APIs for RCS profile

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Rich Communication Suite: an industry commitment

- The GSMA RCS initiative is the joint effort of leading industry players to speed up and facilitate the adoption of applications and services that provide an interoperable, convergent, rich communication experience based on IMS
- More than 100 companies in RCS
  - 30 of the world's top operators
  - Handsets vendors
  - Infrastructure vendors
  - applications developers

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The changing behaviour of person-to-person communications

- Voice/SMS still majority of today's revenues…
- …but trend is towards an integrated communications experience
- Social networks/communities driving additional traffic
- New usage behaviours and consumer expectations for the "Internet Generation"
- Innovation & deployment cycles reduced from years to months

Who will provide services to tomorrow's customers?

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What RCS means **to the user**

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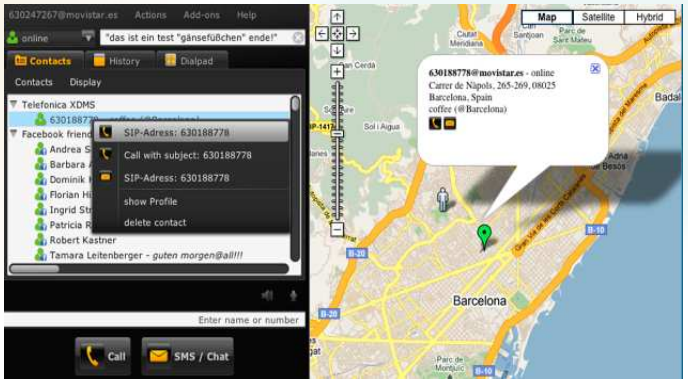
RCS accomplishments

- **Interoperability** testing carried out among the different RCS members to facilitate the Go to Market
  - testing both UNI and NNI
  - On the different RCS releases
- **RCS Release 1** (mobile devices) has been delivered in December 2008
- **RCS Release 2** (extension to fixed devices, PCs) has been delivered in June 2009,
- **RCS Release 3**: delivered in December 2009
  - Addition of the location in the social presence information feature set
  - PC as the primary device



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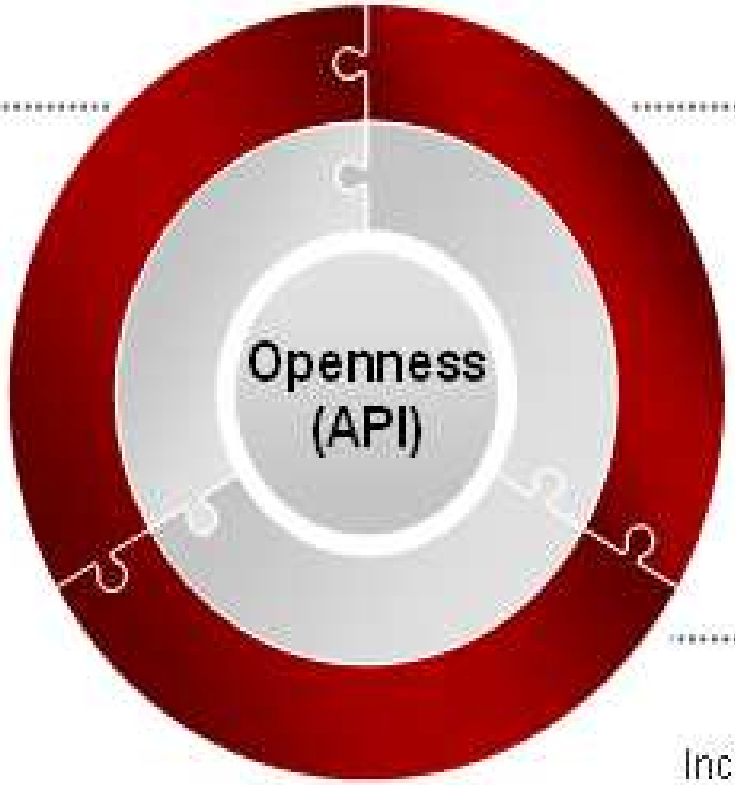
RCS Release 4 Features
Three key objectives beyond openness

LTE

To embrace and accompany the LTE market growth



Enterprise

Extension of RCS to new market segments (SOHO, SME)

