



Opex efficiency strategies for operators



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About this report

This report complements Analysys Mason's *Telecoms opex: worldwide trends and forecast*¹ by providing further qualitative analysis of the trends identified in that report. It provides an overview and analysis of the different strategies that operators can implement (across their network architecture, their assets and their overall organisation) to optimise their operating costs. This report is based on several sources, including:

- a detailed model based on many public and private sources
- Tracking and analysis of the financial reports for at least 60 Tier-1 operators, combined with a primary survey of 68 operators worldwide.²

KEY QUESTIONS ANSWERED IN THIS REPORT

- How will automation and cloudification affect productivity and overall costs?
- How will a wider range of organisations affect telecoms operators' operational costs for network and cloud sharing and hosting?
- How are operators' efforts to address sustainability concerns affecting costs and profit margins?
- How are staffing/productivity/automation levels affecting costs and profit margins? What effect has the COVID-19 pandemic had on these areas?
- How is operators' overall opex changing and why?



GEOGRAPHICAL COVERAGE

- Worldwide
- Central and Eastern Europe (CEE)
- Developed Asia-Pacific (DVAP)
- Emerging Asia-Pacific (EMAP)
- Latin America (LATAM)
- Middle East and North Africa (MENA)
- North America (NA)
- Sub-Saharan Africa (SSA)
- Western Europe (WE)



WHO SHOULD READ THIS REPORT

- Strategy, planning and finance executives within operators who wish to compare their own investment strategies with those of the overall market.
- Strategy and product management teams within equipment vendors who wish to understand the key areas of spending growth with suppliers and want to target their activities accordingly.
- Senior executives within operator services' organisations (such as systems integrators (SIs) and software developers) who wish to understand where the best commercial opportunities lie.
- Strategy, planning and finance executives within other companies (such as towercos and web-scalers) that are investing in networks.

¹ For further information, see Analysys Mason's *Telecoms opex: worldwide trends and forecast*.

² This survey, conducted in 1Q 2021, covered operators' near-term and medium-term plans for convergence. For more information, see Analysys Mason's *Converged packet core architecture: the benefits and challenges for operators*.

Executive summary

The accelerating number (and scale) of network deployments, along with the roll-out of new technologies such as cloud-native architectures, 5G and fibre networks, will put operators under pressure to manage increasing operational complexities and costs. To maximise opex efficiencies, operators should adopt a holistic approach and look for savings beyond the network.

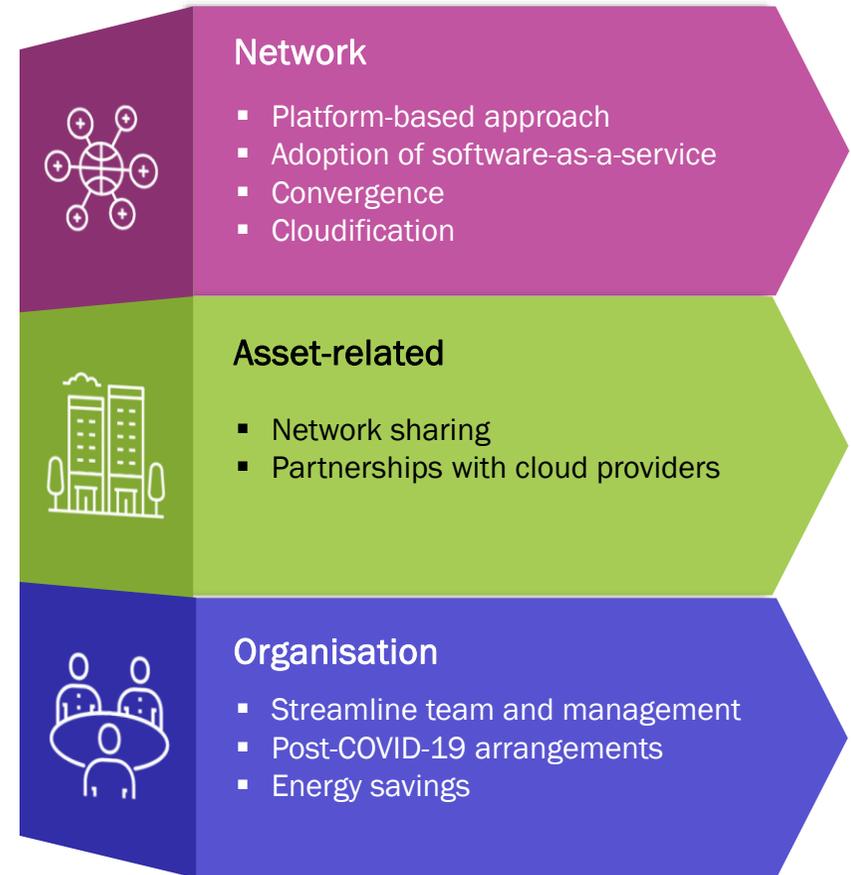
Operators should consider a more-rounded vision of their operating costs. They should focus on efficiencies across three main areas: their network, their assets and their organisation. Approaches will vary but will include automation-led efficiency, partnerships-driven cost-optimisation (in the form of network sharing and cloud outsourcing) and improved resource and asset utilisation (such as improved energy efficiency and organisational agility).



