



Rich  
Communications



**Rich Communications Market Opportunity**

# RCS is an opportunity for operators to:

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- Re-invigorate their core product and service portfolios
- Provide more choice and richer services to their customers
- Provide innovative offerings that “sync” with how customers are communicating today
- Retain relevance as the communication provider in the eyes of their customer
- Continue providing robust services underpinned by ubiquity, reliability and reach
- Taken together, these points should compensate declines in revenue by increasing the value of MNO service offerings and setting up a strong alternative to narrower, community-based OTT solutions.
- Create an ecosystem based platform for generating new market relevance and revenue
- RCS takes the narrow & fragmented services offered today by the OTT community and applies the essential ingredient of mobile ubiquity of service.
- Taken together, these benefits of RCS will retain consumers relevance for mobile operators and open new revenue streams by adding value to third party partners.

# What is joyn?

**joyn** is the customer-facing brand to identify and promote the RCS services. joyn makes everyday, mobile to mobile communications more engaging.

**joyn** brings you closer to the people in your mobile address book by combining all the ways you want to be in touch – Contacts, Chat, File share and Video share.



Call



Chat



File Share

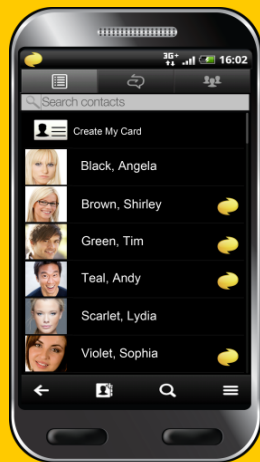


Video Share

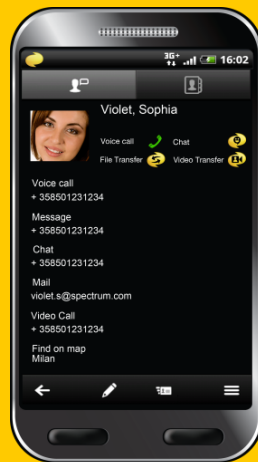
**Launched at Mobile World Congress, Barcelona, February 2012**



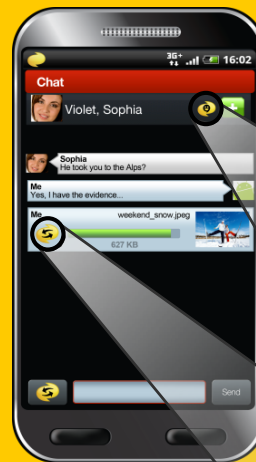
# Core (RCS-e) features: contacts, chat and file share



**Contacts who have joyn**



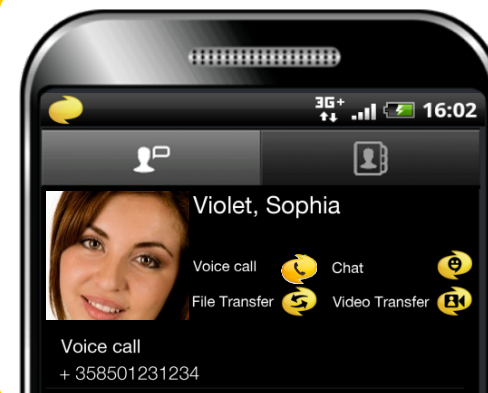
**My contact screen with joyn services available**



