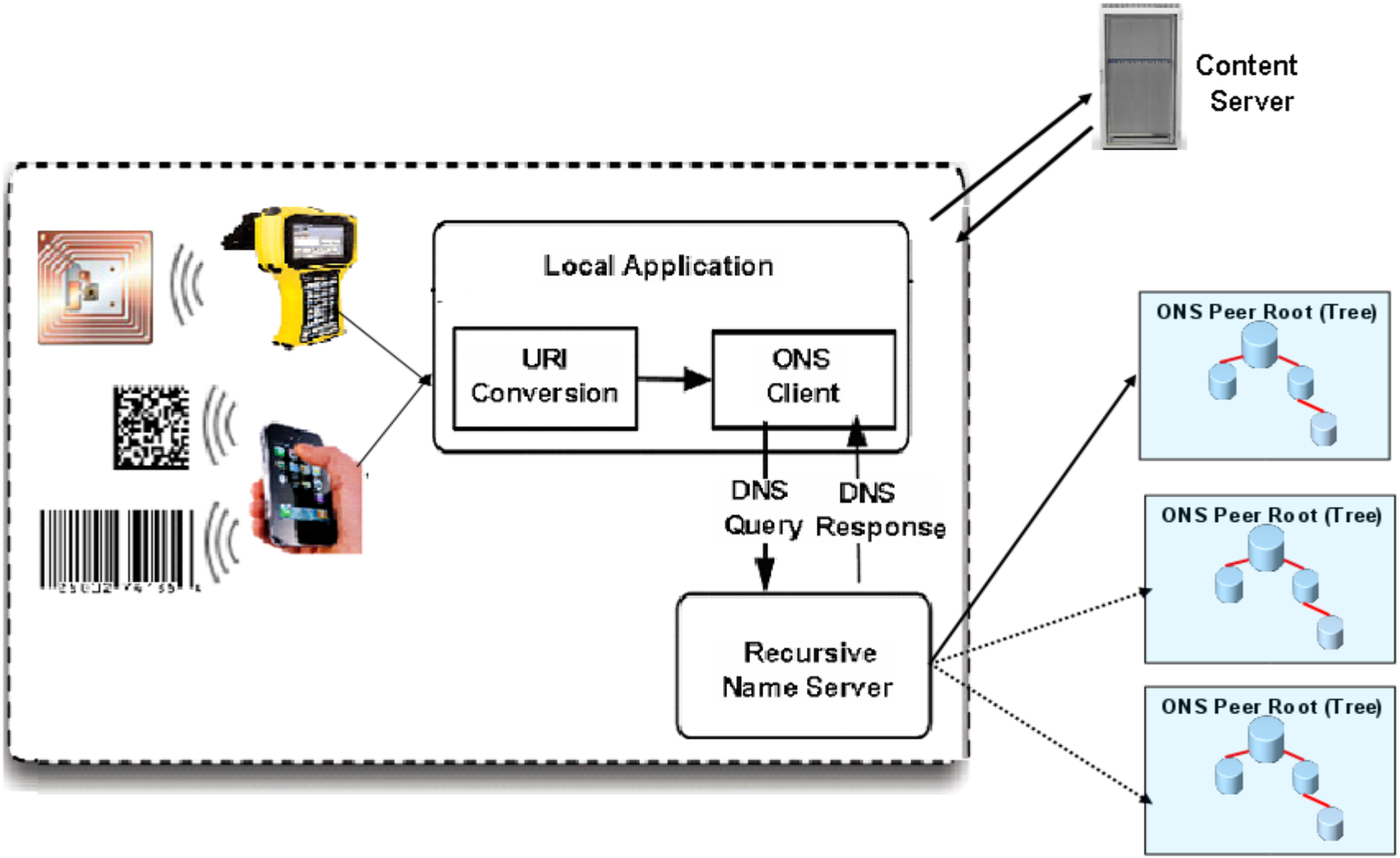
DNS – The « glue » in Internet



DNS – Could be the « glue » in IoT



Afnic's Federated ONS platform



Afnic asserting the role of DNS in IoT

- ✓ Principal contributor of the ONS standard 2.0.1 other than GS1 Canada
- ✓ Principal contributor to the EU IoT Expert group on Identification

