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ENTERPRISE COMMUNICATIONS

GROWTH OPPORTUNITIES FOR TELECOMS OPERATORS

Contents

Introduction

Enterprise market opportunities remain for telecoms operators

Welcome to our second collection of articles on the enterprise communications market.

The enterprise market continues to offer tremendous opportunities for telecoms operators and, as these articles show, there are plenty of examples of best practice in this area. However, we must not ignore the challenges – as the connectivity market becomes saturated, growth will come from forming partnerships with others and moving into new product areas. The articles in this collection, and in our broader research, explore these issues further.

We have been expanding our research coverage of the enterprise market since early 2017 to complement the many consulting projects we have completed over the years. Our research now includes over a hundred reports, forecasts, articles and surveys on strategic issues facing telecoms operators in the enterprise market. We have worked with over 100 clients on a range of strategic, regulatory and technical projects relating to the enterprise market.

This collection covers the following topics.

- **Incumbent operators' enterprise portfolios are underperforming compared to their consumer divisions.** In high-income countries, many operators are seeing their consumer divisions return to growth, but enterprise portfolios are struggling. We explore whether the pressures on enterprise offerings are easing.

- **Operators should consider targeting micro enterprises to sustain and increase enterprise revenue.** Micro enterprises (that is, those enterprises with fewer than ten employees) have not been a focus for many operators, but they could be an important source of growth if targeted correctly.

- **Cisco and BroadSoft are a good fit for each other and for their operator customers.** The USD1.9 billion deal between these businesses reinforces the success of the existing model used by telecoms operators in providing enterprise communications services, but more radical changes could be seen in this market.

- **Telstra Enterprise demonstrates the impact of investing in digital transformation on revenue growth**. Through innovation in areas such as customer experience and product delivery, Telstra Enterprise is showing how to increase enterprise revenue.

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- **Operators struggle in enterprise ICT services – acquisitions may provide a route into this market.** Growth for operators will largely depend on how successful they are in selling new ICT services, but operators may do better to acquire assets rather than to try to build organically.

- **Telecoms operators could benefit from the growth in cloud markets that is driven by global IT players.** Few operators want to compete directly with AWS, Azure or Google Cloud, but the rise of these global IT players creates a role for new service providers, which operators could fulfil.

We hope that you find these pieces useful. Please feel free to contact the authors if you have questions or would like to discuss the points raised in more detail.

We look forward to working with you.

Incumbent operators' enterprise portfolios are underperforming compared to their consumer divisions

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Research Analyst, Research

> ❝ Incumbent operators' enterprise divisions have experienced substantial declines in mobile ARPU, resulting in a widening gap with their consumer counterparts. ❞

Most incumbent telecoms operators in high-income countries are reporting a considerable gap between the performances of their enterprise and consumer divisions. Enterprise divisions have experienced substantial declines in mobile ARPU as competition in the enterprise market has intensified. Rising demand for data has failed to offset declines in other services, but operators have the potential to reverse this decline in enterprise revenue as ARPU stabilises and growth opportunities in new services arise.

This article examines the financial performance of incumbent operators'

enterprise and consumer divisions in high-income countries and the reasons for the current divergence in these divisions' growth rates.

Incumbent operators' enterprise divisions are performing considerably below their consumer divisions

Telecoms operators' consumer revenue grew by an average of 0.4% in 1H 2017, whereas their enterprise revenue declined by an average of 2.4%, creating a gap of almost 3% between the divisions in terms of revenue growth. Enterprise revenue only grew faster than consumer revenue for three of the twelve incumbent operators in our sample.[2]

Many factors have affected both telecoms operators' enterprise and consumer divisions, such as large declines in fixed voice. However, there are three primary reasons for the divergence between enterprise and consumer revenue observed for many incumbent operators.

- **Rising competition.** Enterprises have historically had less choice than consumers in terms of telecoms service providers, leading to many incumbents controlling a substantial share of enterprise subscribers. The poor performances of most incumbents' enterprise divisions may indicate a change in this trend, as market saturation and rising competition reduces enterprise revenue. Indeed, our survey found that countries where incumbents have a particularly high share of enterprise subscribers reported the highest rates of intended churn. This indicates that challengers are gaining ground in the enterprise market, which is putting pressure on many incumbents' enterprise divisions.
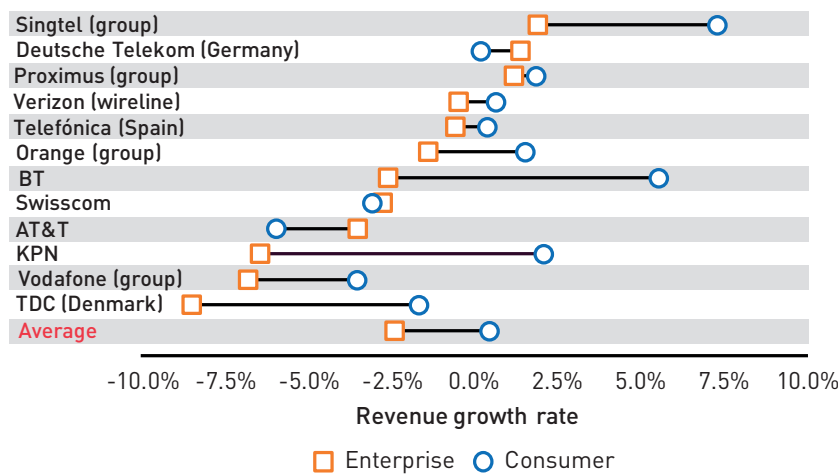

FIGURE 1: SELECTED TELECOMS OPERATORS' REVENUE GROWTH RATES BY DIVISION, 1H 2016–1H 2017[1]
[SOURCE: ANALYSYS MASON, 2017]

- **Faster falls in enterprise ARPU.** Enterprise mobile ARPU has fallen much faster than consumer mobile ARPU, with a corresponding impact on enterprise revenue. The data from CNMC in Spain, one of the few regulators to report data for enterprise and consumer mobile revenue streams separately, illustrates this trend (Figure 2). Enterprise mobile ARPU fell by an average of 11% per year between 2010 and 2016, compared to an average of 5% for consumer mobile ARPU. We believe ARPUs in other markets have followed a similar trend.

