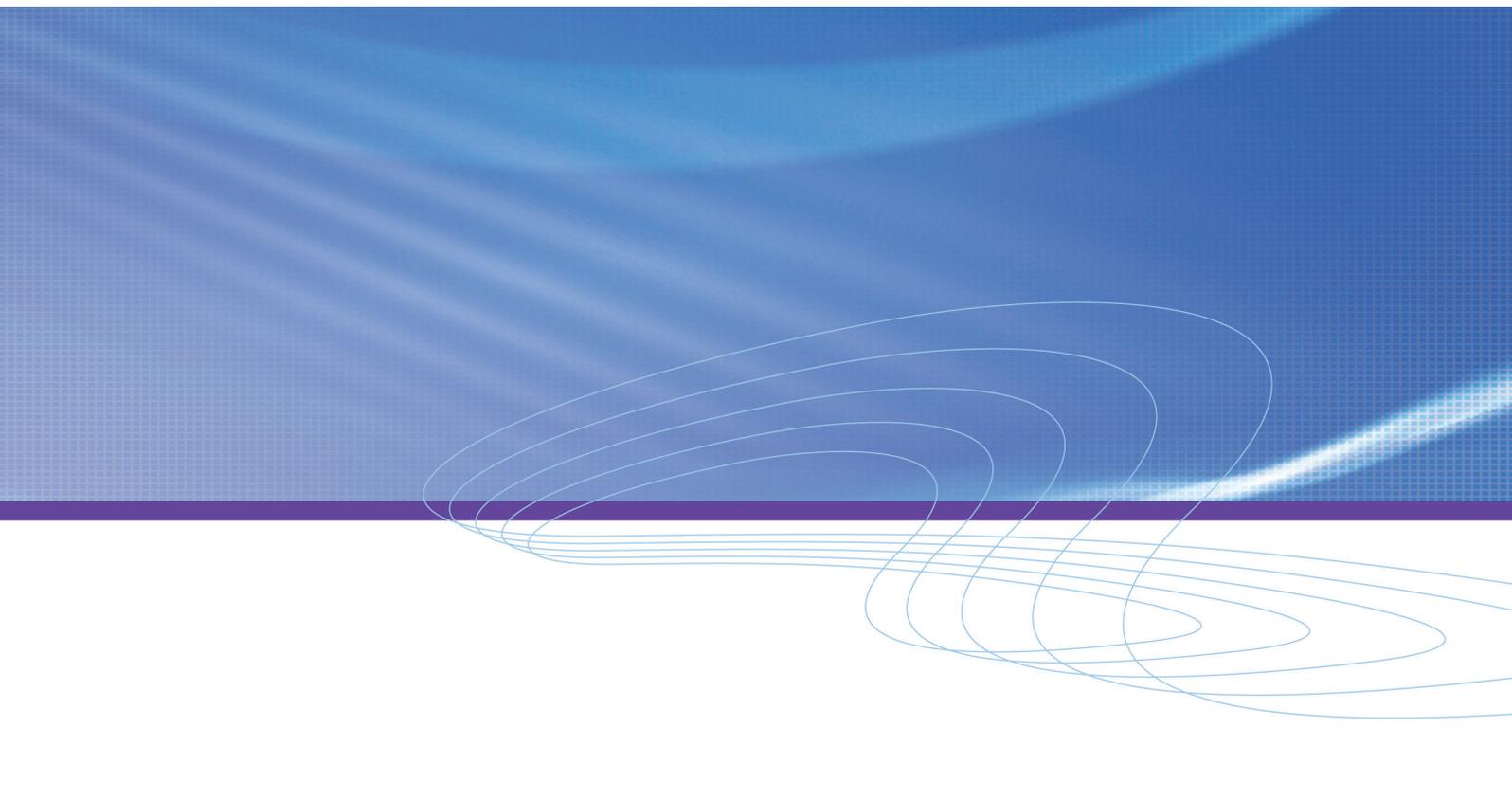




Services for MVNE –
Mobile Virtual Network Enabler



Services for MVNE

Introduction

In saturated telecommunications markets, the Mobile Virtual Network Operator (MVNO) model is currently promoted by the regulatory authorities to stimulate competition. Far from being simple minute resellers, most MVNOs differentiate from mobile operators by adding value to mobile offers with brand appeal, distribution channels, convergent capabilities (quadruple play), exclusive content and more.

