

ITU Workshop on “Service Delivery Platforms (SDP) for Telecommunication Ecosystems: from today’s realities to requirements and challenges of the future”

(Geneva, Switzerland, 17 October 2011)



WEB and IMS Convergence (wIMS)

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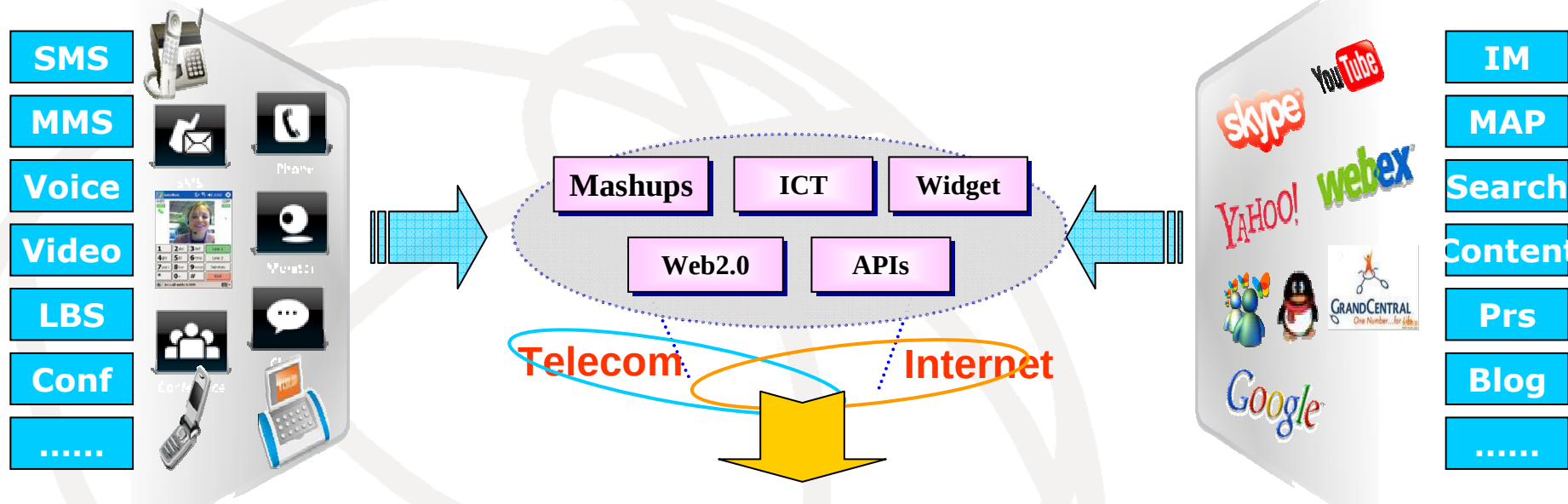
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Agenda

- Why do we need web and IMS Convergence (wIMS)
- Introduction of wIMS
- Deployment of wIMS in China Mobile
- Use Case of wIMS

Convergence between Telecom and Internet may bring new user experience

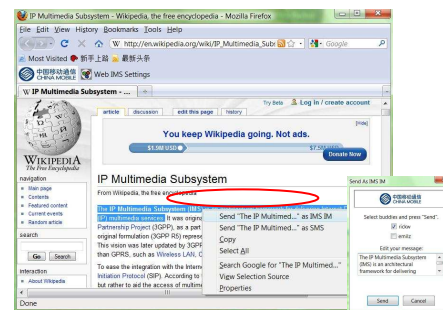


example of some telecom and Internet converged apps

Check the location of your friends, and click to call or text him/her



Select the text or Pics on the webpage and click to send the selected content to your friends



Post your footprint on the Google map, and your friend may call or message you on the map



