Fixed network data traffic: worldwide trends and forecasts 2020–2026

Rupert Wood and Jakub Konieczny

RESEARCH

About this report

This report analyses fixed data traffic trends worldwide, and draws out implications for operators.

It is based on several sources, including:

- Analysys Mason's internal research, including broadband and next-generation access (NGA) forecasts, wireless traffic forecasts, *Connected Consumer Survey* and smartphone analytics research
- operator and regulator data
- ongoing engagement with stakeholders in the fixed telecoms sector.

WHO SHOULD READ THIS REPORT

- **CTO and strategy teams in fixed network operators (FNOs).** This report will help them to understand how to tie their NGA conversion (and hence ARPU uplifts) to changes in usage demand, and in emerging markets, to understand how soon patterns of consumption could encourage fixed broadband (FBB) take-up.
- **CTO and strategy teams in mobile network operators (MNOs).** The ability to substitute fixed (to gain greater share of wallet) is at the core of mobile revenue growth. MNOs urgently need a holistic fixed—mobile view of data consumption in order to plan for mobile and/or new fixed network investment.
- **CTO and strategy teams in content/TV businesses.** Rapid shifts to non-linear viewing present uncertainty for the continued use of RF (on unidirectional broadcast networks). A more-rational use of network options is possible, and spectrum used for RF could be of greater use to MNOs, for example.

GEOGRAPHICAL COVERAGE

8 regions worldwide:

- **Central and Eastern Europe (CEE):** Poland, Romania, Russia, Turkey
- **Developed Asia–Pacific (DVAP):** Australia, Hong Kong, Japan, New Zealand, South Korea
- **Emerging Asia–Pacific (EMAP):** China, India, Indonesia, Malaysia
- **Latin America (LATAM):** Brazil
- **Middle East and North Africa (MENA):** Oman, Qatar, Saudi Arabia, UAE
- **North America (NA):** USA
- **Sub-Saharan Africa (SSA):** South Africa
- **Western Europe (WE):** Finland, France, Germany, Ireland, Italy, Spain, Sweden, UK

KEY METRICS

- Overall national and per broadband (BB) subscriber data, year total and year end
- Internet, managed IP, multicast data
- Next-generation access (NGA) and non-NGA split
- Median usage
- Fixed–mobile traffic ratios
- Asymmetry ratios
- Internet bandwidth per subscriber, average and busy hour

This report presents commentary on the data available at the time of writing. However, we constantly refine and refresh our data, so please visit the Analysys Mason DataHub to view the latest data associated with this report.

Worldwide: unprecedented traffic growth is beginning to ease off, but will leave a permanent effect on the shape of fixed data traffic

An increasing share of the world's population will have access to complementary fibre and mobile connectivity.

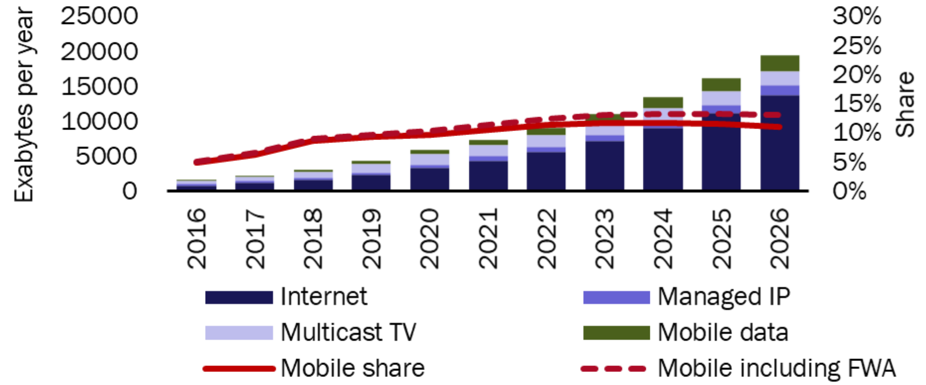
Fixed data traffic grew by 42% worldwide in 2020, which is substantially higher growth than we were forecasting before the COVID-19 pandemic. For the first time, traffic on fixed networks grew faster than on mobile in about half of all countries modelled.