**Sharing files during chat is simple**



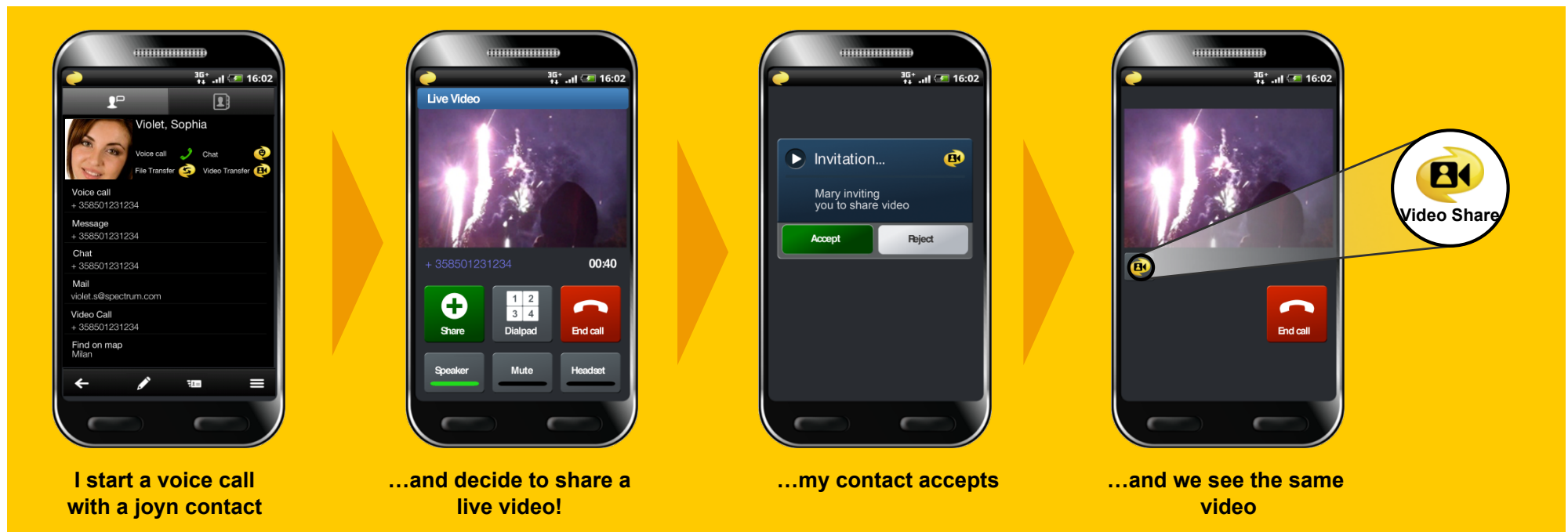
**joyn™ is mobile phone and network aware which means it automatically 'knows and shows' the ways you can share with any of your contacts – via chat, video, call or files – at any moment in time.**



**Here joyn knows and shows that Sofia Violet has all the joyn capabilities and this is shown on her contacts profile, where the icons are all present.**

joyn is a certification trade mark of GSMA

# Core (RCS-e) features: video share within a regular call



*joyn is a certification trade mark of GSMA*



# What is so special about (RCS-e)?

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*“ It’s not about the services... it’s about how we are bringing them to market.... ”*

**It’s just  
there!**

- natively integrated by OEMs in device UI communication flows
- **maximum attainable service penetration** – like voice & SMS - including open market devices
- **automatic service discovery** - customers discover new services in the right place, in the right context

**It just  
works!**

- Dynamic capability discovery – only relevant & available services offered
- **Interworking** across operators and device boundaries
- “Just like voice and SMS”

# Handset availability will not constrain RCS growth

## Handset manufacturers support RCS

Nine handset manufacturers have provided future commitment to RCS



At least 20 RCS compatible handset models from seven manufacturers are expected in 2012

The simplest way to incentivise manufacturers to incorporate RCS into devices is to include it within your handset specifications

## Downloadable clients will be available

Downloadable clients will be made available on both the Android market and the App Store



