



# ITU-T Kaleidoscope Conference Innovations in NGN

## Mashing the real world with virtual worlds – a monetizing opportunity

Josef Reisinger

IBM

[josef.reisinger@de.ibm.com](mailto:josef.reisinger@de.ibm.com)



Geneva, 12-13 May 2008

# Content

- A bit of terminology
- The role a Telecom Operator
- An integration of real world with a virtual world
- The “service enabling” architecture
- Challenges

# Social Networks

- Internet based applications which link people together.
- Examples include
  - pure social networks such as MySpace™, FaceBook™ and Bebo™
  - business networking such as LinkedIn™
  - Content networking sites like Flickr™, YouTube™

# Virtual worlds

- 3D environments that provide an immersive user experience.
- Examples include
  - ➔ Massive multiplayer online games (MMORPGs) such as World of Warcraft™ (7m users) and Everquest™
  - ➔ Virtual worlds such as Second Life™

# Convergence of Social Networks and virtual worlds

One of the premises of this presentation is the convergence of the social networking and virtual worlds. The term “social networks & virtual worlds” refers to this converged environment.

# Plurality of Social Networks and virtual worlds

- There are a number of virtual worlds and social networks out
- Each of them provide more or less sophisticated communication capabilities for its members

# Plurality of Social Networks and virtual worlds

- But...
- ...what happens if you want to cross the boundaries of one social networks & virtual worlds?
- If you want to talk to your friend in ActiveWorlds™ while you are current online in Second Life™?

# The role of a Communication Service Provider

- Telecom operators can provide services to their customers which connects the social networks & virtual worlds to the real world as well as to connect a virtual world to a social network



# Value for Communications Service Providers

- Generation now growing up sees **all** communications as part of a single conversation which has multiple modes:
  - voice, SMS, IM, blog, email. [Source: University of Cambridge, unpublished 2007]
- Social Networks are enabling new modes of communications (blog, chat, IM).
  - Today social networking sites use web technologies
  - They do not use the functions of existing telecommunications networks.

# Value for Communications Service Providers

- Service Providers can enhance existing social networks and 3D environments with communications using real world networks
  - Enabling the multimodal conversation
  - Provide value to subscribers by mapping social-network identities to MSISDN and/or SIP URI
  - Provide new sources of revenue
  - Retain customers

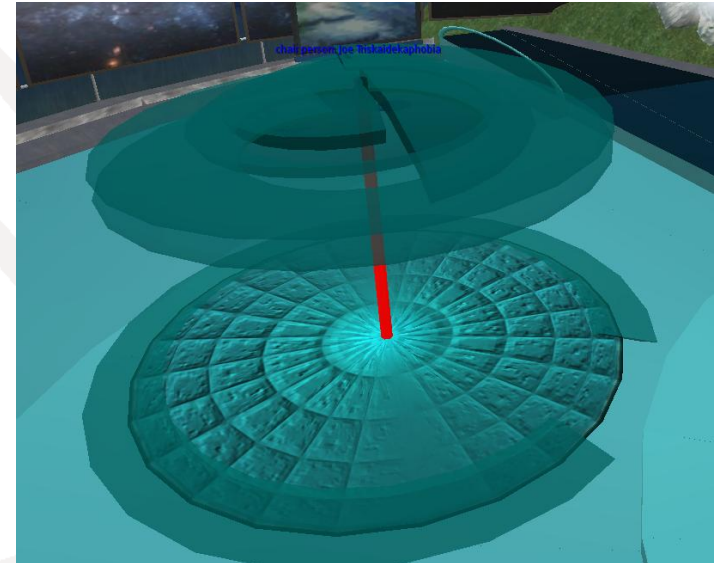
# Send SMS Messages from Second Life™ to Real Life

- Joe Triskaidekaphobia wants to setup a virtual conference with Nicole Sandell and Claude Minnelli
  - Joe does only know the avatar names of the two person he is about to invite
- Joe sends out SMS inviting both to join him on Earth Stage on the Telco Solution Island in Second Life™
- Claude and Nicole are able to reply to the invitation with an SMS from their real-worlds phone.