- **Enterprise mobile data revenue is growing more slowly than consumer revenue.** Rising demand for enterprise mobile data has failed to offset declines in voice services. Growth in cellular data usage has also been stronger for consumer than for enterprise users, contributing to the divergence in growth rates. For example, mobile data revenue from consumers in Spain increased by 15% in 2016, while enterprise mobile data revenue only increased by 9%.

Mobile ARPU stabilisation and growth in new services may ease the pressure on operators' enterprise revenue

The improving trend in consumer revenue could indicate the future trajectory of enterprise revenue. Consumer revenue is now flat (on average), following several years of decline, and is even rising in some countries (Figure 1). Some of the factors responsible for declines in enterprise revenue are now weakening (for example, declines in mobile ARPU are slowing and the migration from legacy services is largely complete), and there is growth in new service areas, such as security. Operators may therefore be better placed to stabilise or even grow their enterprise revenue.
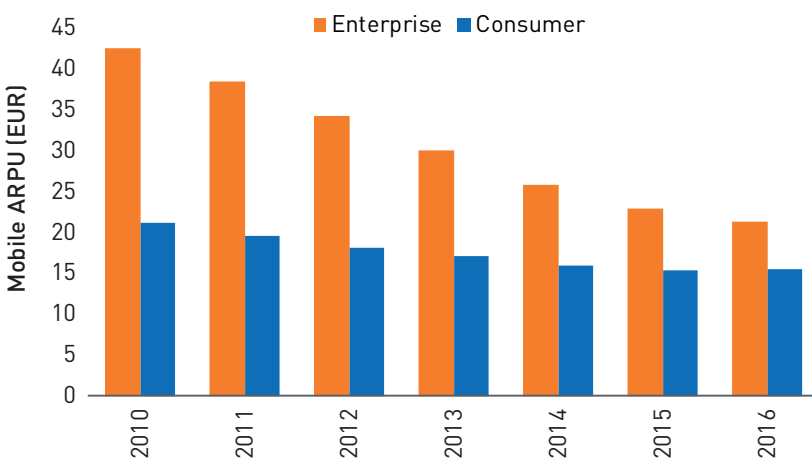
Questions?
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FIGURE 2: TELECOMS OPERATORS' MOBILE ARPU BY DIVISION, SPAIN, 2017
[SOURCE: CNMC AND ANALYSYS MASON 2017]

[1] Figures are based on raw quarterly data, which does not represent organic or comparable figures published by operators.

[2] We only considered large incumbent operators, as smaller operators often do not provide a split of enterprise and consumer revenue.

Operators should consider targeting micro enterprises in order to sustain and increase enterprise revenue

CATHERINE HAMMOND -
Senior Analyst, Research

> " Micro enterprises will be significant contributors to sustaining and increasing enterprise revenue for operators in all regions. "

At a global level, operator revenue from traditional enterprise voice and data services is in decline. Significant growth opportunities still exist in emerging markets, but will gradually diminish as penetration approaches saturation. At the same time, there exists a rapidly growing global market for enterprise ICT services, often delivered through the cloud. Enterprise requirements for telecoms services are extremely diverse and the challenge for operators is to identify and successfully target growth opportunities within different regions and business segments. This article draws on our recently published global enterprise forecasts[1] to highlight opportunities within the micro enterprise segment.

Revenue from legacy services will eventually decline for operators in all regions

In high-income markets, most large telecoms operators are experiencing a decline in their enterprise revenue.[2] This is a consequence of price competition as operators struggle to differentiate themselves in largely saturated markets, and face increasing competition from substitute OTT services and cloud-based alternatives.

The situation for operators in emerging markets is more positive; we forecast that emerging Asia–Pacific will experience enterprise revenue growth of 2.6% per year between 2017 and 2022. Sub-Saharan Africa will experience a similar rate of growth, but from a much lower base, while Central and Eastern Europe and the Middle East and North Africa are also forecast to enjoy healthy rates of growth in this period. However, if founded only on an increasing penetration rate, this growth will not be sustainable in the longer term.

Micro enterprises offer prospects for revenue growth in all regions

Micro enterprises (organisations with fewer than 10 employees) will be significant contributors to sustaining and increasing enterprise revenue in all regions. We estimate that micro enterprises account for 40% of employment worldwide,[3] but less than 20% of operators' enterprise retail revenue. Differences in business demographics mean that the share of enterprise revenue from micro enterprises varies considerably by region, but we forecast growth in this segment to outpace that of other segments in almost all regions apart from emerging Asia–Pacific and the Middle East (where revenue growth is still significant for all sizes of enterprise).
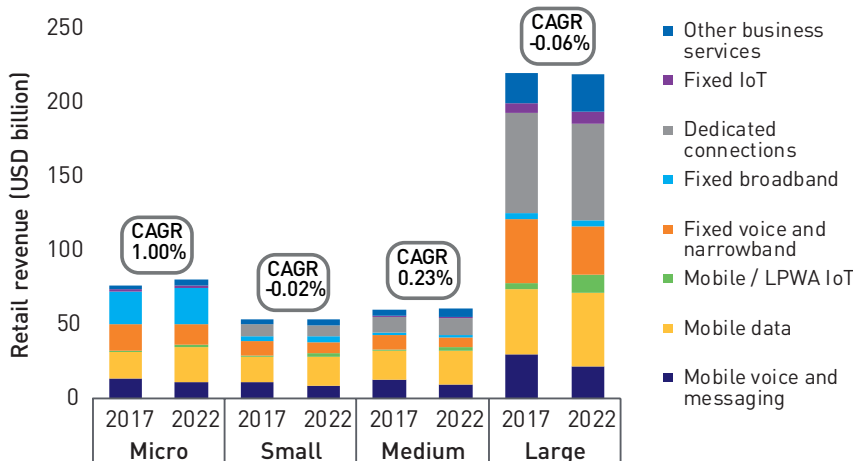

FIGURE 1: OPERATOR RETAIL REVENUE FROM TELECOMS SERVICES TO ENTERPRISES, BY SERVICE AND SEGMENT, WORLDWIDE, 2017 AND 2022 AND CAGR 2017–2022 [4]
[SOURCE: ANALYSYS MASON, 2017]

Ready Business solutions for example (targeted at industries including construction, retail, logistics and manufacturing) have met with initial success in several markets.

