

# Internet Governance and the “Internet of Things”

By Salem M'ZEBLA

Director Associate & CTO – RFIDIS Consulting –

Phone : +33 (0)6 64 70 56 23

Email : [smzebla@rfidis.fr](mailto:smzebla@rfidis.fr)

Web : [www.rfidis.fr](http://www.rfidis.fr) (Under Construction)

## Internet Governance and Object Identifier

With the new development of the radio frequency's technologies and the common use of the 'Internet of Things', the debate around the Governance of Internet becomes sharpness and it will be urgent to define new rules of Internet Governance.

Indeed, the part of business Internet in the economical development of States weighs more en more and it will grow exponentially with collaborative network enterprises. We see the importance of RFID and all derivation technologies as Mobile-to-Mobile [M2M], Near Field Communication[NFC], etc.

The questioning which is on board is who will govern the Internet with neutrality and transparency. The answer which seems to us evident would be organizations having universal rules such as UNO, WHO, etc... or else neutral and collegial representative authorities.

The rules of Internet Governance would be under international written engagements of neutrality and impartiality. No states, no governments, no organizations would not obstructs and slow down the development of Internet. We must preserve the three foundations of the Internet: opening, neutrality and interoperability.

We see the predominance of United-States in Internet Governance and his economics' interest in the development of RFID technologies. European Union was late in the interest of RFID but seems make efforts for lost time. European Union (in particularly: United Kingdom, France, Germany) have master advantages in nano-technologies and software development.

## Object Naming Service [ONS] Root Server

VeriSign has been selected by EPCglobal Inc™ (January 12, 2004) with Request for Proposals to manage and operate the Root ONS Server<sup>①</sup> (the core of the EPC Network).

VeriSign have historically acquired good competencies in DNS management, security services, Public Key Infrastructure management [PKI] and naturally EPCglobal Inc™ have designed de-facto VeriSign as the alone company be able to administrate the Root ONS Server. The technical choice of VeriSign Inc. Company seems to us not groundless overview his know-how and means of production. VeriSign provides highly robust “backend” infrastructure for securely operating and maintaining the two largest generic top level domains (gTLDs) – .com and .net. He also administrates the A Root Domain Name Server and today the Root Object Naming Service [ONS] Server.

VeriSign is also certificate authority and then has de-facto a captive market and is able to provide billions of certificates and PKI to the manufacturers, suppliers and retailers in the “Internet of Things” market.

## Transparency and Privacy of the “Internet of Things” in an Open World

In a free-market where the economics' stakes of states are more and more crucial; which guarantees are delivering to companies to keep confidentiality and privacy their own information's exchange with their trading partners across the Internet network?

How to make sure the neutrality of private operators (ie. VeriSign) in case of intense lobbying in commercial negotiation [WTO] or in case of competitive industries (ie Boeing - Airbus Industries).

<sup>①</sup> Ref : [Implementing The Root ONS \(Nov. 2005\)](#)

## China position and perspectives

We can't abstract China as active part of the EPC Global Network. China is the manufacturer of the world. Sixty per cent of consumer product goods [CPG] are manufactured in China and Asia Pacific.

China experiments the implementation of a new Internet protocol IPv9 not interoperable with the rest of the Internet but especially with the creation of an alternative root in the DNS for the Chinese international names.

China became aware of stakes in the RFID's technologies as new vector of economic development. The authorities wish to become an active contributor in authority of normalization and aspire to be a major actor of the development of products labelled at source among others.

China have produced a new report on "RFID Technology Policy in China" (June 9<sup>th</sup>, 2006) released by 15 Ministries and Commissions including Ministry of Science and Technology [MoST] of Popular Republic of China [PRC].

China government and authorities are well engaged in the development of RFID technologies and are involved in collaboration with international normalisation instances.

China has willpower be a lead actor in radio-frequency technologies development.

## Europe involved in ambient networking

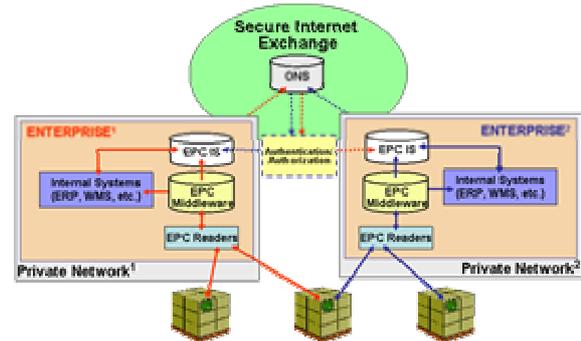
European Union has launched a large consultation about RFID technologies and its technical, social and privacy impacts<sup>2</sup>.

European's project is to take the lead in radio-frequency technologies in his privileged knowledge sectors :

- Nano-technology (Minalogic) ;
- Adaptive Supply Chain Network (SAP) ;
- Software (Capgemini) ;
- Cryptosystems (Thales) ;
- Mobile Payment (Consortium).

<sup>2</sup> RFID Consultation EU : [www.rfidconsultation.eu](http://www.rfidconsultation.eu)

European enterprises must build an Internet 'RFID' backbone similar able to offers a suitable framework for "Internet of Things" with RFID-enabled services such as European Root ONS, Register Authority Certificate and all related services (outsourcing services for middle market).



- Fig. 1- EPC Network Overview (Source EPCGlobal)

## Conclusions

We see that RFID technologies pass through cooperative networking with a large worldwide consultation.

The economy is worldwide, the Internet is worldwide, and the commitment is also.

Nothing can be really done and achieved without a large global consultation (USA, Europe, China, Asia, etc...).

We have to draw the outlines of a new economic framework of Internet Governance able to be independent, neutral and transparent for peoples, organizations and enterprises.

Economic and political stacks are involved for future. We must define new rules for a new Internet Governance and its applications.

The historical structure of Internet is to be a universal vector of information (economic, cultural, social and political) 'opened' and 'accessible' to each without discrimination. Will the increasing weight of the economic vector of the Internet still allow us to keep these foundations?