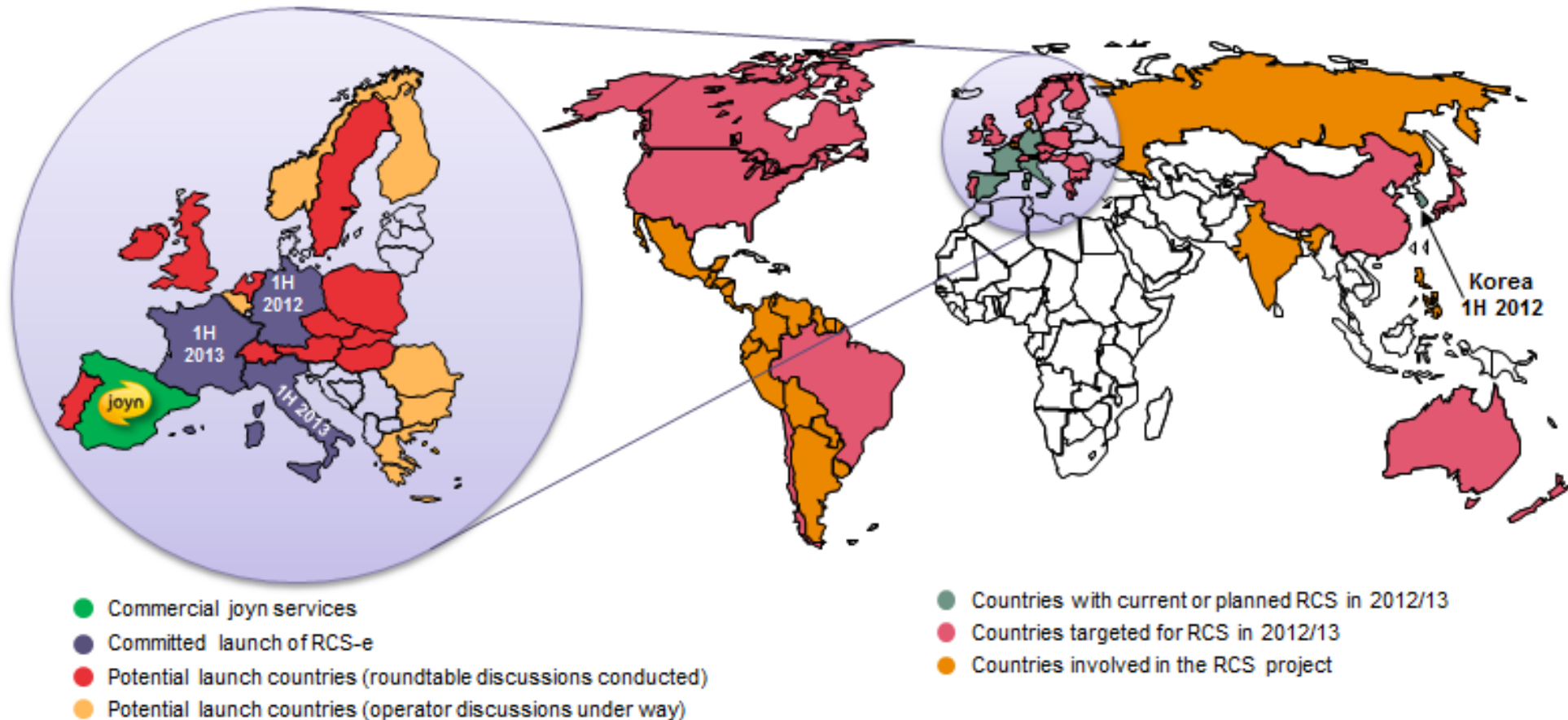
- Existing Android/iOS handsets will be able to download the RCS client

Access to RCS does not necessitate a handset replacement

Operators need to promote the client to customers and ensure sufficient technical support is provided

# The GSMA's Rich Communications Services project is a global initiative

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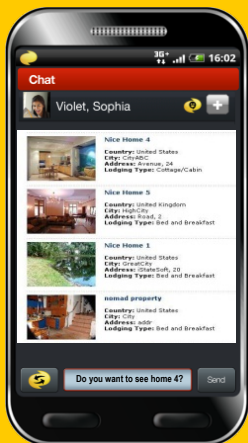
# RCS is evolving to be a platform for innovation and to enable new business models

**Easy** to use APIs which will simplify inclusion of RCS comms to existing apps

**Potential** to unleash completely new types of apps and services and create new business models

**RCS** enabled address book is the community to connect your apps:

- Address book integration allows users to see who else has the same app
- Enables peer-to-peer promotion, distribution and app-to-app comms

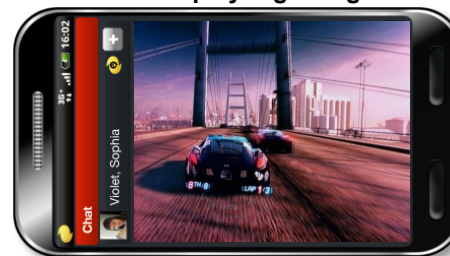


Group collaboration



Add chat capabilities to apps without having to maintain a communication service back-end