KEY RECOMMENDATIONS

- Operators should focus on ensuring that the new technologies that they introduce are seamlessly integrated with their legacy systems to efficiently evolve their networks.
- Operators should consider the benefits of reducing ownership of their systems through divestments, partnerships and network-sharing agreements as a mean of optimising their assets and operational costs.
- Operators should simplify their processes and use more-agile ways of working to gain operational efficiencies and to fully realize the cost benefits of their resources.

Figure 1: Operators can achieve operating cost efficiencies by targeting three different areas within their organisation



Source: Analysys Mason

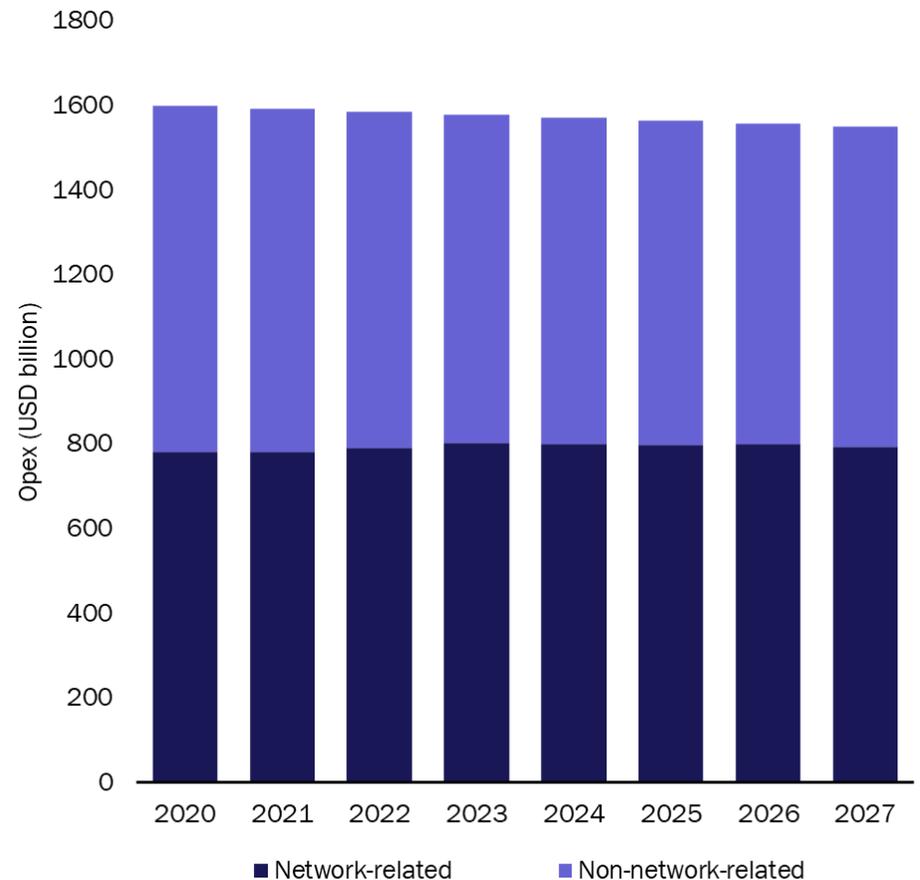
Challenge: a single approach to reducing opex is unlikely to meet operators' targets because new networks create a number of conflicting cost challenges

