

Future services and business models



Comarch Headquarters
Al. Jana Pawła II 39 a
31-864 Krakow
Poland
phone: +48 12 64 61 000
fax: +48 12 64 61 100
e-mail: info@comarch.com

www.telecommunication.comarch.com
www.comarch.com www.comarch.pl www.comarch.de www.comarch.ru

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Introduction

Increased bandwidth, digitization of content and convergence in the world of communication open doors to new services – voice and video, films, music and data of every kind is now available in digital form. As networks of every kind shift to IP, the method of access becomes less significant. It enables operators to offer services such as Multi-user (Voice/Video Conferencing, Mobile Office), User-to-user services (Rich Voice Video, Text – Chat & IM/PTT) and Server-to-user services (Dynamic Push/Streaming TV, Click 2 Dial, Games/Gambling, Presence, and Personalized Radio/TV).

Convergence for communication

The world of communication has traditionally been recognized as technology-limited areas – fixed network for traditional voice, mobile communication when traveling for voice and short messages, television for watching movies and news, DSL for browsing web-pages and power-supply lines for energy transfer. Well defined – well divided.

Broadband communication and content digitization makes it possible to deliver services regardless of its type – voice and video, films, music and data of every kind. Information encapsulated with IP and carried on a common core network does not limit people to a particular method of access. You can make a call from your PC to PSTN network – and even while being connected to the Internet via standard power-supply lines.

Future services

As we all know things that are happening today will have a major impact on services in the future. We already know that 3G currently has and 4G services will have a huge impact on all mobile operators' and their customers. The bandwidth – that limits GSM, GPRS and even EDGE services – increases and provides room for additional data streams. In fact, increasing bandwidth is most visible in mobile networks – starting from several kB/s to MB/s. But other technologies go over its current limits: VoIP, DSL and... power-supply lines.

We also know that the role of the IP network is increasing rapidly. Thanks to IP services, besides the traditional division between Circuit Switch and Packet Switch Domains, today we can talk about the third one – IP Multimedia Subsystem (IMS) – standardized control domain for multimedia services.

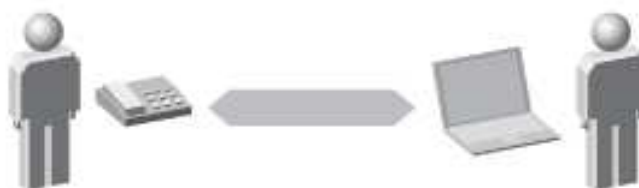


Figure 1: IP convergence removes limits in methods of access

IMS introduces a services ecosystem that gives advanced session control across all types of communication enabling operators to offer subscribers higher value of multimedia service. Entering this area allows users to use a completely new breed of services such as Remote Office, Video Conferencing, Presence and location based services and even personalized Radio and TV streams. Of course, more services usually means that operators need to have more control over the network. Most of these 3G/4G services will at least require authorization in real time some of them also real-time rating. Even post-paid services will have that necessity – since we are entering the era of mobile operators being only an “access” provider.

Future business models

Knowing that we can easily see what business models of the future will look like, what we are sure of – because it’s already happening – is that independent service providers will merge in order to offer wider range of services.

Merging is usually based on the access type for end users:

- **Fixed** telephony operators incorporating ISPs to create broadband access;
- **Cable** operators using their existing infrastructure have already started to provide Internet access – now they are adding one more service: fixed telephony;
- **Mobile** operators extend bandwidth of their networks to enable fast data and video transfer.

For the end-consumer it will not matter anymore whether he or she is connected by coaxial, copper or wireless – barriers between services over different networks will disappear. People want services and do not care for the underlying technologies.

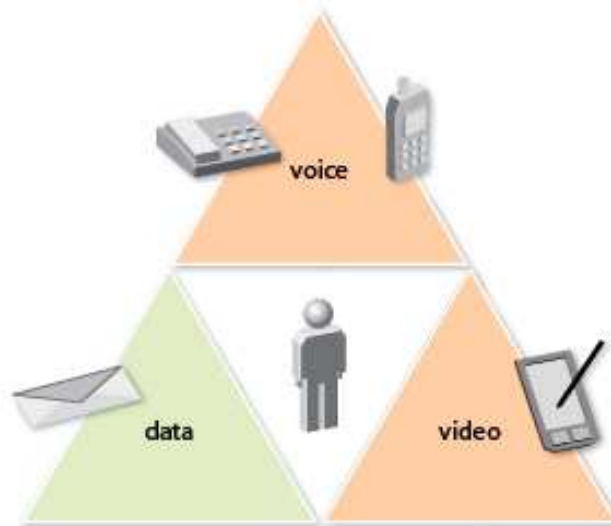


Figure 2: Converged communication service model

Unlike 2G which was “access oriented” 3G is seen as “service oriented”. Mobile operators will not be able to give users all that they want – so prepare for those alliances – mobile operators with 3rd party content and service providers.