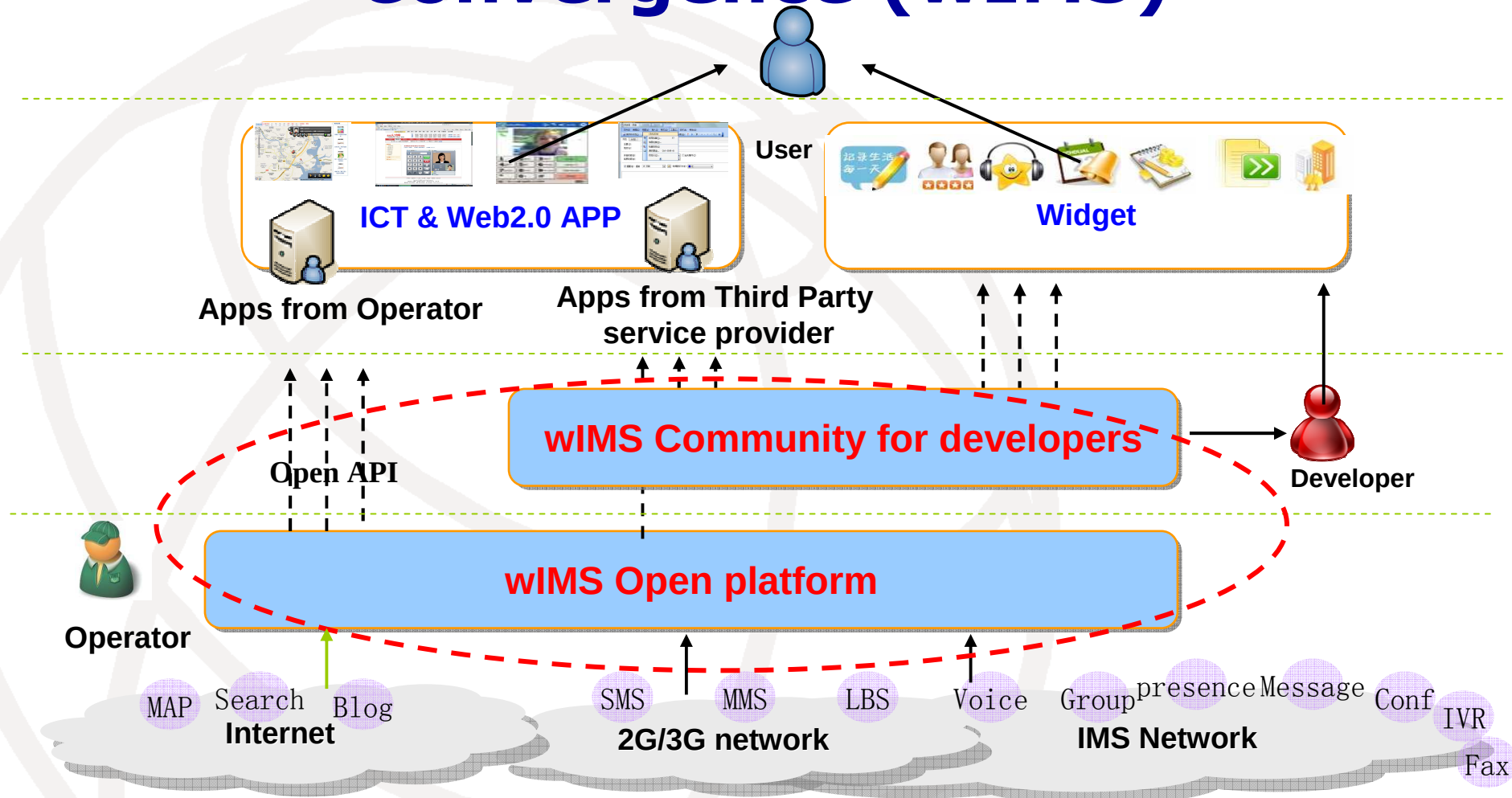
You may initiate a video call with your friend from the webpage



How to achieve the convergence between Telecom and Internet

- What we need from operator side
 - IP based network Architecture to provide telecom service capabilities, such as Voice, Video, MMS, SMS, Presence, address book, Conference, Charging etc
 - Open APIs for different service capabilities, such as Parlay APIs, Restful APIs
 - Authorization, authentication, security ,and management functions for the apps, third party service provider, and developers
- Operators may benefit from IMS/NGN and SDP technologies
 - IMS/NGN is an IP based network, which provides various service capabilities and carrier class operating and management functions
 - SDP is an platform to support the open APIs, and app developing environment etc