Operators will face significant opex challenges as they deploy 5G networks and focus on fibre expansion and cloud migration. The deployment of multiple new technologies will increase the complexity of the systems that they need to operate, especially as new networks need to co-exist alongside legacy systems.

As the 5G market matures, operator spending is shifting towards 5G standalone (SA) deployments and related technologies (such as edge computing) that will provide the foundation for new enterprise services. However, such services require advanced network capabilities that cannot be supported by existing platforms. This will drive cell site densification and increase the physical scale of the network. Operators may struggle to contain their operating costs when scaling and running a more-complex network architecture.

Most operators will also need to continue to invest in other networks. Many will expand or upgrade their 4G networks for years to come, partly to extend coverage into remote areas, and partly to prepare for their 5G non-standalone (NSA) deployments. Many others will invest in expanding and upgrading fibre networks while also starting to migrate to 5G. Individually, new networks may be more operationally efficient than old ones, but operators will face significant opex challenges to run, operate and monetise multiple networks. Analysys Mason's most-recent research on telecoms opex¹ predicts that operators opex will decline as the growth in network-related opex spending² is offset by the declining spending in non-network related opex.

Figure 2: Telecoms opex by type, worldwide, 2020–2027^{1,2}



Source: Analysys Mason

¹ Earlier telecoms opex data is available in Analysys Mason's *Telecoms opex: worldwide trends and forecast 2017–2026*.

² Network-related opex includes the following areas: infrastructure, networks, cloud and IT, interconnect and transport, spectrum.

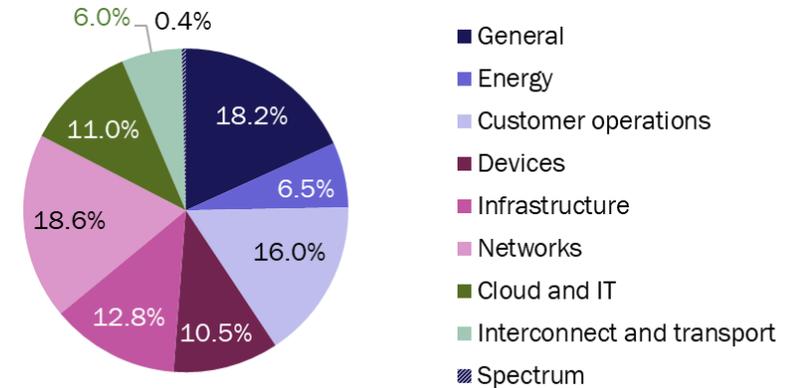
Solution: A holistic approach to simplifying and streamlining operating processes across their entire organisation would benefit operators that want to reduce opex

As shown in Figure 3, network opex accounted for 18.6% of overall opex in 2020 and is expected to account for 16% in 2027. To achieve opex savings in the network, operators must adopt multiple approaches. The transition to new architectures (such as cloud-based networks) will increase costs in the short term and only will deliver savings in the long run. Therefore, operators should also look at automation and network sharing as a way to achieve more-immediate network-related cost savings.

There are many other opportunities for operators to efficiently manage their operating costs. For example, a large share of operating costs are devolved to the categories of 'cloud and IT' and 'general', which currently account for 29.2% of total opex, and will account for 40.1% of overall opex in 2027. Focusing on identifying efficiency opportunities in these areas will give operators the chance to achieve significant savings.

