SPOTLIGHT

Telco Mergers and Acquisitions

Strategic Backgrounds, Use Cases and Future Developments



Editorial

Dear Readers,

The worldwide telecommunications market is a highly dynamic environment, and even if trade wars, regulatory uncertainty, and COVID-19 are leaving their marks, mergers and acquisitions (M&A) are, and will continue to be, an important strategic instrument for operators around the globe.

As in recent years, the Detecon Spotlight: Telco Mergers and Acquisitions – Strategic Backgrounds and Industry Trends provides comprehensive insights into worldwide M&A transactions in the telecommunications industry. The M&A Spotlight seeks to give answers to the following questions. What new trends can be observed, and what is driving these dynamic developments? What geographic regions have been M&A hotspots? What have been the key deals, and how are these deals changing the industry?

We are seeing massive changes in the way our industry does business. M&A is a crucial instrument for responding to changing market environments and new technologies. Telecommunication operators are looking for new revenue sources, especially now in these times of declining revenues from traditional business areas and with 5G on the horizon. They are striving to strengthen their infrastructure for the deployment of 5G and to pursue economies of scale. Just like efficiency measures and programs, M&A remains one of the essential strategic tools for coping with the market and with technological developments.

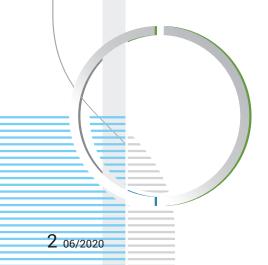
Our search for answers and solutions to these questions and issues and the encouragement from the attention our Spotlights have received during recent years motivate us to analyze continuously the strategic rationale behind telecommunications M&A worldwide, work that never fails to provide a new exciting insight into this highly dynamic topic.

We hope you enjoy reading this issue!

Ralf Pichler CEO, Detecon International

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What Is It All About?

In this edition of the *Detecon Spotlight*, just as in previous years, we highlight worldwide M&A transaction trends in the telecommunications industry, provide strategic insights, and discuss underlying motivations that were driving market activity in 2019.

The year 2018 was an active one for M&A, leaving telecommunications companies with emptier war chests for big-ticket takeovers in 2019.¹ Nevertheless, M&A has kept the market in motion and will quite likely continue to do so in the medium to long term. The current coronavirus crisis, however, has not spared the telecommunications market, increasing uncertainty that might reduce M&A activity in the short term. A substantial amount of M&A activity in 2019 involved Tier 2¹ and Tier 3 network operators as well as infrastructure providers, especially in the wireline/fiber and tower sectors. Such acquisitions are particularly relevant for the deployment of 5G to a majority of the population, including rural areas. Policymakers have woken up to the significance of this as well. Other drivers might be the comparative lack of (mobile) broadband competition outside urban centers as well as the acknowledgment that future mobile networks will require a dense backhaul infrastructure that Tier 2 and Tier 3 carriers are well-positioned to provide.²

The focus on infrastructure investments indicates that mergers and acquisitions are a vital strategic tool for telecommunications operators and investors to capture a broader share of the anticipated 5G revenue.

Even though 2019 was not a particularly outstanding year for M&A, a closer look into the transaction scene is still worthwhile. This Detecon Spotlight will highlight our observations from the past year by providing an update on pending deals from 2018, presenting three selected use cases, and explaining the underlying grounds for these mergers. Finally, it will look ahead to possible M&A activities in 2020 and beyond to the extent that this is possible in light of the current coronavirus crisis.

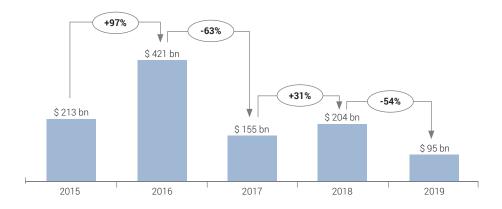


Figure 1: Development of Deal Values 2015 - 2019 (Source: Detecon)

¹ Tier 1 Service Provider: A Tier 1 service provider owns its networks, does not purchase transit service from any other network, and peers with every other Tier 1 network to maintain global reachability. They are the biggest providers geographically, but not always in terms of the number of customers.

Tier 2 Service Provider: A network with transit connections, customers, and some peering, but one that still buys transit service from Tier 1 Providers to reach some portion of the internet.

Tier 3 Service Provider: A stub network, typically without any transit customers and without any peering relationships. They generally purchase transit internet service from Tier 2 service providers, sometimes even from the Tier 1 providers as well.

