



MNS Viewpoint: Managed Services Challenges and Strategies for MNO

1. Market trends

Over the last years, new trends have redefined the telecoms market, including mass-market LTE networks, rapid smartphone adoption and users' awareness of data services. As a result, operators are facing new key critical challenges:

- **Data traffic:** early networks illustrate that traffic on LTE can be four to five times that on 3G networks and that video streaming accounts for a large share of usage. 3G traffic in LTE-enabled markets seems to be slowly declining.
- **Network complexity:** LTE is the latest in a long line of network technologies, following GSM, UMTS/W-CDMA, HSPA and several others. Even if air interfaces have been consolidated in Single RAN platforms, network operations, OSS/ BSS and several other support systems are fragmented, multivendor and complicated to maintain. Under current network-

planning processes, this is expected to continue.

- **Revenue decay:** OTT services, in-market competition and regulation are a few short-term reasons why revenues are declining. Longer-term concepts, including WebRTC, are also likely to disrupt the mobile operator business and are being closely followed by the industry.

These three trends are enough to disrupt any mobile business, and operators are taking steps to reduce complexity, risk and costs in the areas they can. One such area is managed services, where a vendor takes charge of various aspects of operations while the operator focuses on the end-user relationship. There are different levels of managed services, and many different types of companies are available to manage different aspects of operations, networks and services.



2. Managed services in telecoms infrastructure

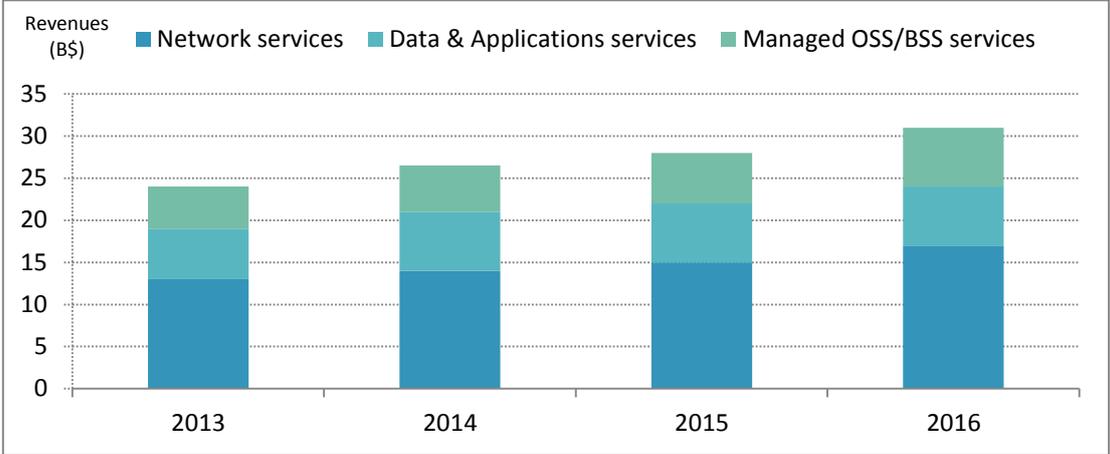
We expect the managed-services market to continue growing as operators strive to reduce costs and improve operational efficiencies further. **Network sharing and managed services are the two universal network trends** that appear globally,

regardless of the state of the market or whether it is developing or developed. These two trends will continue to develop, in some cases in conjunction but in most cases independently.

According to Informa, managed services market is expected to grow at a CAGR of 7.5% between 2013 and 2017

Telecoms networks are expected to account for the lion’s share of the managed-services market.

Fig. 1: Managed-services revenue, 2013 – 2016 (source: Informa Telecoms & Media)



3. Managed Services are evolving

Telecoms operators are required to respond to rapidly changing market dynamics while managing ever-more-complex systems, processes and organizational structures.

As a consequence, some operators are realizing that they must change their approach to managing their networks and associated

back-office systems and processes. Recent research suggests that operators’ expectations of assistance from managed-service providers are evolving beyond their initial focus on network efficiencies and shifting to **focus on improvements in operational excellence and value creation.**

Why independence matters

Although telecoms managed services have traditionally been served by infrastructure vendors that also supply network equipment, several market trends might provide opportunities for other types of companies in managed services. Recent Informa analysis illustrates that most **telecom operators’**

requirements for managed services are changing from mere cost to a wider range of customer-centric and revenue-generating concerns: business intelligence and new digital services are likely to be more important in the next five years (see fig 2).