Messaging

Increase of the RCS reach by ensuring interworking

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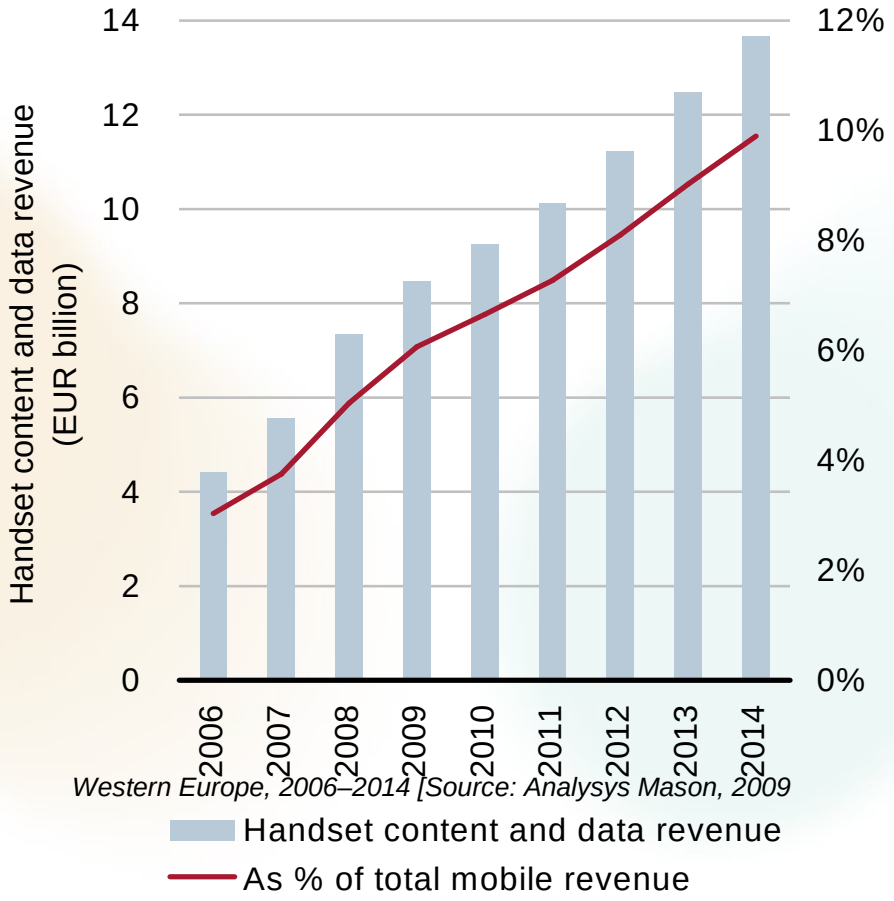
Release 4 Open APIs feature: Business Context

- RCS have focused on creating a solid foundation for delivering end-to-end Rich Communications services based on interoperability. RCS is now looking at delivering more options for service differentiation, to speed up time to market for new innovation and meet changing customer expectations.
- Social networking spreading everywhere
- Data services usage and revenues increasing exponentially
- Revenues from traditional services Voice and text decreasing
- iPhone has radically changed the way innovative applications are sold to consumers and Google Android has reinforced this trend



Western Europe, 2006–2014 [Source: Analysys Mason, 2009

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Open APIs feature for RCS R4

API openness objective is to enhance the value of the RCS by allowing all developers to innovate /leverage these new telco capabilities/ services within their applications

Unlock the distributed innovation and propagate the use of RCS outside the boundaries of the telco

- **Capture the "RCS Long Tail Opportunity":** easily create new applications or functionalities based on RCS services/capacities
- **Enrich the RCS services** usability – value by enabling others to develop incremental functionalities on top of the core telco services
- **Allow ISPs to integrate/use the RCS telco (universal) services** into their social networks

R4 will open key RCS network APIs, using the OneAPI model:

- Chat/IM
- File transfer
- Multimedia Call
- Profile information import/export
- Presence
- Location