Overview and Key Findings

In 2019, M&A activities worldwide declined significantly in comparison with the previous year with deal values at a five-year low. Increased spending in recent years, especially for more significant acquisitions, as well as last year's regulatory uncertainty (e.g., T-Mobile US and Sprint merger) seem to have hampered M&A activity in 2019 (see Figure 3).

The **total number of deals** was down by nearly 28 percent compared to the previous year, from 266 transactions in 2018 to 191 transactions in 2019. At the same time, the **total deal value** dropped from US\$204 billion to US\$95 billion in 2019, a decrease of 54 percent (see Figure 1).

Furthermore, the **deal value structure** in 2019 resembled that of the previous years. A comparatively large number of deals (70) were closed with a value below US\$1 billion, altogether accounting for a total of approximately US\$20 billion. Large-scale transactions of over US\$10 billion (two in total), such as the takeover of Zayo Group by Digital Colony Partners and EQT Infrastructure, amounted to an overall value of US\$26 billion (see Figures 2 and 3).

M&A activity dropped significantly for deals at the two ends of the spectrum, i.e., less than US\$1 billion and more than US\$10 billion. However, the number and value of transactions resulting in intermediate deals between these two extremes did not deviate as sharply as in the previous years (see Figures 2 and 3).

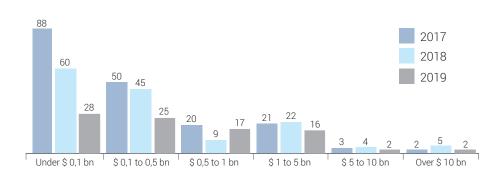


Figure 2: Deal Number per Size Cluster 2017 - 2019 (Source: Detecon)



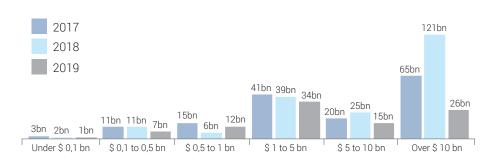


Figure 4 shows ten out of the twenty deals with a deal value higher than US\$1 billion. The data indicate that 80 percent of these high-value targets were acquired by North American companies while 60 percent of these targets were outside the USA.

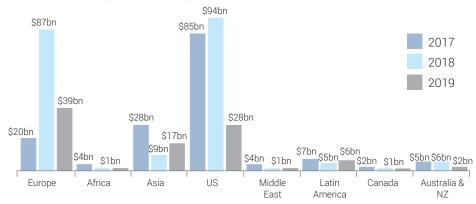
Figure 4: The Ten Biggest Transactions in 2019

Deal	Deal Value US\$m	Target	Country	Acquire	Country	Stake acquired
1	14.300	• Zayo Group Holdings, Inc.	USA	Digital Colony PartnersEQT Infrastructure fund	USA & Sweden	100%
2	12.000	• Line Corp.	Japan	• Z Holdings Corp.	Japan	100%
3	8.400	• InterXion Holding N.V.	Nether- lands	• Digital Realty Trust, Inc.	USA	100%
4	5.000	• T-Mobile USA, Prepaid Business	USA	• DISH Network LLC	USA	100%
5	3.660	 Reliance Jio Tower Infrastructure Trust 	India	Brookfield Infrastructure Partners L.P.	Canada	100%
6	2.600	Cincinnati Bell Inc.	USA	• Brookfield Infrastructure Partners L.P.	Canada	100%
7	2.573	Altice Portugal FTTH	Portugal	Morgan Stanley Infra- structure Partners L.P.	USA	100%
8	2.500	Arqiva Ltd., Tele- coms Divison	UK	• Cellnex Telecom SA	Spain	50%
9	2.236	Vodafone New Zealand Ltd.	New Zealand	Infratil Ltd.Brookfield Asset Management, Inc.	New Zea- land & Canada	100%
10	1.352	• Frontier Com- munications' assets in Washington, Oregon, Idaho, and Montana	USA	• WaveDivision	USA	100%

A detailed analysis of the **deal distribution around the globe in 2019** shows the following (see also Figures 5 and 6):

- A majority of deals (93) were concluded in Europe, following the trend of the previous years. There were nearly as many transactions here as in all other regions combined (99).
- The deal values in Europe indicate that deals were smaller in comparison with previous years since the number of deals remained stable while the value of individual values decreased significantly.