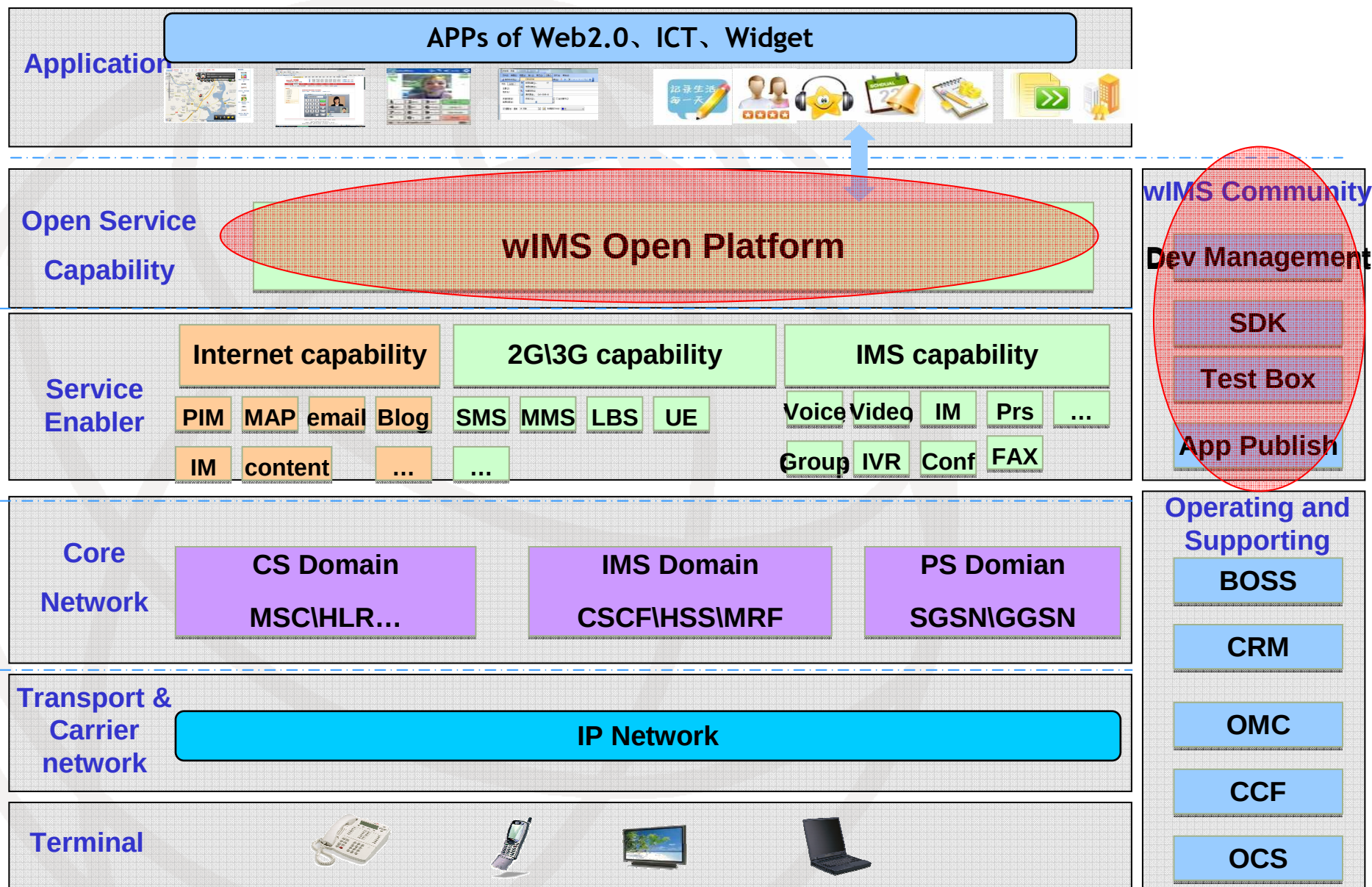
Introduction of WEB and IMS Convergence (wIMS)



■ Combination of different kinds of service capability

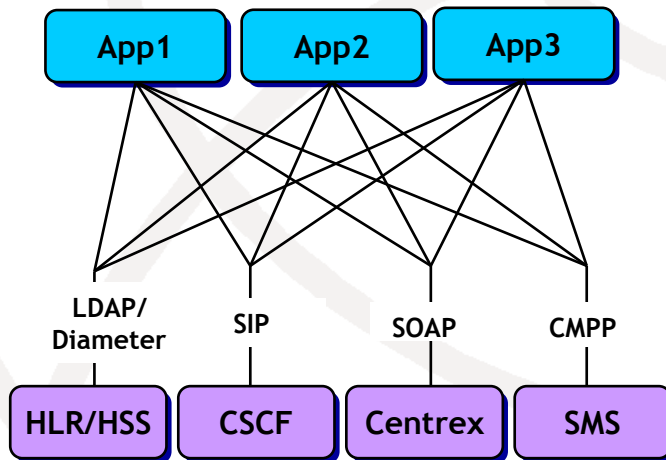
- **IMS、2G、3G、LTE**
- **3rd party service capability**
- **Internet**