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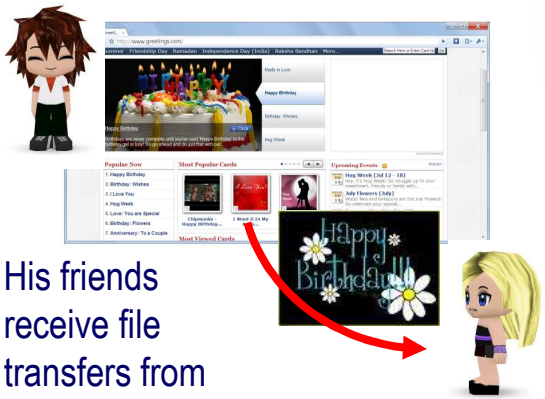
Use case examples

Long-tail application

An internet application allows an RCS user to automatically send greeting cards to the mobile phones of his friends.

Through an RCS API the user can authorize the application to send multimedia files on his behalf to his RCS enabled contacts



His friends receive file transfers from him

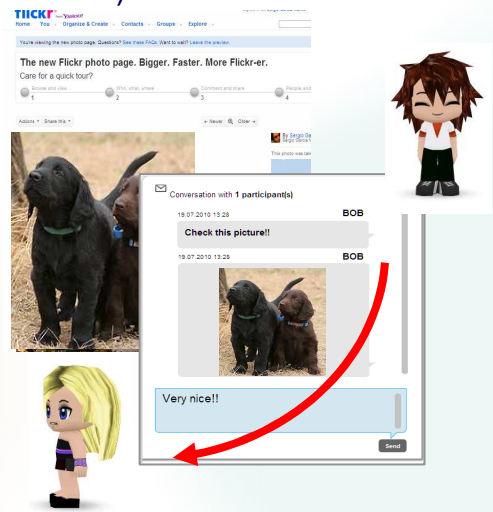
Enhanced RCS services

Set your RCS profile information (ex. picture and status line) to be automatically updated from your profile in your favorite Social Network…

…extending your social network presence to your mobile contacts

integration into Social Networks

A content based social network can allow its users to initiate RCS chat sessions / image sharing with any of their contacts (not necessarily being members of the social network)



Launch of an RCS chat

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Background

- RCS is entering a new phase in its evolution bringing new values and this can be achieved with open APIs. APIs exposure of RCS functionalities has been discussed in RCS project under the GSMA and has been decided to include them in RCS Release 4 that will be finalised end of 2010.
- A first list of RCS APIs and relevant requirements that need to be specified has been already shared with OMA TP, COM and ARC and ARC SEC through LSs.
- OMA TP is having different activities regarding the APIs and RCS is asking for specifying RCS APIs, this is also consistent with the current activities engaging OneAPI and OMA.

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OMA and RCS cooperation

- RCS would like to work with OMA in order to ensure RESTful APIs and create a foundation that can be further elaborated in response to market needs as these evolve.

- Status of socialization:
  - OMA-LS_870-OMA_COM_WG_to_GSMA_RCS_on_APIs-20100614-A
  - OMA-COM-2010-0029R03-INP_Reply_LS_to_GSMA_on_RCS_APIs.doc
  - OMA-LS_869-OMA_ARC_to_GSMA_RCS_on_API-20100611-A, OMA-ARC-2010-0126-INP_ILS_from_GSMA_to_OMA_TP_on_RCS_APIs

  - OMA-ARC-2010-0189-ILS_GSMA_RCS_API_Specification_Plan

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OMA objective and role

- The OMA currently has a strategic objective to specify APIs to expose the functionality of all applicable OMA enablers. It is in the interest of OMA's members to avoid the potential multiplication of competing API sets and the consequent fragmentation of developer communities. Working with GSMA RCS will ensure alignment where needed between OMA, RCS and OneAPI definitions, increasing the usefulness of OMA APIs to developers and greater uptake by the web and internet communities.

- OMA can drive the standardisation of RCS API's for telecom enablers.

- Cooperate with GSMA RCS

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API benefits and OMA opportunities

- Benefits
  - Speed. Need to offer a fast way to get new services and applications to market in "Internet Time".
  - Diversity and Choice. Leveraging innovation that happens elsewhere and providing the mechanisms to deliver these innovations to users.
  - Openness. The base functionality is there, as for all these new apps and services, the user expectation has been set by the Internet and now Social Networking.
- OMA opportunities
  - Reinforce the role of OMA in standardizing access to enabler capabilities through API definition.
  - Support OMA strategy to seek greater market relevance of OMA activities on an ongoing basis.