Figure 5: Value of Deals per Region of Target in 2019 Compared to Recent Years (Source: Detecon)



- In the USA, there were 68 percent fewer deals (32) than two years before (104). This significant decrease can be associated with increased regulatory uncertainty and a highly consolidated market.
- In contrast to Europe, Asia has seen a decrease in the number of deals over the last three years as well as a near doubling of deal volume from 2018 to 2019 (US\$9 billion in 2018 vs. US\$17billion in 2019).
- M&A activity in the Middle East, Latin America, and Canada stayed stable over the previous year; only Australia and New Zealand experienced a more than 60 percent decrease in deal values

The topic of 5G still hangs over telecommunications providers, significantly influencing their **investments in different sectors** and resulting in a vertical consolidation of the market. Notably, the infrastructure (wireline, fiber optic, and towers) required for the deployment of this new standard was the subject of increasing attention last year, similar to the previous year (see Figure 7).

In terms of the number of deals, the top targets were wireline companies (67). However, a total deal value of only US\$8 billion means they were not the main investment category. Most investments went into fiber optic providers with a total deal value of US\$21 billion, although there were only 21 deals. The difference can be attributed to the maturity of the assets (copper cables) and the data bandwidth limitation as compared to fiber optic cables.

Figure 6: Deal Number per Region of Target in 2019 Compared to Recent Years* (Source: Detecon)

*Excludes deals with undisclosed transaction value

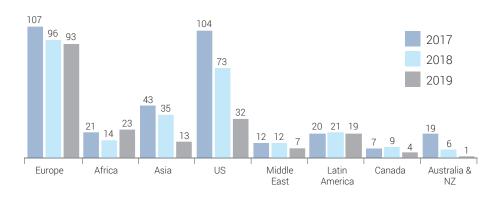
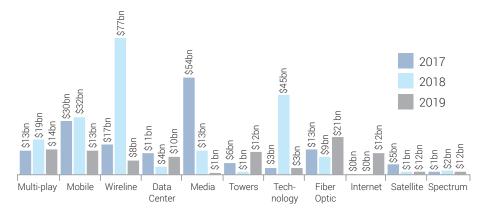


Figure 7: Value of Deals per Sector of Target in 2019 Compared to Recent Years (Source: Detecon)



Moreover, acquisitions of tower providers experienced a 100 percent increase in the number of deals and a 1200 percent increase in deal values over previous years. The acquisition of Eaton Towers Holding Limited by American Tower with a value of US\$1.85 billion is especially noteworthy (see Chapter 4.3 for more details).

The drop in technology investments of US\$42 billion in 2019, relating mainly to business IT service providers, as compared to the previous year is also worth mentioning. One major contributor to the difference is IBM's acquisition of Red Hat for US\$34 billion. If this Red Hat deal is disregarded, technology investments overall remained stable without any significant outlier.

In conclusion, the data from 2019 clearly indicate that **investments in 5G-relevant infrastructure**, one of the three main trends of 2018,³ still dominated in 2019.

Activities break down into three sub-trends:

- Investment in dark fiber and colocation
- · Consolidation on the wireline market
- Acquisition of tower infrastructure

In Chapter 4, we will highlight critical deals for each of the trends mentioned above.

Recap of Major Trends and Open Deals from 2018

In last year's issue of the Detecon Spotlight: Telco Mergers and Acquisitions – Strategic Backgrounds and Industry Trends, we identified several **strategic trends** that defined the M&A landscape in 2018. The most noteworthy deals in each category were highlighted and described in more detail. However, **some of those key deals were still pending** at the end of 2018 owing to regulatory uncertainty. In this chapter, we will revisit three of those deals in detail, **give an update** on how the approval process proceeded, and **highlight the significant hurdles** in completing the transactions:

- Pending Deal: Vodafone acquires Liberty Global Operations in Germany and East-Europe
- Investment in Adjacent Industries
 Pending Deal: Comcast acquires Sky
- 5G on the Rise
 Pending Deal: T-Mobile US acquires Sprint

Consolidation for Multi-play: Vodafone – Liberty Global

They key rationale behind Vodafone's acquisition of Liberty Global's operation in Germany and Eastern Europe (Czech Republic, Hungary, Romania) is to become a convergent leader and to stay ahead of the multi-play curve. Bundling service offerings such as fixed and mobile telephony and broadband internet provides a **one-stop shop for customers across all sectors**, who expect the service offerings to be provided from a single source and on one bill. This customer demand is a fundamental element of **Vodafone's strategic positioning aimed at becoming a convergence leader**. One step to realizing this goal was **Vodafone's decision to acquire Liberty Global's** operations in Germany, the Czech Republic, Hungary, and Romania.