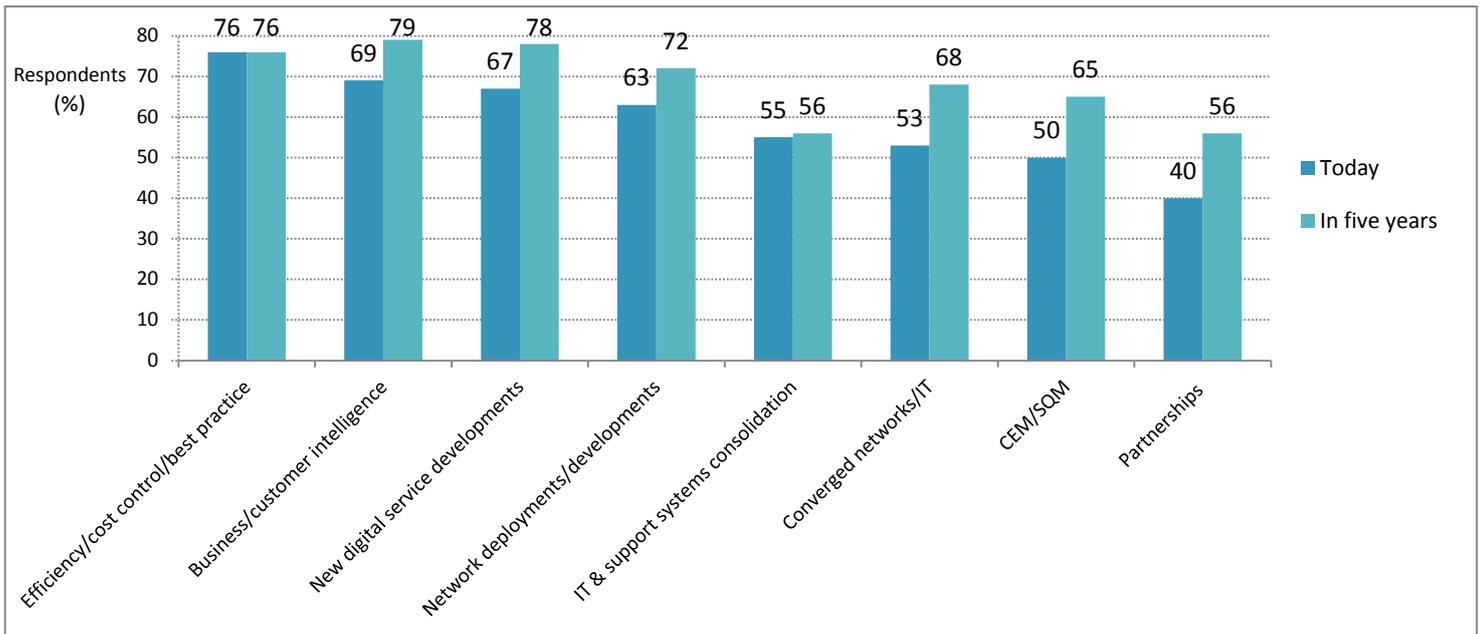


Fig. 2: Survey question: rank these business areas in order of importance for telecom operators today and in five years). **Number of responses: 140** (Source: Informa Telecoms & Media)

The nature of networks is changing: Single-vendor relationships are likely to be replaced with multivendor partnerships, where innovation may come within and outside the operator business. It is linked to the rising complexity of the market as value-chain boundaries are crossed by all infrastructure vendors, system integrators and consultancy companies. As the telecoms and IT industries

align to create a new ICT value chain, operators will need to be more agile, create services faster and be able to compete with OTT companies. They are likely to partner with many specialists and smaller vendors to promote innovation.

However, mobile operators will still prefer a single partner, so that risk, effort, costs and complexity are minimized.

4. System-integrator managed services

System integrators (SIs) are well-positioned to convince operators they are free from specific hardware interests and can use best-of-breed components to build a robust, flexible and scalable network, which is an especially good approach as telecoms and IT align and as operators need to integrate many more components (e.g., SDN, virtualization, big data and analytics) into their networks. If an operator does not have a strong enough division between infrastructure and managed services, its exclusive infrastructure-vendor partner might not take pains to ensure that advice, end-to-end management, design,

deployment and maintenance are hardware-independent, since the vendor has a vested interest in promoting its own equipment. It is not unnatural for operators to assume that a vendor has more expertise in handling its own equipment rather than its competitors'. Infrastructure vendors and system integrators have different strengths when it comes to managed services, which often extend beyond the network (see fig. 3).

