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Mobile Virtual Network Operator Operator -Framework

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1. Introduction

Mobile Virtual Network Operator (MVNO) is an operator with no possession of frequency spectrum, but has an agreement with conventional Mobile Network Operators (MNO). MVNOs purchase minutes from MNOs and then, they resell it to their consumers.

MVNO business has its roots in 1999 and nowadays there are many such operators in Europe and worldwide. Since the frequency spectrum is a limited resource, the number of MNOs in certain countries is limited as well. However, if there are parties interested to develop business and offer mobile telephone services, they may ask the MNO for capacities so that they resell this capacity and become MVNO.

Taking into consideration the article 3.1.2 a4 of the document “Telecommunications Sector Policy” approved by the Government of Kosovo on 13 June 2007, as well as the invitation of the PTK J.S.C. for cooperation in sharing its resources with companies interested in offering mobile services in Kosovo, the Telecommunications Regulatory Authority aims to enable this MNO-MVNO cooperation. This MVNO framework which is drafted in consultation with the Ministry of Transport, Post and Telecommunications, is a step towards this matter.

2. MVNO International Practices

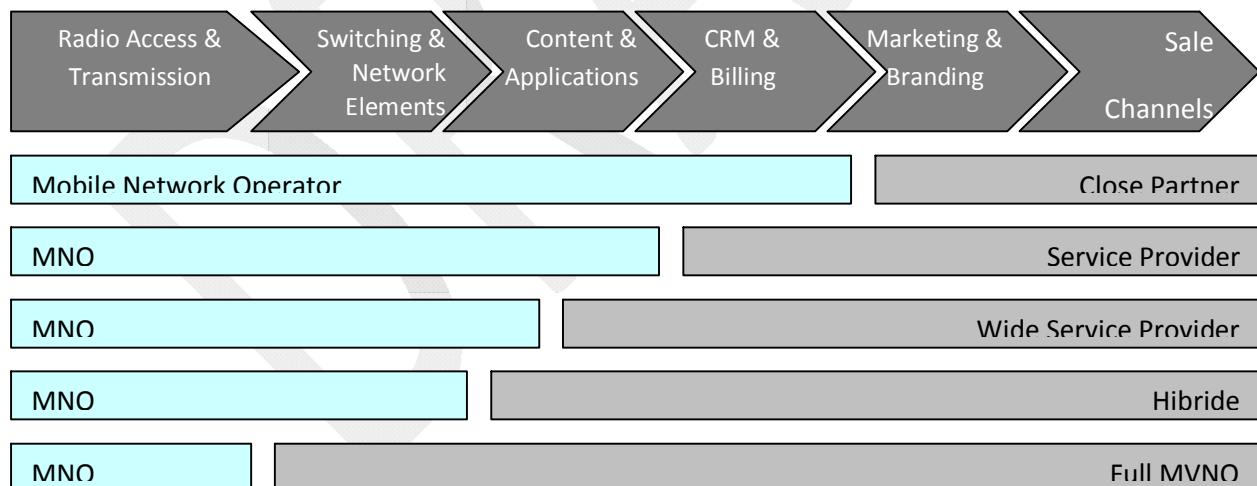
Wireless services are world wide spread. Providers of these services offer wireless services almost in all countries of the world. Penetration rate in developed countries of the Western Europe, USA, Japan and others is more than 100%. As a result of this penetration, there is market saturation, thus providers of this service are facing a profit reduction. Since profitability is under the pressure because of market saturation, the service providers are trying to be more innovative and offer more sophisticated services as well as data services. The best innovative example is the first company form UK, Virgin Mobile, which had a successful business, its branding and the special number for consumer care. The key of its success are the

innovations in prices, value added services and possession of consumer care service. Presently, there are more than 100 MVNOs throughout the world, most of them operating in Europe, USA and Australia. MVNOs are popular in most countries. There are MVNOs that enable their consumers a communication with IT back-end systems and mobile phones through a SMS software/API Services. Other MVNOs offer data transfer services with a high quality and security.

Most MVNOs have their own MSC, HLR and IN infrastructure and manage SIM cards, billing systems, consumer relations and care their brand etc). Certain restrictions depend on the commercial agreement between MVNO and MNOs.