The MVNO model offers business opportunities to different players:

- Fixed operators who want to capitalize on fixed-mobile convergence and to evolve towards quadruple play through MVNO
- Brand companies (media companies or retailers) who want to leverage their brand and premium content, or distribution networks, to provide differentiated services
- Mobile Operators who want to host MVNOs on their network to maximize their radio capacity usage and investment
- Mobile Operators who want to diversify their offer with international development (e.g. in countries where they do not own a license) or by addressing, distinctly, specific market segments (ethnics, youth...)

Technically speaking, as they do not own a spectrum license, MVNOs must be hosted by an existing mobile operator for the radio part of their network. Conversely, for their core network

and their business systems (billing, customer relationship management), MVNOs are free to re-use the assets of an existing mobile operator or to have their own solution. This latter choice (named Full MVNO model) is the preferred option for MVNOs who want to differentiate from other operators and promote a distinctive offer.

For these Full MVNOs, Alcatel-Lucent proposes the Mobile Virtual Network Enabler (MVNE) Solution, a shared risk model with Alcatel-Lucent owning, hosting and operating the MVNE platform. through this Convergent solution, Alcatel-Lucent delivers the corresponding services to the MVNO and enables it to launch, in a time and cost-effective mode, differentiated services.

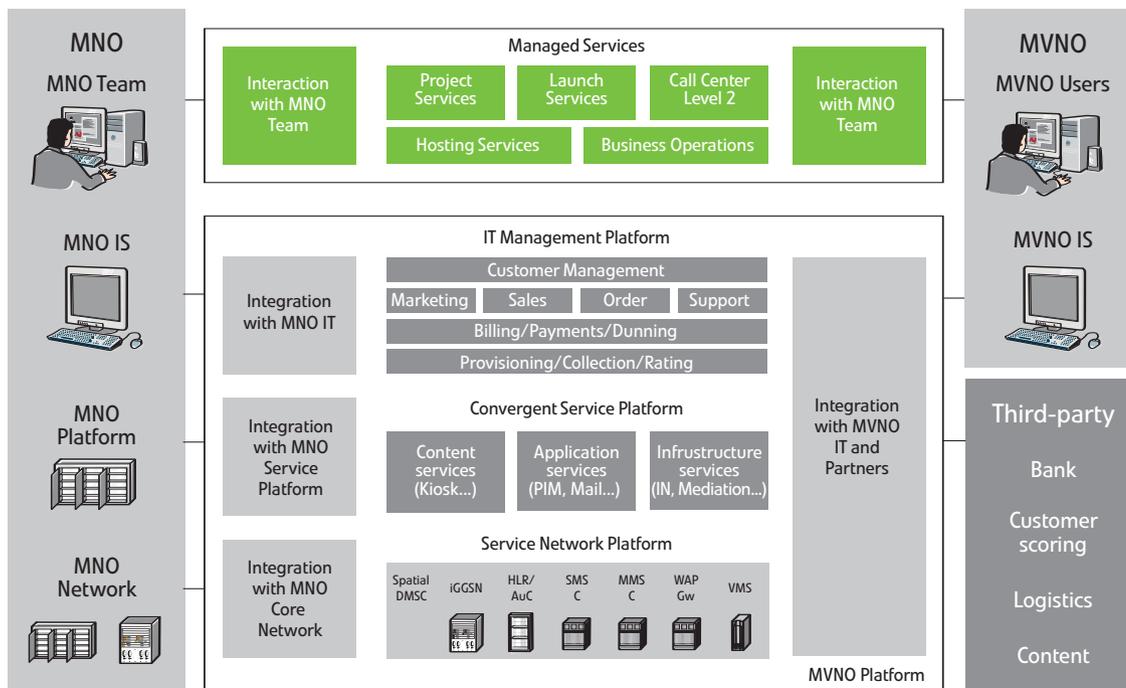
MVNE: Definition and Deliverables

The graphic below gives an overview of the Alcatel-Lucent MVNE Solution:

The Alcatel-Lucent MVNE Solution consists of the following technical components, which can be owned and operated by Alcatel-Lucent in a Hosted Model (cf. Managed Services option):

- IT Management platform aims at supporting MVNO's business processes, for example: CRM, advanced billing, self-care functionalities, interface with mobile operators or MVNO, marketing and pricing tools.