As the effects of lockdowns wear off, there will be one year of significantly lower growth in fixed traffic, though the exact timeframe for this decline is unclear because of uncertainties about global health. However, some of the changes brought about by the pandemic are likely to be longer-lasting (for example, working from home (WFH) will continue for many, the number of OTT video subscriptions will increase and service stacking will persist). In some respects, these changes reflect an acceleration of trends that were emerging before the pandemic.

Traffic growth will be strong in emerging markets. Part of this is due to the pandemic (which has led to a greater demand for fixed connectivity from those that can afford it and can work from home), but it is also due to increasing confidence in new fixed network investment in underserved markets where mobile networks alone cannot match demand. The reliance on mobile has created a digital divide which will surely get fixed.

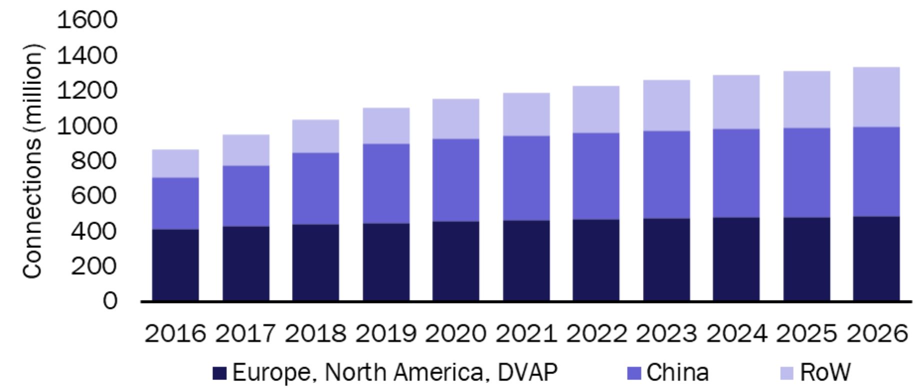
As fixed access becomes more important in emerging markets, we expect growth rates for fixed and mobile networks to converge, and for fixed access growth to ultimately overtake that of mobile by 2025.

Figure 1: Total fixed IP traffic split by type, worldwide, 2016–2026



Source: Analysys Mason

Figure 2: Fixed broadband (wired only) subscribers, 2016–2026



Source: Analysys Mason

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About the authors

Rupert Wood (Research Director) is the lead analyst for our *Operator Investment Strategies*, *Network Traffic* and *Spectrum* research programmes. His research covers the following areas: the evolution of operators' investment priorities; operator business structures; business models for FTTx and convergence; fixed broadband technology; the economic impact of digital transformation; capex forecasting; and network traffic forecasting. He has extensive experience of advising senior management on strategic issues. Rupert has a PhD from the University of Cambridge, where he was a Lecturer before joining Analysys Mason.

Jakub Konieczny (Research Analyst) is a member of the regional markets research team in London, contributing mainly to the *Telecoms Market Matrix*, *European Country Reports* and *Global Telecoms Data* research programmes. Jakub holds a BEng in petroleum engineering from the University of Aberdeen.

We are experts in the telecoms, media and technology sector

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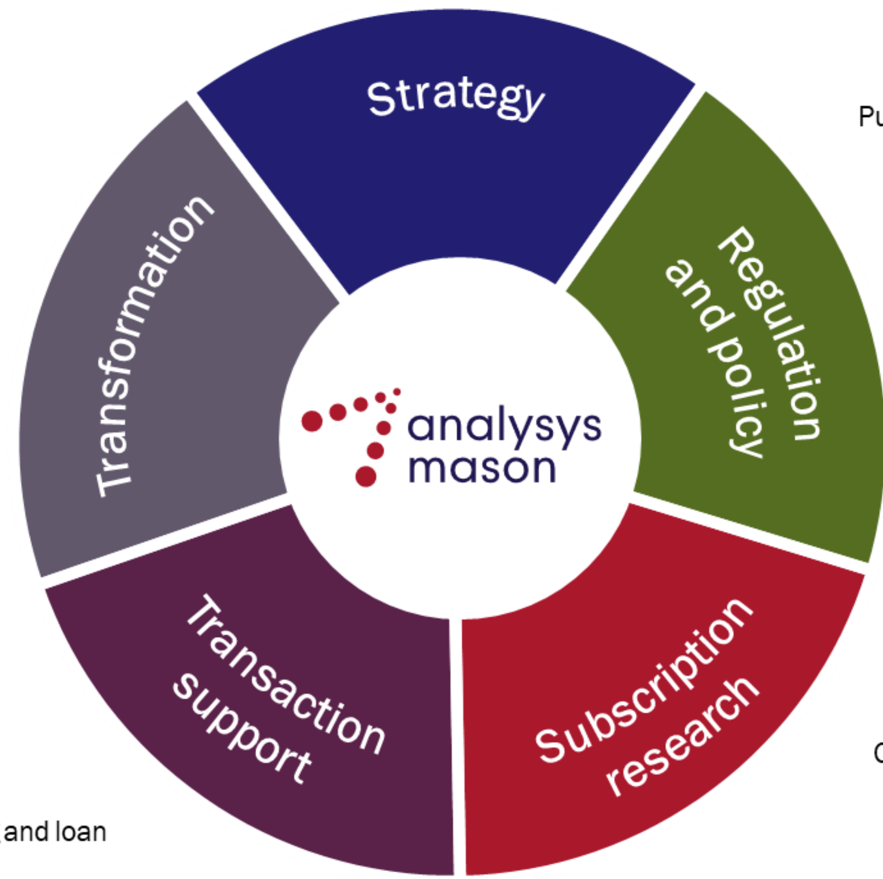
- Corporate growth strategy
- Business unit strategy
- Infrastructure strategy