RCS enabled multiplayer gaming



Add video to customer care calls





# RCS & the Transformation of Mobile Messaging

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August 2012



# Interop Technologies

## Trusted Partner

- Rich Communication Suite (RCS) Gateway
- Short Message Service Center (SMSC) 4 Series
- Message Personalization & Control (MPAC)
- Multimedia Message Service Center (MMSC)
- Converged Messaging Solution
- Wireless Application Protocol (WAP) Gateway
- IS-683 Over-the-Air (OTAPA & OTASP) with Interactive Voice Response (IVR) System
- Session Initiation Protocol (SIP) Messaging Gateway
- Intelligent Route Manager (HLR Caching)
- Common Short Code (CSC) Gateway
- Commercial Mobile Service Provider (CMSP) Gateway

*All solutions are available in flexible deployment options, including Hosted Services, Modified Hosted Services, and Turnkey.*

# Interop Technologies

Trusted Partner

## **Interop Technologies—the compelling choice for advanced wireless solutions**

- Founded in 2002
- Solutions that offer new levels of scalability, extensibility, redundancy, and throughput
- Future-proof architecture (seamless migration to, through, and back and forth)
- Ability to match any business need, including operator trend toward Managed Services or focus on Turnkey (deployment models include Hosted, Modified Hosted, and Turnkey)
- Knowledge and experience that can only come from running our own solutions in-network (“He who builds, sells; he who hosts, buys.”)



## Why RCS? Why Now?

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## Why RCS? Why Now?

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**\$13.9 billion**

The amount of revenue operators lost to over-the-top (OTT) services last year.

# What are OTT Services?



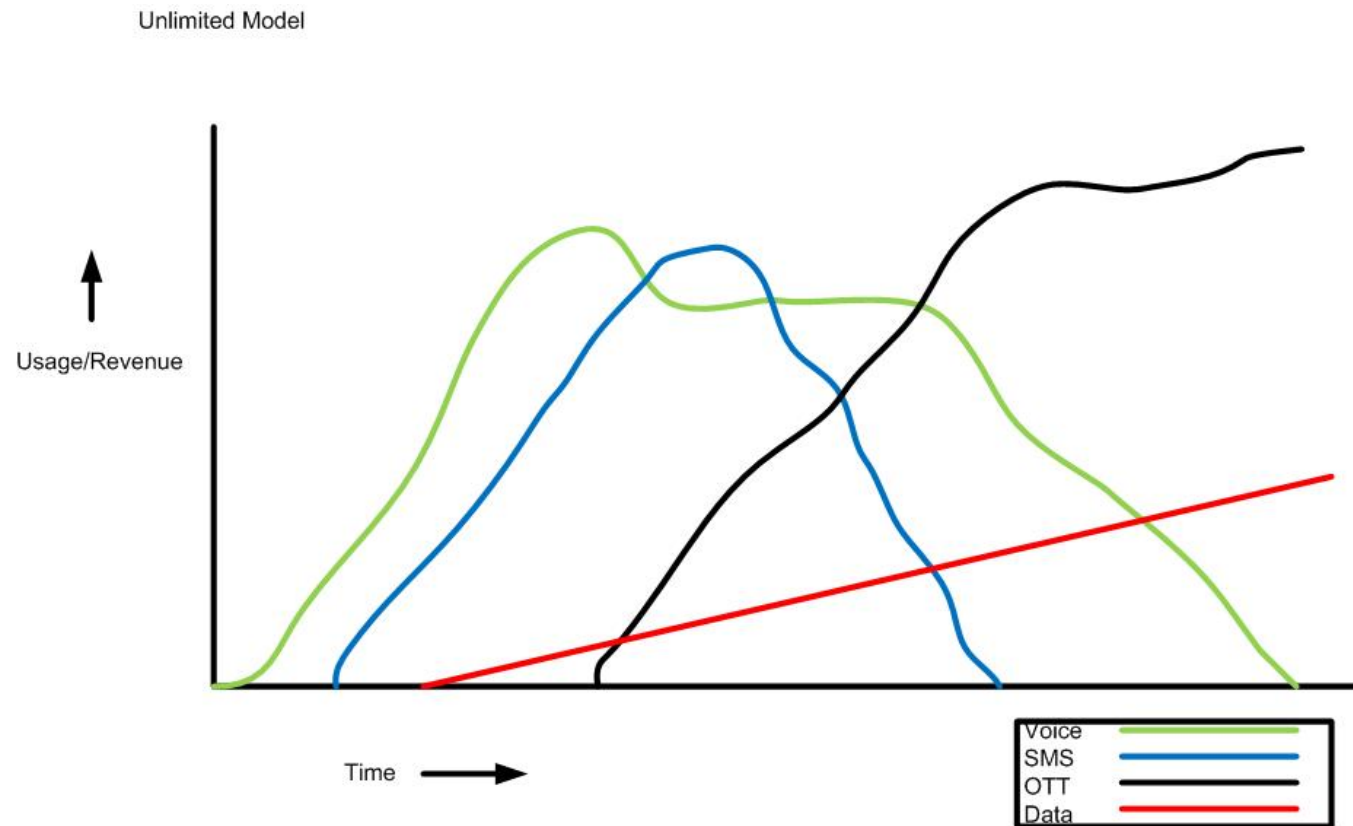
- Provided by third parties, carried over network operators' data networks, but provide little to no revenue for operator
- Downloaded by smartphone users from app stores (iTunes, Blackberry App World, Android Market, etc.)