Vodafone confirmed in early 2018 that it was involved in talks to acquire Liberty Global's assets in Europe, and in July 2019, the firm announced that it had completed the acquisition of Liberty Global's operations in the relevant countries for a **total enterprise value of US\$21.5 billion (€18.4 billion)**.⁴

Vodafone Group is a global telecommunications company headquartered in the UK and one of the largest mobile operators worldwide, operating in 25 countries. Liberty Global is a multinational telecommunications company headquartered in the UK and one of the world's largest broadband internet service providers.

The deal was subject to intense scrutiny by European regulators. The European Commission's decision to approve the deal followed an in-depth investigation addressing concerns on all relevant markets, most notably Germany.

Vodafone had to make concessions, particularly in Germany, where it agreed to open the cable network to Telefónica Deutschland, enabling its competitor to deliver TV and broadband services. Furthermore, Vodafone had to agree not to restrict broadcasters contractually from distributing their content via OTT services. Despite these concessions, the European Commission's decision was not well received by competitors, who expressed doubts about competition on Europe's biggest market and feared a potential slowdown of fiber optic network deployment.

It is no secret that Vodafone is challenging Deutsche Telekom and Orange in Europe. In 2013, Vodafone acquired Kabel Deutschland and set its course for convergence. Vodafone now offers both fixed and mobile services on all European markets except for Albania and Hungary. Acquiring Liberty Global and Unitymedia's German operations further **sharpened Vodafone Group's focus on Central Europe**, and group CEO Nick Read calls Germany the "heart of the company." The acquisition of Liberty Global DE and East-Europe improves Vodafone's position across the region and aligns with its convergence strategy, a key focus for many operators. In Germany, Vodafone aims to create a fully converged national challenger, while in CEE markets, it looks to transform its fixed-line position and foster its convergence strategy.

In 2019, Vodafone had 63.2 million mobile contract customers, 18.8 million broadband customers, and 13.6 million TV customers in Europe, of which 6.6 million were "converged." Vodafone is Germany's largest provider of mobile phone services and boasts more than 50 million active SIM cards and over 29 million mobile customers. With the new acquisition, Vodafone can add another 3.5 million fixed broadband customers to its existing 7 million and 6.3 million TV customers to its current 7.7 million. Germany is now more important than ever before for Vodafone as the group is looking to drive European growth from its regional headquarters in Düsseldorf.

Increasing customer loyalty and operational efficiency, lowering churn, and fixed-mobile convergence remain **Vodafone's main strategic pillars**, particularly in Europe, where the group expects **growing acceptance of convergent offerings**. Newly gained near-national coverage enables Vodafone to cross-sell mobile offerings to its fixed customer base. The acquisition of Liberty Global's operations certainly does strengthen **Vodafone's ambitions of becoming a convergence leader**.

Investment in Adjacent Industries: Comcast - Sky

Telcos engaging in merger activities are pursuing specific targets such as increasing their customer base or revenue and diversifying their portfolio. Often, the strategy consists of entering sectors close to their core business. Rather than taking this approach, some operators are focusing on **gaining access to new and adjacent industries** that are not directly related to a telco's traditional core business. Operating today on volatile markets and faced with shifting customer preferences, telcos need to be **innovative in finding ways to return a profit**.¹¹

Investing in adjacent industries and staying ahead of the curve were also motivating factors behind Comcast's acquisition of Sky. Wanting to stay innovative and provide better service offerings to customers across the added-value chain, Comcast was determined to acquire Sky. For Sky, however, Comcast was late to the party as negotiations were already in progress with 21st Century Fox, which owned 39 percent of Sky, to take over the remaining 61 percent for US\$14.6 billion.¹²

One year later, another firm entered the fray — the Walt Disney Company announced that it was in talks about a deal for the acquisition of 21st Century Fox, including its interests in Sky (which was then still owned by 21st Century Fox). A few months later, Comcast countered by expressing their interest in 21st Century Fox and the bidding process quickly evolved into an intense **bidding war between Comcast and Disney**. After multiple rounds of meetings and new bids, Disney was willing to pay a higher premium for 21st Century Fox and came out victorious, offering US\$71.3 billion (compared to

Comcast's US\$65 billion). **Disney acquired the majority of 21st Century Fox's** assets and spun-off part of its news and sports businesses into a new legal entity known as Fox Corporation.¹³

With 21st Century Fox off the table, **Comcast refocused** its efforts again on acquiring 21st Century Fox's 61 percent stake in **Sky** and eventually outbid its competitors in an auction by offering **US\$38.8 billion**. This opened the door for Comcast to step into full ownership of the European media company. Subsequently, Comcast started acquiring shares on the open market, and in September 2018, 21st Century Fox announced it would sell all of its remaining shares to Comcast.