Transformation

- Business transformation
- Digitalisation
- Operational excellence
- Data, BI, steering and insights
- Change and programme management
- Sustainability

Transaction support

- Commercial due diligence and market review
- Technical due diligence
- Post-merger integration
- Periodical business monitoring and loan technical advisory
- Opportunity scouting and pre-deal support



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- ~2800 forecast and 280+ historical metrics
- Regional results and worldwide totals
- Operator historical data

Our areas of expertise

Strategy

Corporate growth strategy
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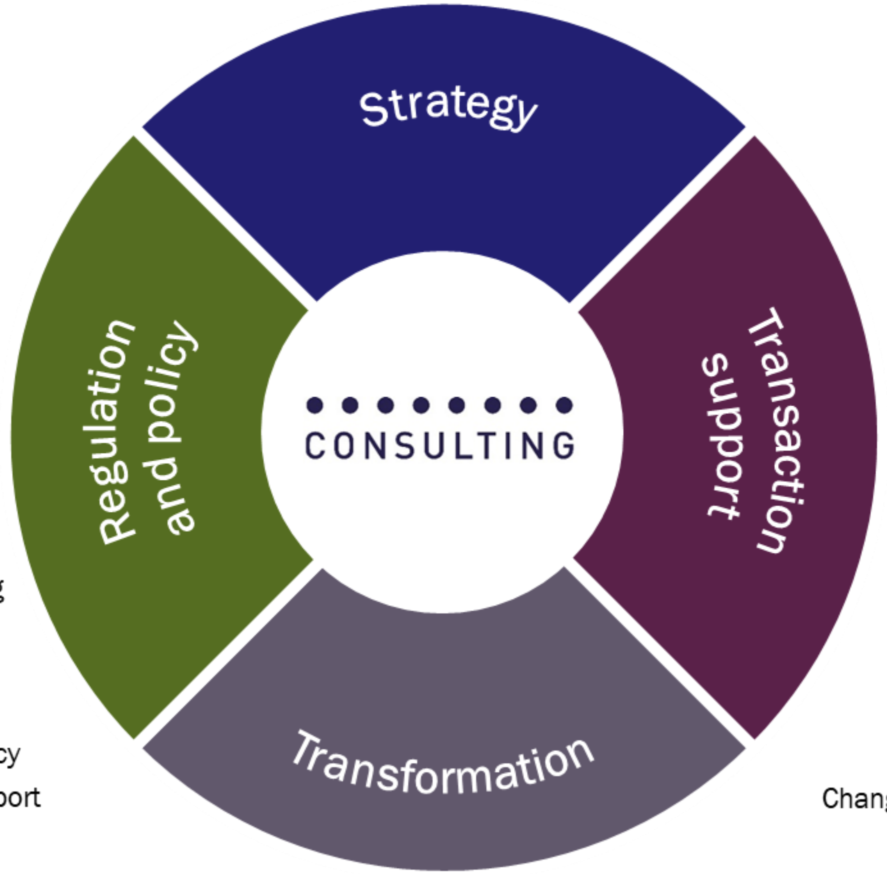

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