
Are Mobile Operators helping or hindering the development of Applications?

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Speed of Innovation

- Operators are not known for Innovation!
 - SMS, MMS, Rich Communications
 - Now more Operators accept that they should help 3rd party innovators
- Smartphone adoption has driven the emergence of many innovative apps developed by 3rd parties but
- Multiple device platforms slow down development
- Patchy availability of Operator APIs limit developer appeal
- Proprietary Operator Network APIs complicate coding
- Consumers now prefer to download Smartphone Apps rather than expect them to be pre-loaded on purchase

There is a shift towards helping not hindering developers!

- GSMA OneAPI
- OMA Network APIs
- WAC (Wholesale Application Community)



The Business Opportunity

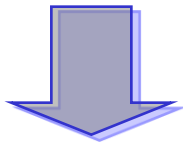
- Both Web Developers and Mobile App Developers can benefit from the availability of information from mobile networks
 - Allows Web Apps to be more mobile friendly
 - Functional building blocks can ease the development of more complex apps
 - Standardisation allows faster development and simple maintenance of one set of code for use in multiple countries and on multiple devices
- Network Assets can be exposed by Mobile Operators
 - Some network assets will encourage further use of mobile services
 - Some APIs might become a revenue source
 - The “two sided business model” is being adopted by Operators

This seems like a Win-Win opportunity!



The Value of APIs

- API approach makes sense in order to expand capabilities, enable new business models, provide mechanisms for differentiated services, and significantly reduce time-to-market for innovation
- APIs are important to cope with the tremendous growth for the Applications Market



We need a scalable model that supports this growth

IDC predicts app revenues will surpass \$35 billion in 2014

Gartner says that Applications stores are creating a revenue opportunity that will reach \$58 billion in 2014

Standardised APIs are vital!

Benefits for the Industry (users, operators, developers)

- Available to any developer community independent of the development platform
- Expose network assets independent of the signaling protocols, network platforms, or access technology
- Reduces development cost and time-to-market for new applications and services
- Simplifies and fuels wider deployment of existing applications and services



GSMA OneAPI

The industry standard for Network APIs


GSMA OneAPI Standard

The GSMA OneAPI standard has been developed by the industry for the industry

The standard is agreed by OMA and published for Versions 1.0 and 2.0. Version 3.0 is in draft