Analysys Mason is helping clients to develop their enterprise strategies, both through our published research and through consulting projects. As well as the worldwide enterprise forecasts referenced in this article, we also publish regional- and country-level forecasts and analysis.

Questions?
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In middle-income markets, growth for the micro enterprise segment will arise principally from an increase in the provision of fixed and mobile data services – more broadband connections and greater provision of mobile handsets and smartphones to employees. As telecoms services become ever more integral to the business requirements of a wide range of micro businesses, operators would do well to provide competitive business-grade products targeted at this market. Engaging with these enterprises as business customers rather than servicing them through consumer channels will better enable operators to deliver a wider range and higher quality of services as their business requirements grow.

New ICT services provide an opportunity to increase revenue and reduce churn

In high-income markets, most opportunities for growth in the micro enterprise segment will arise from demand for ICT services such as security, data storage, and software-as-a-service (SaaS). These services are often characterised by low entry prices and scalability, which make them an ideal fit for the financial capabilities and ambitions of micro enterprises. The internal IT capabilities of such enterprises is typically low, as is their capacity to manage multiple contracts with multiple suppliers. Operators already providing voice and data connectivity services to this segment are well-placed to gain significant market share if they can deliver suitable off-the-shelf products and services and can adapt their sales channels and customer support appropriately. Swisscom, for example, targets some of the smallest micro enterprises (up to 5 employees) with a service bundle that includes Internet failover, automatically diverting businesses onto its mobile data network in the case of fixed-line outages. Cloud storage, Microsoft 365 and unified communications solutions are easily available as add-ons and personalised advice is available either via a phone call, or a face-to-face meeting with a business specialist in one of Swisscom's network of shops.

A similar opportunity exists for operators to deliver ICT services to small and medium enterprises. In high- and middle-income markets, the use of cloud services is already widespread for these segments[5] but will continue to expand, and enterprises in emerging markets will increasingly require similar services. Several operators are addressing this by offering bundles suitable for specific industry verticals, for both micro enterprises and larger SMEs. Vodafone's

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[1] For more information see Analysys Mason's Telecoms services forecast for small and medium enterprises: Western Europe 2017–2022 (http://www.analysysmason.com/Research/Content/Regional-forecasts-/SME-forecast-WE-RDMZ0/), Telecoms services for small and medium-sized enterprises: worldwide forecast 2017–2022 (http://www.analysysmason.com/Research/Content/Reports/SMEs-forecast2017-worldwide-RDMZ0/) and Telecoms services for large enterprises: worldwide forecast 2017–2022 (http://www.analysysmason.com/Research/Content/Regional-forecasts-/LE-forecast2017-worldwide-REN01-REN02/).

[2] For more information, see Analysys Mason's Singtel outperforms a declining telecoms enterprise market (http://www.analysysmason.com/Research/Content/Comments/Singtel-enterprise-market-Apr2017-RDMZ0-REN01-REN02/).

[3] We include both private and public-sector workers, the self-employed and sole traders. However, we seek to exclude informal workers such as smallholders and casual labourers and those working for home-based businesses where communications needs are fully met by existing consumer services.

[4] Dedicated connections revenue includes managed services such as IP-VPN. Fixed IoT connectivity revenue includes fixed broadband, PLC and other technologies.

[5] Our survey of SMEs in 2017 indicates that 67% of SMEs are already using at least one cloud service. For more details, see Analysys Mason's Enterprise survey 2017: ICT services for small and medium-sized enterprises (http://www.analysysmason.com/Research/Content/Short-reports/ICT-services-SMEs-RDMZ0/).

Cisco and BroadSoft are a good fit for each other and for their operator customers

❝ The Cisco–BroadSoft deal reinforces the conventional model of telecoms operators selling services to enterprises, but more radical changes could hit this market. **❞**

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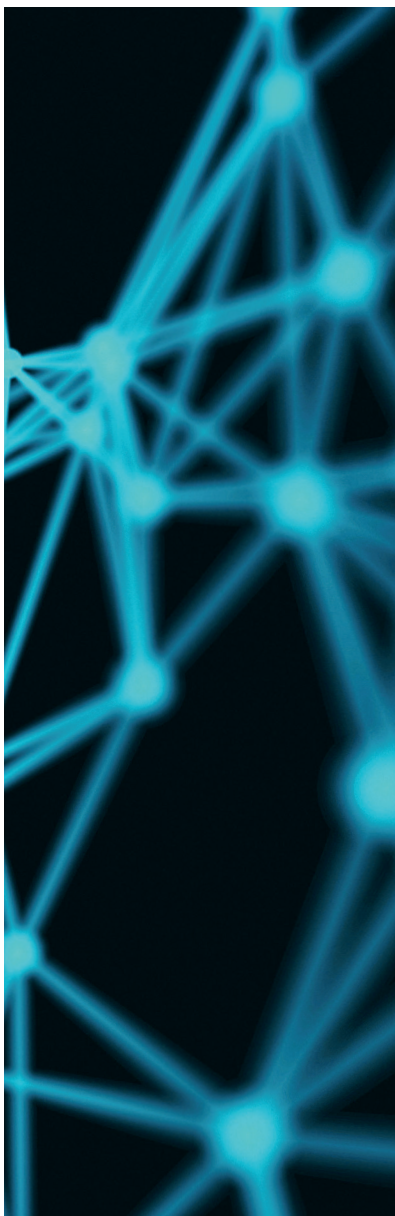
Cisco announced its intention to purchase BroadSoft for USD1.9 billion on 23 October 2017. The deal is the latest in a series of recent consolidations for enterprise communication vendors – Mitel purchased ShoreTel and Genband and Sonus (now rebranded as Ribbon Communications) also merged in 2017.

BroadSoft provides unified communications solutions, selling exclusively through service providers, rather than directly to enterprises. It claims 25 out of the largest 30 telecoms operators as clients, including Telstra, Verizon and Vodafone, as well as a number of smaller European operators.

Additional funding and sales and marketing resources should help BroadSoft better serve telecoms operator customers, but the implications of this latest deal are relatively limited for these

operators. The deal reinforces the model of network operators as the main provider of voice, as well as more advanced communications, services. Indeed, it can be seen as an expression of Cisco's confidence in its existing system of using operators as a channel to market.