# Create a conference call from Second Life™

- As Nicole is not able to join Second Life™, so Joe Triskaidekaphobia decides to use his meeting space to create a phone conference on the real-world phones of the three avatars
  - Joe does still only know the avatar names of the two person invited to the conference call.
- Joe and Claude enter the meeting space.
  - As Nicole cannot log into Second Life™, Joe adds her manually to the conference



# Send a video from real world to Second Life™

- During the conference, Nicole wants to share a video with the others in the conference call.
- She uses her phone to record a video and
- sends it as MMS on a screen in the virtual environment



# Bridging Second Life™ chat with Facebook™

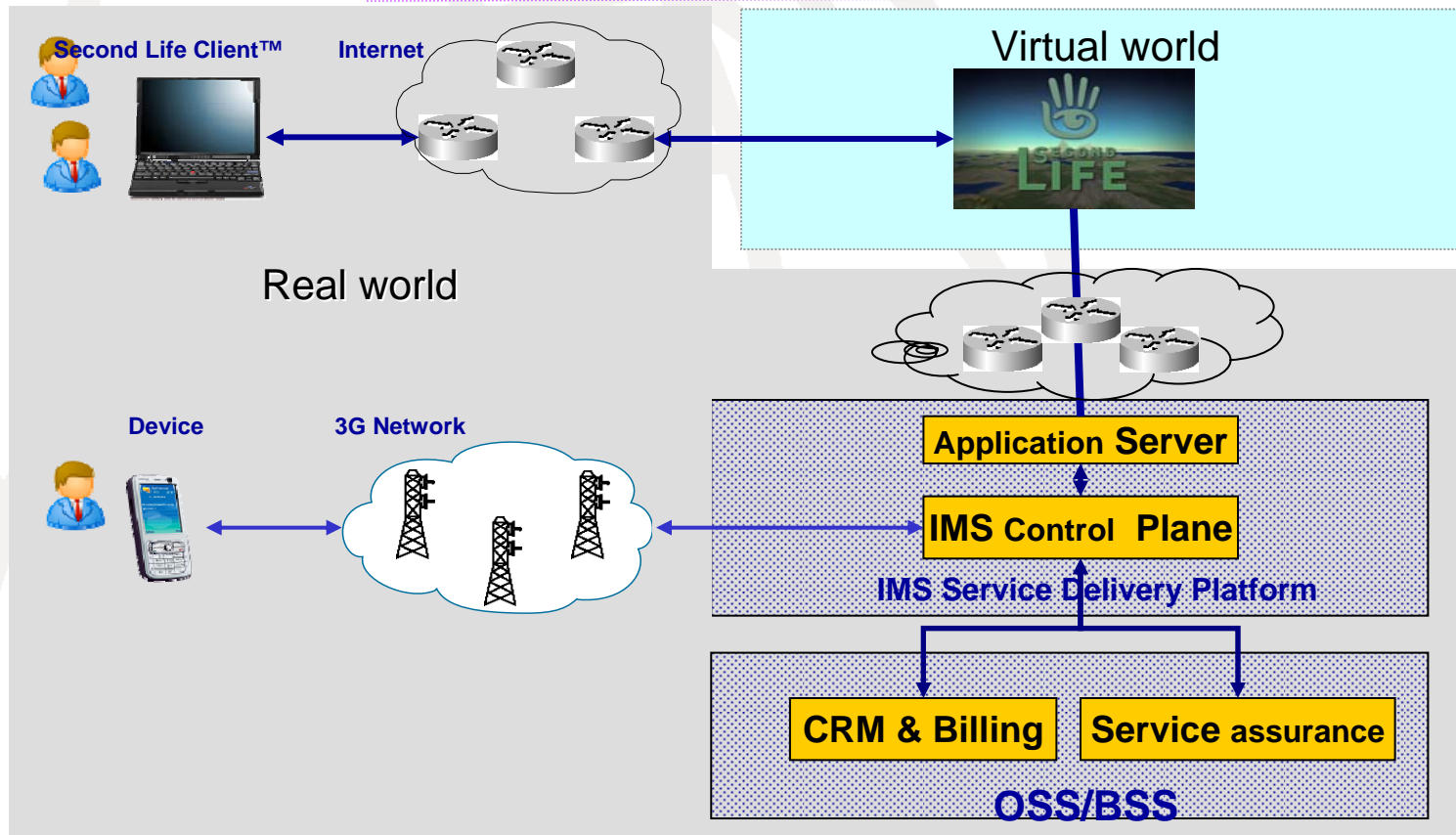
- Nicole wants to join a text based chat with Joe and Claude
- Nicole has her mobile web browser and an account in Facebook™.
  - Facebook™ is a web-based application and does not require a heavy-weight client as Second Life™ does
- Nicole uses an application in Facebook™, which allows her to join the chat between Joe and Claude