There are lots of Wireless Application Service Providers to appear; also Virtual Operators will play a major role. Besides typical content and service providers we will see an increasing number of Mobile Virtual Network Operators mainly because regular Mobile Operators will have more bandwidth to share.

Similar to content and service providers we will see the raising of Service Aggregators – companies making a living out of the wholesale of mobile content. Multi-access portals are not a new idea, however new smarter mobile devices will make those portals more valuable to end users.

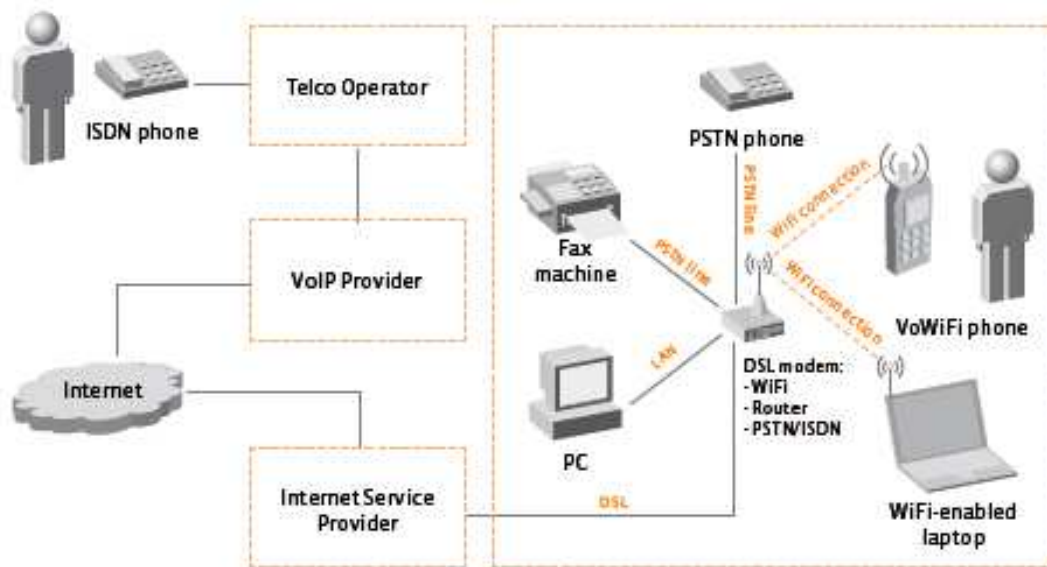


Figure 3: Service Aggregators wholesale mobile content

From pre-paid to real-time

New services, especially the highly-paid ones, require on-line authorization and accounting to decrease the operator's risk of losing money. Integration between pre-paid and post-paid services is being advanced by eWallet solution. Each publication about UMTS services shows an example of a father paying in post-paid for his child's pre-paid account. That is only possible using the concept of eWallet. It assumes sharing reservations, releases and charging between multiple users and services at the same time. Moreover in the world of eWallet, pre-paid and post-paid only means a method of payment – not a type of service offered.

Secure and confidential

One should not forget that creating new points of access to services – currently encapsulated by particular network type – “invites” potential hackers to do their job. Customers will not use services until they feel comfortable with having personal information and services delivered in a secure way through the network. On the other hand, operators and service providers will look for solutions that detect frauds and prevent losses of revenues and the unauthorized access to crucial data.

Customer centric approach

On the competitive market customers are always seeking offers that are best for them – not only in terms of pricing. New services state one of the factors. Operators know that customers that generate most of the revenues must be treated with special attention. Thus systems that serve them must be treated with extra care.

Billing systems of the future must support not only new services but primarily customer specific engineering in order to be able to configure private packages for particular groups of customers or even single businesses or VIPs.

A billing system must be able to handle custom pricing. Most customers will negotiate prices for business calls or data transfers to suit their needs.

What billing system will not do for you is customize the services you receive. However, a billing platform will help you to manage those inter-partner settlements. Providing customers with access to a self-service portal will offer them an ability to not only manage their own accounts (with personalized financial documents and payment functionality) but also tailor services to their needs.

From traditional to converged services

Growing capabilities of networks and handsets together with emerging market needs give the green light to services that not long ago were only a dream. New services introduce new challenges for providers and operators who have to take care of many aspects to fully enable management of those services. As different types of networks enable delivery of common services through digitization of content, operators will expand into areas which were previously reserved for broadband or cable TV. Traditional telecommunication, where a customer was simply talking on a phone for a few minutes, transforms to a more sophisticated form, where he is offered a converged communication integrating voice, video, text and data capabilities.

Tymoteusz Wrona
Product Manager
for TYTAN Billing Platform
Comarch SA

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