wIMS in the network side of view



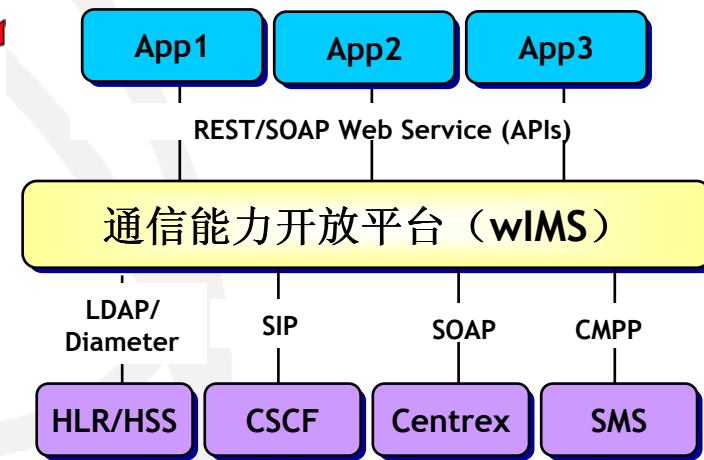
What can we benefit from wIMS

APP development without wIMS



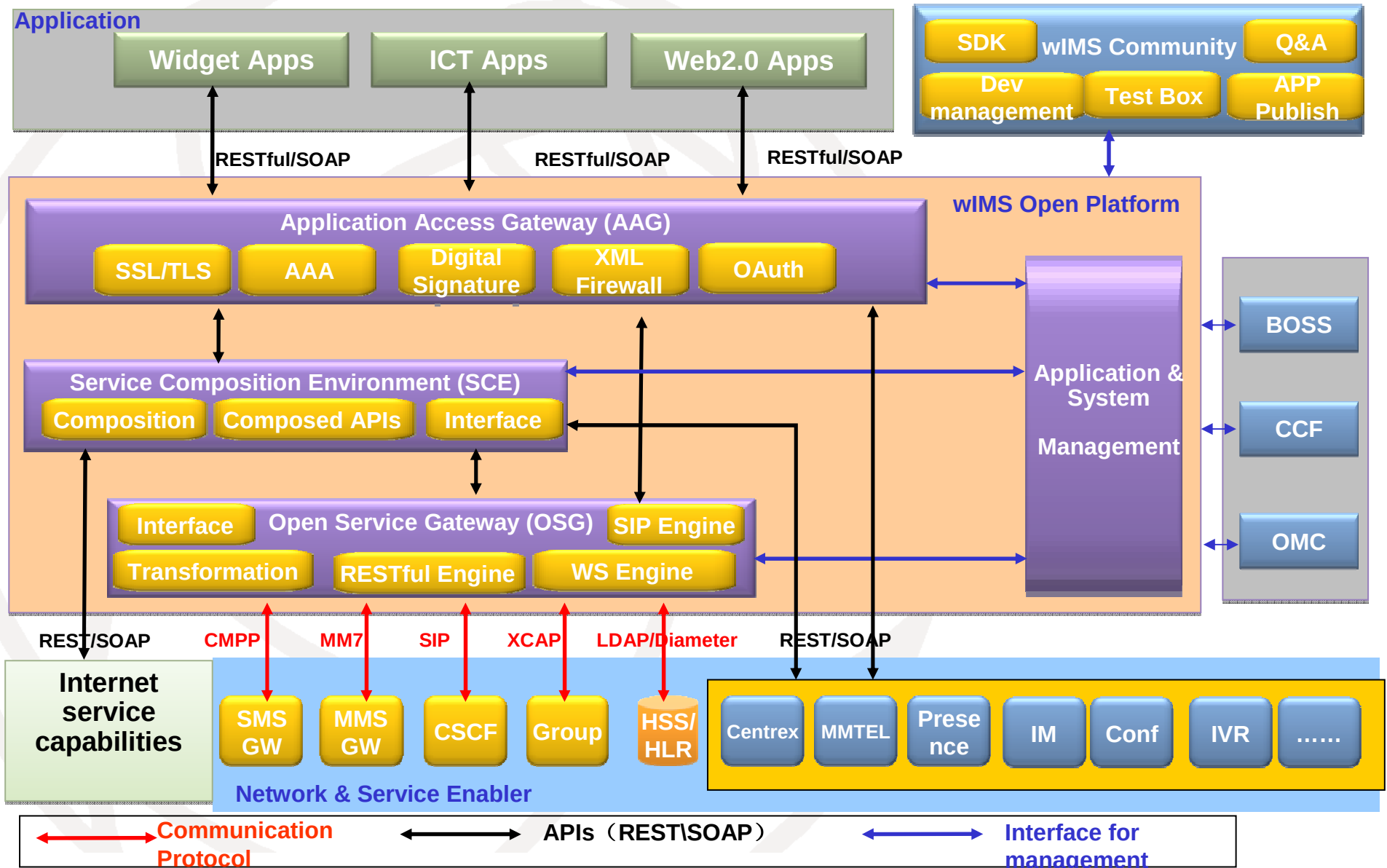
- **Complex Protocol and interface, bring extra difficulty to developers, especially to Internet APP developers**
- **Bring too much risk and security issue to the network**
- **No APP access control and management**
- **.....**