## OTT Impact in Latin America

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- Growing use of OTT services is attributed to increased smartphone use.
  - 20% penetration in Latin America in 2012
  - Estimated to reach 33% in 2013 and 60% in 2018
- Unlimited SMS and MMS pricing plans are not prevalent in Latin America, making no-cost OTT options even more attractive.

# Usage and Revenue Trends



# RCS: The Industry Solution

**RCS offers features that *extend* SMS/MMS and *compete* with OTT services.**

- Communication starts from address book.
  - Traditional contact info (name, number)
  - Enhanced info (current capabilities—chat, video/image share, file transfer).
- Chats can be one-to-one or group.
- Subscribers can share images, files, or videos in real time.
- IM-like indicators show “...is typing” and delivery confirmations.
- RCS supports smartphones *and* feature phones.



# Timing is Critical

## RCS is available today...

- Consider an internal RCS demonstration such as Interop's Load-N-Go program.
  - No cost, no commitment, 30-day RCS evaluation
- Solutions are available that do not require IMS core but that will seamlessly integrate with IMS if and when operator is ready.
- *Hosted* deployment options allow for fast, cost-effective implementation.
- Solutions providing backward compatibility with SMS and MMS bridge the gap between legacy and next-gen messaging.

## **RCS is the future of messaging.**

- OTT services are eroding legacy messaging revenues.
- Latin America is particularly vulnerable due to lack of unlimited pricing plans for SMS/MMS.
- RCS gives subscribers an OTT alternative and supports both feature phones and smartphones.
- You can launch fully compliant RCS *with* or *without* an IMS core.
- Hosted deployment lets you introduce RCS *quickly* and *economically*.

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# Enabling RCS service delivery

