

**Regulatory Guide**  
**for the Mobile Virtual Network Operators (MVNO)**  
**operating on the Romanian electronic communications market**

(May 2012)

**1. Introduction**

1.1 This document is aimed at presenting the general regulatory framework regarding the activity of the providers that intend to offer their own publicly available mobile electronic communications services without holding a radio access network and therefore, they have to use the network of another mobile operator in order to provide these services.

This document also clarifies a series of requirements to be observed by the mobile virtual network operators at the market entry and during their activity in the electronic communications market.

1.2 During the consultation launched by ANCOM between 07 June 2011 and 08 August 2011 regarding the provision of mobile virtual networks in the national electronic communications market, some entities (both mobile network operators and would-be virtual mobile network operators) requested ANCOM further clarifications on the regulations applicable to the virtual mobile network operators, so that these operators could start their activity in the national electronic communications market, in accordance with the provisions of the national legislation applied to the electronic communications field.

1.3 This document highlights certain details of the current regulatory framework, which – despite providing for the market entry and operation of the mobile virtual network operators – did not foster the signing of any access contracts and starting the commercial activity by any virtual mobile network operators. The main purpose of this document is to ensure a transparent regulatory activity and to summarize the regime applicable to mobile virtual network operators (MVNO) while providing clear information to the mobile communications market players.

**2. The Concept of *Mobile Virtual Network Operator* - MVNO**

2.1 There are several technical-economic issues that can be included in the concept of *mobile virtual network operator (MVNO)*; they all are related to the fact that such an operator *does not have the right to use radio frequencies* and, consequently, *does not have its own access network and the associated infrastructure*, thus addressing a mobile network operator who has the right to use the radio frequencies, in order to lease the use of the radio capacity.

2.2 The MVNO concept implies a direct contractual relationship with an end-user, the beneficiary of the service provision.

2.3 MVNOs are entities who:

- **have their own customers**, being the only ones responsible for their relationships with the end-users and holding all the legal rights and obligations in relation to these users, as well as to the regulatory authority – ANCOM –, pursuant to the regulatory framework;
- **establish and launch to the market their own retail offer**, which may be different from the one presented by the mobile network operator hosting the MVNO, a retail offer that defines a distinct business strategy.

2.4 There are several operational types within the MVNO category, based on the core network elements owned and on the own network infrastructure used, but all types of MVNOs correspond to the above-mentioned characteristics. For the purpose of this document, ANCOM shall apply a definition internationally accepted and consulted with the electronic communications industry:

**An MVNO** is *an entity that provides electronic communications services at mobile locations, without holding a licence of its own for the use of radio frequencies and without necessarily holding all the core network elements and/ or the infrastructure required to provide mobile communications services.*

2.5 **A full MVNO** holds control, to the greatest extent, over the services it provides in the retail market and operates its own core network elements used for the service provision (e.g. HLR, VLR, (G)MSC, EIR, AuC, (G)SMSC, SGSN), which allows for higher flexibility in designing and implementing new services.

A full MVNO can issue its own SIM cards, but it does not hold usage rights over the radio frequencies and, therefore, nor does it hold elements of the radio access network (e.g. base stations, radio network controllers).

2.6 **A light MVNO** does not hold any core network infrastructure, but it holds the means that ensure the control of the relationship with the user. Most MVNOs in this category are simply distributors. Within this operational type, an MVNO can issue its own SIM cards using its own brand name.

2.7 **A medium MVNO**: Several types of MVNOs range between the light and the full types, based on the services offered and the degree of independence from the mobile network operator.

In international practice, this category is split in two subcategories:

- *service provider MVNOs* – compared to light MVNOs, these types of operators also manage all the processes regarding the customer relations services and the billing services for the services provided;
- *value-added service (VAS) provider MVNO's* – compared to service provider MVNOs, VAS provider MVNOs hold certain infrastructure elements, which ensure control over the services provided. These MVNOs can easily provide value-added services such as voice messages, missed call notifications, virtual private networks (VPN) etc.