It is simple for developers to use the APIs as they look just like web APIs

Endorsed by WAC as the standard for exposing network APIs 

Lightweight RESTful APIs

Commercial Gateway

A commercial gateway which fully implements GSMA OneAPI has been deployed

All 3 Canadian operators, Bell, Rogers and TELUS are connected to the gateway

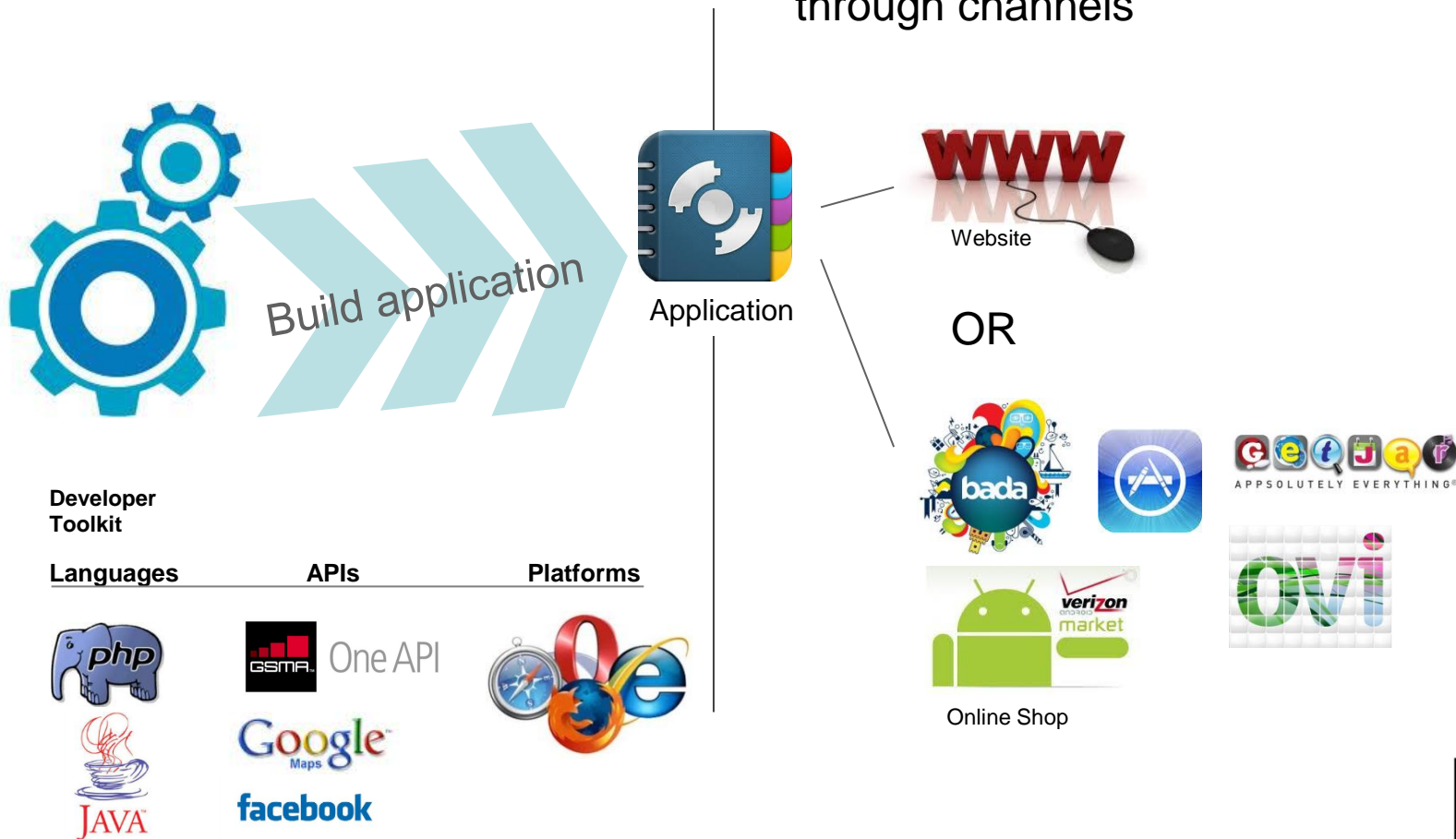
Commercial web and mobile applications are using the gateway today for Payment, Location and SMS