Naturally, **Sky's strong financial performance** represents a welcome **additional revenue stream for Comcast** and is expected to contribute 17 percent (US\$18.5 billion) to the company's total revenue of US\$108.8 billion in 2019.¹⁵ The revenue in 2019 and 2020 is projected to be driven by Sky's growth in content revenue and direct-to-consumer **business growth**.¹⁶

Looking back at the acquisition and its underlying motivation, Comcast's intention to bid for Sky does make sense. Comcast found itself in an industry marked by intense battles on all fronts and split among technology giants such as Netflix and Amazon. To bolster its position amidst these powerful rivals, **Comcast needed to strengthen its presence and increase market share**. Moreover, the company wanted to expand its premium US content and distribution model to Europe and combine it with Sky's media and broadcast presence. Along with market share, Comcast expected to create growth and **transform itself into an international media giant** by investing in adjacent industries. With reasonable growth projections on the horizon and a stronger foothold in Europe as well as a holding in an adjacent industry, Comcast is looking forward to making its presence felt and confronting emerging challenges.

5G on the Rise: T-Mobile US - Sprint

One of the **major drivers for acquisitions in 2018 was 5G**. ¹⁸ The fifthgeneration network technology is the latest version of mobile technology with speeds up to 200 times faster than existing networks, lower latency, and network slicing capability. ¹⁹ Such features drove **substantial M&A activity** and expenditures as market players (both large and small) raced for better positions in this radically new environment. ²⁰

The 5G-driven merger attracting the most media attention was arguably that **between Sprint and T-Mobile US**,²¹ which was expected to be closed in 2019. The key rationale for this deal, according to both companies, is that "New T-Mobile will be the only company able to bring a broad and deep nationwide 5G network [...] ensuring America's leadership position in the digital era."²² This line of argumentation seemed to be supported by regulators around the world. For instance, the UK government showed support for further M&A activity of the four UK telecommunications providers if they must ""struggle to justify the investment needed for 5G network upgrades," despite blocking a similar deal two years ago.²³

Nevertheless, there was **significant uncertainty and public resistance to the approval** of the merger. This ambiguity about the deal closure started immediately after the deal announcement in 2018.²⁴ T-Mobile and Sprint filed the required documents with the **Federal Communications Commission (FCC)**, opening the acquisition for public comments.

This filing launched the decision-making process to give either a green or red light for the transaction, which took over a year.

Besides the FCC approval, the approval of the **US Department of Justice (DoJ)** was required for the merger. The DoJ **postponed the decision** about the merger owing to its business, geopolitical, and anti-trust complexity.²⁵ Moreover, in March 2019, both CEOs had to **appear before the US House of Representatives** as part of the investigation of the "[...] potential impact of the proposed merger of Sprint and T-Mobile on consumers, workers, and the internet."²⁶

During 2019, both the **DoJ and the FCC approved the merger** with Sprint subject to significant concessions to ensure market efficiency. The agreement with the DoJ included the sale of Virgin Mobile, Boost Mobile, and New T-Mobile's prepaid business to Dish Network (which was also the 4th biggest deal in 2019, see Figure 4) for US\$5 billion. This deal also included a significant portion of Sprint's 800 MHz spectrum. ^{27,28} The following conditional approval from the FCC was based on a split decision (3-2 votes). It compelled New T-Mobile to deploy 5G to 97 percent of Americans within three years of the conclusion of the deal and provide access with speeds of 100Mbit/s or more to 90 percent of Americans.^{29,30}

Additionally, throughout the course of 2019, **attorneys-general (AG) from 14 states** (California, Connecticut, Colorado, Hawaii, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Nevada, New York, Texas, Virginia, and Wisconsin) and the District of Columbia **filed lawsuits** to block the deal. The fundamental rationale behind these lawsuits was that the merger would result in higher prices for consumers, costing them US\$4.5 billion yearly.^{31, 32, 33, 34}

