Business roles enabled by Ambient Networking to provide access for anyone to any network and service

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Overview

- Introduction
  - Ambient Networks Project
  - Problem Domain
- Network Composition
  - Composition agreement
  - Compensation
- Value network
The Ambient Networks (AN) Project is part of the European Community's Sixth Framework Program for research and is as such funded by the European Commission.

AN is a founding project of the Wireless World Initiative.

More AN information like project public deliverables and publications can be found from the project website; http://www.ambient-networks.org

The vision of AN is to provide access for anyone to any network and service (after 2015).
Problem Domain

“Services”
Core Network, Billing, Customer care
RadioAccess

Operator A

Operator B

Unbundling

Company M
Company N
Company K

Company D
Company E
Company F

Company X
Comp. Y
Cmp. Z
Cmp. U

Customers of A

Customers of B

All customers or end users
Problem Domain

- **End user**
  - enjoy seamless service experience
  - control cost (of access)
  - number of contracts (C2B)

- **Business actor**
  - provide seamless service experience
  - control (transaction) cost
  - number of contracts (B2B)
Network Composition

- A unified framework enabling dynamic interworking between networks based on a common agreement
  - “On-the-fly” establishment of agreements
  - “Plug and play”
    - Dynamic
    - Automatic (once triggered)
  - Both technical and commercial aspects supported
Composition agreement

1. Media sense
2. Discovery / Advertising
3. Security and internetworking establishment
4. Composition agreement negotiation
5. Composition agreement realisation
Compensation

If agreement is ad hoc and on the fly compensation should be handled ad hoc and on the fly as well.

Compensated Party

Compensation Helper

Compensating Party

Ambient Network 1
(Compensating Party)

Ambient Network 2
(Compensated Party)
New roles

❖ To reduce complexity for the end user
  • Service Aggregator
  • Retail Access aggregator
  • Retail Access broker
  • Compensation Service Provider

❖ To reduce complexity for business actors
  • Wholesale Access Aggregator
  • Wholesale Access Broker
  • Trusted Third Party
  • Clearinghouse
Value network: easy

End user

- Service provider
- Service aggregator
- Wholesale access aggregator
- (Local) access provider

End user

- Service provider
- Service aggregator
- Retail access aggregator
- (Local) access provider

indicates flow of value
Value network; service oriented

End user

Service provider

Service provider

Service provider

Access broker

Access aggregator

(Local) access provider

(Local) access provider

indicates flow of value
Value network; all in one
Conclusions and Future Work

- The AN concept of any user connecting to any network and the main concept of ‘composition’ enable new business models and new business roles to be played by new actors.

- The development and research work is continuing in the AN project to study:
  - Compensation and charging
  - Overall feasibility (qualitative and quantitative)
  - Business requirements
  - Migration