# Linking Second Life™ to Real World Communications

- The following slide shows how a Service Delivery Platform was used to connect the virtual environment to real world
  - ➔ Open standards allow easy integration of *existing services* into a virtual environment
  - ➔ Implement as much as possible in the SDP and not more than needed in Second Life™
  - ➔ Existing services can be offered in other virtual worlds and Social Networks as they evolve

# Using a SDP to implement the scenario

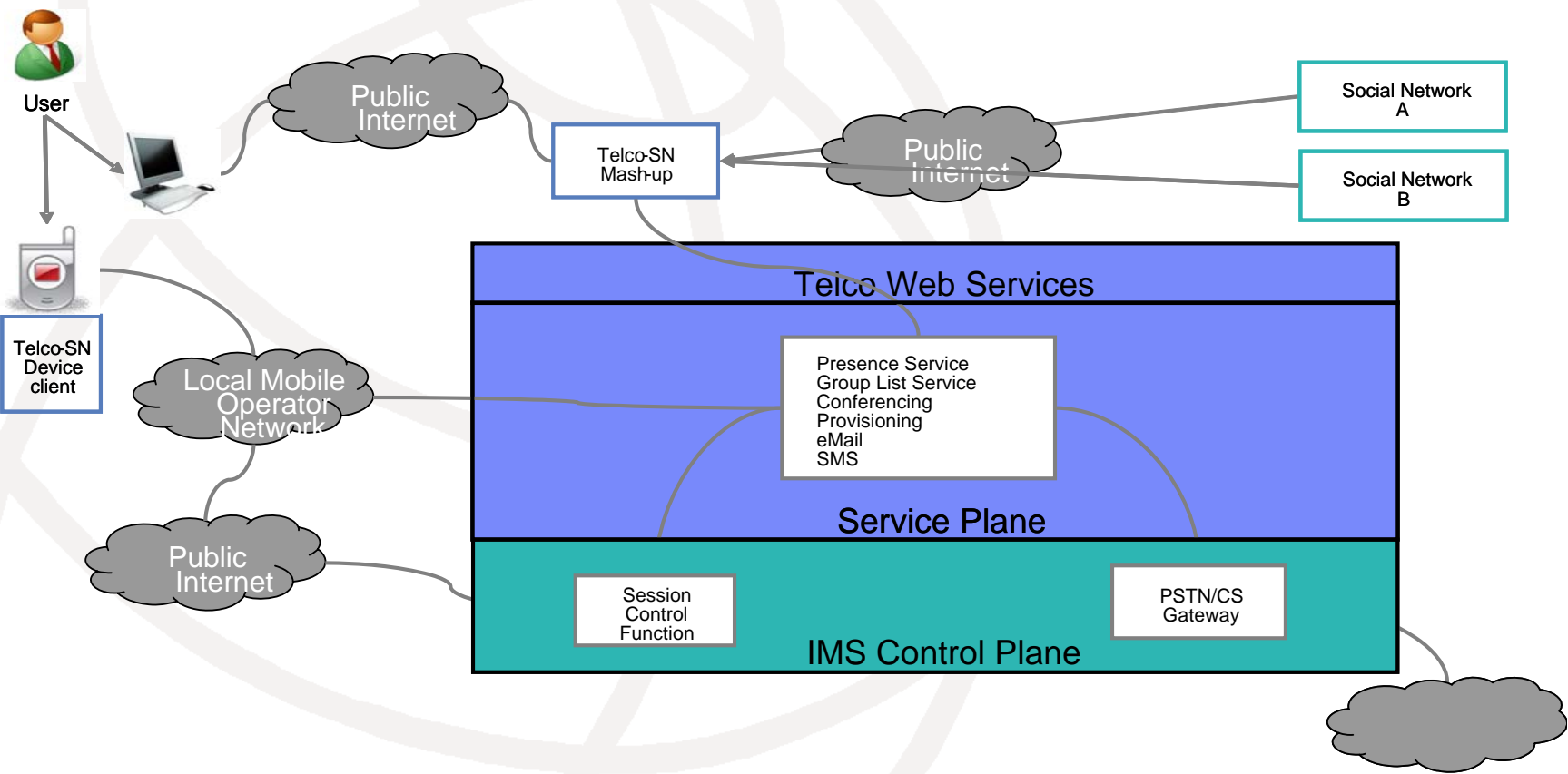




# Broadening the implementation

- A mashup service has been build on top of the same SDP as introduced in the previous section. Some of the key features are:
  - Anonymous one to one and one to many calls;  
A user can establish calls with one or many of his buddies by simply clicking buddies name or picture;
  - Presence awareness;  
A user can see whether his social network buddies are online in the social network or on their mobile device;
- The key components are shown on the next slide

# A mashup-service using telecom enablers



# Challenges

## ■ Interface Standardization

- ➔ Standards bodies like OMA and the Parlay Group work on standardizing APIs to core Telecommunications services
- ➔ The same has not happened for the Social Networks.

## ■ Mismatch in coverage

- ➔ Telecommunications Service Providers traditionally operate inside the boundaries of a country (even if they belong to a multi-national operator)
- ➔ Social Networks have a global reach.

# Interface standardization (1/2)

- There is a core set of services that are common to all Social Networks:
  - ➔ Buddies (friends, contacts,...)
    - Lists of groups of a certain user. Standards like XCAP could be applied, but still every Social Network offers its own API.
  - ➔ Presence (is a user logged in the social network)
    - This service is not widely available but seems to be emerging. A SIMPLE style interface could be applied.
  - ➔ Content
    - Audio, video, pictures that are shared by a user.