GSMA OneAPI = Open Network Enabler APIs

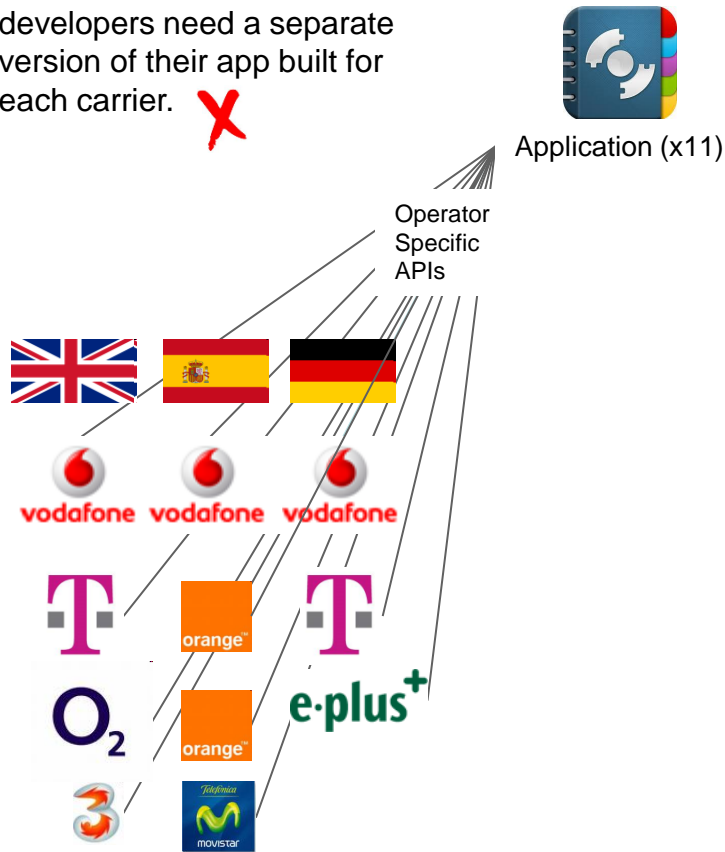
Developers build apps

Apps are distributed through channels

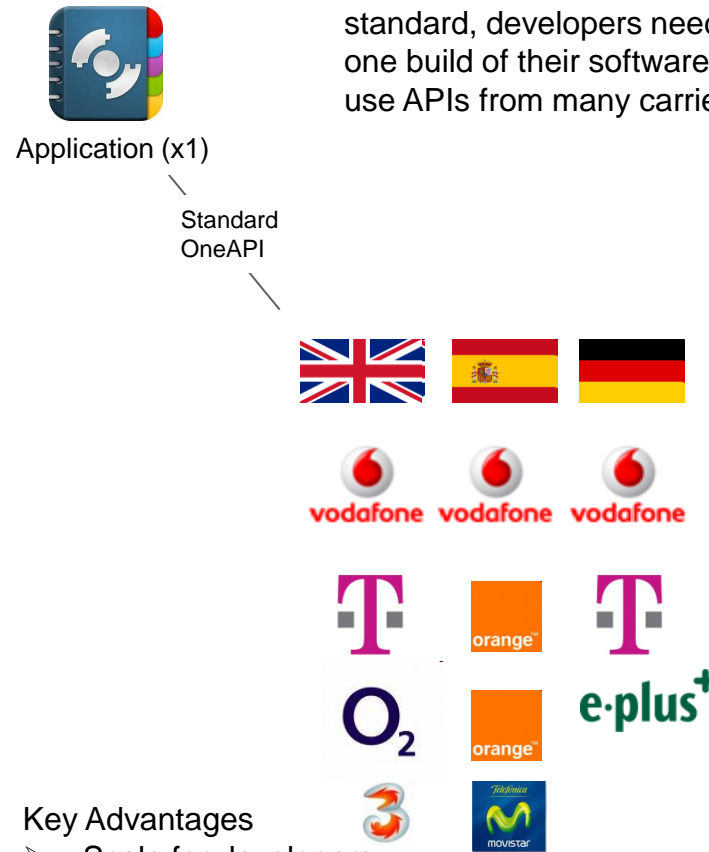


Reducing Network API fragmentation

Without standard APIs
developers need a separate
version of their app built for
each carrier. ❌



With the GSMA OneAPI
standard, developers need just
one build of their software to
use APIs from many carriers ✓



Key Advantages

- Scale for developers
- Reduced time to market

GSMA OneAPI V1.0 - the initial commodity APIs

Messaging – send SMS/MMS



Via OneAPI



Use Cases

- On-time Website password
- Text/photo/video alerts

Messaging – receive MO SMS/MMS



Via OneAPI



Web server

Use Cases

- Text/photo/video blogging
- Client app updating server (games)
- Get text information based (e.g. Wiki definition)

Location – for individual or group



Via OneAPI



Use Cases

- Cross-operator buddy finder/LB gaming
- Mash-ups with mapping, reviews services