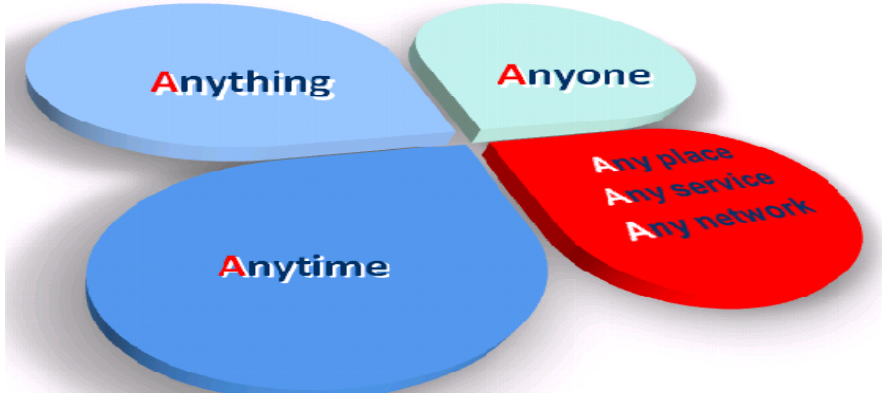
WINGS ANR
Widening Interoperability for Networking Global Supply Chains

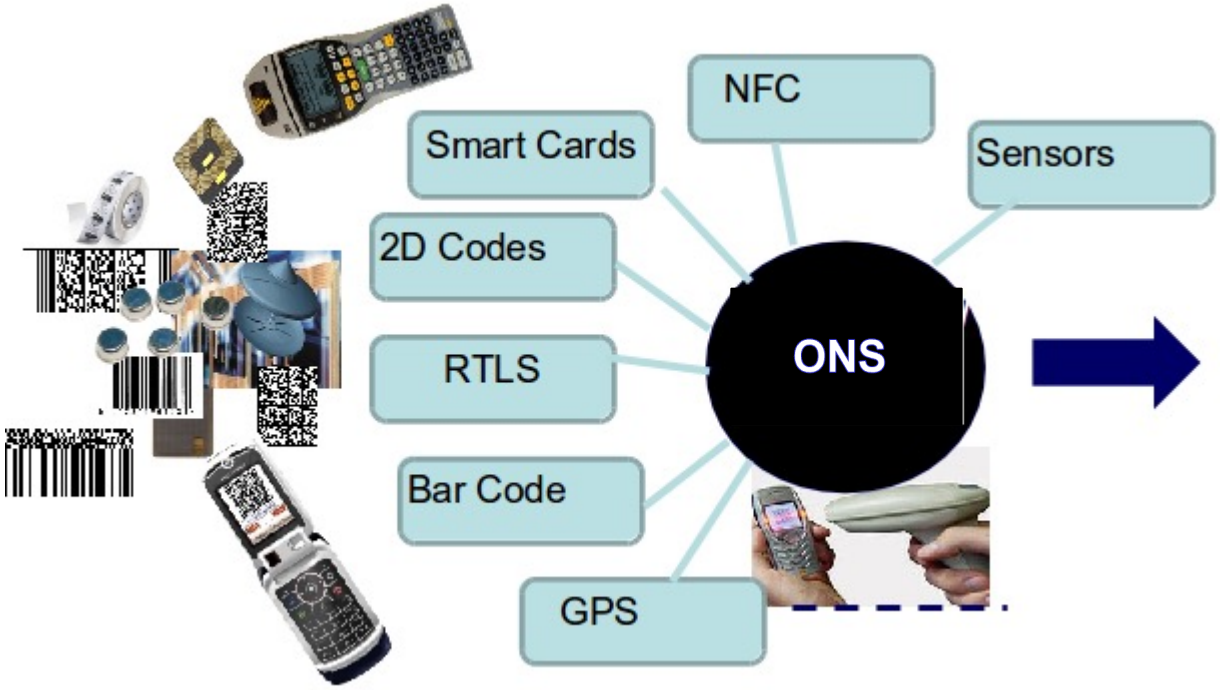
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Why ONS (i.e. based on DNS)? and not a restricted database as the « glue »





Indo France Research Collaboration - Importance

- ✓ Smart cities will need smart networks
- ✓ Building smart networks need a global approach
- ✓ Complement the expertise and strength of each Country
- ✓ Well established scientific collaborations between India and France both in research collaboration and Higher education
- ✓ I am a product of such collaboration

Merci !



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