3. MVNO Types

There are varieties of MVNOs. Some only resell mobile services and the rest offer such services and operation that the consumer can not notice if it is an MVNO or an MNO. Five original models were developed in 1999 and are represented below.



The simplest MVNOs are more than resellers: they add their brand by creating their own marketing strategies. Some other MVNOs have and develop their own Mobile Switching Center-MSC and IN Infrastructure in order to support the provision of value added services. In this case, MVNOs use radio network from the MNO and offer their advanced services in their IN

platform. This enables the MVNOs to enter into competition with Existing Operators with regard to prices, types of products and offered services.

The type of MVNOs that will operate in Kosovo will be subject to commercial agreements between MVNO and MNO. MNOs may enter into any commercial agreement as mentioned above. After this agreement, a copy of it shall be offered to TRA. After analyzing this agreement and other legal documents, TRA shall grant the license to MVNO, which can operate only after completing this procedure.

4. Key Issues

4.1 Number Allocation:

Since MVNOs operate pursuant to commercial agreements with MNOs, which contain sections on termination of these agreements, the number allocation is a highly important issue. Similarly, the number redirection is very important. Numbering blocks for MVNOs must be allocated to MNOs. MNOs shall be responsible for number redirection and payment obligation to TRA.

4.2 Branding:

MVNOs shall be made possible to use their own brand. MVNOs should be enabled to sell SIM Cards with their own brand with codes allocated for MNOs for the same purposes.

4.3 Billing:

MVNOs shall be responsible for its consumers billing systems and saving billing information. MVNOs must have the Billing format approved by respective authorities prior to commencement of services and shall be responsible for complaints raised by its consumers.

4.4 Fraudulence and Security:

Theft of mobile phones and fraudulence are a high concern of MNOs, which have their own procedures of reporting and deactivating stolen mobile phones. Since this issue is addressed to at an MSC level, MVNOs might not be able to address this issue. However, specific arrangements are made by commercial contract reached between parties and MNO is obliged to report and manage situations of detected fraudulence or theft. In cases when an

MVNO is allowed to have its own MSC, then the MVNO shall be responsible for making an agreement in order to face cases of fraudulence or theft.

4.5 National Security:

National Security shall depend on agreements between MNOs and MVNOs. In cases of a full MVNO, MVNO is responsible for obligations on national security. In all other cases, MNO is responsible for national security issues.

4.6 Contributions for USF and R&D funds:

MVNO shall contribute for Universal Service Fund-USF, Research and Development Fund- R&D with same terms and rates as MNO.

4.7 Payments:

MVNOs shall pay an initial fee of € 100,000 for the license. Thereafter, the MVNO shall pay TRA an annual fee set to 0.5% from the gross annual turnover.

4.8 Interconnection and Roaming:

MVNO shall not be allowed to make any interconnection or roaming agreement with other operators, but it shall use interconnection or roaming agreements of the MNO.

4.9 Quality of Service (QoS) Obligations -:

MVNO shall be responsible for quality of service pursuant to criteria set by forth by TRA, which are also applicable for MNOs. MVNO QoS shall be checked regardless of the MNO. In cases when this quality of service is set by TRA, then TRA shall have the right to penalize the MNO.

4.10 Consumer Care:

MVNO shall be responsible for establishing the consumer care center, in order to respond to consumer complaints and other related queries.

4.11 Service Discontinuation/Suspension/Termination:

After commencement of MVNO services, the MNO shall continuously offer services to MVNO. MNOs may not suspend/terminate MVNO services based on the commercial agreement unless they have an approval by TRA.

4.12 Termination of MVNO License:

In cases when TRA terminates the MNO license, the MVNO license terminates instantly.

5. Comments

We welcome your comments on this framework, if there is any incompleteness in the meantime.

6. Acronyms

MNO- Mobile Network Operator

MVNO-Mobile Virtual Network Operator

TRA-Telecommunications Regulatory Authority

MTPT-Ministry of Transport, Post and Telecommunications

MSC-Mobile Switching Center

HLR-Home Location Register

IN-Intelligent Network