Payment – reserve, charge, refund



Via OneAPI



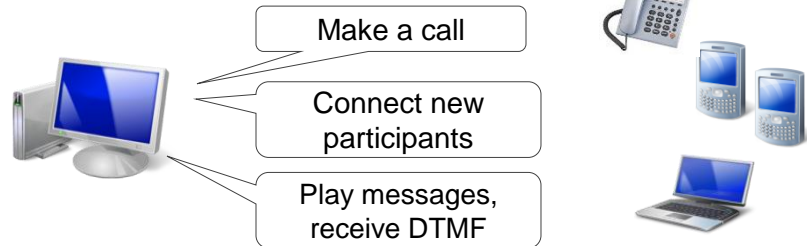
Use Cases

- Seamless mobile billing
- Buy another level in a game

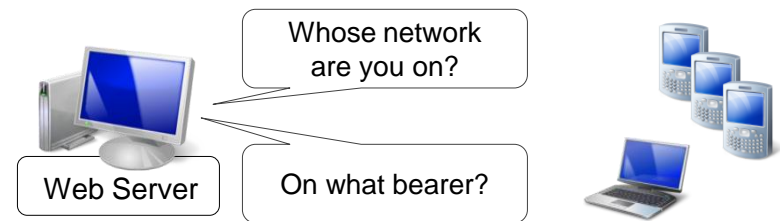
NB: GSMA OneAPI V1 is a profile of the OMA release for OMA PXPREF V1.0 and OMA Parlay REST V2.