However, other potential deals could pose a greater threat to telecoms operators' interests, such as an aggressive move from AWS (or another big Internet company) to focus on selling advanced communications solutions directly to enterprises, rather than through operators. Operators should therefore be broadly content with Cisco's acquisition of BroadSoft – there are many positives for them in the deal.
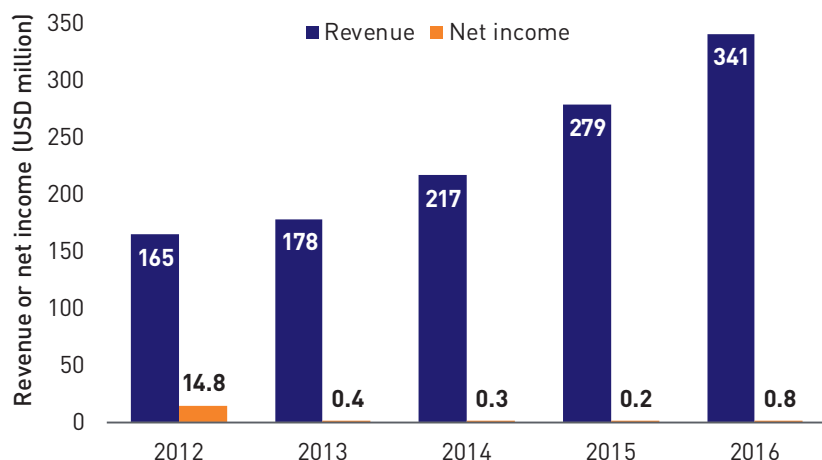

FIGURE 1: BROADSOFT'S REVENUE AND NET INCOME, 2012–2016
[SOURCE: ANALYSYS MASON]

Cisco can address many of BroadSoft's weaknesses

Cisco can tackle many of the weaknesses that BroadSoft had as an independent company, if managed correctly. BroadSoft identified competitors with the following characteristics as risks to its business in its 2016 10K filing:

• those with greater "financial, technical, marketing and other resources" that can "devote greater resources to the development, promotion, sale and support of their products"

• those that have "more extensive customer bases and broader customer relationships"

• those with "longer operating histories and greater brand recognition".

Cisco can eliminate all of these risks.

BroadSoft's recent financials have shown that its spending has been constrained by its (relatively) small size. Revenue has grown impressively (Figure 1), more than doubling during 2012–2016, while net income has been less than USD1 million each year, with the exception of 2012. These low net income figures are largely due to large hikes in spend on research and development (from USD35 million in 2012 to USD77 million in 2016) and sales and marketing (from USD46 million to USD107 million over the same period). It appears that BroadSoft's management has spent as much as it could to grow the business without ever causing losses. Spend levels could now be increased, with Cisco's backing.

Significant additional spending will be required from Cisco, both to add features to BroadSoft's platform and to merge this with its own efforts – most importantly by merging it with (or superseding) Spark, but also to integrate WebEx. These developments will benefit customers. For example, Verizon offers BroadSoft's Team-One product to some customers and One Talk (based on Cisco's product) to others, with only limited integration between them. Cisco should be able to offer a seamless proposition to all customers following this deal.

BroadSoft will also need sales and marketing support to further its international expansion. The USA still accounted for 52% of its business in 2016. More rapid expansion came elsewhere, however – revenue in Europe, the Middle East and Africa grew by 60% in 2016 compared to 2015.

It is not BroadSoft's technology or customer base alone, but the combination of both that is key for Cisco

Gaining such a strong position in the unified communications market would be challenging for Cisco without the acquisition of BroadSoft, particularly in the SME segment. The attraction is not BroadSoft's technology – Cisco could have obtained similar for less than the USD1.9 billion it is paying for the company (perhaps through the acquisition of BroadSoft's smaller competitors).

Equally, it is unlikely that BroadSoft has many customers that are not also Cisco clients, at least to some degree. BroadSoft will bring relationships with different people in its customers, but, again, Cisco could probably have reached these people itself with time and investment.

The value of BroadSoft to Cisco is more likely to come from the combination of a mature, well-established technology solution and a wide customer base that trusts this solution, which in turn will give Cisco the references to win new clients.

Other mergers may be more dangerous for telecoms operators

The Cisco–BroadSoft deal reinforces the conventional model of telecoms operators selling communications solutions to enterprises. Cisco should provide the support BroadSoft needs to grow, provided that it successfully managed the acquisition (and it should have the experience to do so, having completed over 200 M&A deals) and supplies sufficient funding for product development and sale/marketing support.

More radical changes could hit this market and provide a greater threat to operators' positions. A combination of

AWS (which has been gradually expanding its Chime unified communications solution) and either 8x8 or RingCentral (both of which are rumoured to be for sale), for example, would rely on telecoms operators for little more than the underlying connectivity.

Further moves by Facebook or Microsoft could also reduce the potential market for advanced enterprise communications solutions, as could continued growth from Slack. These may not replicate the features of BroadSoft (and may not need to), but they could reduce the space for telecoms operators and their vendors to provide solutions.

The products and market positions of BroadSoft and Cisco make them a good fit, both for each other and for their operator customers. These operators should be considering how they can work with the combined entity to defend against greater threats to their enterprise communications business.

Telstra Enterprise demonstrates the impact of investing in digital transformation on revenue growth

> **"** Telstra Enterprise is transforming itself into a digital service provider, exemplifying key digital behaviours that are helping it to improve customer experience and create upsell in the enterprise market. **"**

CAROLINE CHAPPELL -
Principal Analyst, Research

Telstra Enterprise is displaying an advanced set of digital behaviours that is enabling the division to contribute to revenue growth and the company's confident outlook. These behaviours – investment in innovation, adoption of an agile product delivery approach and the development of advanced software capabilities – would benefit the broader Telstra organisation, but are not yet embedded in its corporate culture. As Telstra Enterprise drives value from its digital behaviours, it can play a key role in promoting digital transformation to the rest of the business.

