reTHINK General Overview

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ETSI NTECH#13, December 16th 2015

This project has received funding from the European Union’s Horizon 2020 research and innovation program under grant agreement No. 645342, project reTHINK.
Summary

✓ Structure
✓ Objectives
✓ Achievements
✓ Next Steps
reThink consortium

- Operators: Orange, Portugal Telecom, Deutsche Telekom
- SME: Eurescom, Quobis, APIzee
- Academics: IMT, TU Berlin, Fokus Franhofer, INESCID
reThink Work Breakdown Structure

WP1 - Use Cases and Business Models

WP2 - Overall architecture

WP3 - Core framework implementation

WP4 - Governance and Security model implementation

WP5 - Scenario/Service implementation

WP6 - Integration, End users experimentation

WP7 - Dissemination activity/Impact management

WP8 - Management
OBJECTIVES
A New paradigm

Federated Distribution Model
Telco federation agree on the new communication service ⇒ Each Telco distribute to its own user base ⇒ The Telco federation distribute region-wide / world-wide.

Horizontal Distribution Model using Identity Providers; Cloud Providers and Network API (SDN)

From here

To there?
Two Ways, Two worlds

- Old Fashioned Federated Telco World
  - Federation requires well defined standards to enable universal interoperability
  - Telco federation is worldwide (although locally regulated) but standards agreements takes a long time
  - Lack of differentiation between Telco, limited Innovation, High Delivery Costs
  - Strong Trustful Identity
  - Reliable Service

- OTT World, Vibrant but Walled Garden
  - OTT Silos locked-in:
    - Can't interoperate with users from other domains
    - No portability of Identity or User Data
  - OTT are not constrained by Standards
  - OTT are much more competitive and Agile
  - OTT are leading Communication Innovation
  - Privacy issues
Third way: Changing the DNA of Telcos and Webcos

A new GENOME: Good Enough Network of Moving Endpoints

- It is a change of DNA for Telcos
  - Position services between VoLTE and VoIP
  - Non-territorial, quick to launch
  - Independent identities
  - Adopt ‘Good Enough’ QoS service
  - Accept 3rd party software downloads to devices

- It is a change of DNA for Webcos
  - Independent identities
  - Interworking with non-subscribers
  - Collaborative QoS routing with SLA
Opportunities and Solutions

- Beyond Web Calling and Telco networks, reTHINK proposes:
  - Global, rich, contextual,
  - Instant inter-operability for non-subscribers
  - Open to all, unlicensed,
  - Easy development for new startups
  - Few standards, no waiting for adoption

- Based on a distributed framework on the Web:
  - New paradigm focused on the User
  - Choice on Trust level
  - Choice on QoS level
  - Based on the Hyperty concepts
  - No inter-service standards
  - Minimal core network platform, low cost infrastructure
  - Applied broadly to any communication mean (H2H, M2M)
Identity & Trust

- **Identity is User’s**
  - Users choosing their Identity provider
  - Same ‘public’ identity for several services (not service-bound)
  - Users can choose and change service providers easily
  - No lock-in to any service

- **Subscribing to multiple calling services**
  - Subscribe to Skype, Facebook and Orange (web-Talk) for different services

- **Trust becomes explicit**
  - Related to the social network

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No Silos,
No lock-in
No exclusivity
Supporting QoS aiming at Net Neutrality

- reTHINK enables Online QoS Communication
  - QoS enforced by media relays through the Internet
  - QoS is enforced by policy gateways (driven by session control)

- reTHINK Provides a framework for ANYONE to offer web calling with QoS
  - Looking forward to avoid degradation of competing flows
  - QoS is access controlled through brokering

- QoS by collaboration – not Federation
  - Internet style reciprocal collaboration
  - Multiple business models
ACHIEVEMENTS
Objective 1: To provide a communication framework based on hyperty concept

What we have achieved

– A common understanding of the overall functions
– Definition of the hyperty understood by all
– 95 requirements to be analyzed and taken into account
– A full disruptive architecture
– First technical deliverables D2.1, D2.2, D3.1, D4.1

What we must achieve

– Implement Phase One
– Create testbeds
– Deploy
Objective 1: Highlights

An architecture based on the Hyperty concepts: distributed framework, deployment on the clients node of the service logics
Interoperability means with the Protocol on the Fly concept
Objective 2: To design and develop security and portability features

What we have achieved

– State of the art
– Identify some use cases
– Stated about discovery feature
– Delivery of D4.1
– Portability functions
– First architecture on identity/security issues
– Developed main building blocks

What we must achieve

– Refine Design
– Develop client identity features
– Deploy first services
Objective 2: Highlights

A disruptive identity and trust model that will fit to any customer need, from H2H to IoT communications.
Objective 3: To examine the business impact of the concept

**What we have achieved**

- Wide range of use cases
- Value chain analysis and business models
- Business processes
- First deliverable D1.1

**What we must achieve**

- Iterate and refine
Objective 3: Highlights

New value chain is formed by eliminating redundancy and rearranging value added steps
Objective 4: To validate its effectiveness

What we have achieved

- Wide range of use cases
- Choose first scenarios services to implement
- Identify hyperties

What we must achieve

- Implement first service Hyperties
- Identify architectural issues, or core implementation issues
- Implement and deploy services
Objective 5: To realize standardization and exploitation activities

What we have achieved

– https://rethink-project.eu/
– Participation to Events, and papers
– IETF Draft proposal
– Deliverable D7.1

What we must achieve

– Submit papers
– Support standardization proposals
– Dissemination and exploitation
NEXT STEPS
Developing Further Areas of Research

- Peer to Peer Interaction
  - How far can you go with P2P?
  - M2M with QoS
- Distributed Session Control
  - Empowering endpoints
  - Discovering web users
- Identity and Trust Circles
  - The role of the IdP
  - Native social networking
- QoS over the Internet
  - Conveying QoS policies over Internet
  - Inter network signalling for QoS
- Converged Web-Telecom
  - Context calling, social networking
  - Maximizing local processing of services
reThink next steps

- Provide the phase 1 core framework (Feb 2016)
- Revisiting the architecture based on the phase 1 prototype
- Iterate with the business and architecture work to integrate feedback
- Develop and deliver the first services (May 2016)
- Accelerate dissemination
More information

- [https://rethink-project.eu/](https://rethink-project.eu/)
- [https://twitter.com/rethink_eu](https://twitter.com/rethink_eu)
Thank You!

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