GSMA OneAPI V2.0 and V 3.0

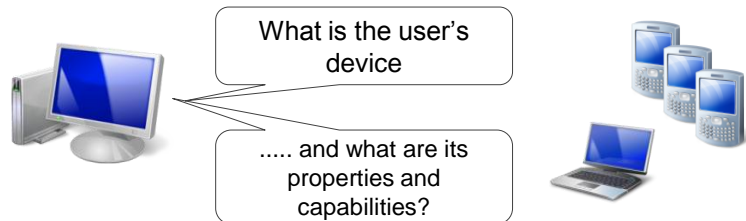
Call Control



Data Connection Profile



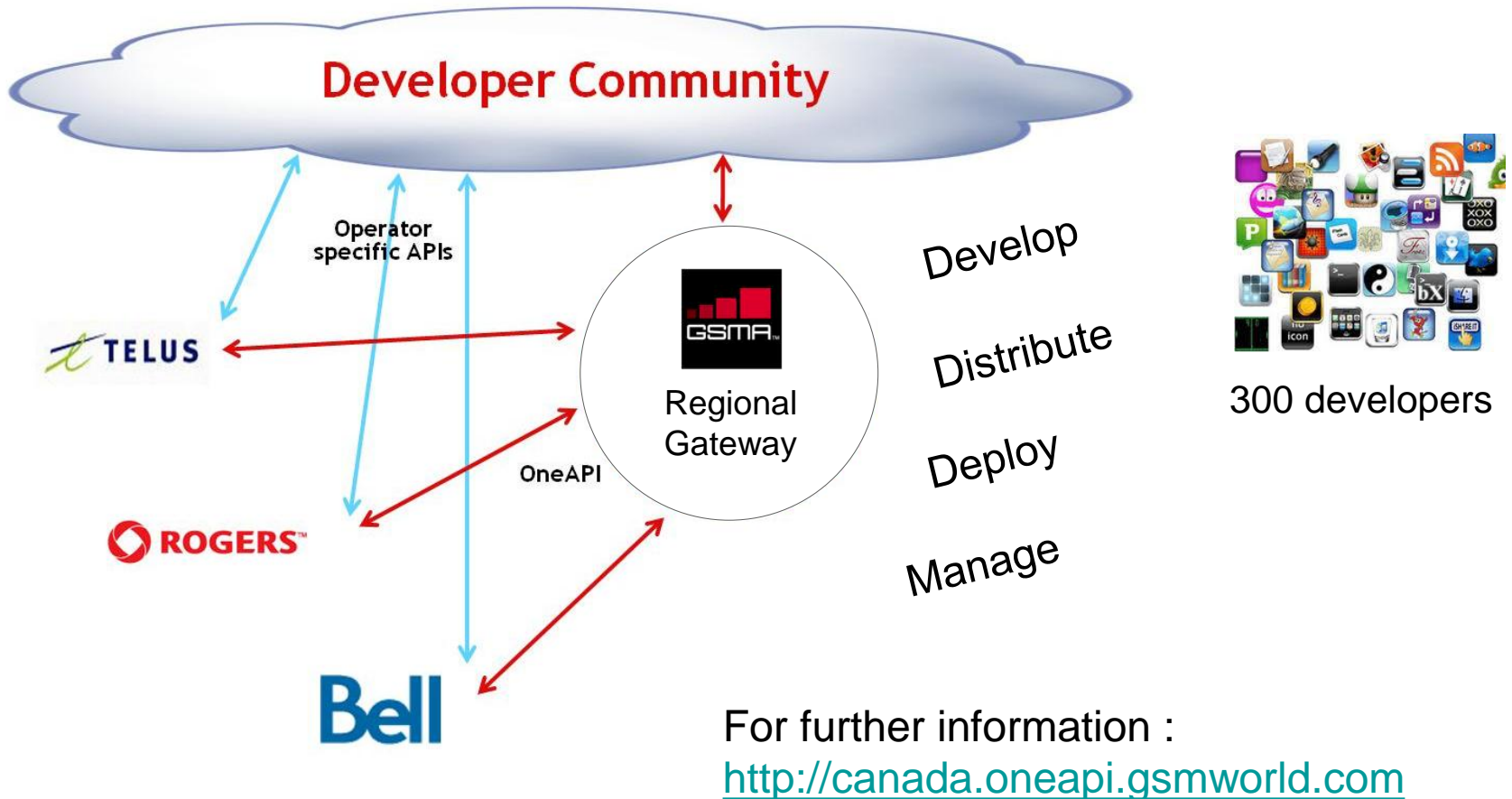
Device Capability



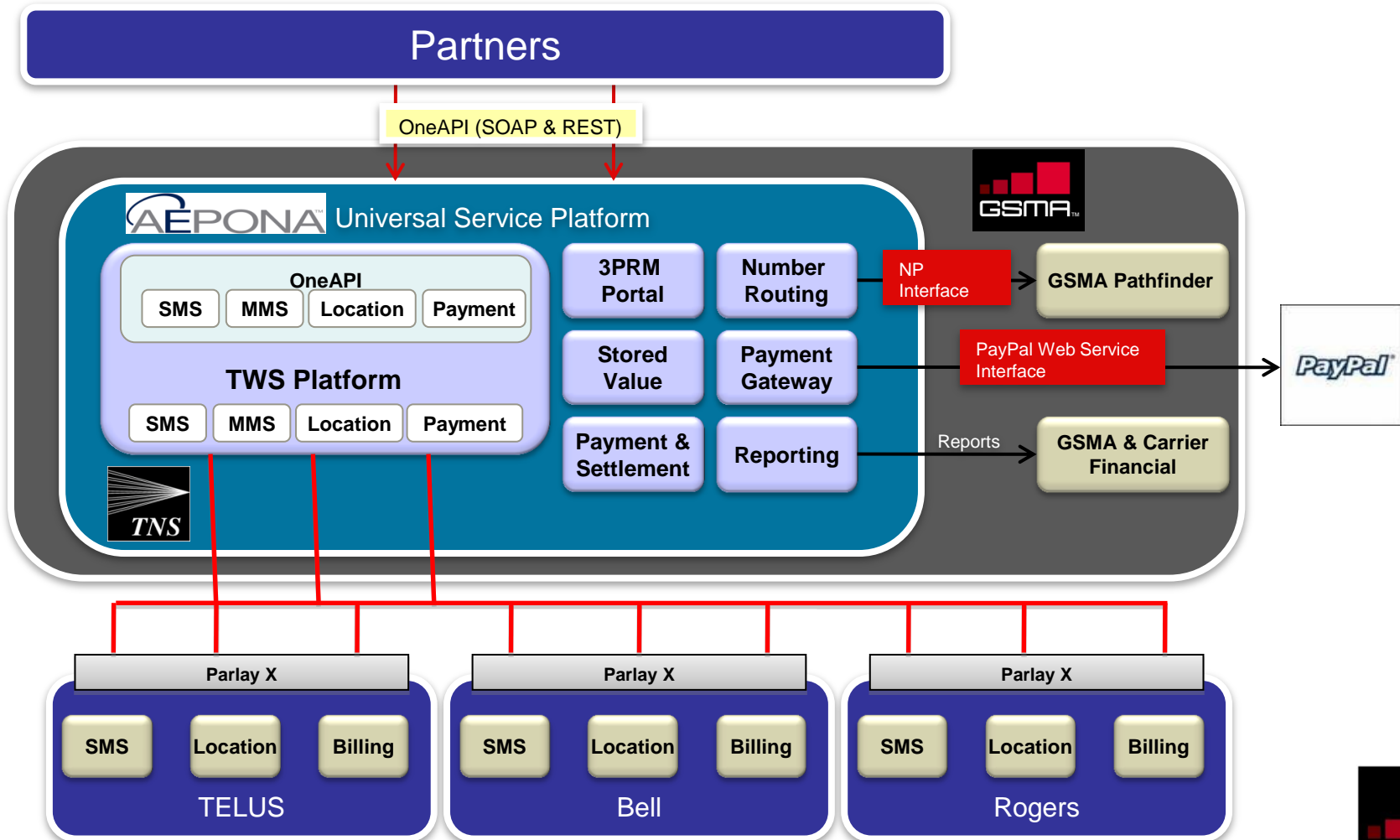