The investments in innovation made by Telstra Enterprise are driving revenue growth

Telstra Enterprise's Vantage customer event in September 2017 showcased the division's growing portfolio of capabilities, which the division is expanding through a set of strategic partnerships and investments. Vantage attracted 6500 attendees to Melbourne and 120 companies hired stands – from established partners and suppliers, such as AWS, Cisco and Microsoft, to innovative newcomers backed by Telstra

Enterprise's Ventures arm, including CrowdStrike, Docusign, Whispir and Zimperium. Telstra Enterprise credits a 29% year-on-year growth in managed services over the past 4 years to the unique solutions it can create as a direct result of investments made by Telstra, as well as to talk of the latter's 'halo effect', which enables young companies to progress their products faster, to Telstra's benefit.

Telstra's investment in innovation is a 'digital behaviour' that appears to be paying off. Telstra Enterprise reported revenue rising by 1.6% to USD 6.3 billion in 2017. This slight uplift hides larger success stories, including strong growth from managed networks, cloud and unified communications services, and global connectivity. Data and IP service revenue may be falling domestically, but Telstra Enterprise suggests that its strategy of targeting new customers with the innovative products that Telstra Ventures brings into the company is starting to create demand even for traditional connectivity services. Its new investments are creating opportunities that Telstra's connectivity portfolio would not have attracted on its own.

New digital behaviours transform B2B customer experience

Investment in innovation is not the only digital behaviour that Telstra Enterprise displays. Analysys Mason defines 'digital
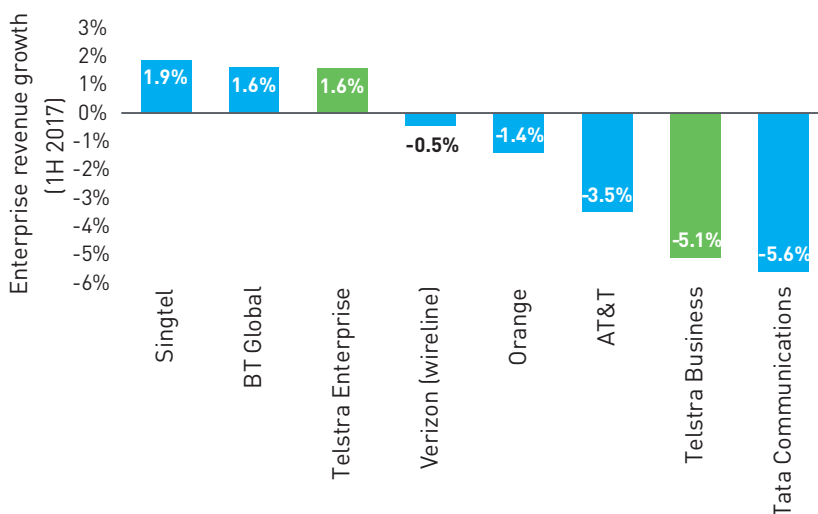

FIGURE 1: TELSTRA'S[1] ENTERPRISE REVENUE GROWTH COMPARES FAVOURABLY WITH OTHER OPERATORS
[SOURCE: ANALYSYS MASON, 2017]

behaviours' as the set of business behaviours practised by the four leading digital service providers (DSPs) collectively referred to as the FANG[2] companies, which contribute to their extraordinary success. Operators seeking to transform themselves into DSPs need to adopt similar capabilities, as summarised in Figure 2. Telstra Enterprise exemplifies two further digital behaviours that are helping it to improve customer experience and create upsell in the enterprise market.

- **Agile product delivery** based on a DevOps methodology that encompasses all Telstra Enterprise functions and is based on the abstraction and modularisation of its product portfolio. Telstra Enterprise's product-led transformation, driven by its formidable head of global products, Michelle Bendschneider, is a work in progress, but is credited with reinvigorating the division and improving KPIs such as time to market and customer satisfaction.

- **Differentiation through software mastery.** Telstra Enterprise's

cloud-native overlay network, Telstra Programmable Network (TPN), is being developed and extended in-house, most recently with a homegrown OpenFlow controller. OpenKilda replaces a vendor product in the production network in November 2017 and the TPN team has released it into open source. Telstra Enterprise has 100 customers benefiting from TPN's ability to spin up secure connectivity between global locations and clouds in minutes, and the crowds around TPN's demo booth at Vantage were testament to the high level of interest in its differentiated capabilities and the novel experience that these capabilities can offer to Telstra's enterprise customers.

Challenges and recommendations

Telstra Enterprise's revenue is increasing, and this growth is due (at least in part) to the more-advanced implementation of digital behaviours than other enterprise service providers. The link between revenue growth and digital behaviour may need to be made more explicit as Telstra Enterprise moves into new international markets and as TPN is introduced in

Australia. If this link is not made clearer, there is a risk that the division's digital transformation achievements are undermined and therefore become less likely to be adopted.

We recommend that Telstra Enterprise addresses these challenges by:

- communicating revenue generation, customer experience and KPI improvement successes, tying them more explicitly to digital behaviours to validate the impact of such behaviours and to demonstrate their value.

- strengthening bridges with other Telstra divisions to help them understand and adopt similar digital behaviours. This will provide Telstra Enterprise with a larger pool of internal resources to draw from and the ability to leverage technology and product developments elsewhere in the organisation.

- finding synergies between the cloud-native products developed by the innovative companies that Telstra Ventures is investing in and the cloud-native TPN environment to create unique network-enabled offers. Currently, Telstra Enterprise is talking about synergies between discrete solutions provided by its Ventures investments, and how these young companies are changing the conversations it is having with enterprise customers and opening the door to traditional products. Telstra Enterprise can demonstrate the power of IT/network convergence and increase differentiation by encouraging its internal software-capable networking team to work closely with Telstra Ventures portfolio companies.

FIGURE 2: TELSTRA ENTERPRISE DEMONSTRATES SEVERAL OF THE DIGITAL BEHAVIOURS NEEDED TO BECOME A DIGITAL SERVICE PROVIDER
[SOURCE: ANALYSYS MASON, 2017]

[1] Telstra's and Tata's figures are year-end 2017, not 1H 2017, as is the case for the other operators; Telstra Business is the domestic arm of Telstra Enterprise.