The MVNE IT Management platform is provided by Capgemini, a recognized leader in IT consulting and services, further to a partnership signed with Alcatel-Lucent to provide a complete and fully integrated MVNE/MVNO



Mobile Services Environment that will span across the whole range of technologies and service domains.

- Convergent Service platform, provided by Alcatel-Lucent, enables enhanced Convergent Telecom services (i.e. communicating in real-time using any combination of voice, messages, picture, video...) and is composed of three main modules:
 - Content services module: providing access to MVNO's content services, or third parties content
 - Application services module: providing access to "must-have" applications such as Personal Information Management, Mail, Chat, and Unified Messaging
 - Infrastructure service module: allowing access management to the above-mentioned services (IN-based services, mediation...)
- Service Network platform, provided by Alcatel-Lucent, encompasses all necessary network infrastructure modules to provide Telecom services. It relies on an IP-based Next Generation Network architecture providing extended flexibility and evolution capabilities (soft migration to IMS, business extension to other countries....)

This platform is split in two parts:

- Core network sub-system, handling communications including Next Generation HLR, Alcatel G-MSC (Wireless Softswitch, Media GateWays (MGW), signaling gateways (SS7), leg management, iGGSN (combination of GGSN and Intelligent Service), Control and Charging Node, Border Gateway, UMA functions, IMS architecture components (option).
- Enabler sub-system, providing access to services including SIM Applet (multi-IMSI), MNP (Mobile Number Portability), USSD & SMS Call-back services, IVR system, Voice message system, SMS-C (short message service), MMS-C (multimedia service), Wap gateways (Wap GW).

The components of the three MVNE platforms are pre-integrated within various packages that are matching either typical MVNO architecture deployment (from light to full MVNO) or MVNO target market segments (Fix Mobile convergence, Media applications, etc.).

In case the customer would not be in a position to purchase the MVNE Solution or operate it efficiently, the Alcatel-Lucent MVNE Solution offers a set of additional managed services:

- Project services, aimed at steering and controlling the solution and business processes (project management, change management, operation processes definition, SLA management, customization...).
- Launch services, aimed at launching the solution and business processes (installation, commissioning, and design of the solution...).
- Hosting services, including housing, backup / restoration,

network, security and local connectivity, monitoring 24/7, infrastructure management, L1 incident management.

- Business operations services, aimed at running the solution applications with day-to-day business operations: service provisioning, billing and rating management, invoice control, content management, revenue assurance.
- Call center level 2 support services, involve welcome, qualification, dispatch / assignation, incident and service request log-in, SLA follow-up, escalation and reporting.

Main Customer Benefit

The Alcatel-Lucent MVNE Solution provides the following benefits:

- **Accelerated revenue:**
Thanks to a pre-integrated set of platforms and to an existing operations set-up through Alcatel-Lucent's Global Network Operations Centers, the MVNOs can benefit from an anticipated gain of six months to enter the market, compared to an in-house solution.

In addition, as a convergent solution, the Alcatel-Lucent MVNE Solution accounts for everything that is required by MVNOs to speed up their revenue generation, through services diversification and international development opportunities. This includes built-in multi-country capability, multimedia and convergent services enablers from the Alcatel-Lucent portfolio, and a set of specific convergent applications for fixed operators, and ISPs willing to be convergent global operator.

- **Managed business model enhances cash flow:**
The MVNE Managed Services model enables the MVNOs to align their expenses with their revenues. Because the platform is owned by Alcatel-Lucent, no CAPEX investment is required by the MVNO. Furthermore, the Alcatel-Lucent costs are streamlined thanks to pooled resources and sharing between several operators.
- **Reduced risk:**
The MVNE Solution is based on a future-proof, IP-based platform and includes NGN and IMS technologies for which Alcatel-Lucent is a worldwide leader. This provides a guarantee to MVNOs that the Alcatel-Lucent MVNE Solution follows IP transformation market evolution, thus avoiding potential incompatibilities between the MVNO's business case and architecture Total Cost of Ownership.

In addition, Alcatel-Lucent's end-to-end approach, including partnership with Capgemini, enables the MVNO to focus on its core business, (marketing, distribution, differentiated offering) and leave integration, planning, operations and associated risks to Alcatel-Lucent.

As #1 in multi-vendor outsourcing deals, Alcatel-Lucent has acquired a proven operations expertise. Thus, Alcatel-Lucent can reduce the initial and long-term technical and operations risks born by the MVNO.

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