  - ➔ Albums
    - Groups of content that are shared and managed by a user.

# Interface standardization (2/2)

- There is a core set of services that are common to all Social Networks:
  - Calendar and social events
    - including events that are scheduled by the user, the list of participants etc.
  - Notifications
    - Message from the outside world to the social network and vice versa.
  - Communication
    - The ability of inhabitants of distinct social networks and virtual worlds to communicate from the world they are logged in to the world the other parties of the conversations are logged in (one-one, many-to-many)

# Mismatch in coverage (1/2)

- Conscious decisions must be made on services mashed with Social Networks:
  - Shall the service only supports the operator's subscribers that are member of a given social network
  - or shall it support all users of the social network.

## Mismatch in coverage (2/2)

- Offering the service to all members of the social network creates special requirements
  - Voice calls will not stay inside the operators network as buddies could be anywhere in the world
  - Messaging – same as above.
  - Location services need to provide location information for any user of the social network, i.e use a location aggregator or rely on the IP-address geo tagging.

# Conclusion (1/2)

- The development of Social Networks and virtual worlds is at the very beginning.
  - Nobody can predict which direction the development will take.
  - Telecommunications Operators, who own both contextual information and service enablers can take the opportunity for monetizing mashed services and extended value chains.



## Conclusion (2/2)

- The concepts and technologies surrounding Web 2.0 are both a significant challenge and a significant opportunity for Telecommunications service providers.
- A leadership position will attract leading edge customers.
- There is strong market demand for innovative, rapidly developed services that companies with roots in the Web excel at creating.