[2] FANG refers to Facebook, Amazon, Netflix and Google, exemplar digital service providers

Operators struggle in enterprise ICT services – acquisitions may provide a route into this market

> *ICT services present a significant growth opportunity for operators; however, they are currently winning a low share of the market.*

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This article explores enterprises' adoption of and level of interest in ICT services, based on our survey of over 1600 enterprises, and discusses the role of operators in this market. Operators are well positioned to improve their position in ICT services, but they need to build on a base of solid traditional connectivity services. Operators that participate in this market must gain capabilities through acquisitions and improve enterprise customers' satisfaction with their traditional services, which is currently low and will limit operators' ability to sell additional services.

Operators have struggled to gain market share in most ICT services, despite having several advantages

Operators already have the necessary ecosystem to be major ICT providers. They have large customer bases and wide sales and support channels.

Furthermore, operators are uniquely positioned to offer multiple ICT serviceson a single bill. Many enterprises would value having a single provider for all ICT services, especially when seeking support.

However, operators have struggled to gain a significant market share in any service except pay TV (which is only adopted by a small minority of businesses), despite these advantages (Figure 1).

Two main factors have prevented operators from gaining significant ground in this market.

- **Sales teams struggle to sell new services.** Operators' sales teams may not have the skills or the incentives to sell new products. Selling ICT services will require sales personnel with advanced and technical product

knowledge. Furthermore, sales commission per product is likely to be small, as the incremental revenue from each new service is likely to be low. Sales teams may therefore have little motivation to gain the required product knowledge unless incentive structures are altered.

- **Customers are dissatisfied with core connectivity products.** Most enterprises are dissatisfied with their core telecoms products, making them unlikely to purchase additional services from their operator.[1]

Operators must build on a base of solid connectivity services if they are to compete in the ICT market

Operators will struggle to sell additional services to customers that are unhappy with their core connectivity products. Our research suggests that enterprise customers' satisfaction with legacy and customer services is low in most countries and may be hampering operators' efforts to increase their share of the ICT market.
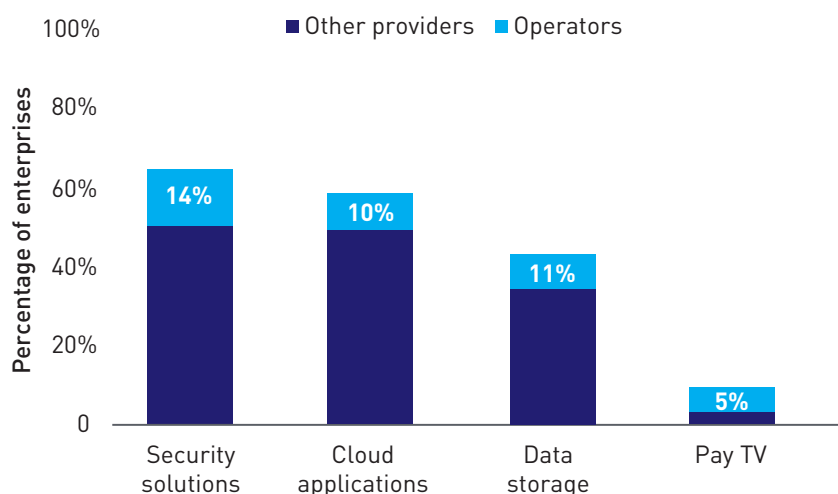

FIGURE 1: PERCENTAGE OF ENTERPRISES USING ICT SERVICES BY SERVICE TYPE AND PROVIDER
[SOURCE: ANALYSYS MASON]

For example, satisfied customers (who gave their providers scores of seven or more out of 10 when asked how likely they were to recommend their providers) are more than twice as likely to buy security products from their telecoms provider than dissatisfied customers (who gave their providers scores of six or less on the same scale).[2] Fundamentally, operators will struggle to improve their position in this market if they do not provide excellent basic services – good customer support, fast and reliable networks, and simple online tools and portals that enterprises can use to track and manage their services. Operators can only drive their position in the ICT market through the relationships and trust built on high-quality legacy services.

Acquisitions may provide operators with a route into the ICT services market

Operators that are successfully selling ICT services to enterprises penetrated the market through strategic acquisitions. Markets for new products, such as software-as-a-service (SaaS) and

security, are not yet saturated, but they are maturing rapidly. This leaves little room for operators to enter the market organically (by building services from the ground up). Instead, operators may need to strategically acquire established vendors to gain the necessary capabilities and increase their market shares.

The large number of acquisitions that have taken place over the last 2–3 years supports this conclusion. Figure 2 provides selected examples of ICT acquisitions where operators have gained key capabilities.

Operators have a compelling case for building better ICT portfolios

Developing an ICT portfolio can enhance brand recognition, create a strong differentiator and strengthen operators' enterprise offerings – operators with the most advanced ICT portfolios are reporting the strongest enterprise revenue growth. For example, Singtel's enterprise revenue grew by 3.7% between 2015 and 2016, largely due to a 12.9% increase in ICT revenue.[3]

There is a compelling case for operators to expand their ICT portfolios. However, this expansion must be built on a base of strong traditional connectivity services and will require operators to be bold, particularly in making strategic acquisitions.

Analysys Mason is helping a number of clients to develop their enterprise strategies, both through our published research and through consulting projects. For example, we are currently assisting a European operator in developing its approach to new ICT services.

Questions?
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Operator (year)	Company acquired	Value	Capability gained
Telia (2017)	Nebula	USD185 million	Small and medium-sized enterprise cloud services
CenturyLink (2016/2017)	Many, including SEAL Consulting, ElasticBox and netAura	Not disclosed	Security, cloud and IT services
KPN (2016)	DearBytes and RoutIT	Not disclosed	Security and cloud services
NTT (2016)	Dell Services	USD3 billion	Enterprise and vertical IT solutions
TDC (2016)	Cirque and Adactit	Not disclosed	Office 365 and unified communications services
Orange (2015)	Cloudwatt	Not disclosed	Cloud services
Singtel (2015)	Trustwave	USD810 million	Security

FIGURE 2: SELECTED ICT ACQUISITIONS BY TELECOMS OPERATORS
[SOURCE: ANALYSYS MASON 2017]

[1] For further information, please see Analysys Mason's Report *Enterprise survey 2017: fixed services satisfaction and churn for large enterprises* (http://www.analysysmason.com/Research/Content/Short-reports/fixed-satisfaction-LEs-REN01-REN02/).