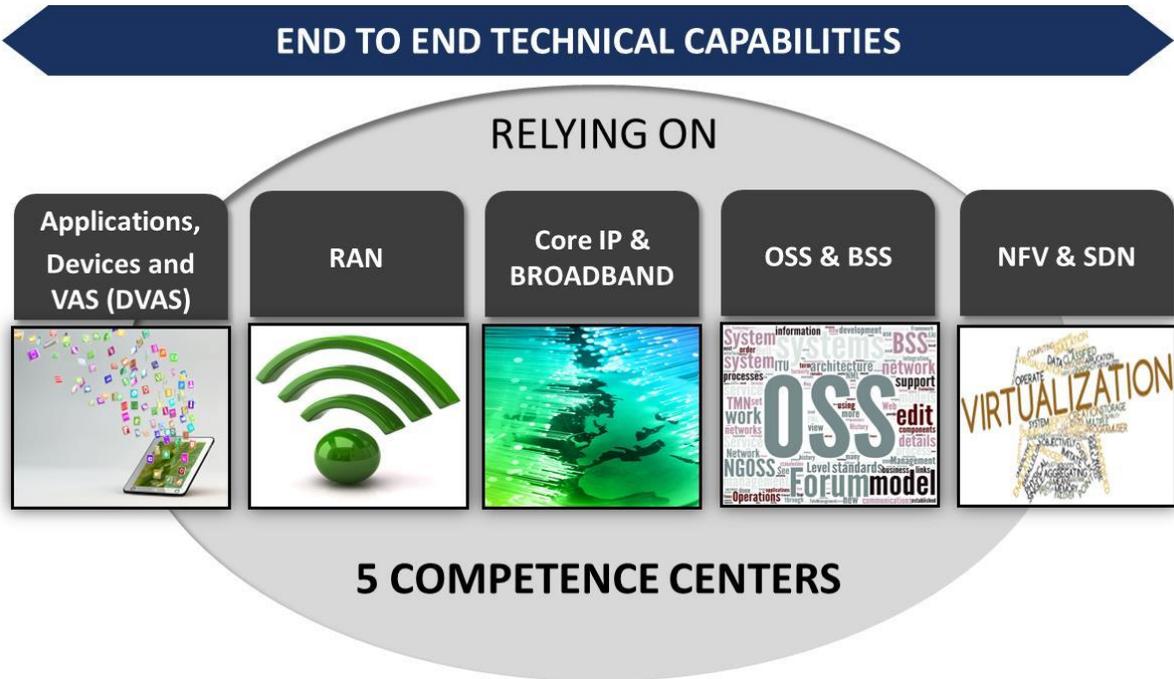
Fig. 3: Comparison of infrastructure vendors and system integrators for managed services

| Strategy element | Infrastructure vendor | System integrator |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Independence | Low – Although multivendor suppliers are supported, vendor MSPs might prefer own equipment | High – Likely to select best-of-breed equipment Free of exclusive vendor relationships and can select best-of-breed components to build a system that fulfils operator demands. Overall, they are well positioned to stress their hardware independence, which is also in line with new market trends, including SDN and virtualization. |
| Innovation | Medium – Usually relies on either vendor or operator expertise | High – Might combine expertise from smaller companies to foster innovation Well positioned to foster innovation, due to their independence from specific service-provisioning platforms. Network APIs and disruptive technologies (including WebRTC) are likely to enforce this trend. |
| Cost savings | High – Economies of scale and single-vendor procurement in the past they have been likely to score higher in short-term cost savings and risk reduction, due to their ability to procure equipment and due to the hardware nature of existing managed services. | Medium – Multivendor procurement might impose higher costs for best-of-breed components in the broader market context and due to technology developments, more telecoms operators might find that their hardware / software needs go beyond the capabilities of a single infrastructure vendor: so system integrators will be well positioned to score high in both cost and risk reduction, as their broad expertise will be an advantage. |
| Risk reduction | High – Single-vendor equipment and relationship | Medium – Multivendor networks and equipment might provide initial challenges |
| Wide expertise | Low – Expertise in own equipment | High – Expertise in multiple vendors and smaller suppliers They benefit from strong breadth of expertise: they can easily combine best-of-breed equipment from different vendors and go beyond the realm of telecoms infrastructure when creating broad platforms for mobile operators. |
| Scalability/ flexibility | Medium – Usually relies on single-vendor equipment | High – May select best-of-breed for infrastructure, services and operations They can address the scalability and flexibility demands that new usage trends require; they are free to focus on providing the best solution at an optimized cost. |
| Operator culture | High – Operators are accustomed to single-vendor relationships In the past, operator culture has been geared toward single-vendor relationships, due to the hardware nature of managed-services contracts. | Medium – SIs might need to expand their market visibility to win operator interest They can combine platforms from many different vendors: they will be well positioned to take advantage of the increasing alignment between the telecoms. |

Source: Informa Telecoms & Media

5. About MNS

MNS Consulting is an international management and engineering consulting firm specialized in the telecommunications industry. We have developed a unique expertise in Telecoms network domains. We distinguish ourselves with a strong combination of deep technological expertise and strategic vision that allows us to address the challenges of our customers. We are committed to delivering outstanding consulting services and highest value to our clients by helping them to drive growth, manage complexity, and improve operations and performance in a complex and fast changing market. Our engineering consulting capabilities are structured around the 5 competence centers below that allow us to have a full vision of the end-to-end network services management.



This competence center approach always guarantee highest standards for all our engagements and great customer value. It enables to help and accompany our customers with an effective operational transformation strategy and methodology. It enables a smooth transition to the new operational models, with outsourcing and industrialization of network activities.

MNS is headquartered in Paris and has also operations in Africa and the Middle East.

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