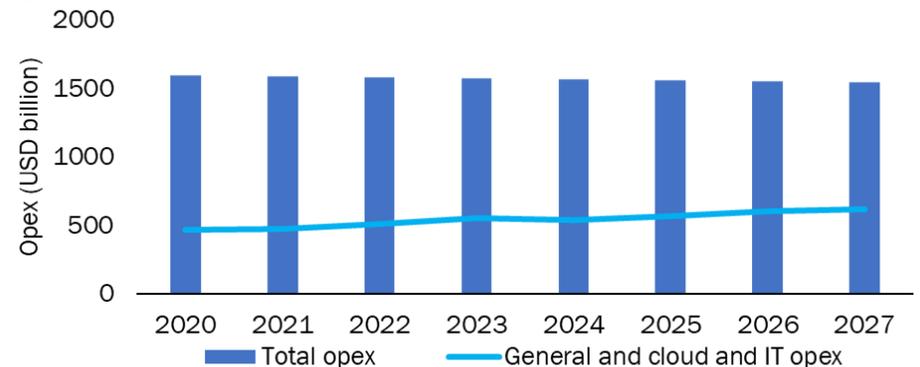
Operators should also consider the sustainability of their entire organisation as they introduce new technologies. This includes improving the efficiency of their organisation, assets and network, a move that will be critical for controlling costs. In addition, operators can reduce opex across their entire organisation when operating next-generation networks by implementing alternative models of software development, deployment and management; outsourcing IT and services to cloud providers; relying on SaaS-based systems or introducing an agile platform-based approach. Portfolio simplification, digital customer journeys, IT rationalisation and a better approach to energy consumption can help operators to achieve further efficiency.

Figure 3: Telecoms opex by type, worldwide, 2020¹



Source: Analysys Mason

Figure 4: Telecoms overall opex and telecoms opex related to general expenses and cloud and IT, worldwide, 2020-2027¹



Source: Analysys Mason

Recommendations

1

Operators should focus on ensuring that the new technologies that they introduce are seamlessly integrated with their legacy systems to efficiently evolve their networks.

Operators should invest now in technologies that will ease the migration to new architectures. As operators invest in cloud technologies and aim to achieve greater levels of automation, they must develop a strategy to move from legacy technologies to next-generation systems, and to manage them in parallel as efficiently as possible for as long as is required. Failing to do so will prevent operators from reaping the full cost benefits of such transformation.

2

Operators should consider the benefits of reducing ownership of their systems through divestments, partnerships and network-sharing agreements as a mean of optimising their assets and operational costs.

The large investments required to deploy and operate next generation networks will drive operators to make choices about the network elements that are critical to their commercial objectives and where they can co-invest with partners or use third party platforms. It is important that operators think about partnerships as a mean to reduce costs and free-up resources that can be re-invested in differentiating assets and services.

3

Operators should simplify their processes and use more-agile ways of working to gain operational efficiencies and to fully realize the cost benefits of their resources.

In general, operators are large and well-established organisations that need to operate legacy systems alongside new ones. Such complex multi-generational systems can create inefficient managerial structures and solutions. However, operators can operate their systems more efficiently by undertaking important steps such as simplifying their product portfolios, phasing out legacy products and systems and migrating customers to new products.



Executive summary

Research overview

Achieving operational efficiencies in the network

Considering partnerships and network-sharing agreements as a means of optimising operational costs

Gaining operational efficiencies through improved resource utilisation and organisational agility

Appendix

About the authors and Analysys Mason

About the authors



Michela Venturelli (Senior Analyst) is a member of the Networks research team in London and leads Analysys Mason's Operator Investment Strategies research programme. She also contributes to the Wireless Infrastructure Strategies research programme. Michela holds a PhD and an MSc in Physics from University College London and Statale di Milano university, respectively.



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Emma Brown (Research Analyst) is a member of the Networks practice and contributes primarily to the Operator Investment Strategies research programme. She is based in London and holds a BA in human geography from Durham University.

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