APP development with wIMS



- **By Using APIs and middleware technology , network complexity is transparent to developers**
- **Unified APIs are easy to use**
- **High level Security**
- **.....**

Functional Architecture of wIMS (1/2)



Functional Architecture of wIMS (2/2)

The main functions of wIMS include:

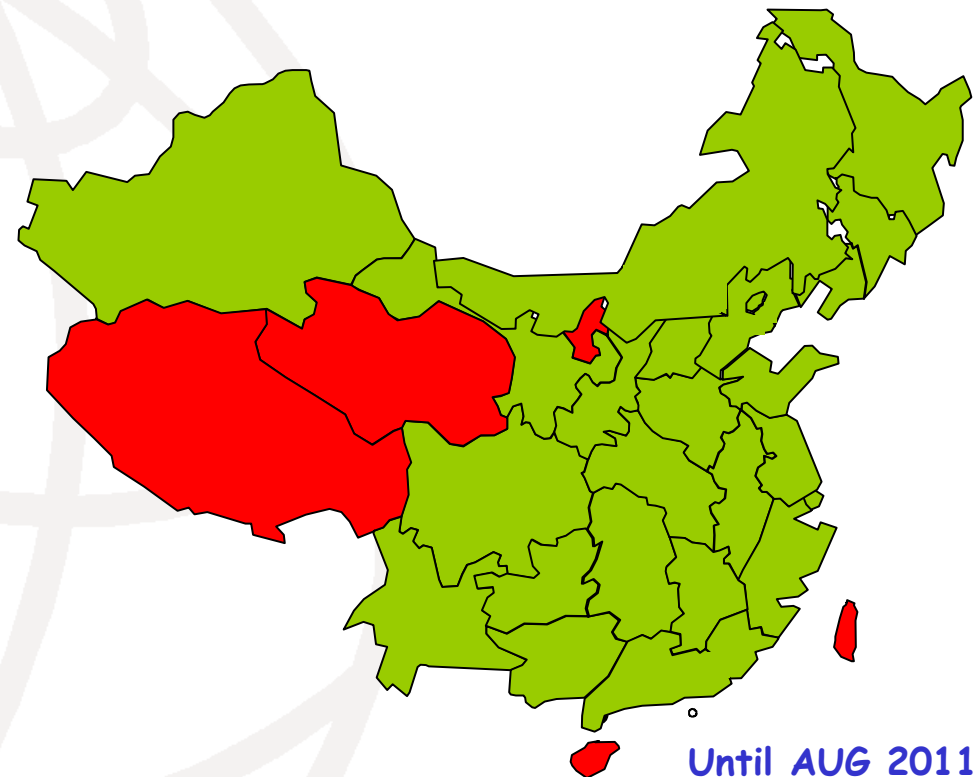
- **Application Access Gateway (AAG):**
 - Authentication & Authorization (SSL, HTTP basic auth)
 - Service Virtualization (Service discovery and publishing)
 - Data protection (Digital Signature, XML Firewall)
- **Service Composition Environment (SCE) :**
 - Different service capabilities may be composed to be the new service capability through this function
- **Open Service Gateway (OSG):**
 - Interface with service enablers and networks
 - Protocol transformation
 - APIs