[2] For further information, please see Analysys Mason's Report *Enterprise survey 2017: ICT services for small and medium-sized enterprises* (http://www.analysysmason.com/Research/Content/Short-reports/ICT-services-SMEs-RDMZ0/).

[3] For further details, see Analysys Mason's Article *Singtel outperforms a declining telecoms enterprise market* (http://www.analysysmason.com/Research/Content/Comments/Singtel-enterprise-market-Apr2017-RDMZ0-REN01-REN02/).

Telecoms operators could benefit from the growth in cloud markets that is driven by global IT players

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❝Operators are well positioned for a role in delivering managed data, security and private cloud services, as well as services targeted at key industry verticals where they can differentiate themselves.❞

The market for cloud-related services continues to increase rapidly, as evidenced by the double-digit revenue growth rates enjoyed by many global IT market players. This presents both an opportunity and a challenge for telecoms operators that are seeking to capture a share of this growing market and its associated connectivity revenue.

This article compares the financial performances of cloud services from well-established global IT players with those of telecoms operators and discusses what operators are doing to take advantage of the growth trend in the cloud market. The reporting of cloud revenue is opaque – it is not always clear what is or is not included and exact comparisons are impossible. However, the reported figures give us a reasonable sense of how the different cloud divisions, broadly defined, are performing.

Alphabet, Amazon, IBM and Microsoft dominate the rapidly growing cloud market

Global IT players continue to report huge increases in year-on-year revenue for their cloud services (see Figure 1). Microsoft Azure and Alibaba Cloud are particularly notable, with growth rates of above 90%, but many others including AWS, Google Cloud and Oracle Cloud are also growing at more than 40% year-on-year.

Revenue is shifting from legacy IT offerings to cloud-based services. For example, IBM Cloud's revenue (which includes Bluemix) grew by 14.7% between 2Q 2016 and 2Q 2017 while the overall revenue for IBM Technology Services and Cloud Platforms (which includes infrastructure services, technical support services and integration software) fell by 5.1% in the same period.

The cloud market positions of the companies represented in Figure 1 can be summarised as follows.

- AWS is a strong leader in the infrastructure-as-a-service (IaaS) market, followed by Microsoft Azure, Alibaba Cloud and Google Cloud, which are behind, but closing the gap.

- Microsoft Azure and Alibaba Cloud have outperformed their competitors by a large margin when it comes to cloud revenue year-on-year growth rates. However, this growth comes from a low base compared to that of AWS, for instance. In fact, AWS's revenue grew by USD1.21 billion in 2Q 2017 while the
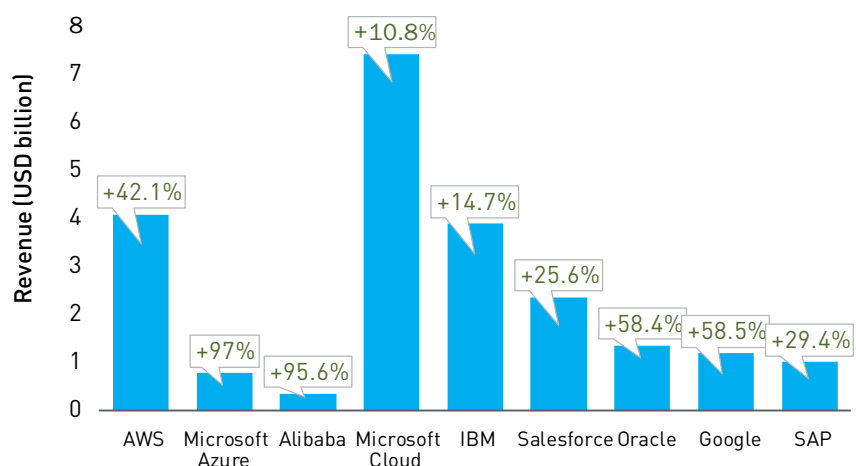
KEY: AWS = AMAZON WEB SERVICES; ALIBABA = ALIBABA CLOUD; IBM = IBM CLOUD; SALESFORCE = SALESFORCE CLOUD SUBSCRIPTION AND SUPPORT; ORACLE = ORACLE CLOUD; GOOGLE = GOOGLE CLOUD; SAP = SAP CLOUD SUBSCRIPTIONS AND SUPPORT.

FIGURE 1: CLOUD REVENUE AND YEAR-ON-YEAR GROWTH, BY GLOBAL IT PLAYER, 2Q 2017
[SOURCE: ANALYSYS MASON, 2017]

combined revenue growth of Azure, Alibaba Cloud and Google Cloud was USD1.33 billion in the same period.

- Alphabet reported that its cloud unit accounted for more of the company's headcount additions than any other areas of the business in 2Q 2017 and that the unit is one of Alphabet's fastest growing businesses. Further inclusion of artificial intelligence services in Google Cloud is its potential key differentiator in the cloud market in the future.

- Alibaba Cloud's biggest market is China, where the market for cloud computing services is still a few years behind the USA and Western Europe. This, along with other less developed cloud markets, such as India and Indonesia, is where the company sees its chance to capture further revenue growth and gradually catch up with its competitors in IaaS. Alibaba Cloud is one of the conglomerate's fastest growing units and it is focusing on growth and international expansion, rather than profitability.

- IBM is not within the top-five companies by revenue in the IaaS market – it makes most of its cloud revenue from software-as-a-service (SaaS) and platform-as-a-service (PaaS) offerings. The same is true for Oracle, Salesforce and SAP.

Some telecoms operators also report significant growth in cloud revenue

Some of the telecoms operators that provide details of cloud revenue are also experiencing significant revenue growth rates, albeit smaller than those of the global IT players. Deutsche Telekom and NTT are the most successful in achieving year-on-year growth of over 10% from a reasonably sizeable base (see Figure 2). Orange does not report revenue figures for its enterprise cloud services, but stated that this revenue grew by 15% year-on-year in 2Q 2017 and 37% in 3Q 2017, although its IT & Integration Services revenue as a whole increased at the lower rate of 3.3%.