2.8 A new, relatively recent, MVNO type in the mobile communications market is the Service Integrator or the **Mobile Virtual Network Enabler (MVNE)**, which offers the would-be MVNOs core network and infrastructure elements, and/ or solutions for various services, ranging from the provision of core network elements, to ensuring administrative and operational support. An MVNE acts essentially as an intermediate between the MVNOs that offer publicly available mobile communications services and the host mobile network operator. An MVNE, whose role has lately gained significant importance in the European communications market, may launch wholesale offers to the MVNOs, acting as an intermediate between them and the mobile network operator.

2.9 These generic types of MVNOs have been presented only to illustrate the great diversity of an operational model that can be encompassed within the concept of **MVNO**. Positively, mobile network operators and the entities interested in becoming MVNOs are free to choose the operational model that best fits their specific interests and their business strategy.

### 3. Implementation of the General Authorisation Regime

3.1 All the entities that intend to perform an activity within the scope of the MVNO concept, as defined above, must notify to ANCOM their intention of starting operation, as provided by the regulations regarding the electronic communications sector<sup>1</sup>. To this end, an entity wishing to become an MVNO should send a written notification to the regulatory authority, in accordance with the general authorisation procedure<sup>2</sup>.

3.2 Irrespective whether the intended activity envisages to provide a network along with the electronic communications services or only electronic communications services, the respective MVNO will have to observe the general authorisation regime.

3.3 Excepting the full MVNO and the MVNE types, all the other MVNO models depend on the core network elements of another entity. Correspondingly, such MVNOs that send notifications as providers of publicly available electronic communications services, will have to conclude with the provider administrating the core network elements used – either the host mobile network provider, or a mobile virtual network enabler (MVNE) – an agreement establishing and describing how they comply with their legal obligations that require the support of the core network administrator.

3.4 MVNEs and full MVNOs will necessarily send notifications as providers of electronic communications networks and services, based on the core network elements they make available/ use and on the whole range of services they intend to provide<sup>3</sup>.

3.5 The obligations incumbent on the MVNOs notified as providers of publicly available electronic communications networks and services are stipulated in the regulation regarding the general authorisation regime, as well as in the specific regulations elaborated by the regulatory authority<sup>4</sup>. All the notified operators will take steps to ensure that the tapping obligations within the legal framework are observed. A mobile network operator or an MVNE that owns or holds total control over the switching equipment (MSC and/ or HLR) made available to an MVNO, will ensure that these obligations are specified in the access agreement.

3.6 MVNOs will ensure their subscribers the right to be included in subscriber directories and in the databases of the subscriber enquiry services.

### 4. Numbering

4.1 The provision of electronic communications networks and services may involve granting rights for the use of numbering resources, upon an MVNO's request. MVNOs that hold the necessary core network elements, a full, a medium MVNO or an MVNE, may be granted, upon request, both national numbering resources in the National Numbering Plan E.164 (ZABPQMCDU) of the 070 format for the provision of voice services, and in the Mobile Network Code E.212 for the provision of SMS services. *Numbering resources* refer to the numbering resources in the current National Numbering Plan and the associated technical resources.

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<sup>1</sup> Chapter II "Authorisation to provide electronic communications networks and services" in the Government Emergency Ordinance no.111/2011 on electronic communications

<sup>2</sup> ANCOM President's Decision no.338/2010 on the general regulatory framework for the provision of electronic communications networks and services

<sup>3</sup> As part of updating the Annex to ANCOM President's Decision no.338/2010, an MVNO will notify as a provider of electronic communications services (light MVNOs and medium MVNOs) and as a provider as electronic communications networks and services (full MVNOs, MVNEs and the types of medium MVNOs that own core network elements)

<sup>4</sup> ANC President's Decision no.1023/2008 on establishing communications to the National Unique System for Emergency Calls, with the subsequent amendments and completions, ANC President's Decision no.77/2009 on the obligations of informing the end-users by the providers of publicly available electronic communications services, ANCOM President's Decision no.1201/2011 on establishing the quality indicators for the provision of the Internet access service and the publication of the due parameters (non-exhaustive list)

4.2 ANCOM will allocate, upon request, numbering resources in accordance with the National Numbering Plan and with the regulations regarding the allocation of numbering resources and of the technical resources. The requests for the allocation of numbering resources must be concordant with the notification sent under the general authorisation regime.

4.3 Following a request for the allocation of numbering resources in the National Numbering Plan, ANCOM will grant a licence for the use of numbering resources (LURN)<sup>5</sup>. The technical resources necessary for the network operation or for the service provision will be allocated by Decision of the ANCOM President<sup>6</sup>.