Miguel Tenorio  
Solutions Architect

*acme*  *packet*

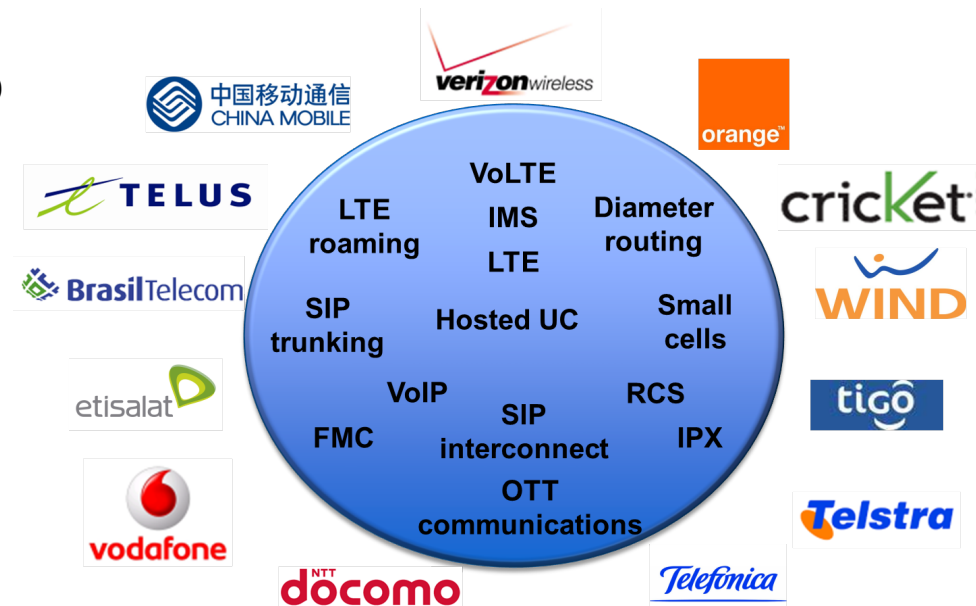


# Acme Packet – leader in session delivery network solutions



- Mission: enable delivery of trusted, first-class interactive communications and data services across IP networks
- Solutions to enable all-IP evolution
  - Increase revenue
  - Lower total cost of ownership
  - Maximize network agility
- Experienced
  - 1,775 customers
  - 150 IMS projects

- Founded: 2000
- HQ: Bedford, MA USA
- NASDAQ: APKT
- 2011 revenue: \$307M
- 2011 net income: \$72M
- 835+ employees

