Enabling proximity services via LTE device broadcast

LTE World Summit 2014, Amsterdam RAI

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THESE ARE BROADCASTERS.
BROADCASTING VARIANTS
NEED FOR LTE BROADCAST DEPENDS ON USE CASES

Key drivers:

Demand for suitable use cases
- Simultaneous mass content push, local storage on devices
- Linear mobile IP-TV, Multi-channel
- ...

Availability of scalable standard technology: eMBMS
LTE PROXIMITY SERVICES BASED ON D2D BROADCAST

Key drivers:

- Evolving demand for proximity services in different areas
  - Social apps, hyper-local marketing and classifieds
  - Proximity as new vector for mobile advertising
  - Public transport, infotainment
  - Many more
- Availability of technology: Device-to-device, standardised as 3GPP “Prose”

[Watch on YouTube: http://www.youtube.com/watch?v=cDIP6j3yaB0]
**LTE PROXIMITY: DISCOVERY AND BROADCAST**

### Discovery
- Signal discovery and filtering against user relevance (filters)

### Broadcast
- Signal broadcast (<500m): "tickets/concert/…"
- LTE, licensed spectrum.
- Range classes
- Interoperability across all networks and devices.
- 3GPP-standardised enabler, exposed to 3rd parties via developer APIs.
- Manifold business models thinkable, to be defined.
- Offering 2 concert tickets now!
- Subscription & authentication
- Content storage
- Security & fraud prevention
- Billing

Content pull via network
USER EXPERIENCE:
MEET FOR COFFEE
Who of my LinkedIn contacts are at LTE World Summit?
Turn on LTE proximity function
LTE proximity function = ON
LTE proximity function = ON
LTE proximity function = ON
LTE proximity function = ON

How have you been?
USER EXPERIENCE: ITALIAN PLACE
I am hungry
LTE proximity function
= ON
LTE proximity function = ON
LTE proximity function = ON

I love Italian food!
USER EXPERIENCE: BUS APPROACHING
Need to catch the next bus. Do I have time for another coffee?
LTE proximity function = ON
LTE proximity function = ON

ALERT
BUS 872 approaching
LTE proximity function = ON

ALERT
BUS 872 approaching
USER EXPERIENCE: 
... YOUR IDEAS?
TAKING PROXIMITY SERVICE ENABLING TO NEW LEVEL

Location-based Geofencing

+ Installed base
+ Mobility support

Beacons (LE Bluetooth)

+ Low power consumption
+ Indoor support
+ Limited signalling traffic

Foursquare, Google Maps, ...
iBeacon, Fyx™, Bitplaces, ...

3GPP Prose (Rel.12/13), LTE Direct

+ Telco grade quality and reliability
+ Reach via native device implementation
+ Flexible proximity levels (20m ... 500m)
+ Highest security & privacy level due to independency from central platforms
THESE ARE BROADCASTERS.
THESE ARE BROADCASTERS.

- Anybody joining for soccer match?
- I have 24 vacant parking lots!
- Get two meals pay one!
- LinkedIn member #162451549
- Anybody to share a taxi? Going to RAI!
- Happy hour until 6pm!
- Dating app member #2414145
- Sale voucher!
- The Eiffel Tower is an iron lattice tower ...
- I am for rent!
- Selling 2 concert tickets!
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LTE PROXIMITY SERVICES @ DEUTSCHE TELEKOM

- Product working title: “LTE Radar”
- Support 3GPP “Prose” standardisation.
- Friendly Customer Trials in 2015.
- Commercial launch 2016, depending on availability of infrastructure and devices.

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YOUR QUESTIONS PLEASE.