4.4 The rights for the use of numbering resources will be granted for numbering units or blocks, according to the type of the service to be provided and in accordance with the existence of a request for numbering resources, in accordance with the principles and criteria applicable in the management and allocation of numbering resources and with other terms ancillary to the rights of using the numbering resources that may be imposed by ANCOM.

4.5 According to the request submitted, full MVNOs or VAS-provider MVNOs may be granted rights for the use of at least the following categories of technical and numbering resources:

- a) a Mobile Network Code (MNC) is allocated to each entity and is subject to the following criteria:
- the existence of a network that requires the identification of the provider's own terminals or of other networks' terminals (*roaming*);
  - the existence of a network or of an equipment that uses protocols established by mobile communications standards for the purpose of rendering services compatible and of ensuring their interoperability for the end-users;
- b) numbering resources – destined to the provision of publicly available mobile telephony services; in this case, the requesting entity may receive for allocation blocks of nx100,000 numbering resources in the OZA = 070 subdomain, where nx100,000 is a motivated request for numbering resources submitted by the requesting entity;
- c) technical resources (numbers of the signalling point system no. 7) destined to the identification of the signalling points, at the national or international level, necessary for establishing one's own SS7 signalling system within the network and/ or in relationship with other networks;

MVNOs may be allocated further categories of technical and numbering resources, unspecific to this provider type, according to the requirements of providing networks and/ or services, based on a motivated request addressed to ANCOM, in compliance with the regulations in force.

4.6 The above-mentioned national numbering resources must be activated within six months from the granting date of the LURN, according to the granting and management principles applicable to numbering resources.

4.7 According to the regulations on number portability<sup>7</sup>, these operators will be applied the specific obligations pursuant to the regulations in force, in accordance with the type of resources allocated. An operator unique code, corresponding to the format of the network routing number, will be allocated to each operator under the number portability obligations.

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<sup>5</sup> ANRCTI President's Decision no.2896/2007 on the procedure of requesting and granting licences for the use of numbering resources, with the subsequent amendments and completions; The MVNOs' possibility to take over numbering resources from the mobile network operator will become effective following the updating of ANRCTI President's Decision no.2896/2007, provided for the 2012 review.

<sup>6</sup> ANRCTI President's Decision no.500/2008 on the allocation and use of certain technical resources, with the subsequent amendments and completions

<sup>7</sup> ANRC President's Decision no.144/EN/2006 on the implementation of number portability, with the subsequent amendments and completions

## 5. Agreements for Access to the Mobile Network

5.1 In order to start its activity, an MVNO needs to set up a business strategy and an operational model, to negotiate and conclude – based on these – an agreement with a mobile network operator, which holds rights for the use of radio frequencies in licensed bands, an agreement that must provide the technical and commercial conditions regarding access to the network that will enable the respective MVNO to provide mobile communications services to its end-users. According to the best European practices, currently, an MVNO may be implemented also by means of an MVNE that can act as a consultant both in the process of negotiating the access agreement with the mobile network operator and in consolidating a business plan, in proposing cost-cutting solutions and in offering technical expertise, which may enable the MVNO to focus on a variety of service solutions for its users and on its customer relations.

5.2 According to the legislation in force<sup>8</sup>, a mobile network operator will negotiate in keeping with the principles of contractual freedom and of good faith with the would-be MVNOs, upon their request, an agreement that should cover the technical and commercial terms for granting the MVNOs access to its mobile network.

Granting an MVNO access to a mobile operator's network shall read as the whole set of performances provided to an MVNO by the host mobile network operator that allow the respective MVNO to provide mobile electronic communications services at mobile locations<sup>9</sup>.

5.3 The agreements regarding an MVNO's access to a mobile operator's network will cover all the technical and commercial issues raised by the parties.

(a) By virtue of its attributions,<sup>10</sup> ANCOM endorses the view that the mobile operator's solution of access to its network must allow an efficient economic operation, must provide non-discriminatory conditions in terms of service quality, compared to those enjoyed by the mobile network operator for its own services. The access agreement will provide clauses specific to a Service Level Agreement (SLA) negotiated and agreed by the parties.