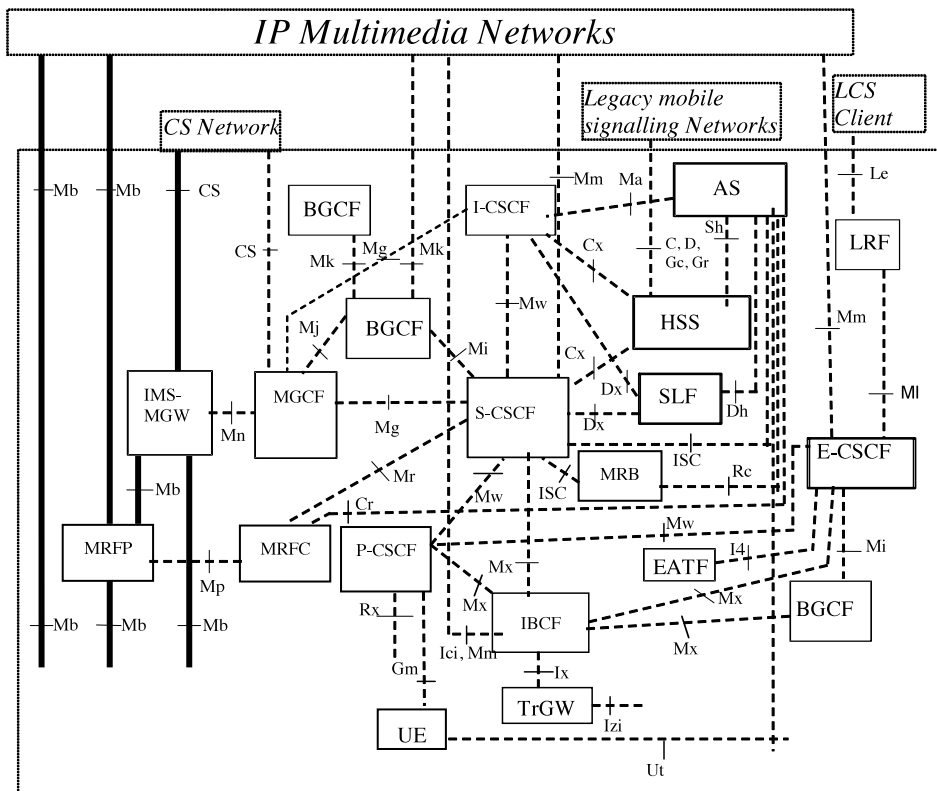




# RCS reality check



## IMS complexity and business case



## IP service delivery is challenging

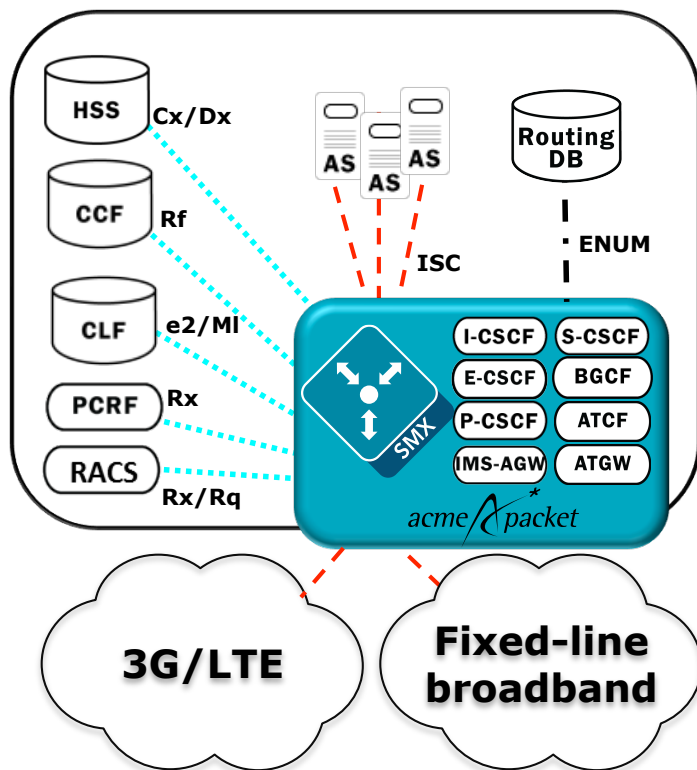


# Simplification to make sense of the RCS business case



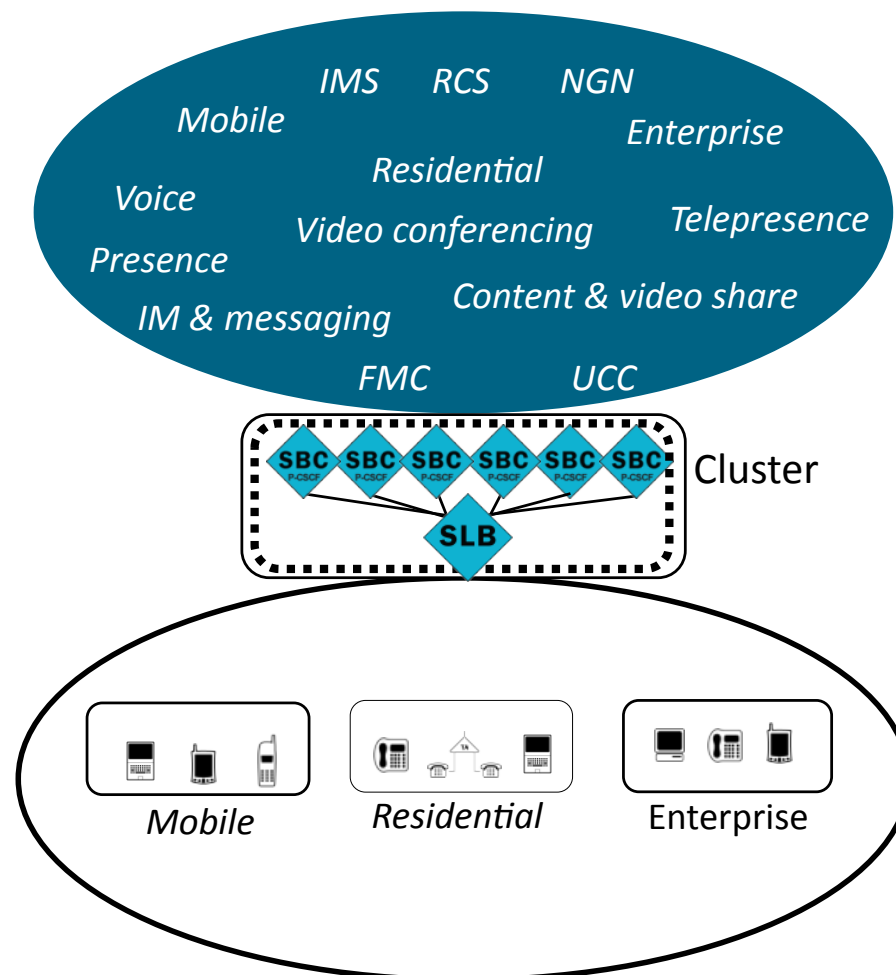
## **Streamline:**

**IMS access & session management**



## **Grow:**

**Session-aware load balancing**



# Signaling control for RCS: protecting service availability



- Goals:
  - Assures RCS-e application servers process legitimate subscribers
  - Protects servers from DoS attacks, mis-configured or misbehaving clients and non-malicious overload events
- Requirements
  - Granular security per service & application
  - User definable
- Key features
  - Signaling rate limiting
  - Access control lists and SIP Methods whitelists/blacklists
  - Topology hiding
  - Signaling screening = Signaling DPI
  - Encryption: extending RCS to WiFi/Internet