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GSMA RCS APIs

GSMA RCS request to OMA

- To create **the functional APIs** for the UNI/Long Tail APIs
- To define **the security framework** to support
  - the authentication requirements on the basis of both OpenID and SAML
  - the authorization requirements on the basis of both oAuth and Liberty ID-WSF

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Problem Statement

- OMA has applicable APIs and varying states of readiness:
  - CATEGORY 1: OMA has existing enablers and APIs defined (no additional action required).
  - CATEGORY 2: OMA has existing enablers but APIs are not defined or currently under specification (it may be necessary for OMA to accommodate additional RCS requirements.)
  - CATEGORY 3: OMA has neither enablers nor APIs defined. It is necessary to see if OMA could complete applicable APIs in time for RCS release 4 to reference.
- OMA needs to work with RCS to establish under which category the RCS specified APIs fall and to draft a plan to accommodate RCS's proposal for APIs specifications.

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Achievements and next steps

- A coordination is needed within OMA between ARC, ARC SEC and COM
- a joint conference call will be scheduled mid of September to follow up the on going analysis of RCS requirements.
- a joint meeting (RCS and OMA) could be arrange by RCS beginning of October
- OMA plans to share the draft RCS profile of ParlayREST towards the end of September. OMA ARC has already planned an interim meeting for ParlayREST in Turin, 27-29 October, hosted by Telecom Italia that can be extended with the addition of October 26, dedicated to joint discussions between GSMA RCS and OMA ARC regarding the fulfillment of RCS requirements by ParlayREST.

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Main Use Case(s)

Social Presence Information: Allow to get and to put a set of attributes of subscribers: Hyper-availability, Portrait icon, Free text, Favorite link, Timestamp

Use cases (developer viewpoint)

- Invite Contacts to Share Social Presence, Invite Contacts to Share Location, Capability Exchange, Hyper Availability, Free Text, Portrait Icon Exchange, expiration and/or time of validity
- Integrate SN presence in RCS SPI of my contacts, Integrate SN presence in my RCS SPI, Integrate my RCS SPI in the SN, Integrate RCS SPI of my contacts in the SN

Service Capability Indication: allows a 3rd party application to retrieve the RCS communication capabilities of an RCS user with a single or multiple devices. These capabilities are : voice, video, video share, image share, file transfer and IM session mode

- Usecases from developer perspective
  - 3rd party applications need to know the supported capabilities of a targeted device to deliver communication services.
  - E.g. before a Application2user service can be realised, the communication capabilities must be assured
    - At registration for a 3rd party service by a user, the service provider/application checks if the device is capable for this communication service
    - At service delivery the application can check the capabilities before service initiation if required

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Main Use Case(s)

Chat (*SIMPLE IM based*): allows a 3rd party network application to communicate with RCS users with single or multiple devices. The application will behave as a regular contact for the RCS user.

The application can use this API to initiate a person to person or a person to group session. It must also be possible that an RCS user initials a person –to-application chat session

Usecases from developer perspective

- The API will allow to create an external chat service / chat box, which can target specific profiles/groups, all based on RCS adhoc chat technology
- Chat recording & management in network service
- A network application can use RCS chat to do targeted advertisement to a group of interested RCS users
- RCS users add a specific info service as a contact. This could be a weather service that pushes multimedia weather information based on your location, time or where the RCS user can get multimedia information on demand

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Main Use Case(s)

Video Sharing: allow an application to send, receive, store a video.

Image Sharing: allow an application to send, receive, store an image

Use cases (developer viewpoint)

- Create an application that starts a content sharing between 2 users, or stores the content in the Service Provider's network, converts it as a network based value added service, and propose the 2 users to access the content later on via a link (could be retrieved on mobile, PC, set-top-boxes etc)
- Can be used by the application to stream content to 1 user (subscribes channels etc)

File Transfer : allow an application on a device or in the network to send, receive, store a video, or an image

Use cases (developer viewpoint)

- pushing content (e.g. daily newspaper, weather report, etc)
- collect files for external repository storage or conversion as network based value added service

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