(b) A mobile network operator provides access in reasonable economic conditions, taking into account the conditions prevailing in the wholesale and retail markets it operates in, and that are compatible with the principles of fair and effective competition in these markets.

(c) The agreement should not include clauses susceptible of limiting:

- the MVNO's commercial autonomy in the retail market;
- the MVNO's capacity of changing the host operator or of concluding agreements with several operators;
- the MVNO's development plans, especially as regards the duration, the extension terms and termination and cancellation terms of the access contract.

(d) Moreover, the agreement conclusion will not be bound by accepting clauses that have no relation with the object of the agreement.

(e) A mobile network operator will answer favourably to the reasonable requests for access to its mobile network. Should the mobile network operator reject the request, it should motivate the rejection by objective reasons and/ or by the MVNO's unreasonable request.

(f) To avoid discouraging initiative in such a dynamic market as that of mobile communications and taking into account the fact that there are a variety of operational types of MVNOs, the regulatory authority recommends that negotiations for an agreement regarding the access of an MVNO should be completed within a reasonable interval, no longer than 6 months, for the first access agreement of an

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<sup>8</sup> Art. 11 of the Government Emergency Ordinance no.111/2011 on electronic communications

<sup>9</sup> Art. 4 (1) point 28 of the Government Emergency Ordinance no.111/2011 on electronic communications

<sup>10</sup> Art. 100 of the Government Emergency Ordinance no.111/2011 on electronic communications

MVNO, from the request submission date. For negotiating subsequent MVNO access agreements, the regulatory authority proposes a term of 3 months from the request submission date.

In order to ensure meeting the proposed deadlines, the negotiating parties to the access agreement will negotiate the contractual clauses in good faith, will answer thoroughly and precisely to the requests raised, will not change the technical and commercial conditions by major requests that can extend the recommended terms.

(g) The agreement provisions should be technically implemented, as well, within a reasonable interval, no longer than 4 months from the date of signing the agreement, for the first agreement for hosting an MVNO, and no longer than two months for the implementation of subsequent MVNO access agreements, based on the technical requirements mentioned by the mobile network operator.

(h) The terms for concluding an access agreement and for the technical implementation of the agreement should be shorter in the case of a light MVNO.

(i) The regulatory authority recommends that - within 6 months from the date of concluding the first agreement for hosting an MVNO - the mobile network operators should publish a Reference Access Offer for MVNOs, according to the European best practices in the field<sup>11</sup>.

(j) An access agreement for the MVNOs will contain a commitment to providing them reasonable economic conditions.

The reasonable character is assessed by the two parties' performances and by their input to the setup and to the operational launch of the services provided by the MVNO. In this respect, the final wholesale tariffs must be the result of a negotiation reflecting the respective parties' input to creating added value, including the operators' investments therefor. These tariffs will be reviewed, as the case may be, based on the development of the conditions prevailing in the downstream markets involved.

## **6. Interconnection Agreements**

6.1 The companies providing publicly available electronic communications networks and services, including the MVNOs, have the right to negotiate interconnection with other providers of publicly available electronic communications networks and services.<sup>12</sup>

6.2 The terms and conditions for providing access and interconnection must observe the obligations imposed by ANCOM in the field, the network operators having the right – and the obligation, when addressed by other operators – to negotiate interconnection with each operator, for the purpose of providing publicly available electronic communications networks and services.

Currently, the tariffs for call termination in the MVNOs' networks are not regulated by the authority.

6.3 In this context, the MVNOs that have been allocated numbering resources in the National Numbering Plan have the right to negotiate interconnection for the purpose of providing telephony services (call termination), while the rest of the fixed and mobile operators have the obligation to negotiate with an MNVO, upon the latter's request, an interconnection agreement for the provision of telephony services.

## **7. Payment of the radio spectrum usage fees**

7.1 Irrespective of the MVNO type a provider adopts, it will not hold spectrum usage rights for the provision of mobile electronic communications; therefore, MVNOs will not be charged any fees for the use of the radio spectrum. These fees will be paid by the host mobile network operator, according to the calculation regime applied by ANCOM.

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<sup>11</sup> The provisions of this paragraph refer to the situation preceding the entry into force of the new 15-year licences.

<sup>12</sup> Art. 12(1) letter a of the Government Emergency Ordinance no.111/2011 on electronic communications