The increased competitive pressure in Spain and Latin America meant that Telefónica's revenue declined in this area in 2Q 2017 compared to a year earlier (see Figure 2). However, a positive performance in IaaS and SaaS in Spain and the launch of new projects in Brazil in 3Q 2017 translated into a year-on-year revenue growth of 25.0% between 3Q 2016 and 3Q 2017. Pricing pressures in the USA prompted AT&T and Verizon to sell off some of their data centres, because they could not compete on a cost basis in the economy-of-scale public cloud business.

Deutsche Telekom is the market leader among telecoms operators that compete in the cloud space. Its IaaS services are popular with the German financial sector, local government and SMEs (which form a significant proportion of the country's economy) because the data is stored exclusively in Germany, which has rigorous data protection regulations. NTT's cloud revenue growth has lifted the company's profits since 2Q 2016, thanks to the company's focus on medium-to-large enterprises – a market segment that has not yet been locked up by the largest cloud providers.

Telecoms operators do not generally disclose revenue from their cloud offerings, suggesting that these typically form a small proportion of overall revenue. However, operators need not be marginalised in the cloud market. They need to play on their strengths of local presence, existing relationships and having a good understanding of customer requirements, as well as connectivity provision, to innovate and partner with IT specialists rather than try to imitate their service offerings.

The public IaaS, SaaS and PaaS cloud markets require large scale and it is therefore unlikely that telcos will be able to compete directly with Alphabet, Amazon or Microsoft. However, telcos are well positioned to play a significant role in delivering managed data, security and private cloud services, as well as services targeted at key industry verticals where they can differentiate themselves.

Questions?
Please feel free to contact
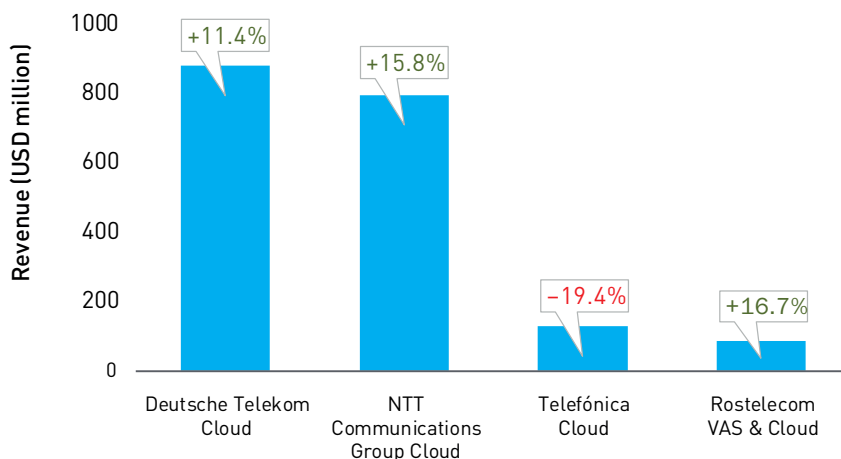Igor Babić, Research Analyst, at
igor.babić@analysysmason.com

FIGURE 2: CLOUD REVENUE AND YEAR-ON-YEAR GROWTH, BY SELECTED OPERATOR, 2Q 2017
[SOURCE: ANALYSYS MASON, 2017]

Analysys Mason's
Enterprise Research

The SME and enterprise communication programmes have a common structure with forecasts, surveys and strategic analysis

	SME Strategies	Large enterprise voice and data connectivity	Large enterprise emerging service opportunities
Forecasts	• Country-by-country forecasts for voice, data and cloud services, connections and revenues, fixed and mobile	• Country-by-country forecasts for voice and data connections and revenues, fixed and mobile	• Country-by-country forecasts for new services opportunities (e.g. security, PaaS, IaaS, SaaS)
Survey	• Survey of 8 countries with over 1000 SMEs interviewed • Questions on current services, satisfaction and future purchase intentions	• Survey of 8 countries with over 500 large enterprises interviewed • Questions on current services, satisfaction and future purchase intentions for voice and connectivity	• Survey of 8 countries with over 500 large enterprises interviewed • Questions on current services, satisfaction and future purchase intentions for new services
Strategy reports & commentary	Reports such as: • Strategies for bundling cloud services with voice and data connectivity • Operator best practice for selling to SMEs	Reports such as: • Approaches to enterprise fixed and mobile bundling • Strategies for differentiating enterprise connectivity	Reports such as: • Strategies for combining IT services and the traditional telecoms portfolio • Best practises of operators selling SaaS to large enterprises

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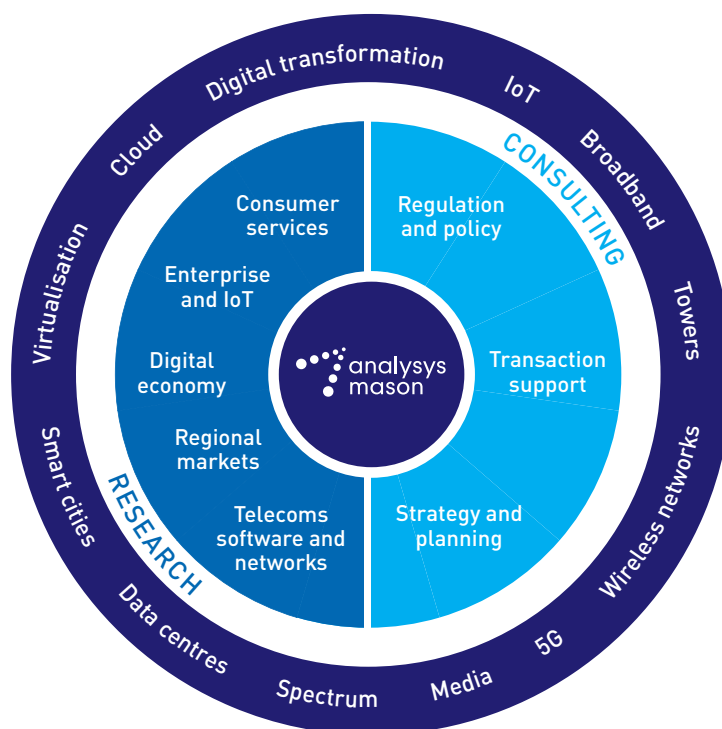
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