

Foreword

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Since development and deployment of the first group radiocommunication systems started during the second half of the XXth century, these systems have evolved substantially, both in performance and functionality. However, such evolution has not been as dramatic, in terms of penetration, coverage and features, as the growth of cellular communication systems.

Today, analog legacy systems such as the Private/Professional Radio (PMR) system coexist with more advanced digital trunking systems such as TETRA. Evolution of these technologies presents important challenges, particularly due to the lack of economies of scale, in terms of demand and availability of devices and services.

Due to these limitations and to the raise of cellular based technologies such as 2G and 3G, it was clear at the beginning of this decade that there was a need for a new standard for the evolution of professional group communications, not linked to trunking but to cellular technologies, covering advanced mobile communication scenarios that would include voice, text, data, messaging, imaging, and video etc.

The *Push-to-Talk over Cellular Working Group* (PoC WG) was created in 2003 within the umbrella of the *Open Mobile Alliance* (OMA) with the aim of defining a standardized PoC service. For the first time in the cellular domain, OMA PoC would let communities of users (*my family, my friends, my sports team, my colleagues, my subordinates* etc) instantly communicate at the push of a button, in an easy-to-use and intuitive way.

In addition to communication among residential users, Telefonica and other operators have been supporting, actively participating and promoting standardization of PoC advanced features, so that communication needs from professional (but even emergency and security) segments are also met by the standard. With the arrival of OMA PoC2 expected in the coming years, a significant share of such needs could be fulfilled with the PoC enabler. Coupling such solution with the right core and radio network infrastructure will be the basis to support advanced professional communication services in a multimedia environment.

It is obvious, however, that availability of a PoC standard is just the beginning of the story: it is not possible to successfully deploy a new service such as PoC unless the whole industry provides the right degree of support and effort in implementing an ecosystem of applications, gadgets, features and value-added services based on OMA PoC and other relevant standards, such as Presence or Instant Messaging.

In this environment, Mobile Operators – and Convergent Operators in particular – are progressively focusing on deployment of new services over an *IP Multimedia Subsystem* (IMS) infrastructure. The combination of several enablers working together in such

environments should certainly help operators speed up their service creation processes, and lower their costs. Furthermore, IMS should help operators combine services in a way that users in general (both corporate and residential) are offered true ‘solutions’ or ‘tools’ that are really useful and valuable for them. In fact, with availability of standardized technologies such as PoC, Presence, XDM or IMS, the key to success will greatly rely on how Operators and Service Providers actually ‘combine’ all these enabling technologies into meaningful services.

With this vision in mind, Telefonica strongly supports development of standardized enablers, as the basis for the creation of new services and features, in a cost-effective and fast way, while still meeting most (if not all) the needs of all market segments.

Focusing our attention on the PoC market, it is not unreasonable to think that in a few years time, PoC will have emerged as a true solution for group communications among mobile users. In the corporate segment, PoC will initially complement existing trunking technologies, such as PMR, eventually replacing such systems in some environments in the longer term. In the residential segment, combination of PoC with other exciting IMS-based services will lead to new communication paradigms, as we are starting to experience already today. In order to achieve these goals, new multimedia applications based on PoC must be developed. The good news for operators, developers, end users and PoC stakeholders in general is that OMA PoC has a consistent, clear and sustainable evolution framework for all involved players.

In conclusion, this is an exciting yet challenging journey just beginning. The ecosystem of new IMS- and PoC-based solutions is starting to take shape. This book comes as a great aid to engineers, end users, business managers or software developers involved in such environment: it will certainly be an invaluable tool for all those interested in learning more about applications, scenarios, business rationale or technology behind PoC and other new SIP-based services such as Presence or Messaging.

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