As of the time of this writing, the **deal had finally been approved on 1 April 2020**. With the conclusion of this deal, T-Mobile US becomes a **key player in rolling out 5G** to a **customer base greater than 130 million**. The merged company will have more than **US\$70 billion in service revenue** and an EBITDA of more than **US\$20 billion**. After the deal, Deutsche Telekom will end up with a 42 percent stake in ownership while SoftBank will hold 27 percent; the rest will be in free float. Furthermore, the net present value for the anticipated **synergies** from the deal is estimated at **US\$43 billion on a US\$6 billion run-rate** basis. ^{35, 36}

Key Transactions in 2019

We will examine **investments in 5G-relevant infrastructure** in more detail for 2019. This trend was already discernible in 2018 (see also Chapter 3.3) and became the driving force behind investments in 2019. Specifically, our focus will be on **three deals representative for the sub-trends** identified in Chapter 2:

- Investment in Dark Fiber and Colocation
 Representative Deal: Digital Colony acquires Zayo
 Reason for Deal: Consolidation of the fiber market to improve position on
 5G market
- Consolidation on Wireline Market
 Representative Deal: WaveDivision acquires Frontier Communications
 Reason for Deal: Investment in next-generation wireline technologies to
 serve the increased demand for better broadband connections
- Acquisition of **Tower** Infrastructure
 Representative Deal: American Tower acquires Eaton Towers
 Reason for Deal: Enhance presence on emerging, fast-growing markets

Continuing our examination, we will look at the background, rationale, and implications of these activities below.

Investment in Dark Fiber and Colocation: Digital Colony – Zayo

In May 2019, Zayo Group Holding Inc. announced the signing of a merger agreement with global financial investors Digital Colony and EQT Infrastructure IV. **Zayo will be acquired in a transaction valued at US\$14.3 billion**. In terms of the key figures, the deal between EQT, Digital Colony, and Zayo Group was the largest in the telecommunications industry in 2019 (see also Figure 4). The deal was approved by the Committee on Foreign Investment in the United States (CFIUS) by the end of 2019.³⁷

A global investment firm, **Digital Colony** focuses on the internet and next-generation mobile infrastructure. Notably, the anticipated worldwide 5G rollout is at the heart of their investments in the mobile and internet sector, which includes data centers, small cell networks, and fiber networks.^{38, 39} The investment partner for this deal is the global investment organization EQT. Working with a network of industrial advisers, **EQT** invests in private equity, mid-market infrastructure, and credit in Nordic countries, GAS, Greater China, and North America.⁴⁰

Zayo Group Holdings, Inc. is a global network solutions provider headquartered in Colorado, United States, with European headquarters in London. The company provides communications infrastructure services, including fiber and bandwidth connectivity, colocation, and cloud infrastructure. Zayo's primary customer segments include data centers, wireless carriers, ISPs, enterprises, and government agencies. 41, 42

After the acquisition, both parties — Zayo and its investors — identified significant potential for **refocusing and restructuring of Zayo Group**. One first step could be the planned **sale of Zayo's Colocation Division zColo** (Zayo Colocation), which operates 51 data centers. This sale could realize about US\$10 billion, a price that is about ten times as high as annual EBITDA.⁴³

The key takeaway of this acquisition is that it allows Digital Colony to **expand its fiber infrastructure** as well as communications infrastructures. Especially in view of **the advent of 5G**, high-capacity fiber optics lines are in tremendous demand to support the development of multi-gigabit mobile broadband speeds. Zayo's new owners can **exploit the extensive infrastructure that is already in place**, especially in dense urban areas (e.g., Glasgow, London, and Manchester).⁴⁴

Consolidation on Wireline Market: WaveDivision — Frontier Communications

The private investment firm WaveDivision Capital announced on the 29th of May, 2019 that it will acquire all Frontier Communications associated assets in Washington, Oregon, Idaho, and Montana and that the cash deal is worth **US\$ 1.352 billion**. It has yet to be finalized due to pending agreements and approvals from regulatory authorities and the involved companies.⁴⁵

High-speed broadband internet, low latency, and the resulting reliable network coverage for rural as well as urban areas are far from standard in many regions of the United States. Since the issue of insufficient internet connectivity is a factor mainly in rural areas in the states Washington, Oregon, Idaho, and Montana, where Frontier Communications had an especially strong footprint, WaveDivision Capital decided to enter this market as it saw the potential for further growth.