OneAPI V3.0

- Femto Services, User Context, Anonymous Customer Reference Lifecycle
- standardisation underway in OMA

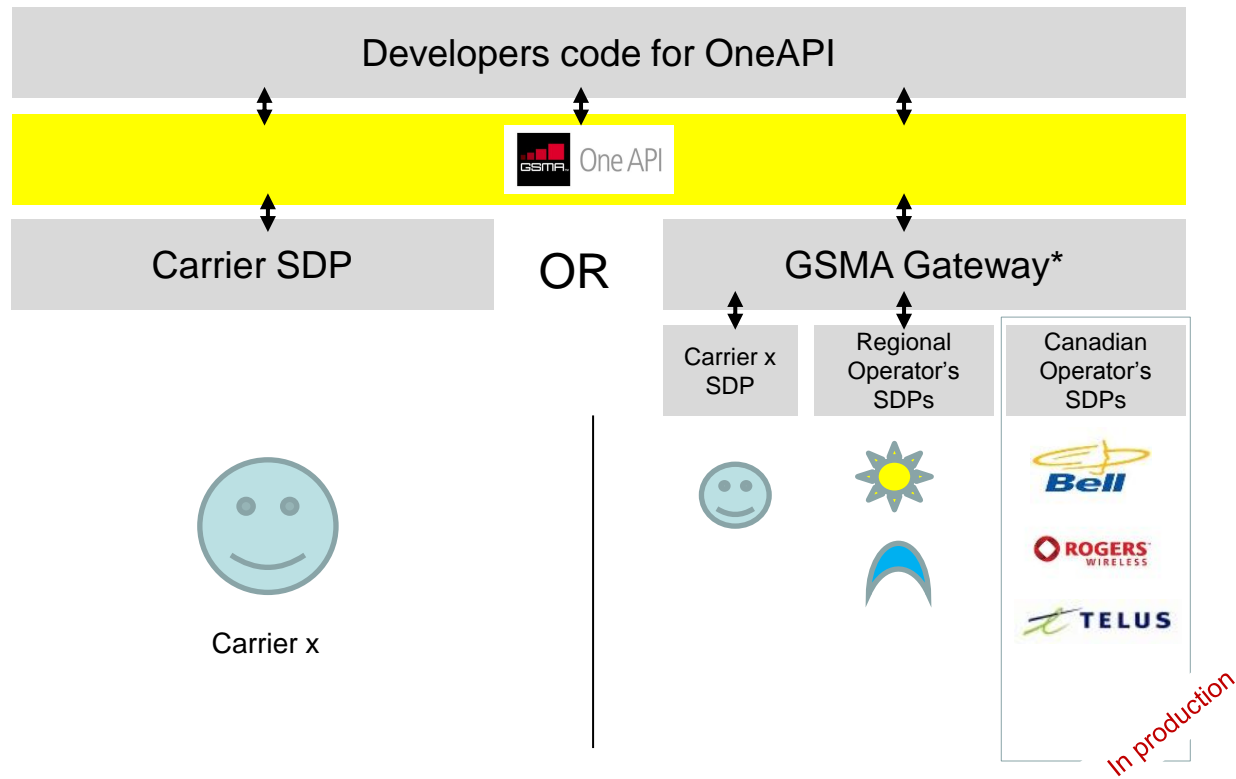
The GSMA OneAPI Canadian Pilot Gateway.



