
Telindus - to boldly go where no WIFI has gone before...

10 May 2012

together with

belgacom

tango

Agenda



- Telindus Luxembourg
- Overview of the Partnership project
- Success stories

Telindus Luxembourg

telindus
belgacom ICT

together with

belgacom

tango



Telindus:

- More than 300 experts based in Luxembourg
- 30 years of experience, PSF since 2005
- Continued development of new services on top of innovative technologies
- Offices in Luxembourg and Esch/Alzette
- 3 Data Center presences in Bettembourg and Bissen
- Telecom operator

Partnership project: Connect every WiFi device to every WiFi access



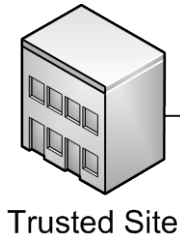
- WiFi is almost everywhere
 - Outdoor WiFi networks
 - Private WiFi cells at homes
 - Corporate Networks
 - Hotspots on Airports, Hotels, Cafeterias
 - Mobile Hotspots (Tethering)
- Most supported access type on end-devices.
 - Communication Gizmos
 - Free spectrum makes it deployable by anyone
 - 2 billion devices by 2014
- Objective: Make every WiFi network useable by anyone
 - This is not a question in terms of functional features but a security question
 - Today: open and insecure vs closed network
 - Tradeoffs usually come with strong limitations

Good or bad?

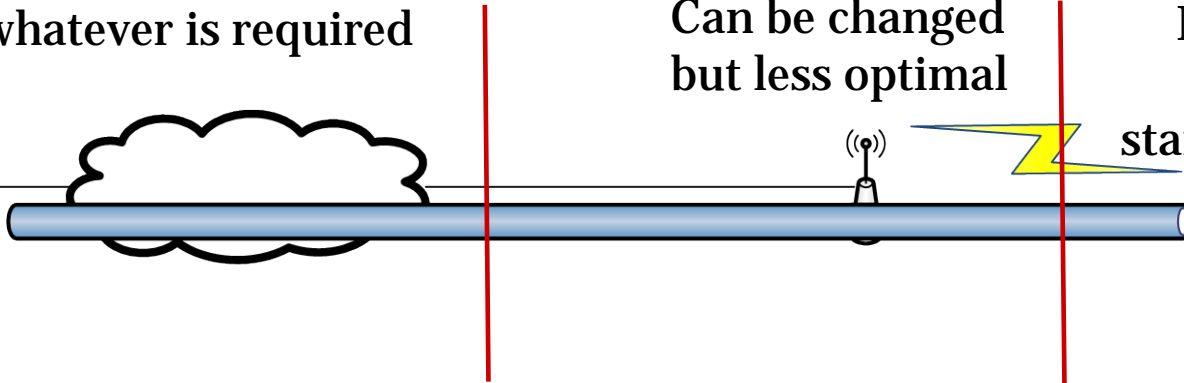


Dead by Security

Change to whatever is required



Trusted Site



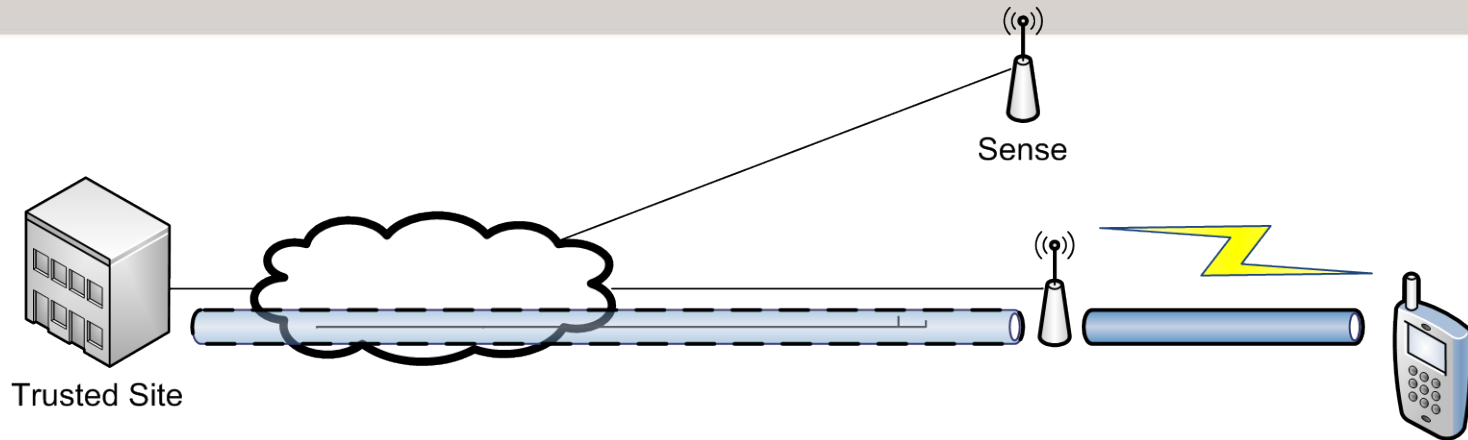
Can be changed
but less optimal

No changes =
WiFi using
standard protocols

- Need for end-2-end security functionality on end device (e.g. VPN client)
- Possibly a screen, browser or keyboard for credentials
- We want any device to connect = no VPN



Concepts Elaborated jointly with SnT



- Confidentiality, Authenticity, Integrity, ...
 - Something like: Radius + 802.1x with untrusted NAS
 - WiFi encryption between trusted site and client
- QoS, DoS, Rating and incentive protection
 - Compare radio traffic with data traffic by using other WiFi cells as sensors and/or redundant paths
 - Client reporting/rating after roaming
 - Sensor/clients might be untrustworthy, too

Snt PPP research as catalyst for innovative business



- Research projects have a long term character
 - They require a certain amount of freedom and often the outcome is unknown
 - They contribute to long term strategies
 - Through publications, workshops, PoCs, they make in-house expertise visible
- A continuous mapping of intermediate and side results with ongoing business and demands make the PPP commercially valuable
- Successful solutions derived out of the PPP activity
 - WiFi AP as VPN replacement for teleworkers and home offices
 - AP as Remote PCEF
 - Centrally define WiFi user centric products (quotas, bandwidth, firewalls, routing)
 - Activate, control and enforce them on remote side dynamically and on demand
 - 3G offloading with user transparent authentication
 - Coming soon: Support for Tethering scenarios

Thank you

6/22/2012