WaveDivision's intention to acquire Frontier Communications' assets also helps to secure a better position for itself on the future market, especially in terms of increased demand for **wireline technologies**, which has been identified as a **major trend for 2019**. Based on its broad experience in building and operating advanced fiber-based infrastructure in these regions, WaveDivision Capital acquired all associated assets in Washington, Oregon, Idaho, and Montana from Frontier Communications. The primary aim throughout the transaction was to ensure business continuity — particularly to ensure that all services continue to operate normally and that the transition will be successful and smooth with no negative implications for Frontier Communications' customers or employees.⁴⁶

Frontier Communications is a telecommunications provider based in Norwalk, Connecticut, in the United States with a long history in the industry. Founded in 1935, the company started with telephone lines in rural areas and has expanded nationwide to broader markets within the past decades. Today, Frontier Communications offers telephone, broadband internet, and digital television services to residential and business customers across 29 states (including the four sold operations) in the USA.⁴⁷

The American firm **WaveDivision Capital** was founded in 2003 and operates in the **broadband industry**. It is a private investment firm that aims at **providing superior internet connections** to consumers in the private and business sectors in North America. Its strategy consists of investing in companies and contributing further organizational, technical, and management expertise to improve and expand companies' networks and to provide future-proof broadband products.⁴⁸

The strategic acquisition of Frontier Communications was the result of a partnership between WaveDivision Capital and the private equity firm Searchlight Capital Partners that operates in North America and Europe. Unlike WaveDivision Capital, Searchlight Capital Partners is not focused on a specific industry; it has experience with a broad range of creative investment types. It provides smart strategic direction and flexible financing to contribute to its partner companies' continuing success.⁴⁹

Besides WaveDivision Capital's goal to **expand the next-generation fiber network** throughout the region and to bring more advanced services to the customers, "the sale of these properties reduces Frontier's debt and strengthens liquidity," stated Dan McCarthy, Frontier president and chief executive officer. WaveDivision Capital is closely linked to the Northwest region because this is its home base where the business initially started and developed into a successful growth story. According to Steve Weed, CEO of WaveDivision Capital, ⁵⁰ the company is "[...] excited to be able to continue to serve our community through this acquisition."

The key takeaway is that by acquiring Frontier Communications' assets, WaveDivision Capital follows one of the major trends in 2019, which was expanding and investing in wireline technologies. **The company believes in the region's future growth** potential and that future business will run on fiber and other advanced network services that are offered to more customers in that region.

Acquisition of Tower Infrastructure: American Tower — Eaton Towers

American Tower announced on 30 May 2019 that it would acquire Eaton Towers Holding Limited. The value of the deal is assessed at approximately US\$1.85 billion, including existing Eaton Towers debt. Anticipating upcoming 5G rollouts, telcos are increasing efforts to lease towers from existing tower companies. Telecommunications companies, most notably in the USA, are gearing up their efforts to examine their tower portfolios and potentially add leased towers to their mix. American Towers is one of the providers leasing out towers and is readying itself for future increases in demand.

Eaton Towers was founded in 2008 and owned more than 5,500 towers in five African countries — Burkina Faso, Ghana, Niger, Kenya, and Uganda. The company leased towers to carriers such as MTN, Orange, Tigo, and Vodacom. Eaton Towers had just postponed its plans for an IPO in 2018, allegedly because of concerns that current market conditions were hurting its valuation.⁵¹

Founded in 1995, **American Tower** is one of the world's largest real estate investment trusts (REIT) and an independent owner, operator, and developer of multitenant communications real estate. American Tower's portfolio includes more than 171,000 communication sites, of which more than 130,000 properties are outside the US.⁵² As stated by American Tower chief executive officer Jim Taiclet, "this transaction will significantly augment our existing footprint in Africa and positions ATC to take even better advantage of the growth opportunity in the region as 4G mobile data technology is deployed to serve millions of Africans over the coming years."⁵³

American Tower's acquisition of Eaton Towers leaves only two other major active market players in the African region: IHS Towers and Helios Towers, both potential future acquisition targets. Including Eaton's towers, American Tower now has more than 14,000 sites in Africa. By comparison, IHS Towers owns more than 23,000 towers (of which more than 16,000 are in Nigeria alone) while Helios Towers owns more than 6,500.^{54,55}

The key takeaway is that with the acquisition of Eaton Towers American Tower strengthened its portfolio on the African market. Markets on the African continent exhibit some of the lowest smartphone penetration rates to date and strong growth projections reinforce the need for mobile connectivity. As operators are looking forward to providing services to a growing number of customers and upgrading their networks, tower companies are gearing up to build the necessary infrastructure. The deal displays a clear path towards infrastructure-driven M&A activity; we are likely to see more of these activities soon, as both operators and tower companies are looking forward to mining growth potential and sustaining momentum.