# Other pieces to the RCS service delivery puzzle



## **Service Reach**

SIP normalization  
Firewall traversal  
iPhone keep alive

## **Lawful intercept**

IM, VOIP  
Encrypted traffic  
Signaling & media

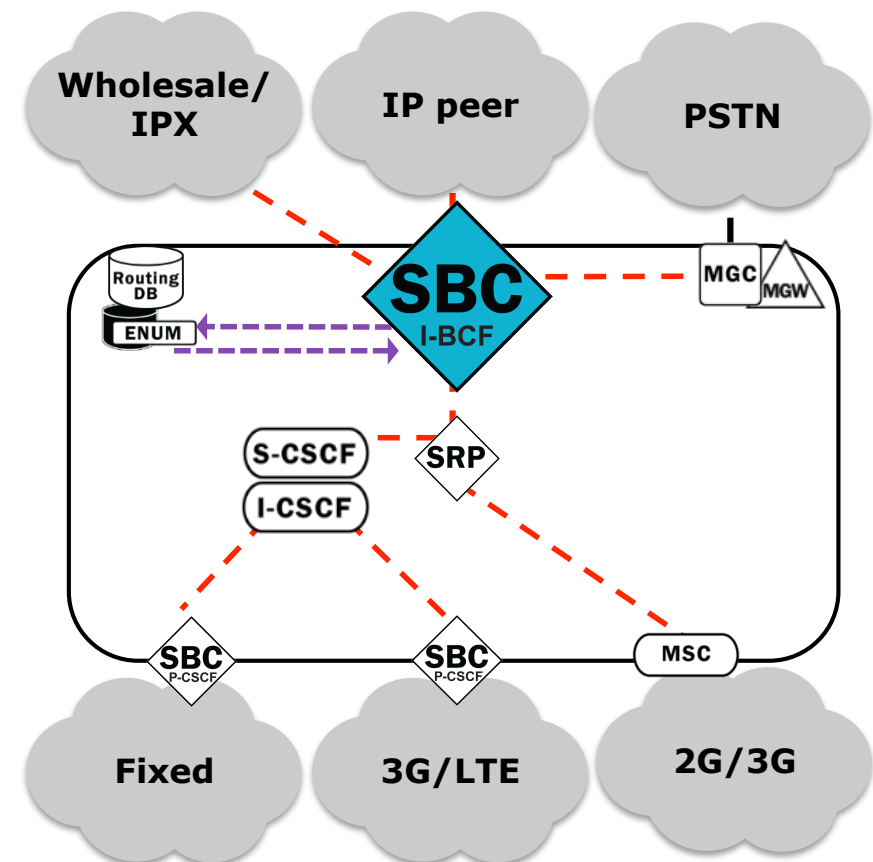
## **QoE**

Battery life friendly  
QoS marking

# Interconnect for RCS, MSC voice and VoLTE



- Lower TCO: interconnect for all services
  - Mobile-mobile, mobile-fixed
  - RCS, 2G/3G voice, VoLTE, video
  - Bi-lateral & IPX interconnect
- Secure, managed interconnect border
  - Security assures network availability
  - Layer 3-5 mediation maximizes service reach and accelerates time to market
  - QoE controls provide high quality services
  - Dynamic, flexible routing lowers costs







# Summary

- RCS services are integral parts of all-IP evolution
- Simplicity, speed and scalability are key to making RCS work
- Rich functionality to meet RCS security, interoperability and regulatory requirements