Progress of IMS deployment in China Mobile

The global largest commercial IMS system has been developed in China Mobile

Scale and Status

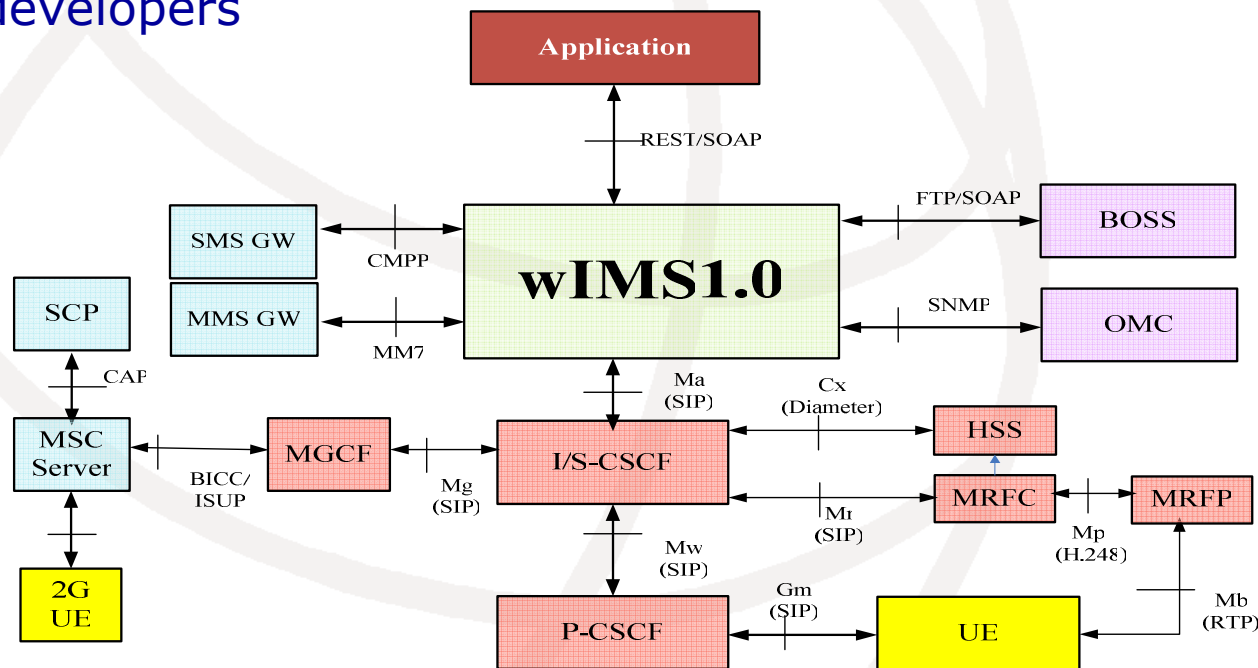
- IMS network were deployed in the whole country at 2010, and could be able to support 20M+ users
- At 2011, China Mobile also deployed several IMS service enablers, such as MMTEL, converged IP Centrex, PGM etc. Now China Mobile has around 8M+ IMS subscribers
- The prototype of wIMS (wIMS1.0) was also deployed at 2011



- Completed
- Under construction

wIMS1.0 is the prototype of wIMS

- wIMS1.0 is deployed in China Mobile to support the open APIs of Voice, SMS and MMS
 - Similar as a SDP without SCE
 - Support the basic voice and message capability, such as Click to Dial, SMS, MMS etc
 - Support the RESTful API, it's easy to use for the internet app developers



Use Case 1: Enterprise Conference Mobile widget



Alex is on a business trip.
He needs to book a
conference between Bob
and Nick for emergency



Alex use his mobile , pad or
pc to run the app ,login into
the OA and Initiate a
conference quest with Bob
and Nick



The conference goes on
very well.
When the last one leave,
the conference is over



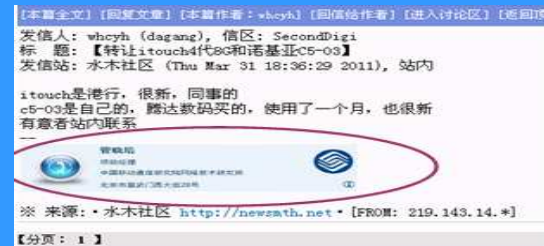
The AS calls all the contact
info listed in the API
parameters. Mobile, POTS
and PC client are all
supported

The
APP
Invoke
the
Conf
APIs

Use Case 2: Internet Business Advertisement



Bob wants to rent out his apartment. put this information on the Facebook with a click-to-dial name card to hide his mobile number



Nancy browses the information, and wants to rent Bob's apartment. She clicks the icon to make a call. Here the SMS API can also be used for security

The APP
Invoke
the
CTD
APIs



When Bob answer the call, Nancy and Bob may talk to each other



Firstly AS calls Nancy, the IVR is coming to tell Nancy to wait for Bob joining in



Thanks!

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