A Cloud based implementation is used



Simplifying deployment and access across a country or region

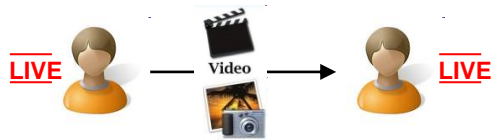


* A single route to target all subscribers is very appealing to developers and content owners.

Rich Communications made easy!

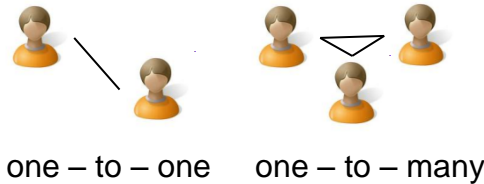
Initial Set of Services for RCS-e

Rich Call – share the moment



- Sharing Picture / Video (from camera or gallery) during a call

IM – text chat



File transfer – share files



- Send and receive any type of file

Capability Discovery – see communications options of your peers



Rich Communications APIs planned

- RCS Network Address Book
- RCS Call Functionality
- RCS Chat Functionality
- RCS File Transfer
- RCS Video/Image Share
- RCS Presence
- OAuth Framework

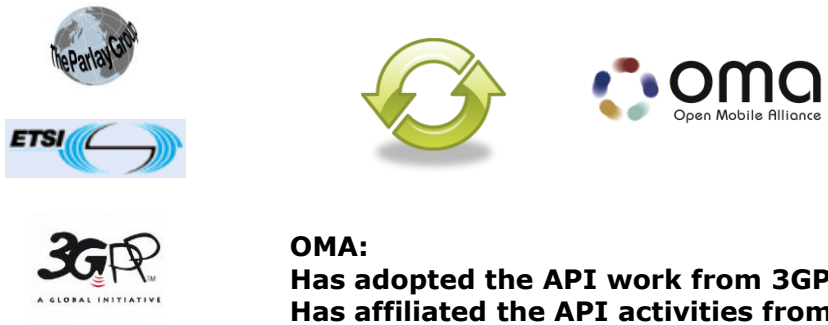
OMA for the definition of standardised APIs



- OMA APIs expose the network assets that developers need - no matter what protocols, platforms or other APIs they use
- Core network assets must be made available in order to deploy the wide variety of new applications and services that enter the market every day
- The OMA set of APIs increases the portability of applications and services in order to reach the subscriber base of operators and service providers that deploy OMA APIs


OMA receives market requirements from their industry partners

Parlay Service Access



OMA:
Has adopted the API work from 3GPP/ETSI
Has affiliated the API activities from Parlay


OMA Network APIs



GSMA:
Developer outreach
Go-to-market
Business models

OMA:
Technical Specifications
Standards publication

Rich Communication APIs



GSMA:
Requirements

OMA:
Technical Specifications
Standards publication



WAC Update

■ What is WAC

- Membership organization with 68 members
- Focus on web applications and mobile operator Cloud API's
- Offices in Bay Area and London
- <http://www.wacapps.net>

■ Web runtime Launch Plan

- WAC 1.0 live in Feb 2011
- WAC 2.0 services live in Q4 2011
- Launch in Asia first
- Continued development and evolution with HTML5

■ Network APIs (N-API)

- Beta live now, full scale commercial platform Q1 2012
- Launch in US and Europe first, global roll-out after
- Initially focussed on in-app Billing
 - Will be adding more API's in 2012

The Future Outlook

- The importance of standards
 - OneAPI profile and the new OMA Network APIs
 - Building an available set of commodity APIs and exposing simple APIs to give developer access to bigger service building blocks (like Rich Communications)
- How Operators can help?
 - Adopt industry standard APIs like OneAPI and OMA Network APIs
 - APIs can be exposed by each operator individually...
 - ...but also consider the use of gateways
- Gateways can help increase ubiquity of access
 - OneAPI, WAC and aggregators
 - Single place for developers to gain easy access to many operators
- The benefits for Developers
 - The SAME Network APIs can be used in both Web Apps and in Mobile Apps
 - Critical mass of availability likely in early 2012



One API

Thank-you!