Outlook for 2020

This year will see several topics determining the scope of global M&A activity. While the most dominant topic in recent years (and will remain so in the years to come) is **5G**, **COVID-19** will certainly be its equal (or nearly so). The rapidly spreading pandemic has cast a brilliant light on the criticality of telecom infrastructure. In a crisis that globally affects health, economic, and finance systems such as this one, new pressures are placed on telecom services. Telcos must identify their key role in the common fight against the coronavirus, but also need to maintain reliable provision of their essential services, which have become more critical than ever before in our daily lives.

M&A activities will quite likely continue in the medium to long term, but the current crisis is raising the level of **uncertainty** on the telecommunications market (as well as others) and might **reduce M&A activities in the short term**. However, the research firm Analysis Mason has estimated a **year-on-year decline of 3.4 percent** in global revenues for telcos.⁵⁶ When we compare this figure with the percentage impact on the aviation sector attributed to COVID-19, we see that the telecommunications industry has not been as severely affected by the crisis as other sectors.

Like every other industry confronting these difficult economic conditions, telcos will have to fight. But these new conditions are forcing many companies to push ahead with their digital transformation programs, and they have become even more appreciative of the **value of connectivity**.

COVID-19 might slow down M&A activity driven by the need to create 5G infrastructure because of temporary uncertainty on the market as well as worldwide cash restraints. Mobile operators will feel the need to make massive investments in the further expansion of fiber networks as they enter the 5G network era over the next few years. But (dark) **fiber companies** (primarily regional ISPs) will not be the only targets; **cell tower** companies, **data center** providers (required for the cloudification of the network), and **5G-related software and equipment** companies will find themselves in investors' sights.

Infrastructure asset classes with the potential to reward investments (aside from those mentioned above) are currently the subject of consideration among investors. The natural interest in staying ahead of the curve will determine the final infrastructure investment decisions. Investors try to **anticipate emerging trends when closing deals** and building a **portfolio before new asset classes** become mainstream and prices soar. Little creativity is required to home in on potential targets in spectrum and active network companies (e.g., electronics).

Companies will likely continue to **divest individual assets** in part as they free up capital to pay for this costly 5G infrastructure. Such divestments are expected to be achieved through partial carve-outs of infrastructure from operators to financial partners so that future CAPEX investment can be funded. Nevertheless, operators are increasingly interested in keeping a significant degree of control over their assets. This may mean that many deals will no longer focus on attracting strategic partnerships, but shift to **gaining long-term financial investors**. The partial divestiture is expected to serve as a means of heightening the cash flows generated by these infrastructure assets while still permitting the operator to exercise a high degree of control.

Furthermore, **refocusing of multinational groups on core markets** by divesting or carving-out business units and subsidiaries not relevant to their core market is another prominent theme. At the moment, a sizeable disparate footprint might be seen as a distraction rather than an opportunity in view of the future investments required to update the networks and to stay competitive. Refocusing could well lead to the advent of new regional conglomerates and exciting investment opportunities for private equity firms.

Another conjecture anticipates operators investing horizontally and vertically across the added-value chain in **SDN/NFV providers**, **cloud computing operators**, **and content providers**. One primary driver for such investments is the development of use cases/revenue streams (e.g., cloud gaming) to finance the significant CAPEX outlays required to deploy 5G. What is more, classic connectivity business is suffering from declining revenues, forcing operators to improve generally their top-to-bottom and bottom-to-bottom lines.

In addition to global themes described above, we anticipate several **regional themes**. Operators on European telco markets will focus mainly on 5G-related software and equipment investments while simultaneously divesting nonstrategic business. Similarly, UK operators will focus primarily on optical fiber to achieve full fiber connectivity. The anticipated improvement of the economy will be a boon as the new government begins to eliminate uncertainty concerning policy changes related to Brexit and trade negotiations. On the other hand, organizations in Africa will experience significant consolidation as smaller players will find it difficult to survive owing to the intense competition and sluggish economic growth. In the US market, the approval of the T-Mobile – Sprint deal will increase the pressure on AT&T as well as Verizon, which might trigger a new M&A wave.

Summary

A general consolidation in anticipation of the deployment of 5G, the next-generation wireless technology for digital cellular networks, has been an ongoing trend that had commenced in the previous year. In-depth examination of **three core deals** reflects this trend:

- Investments in core infrastructure such as fiber and colocation are the
 primary concern of operators and investors because future 5G mobile networks are reliant upon high capacity fiber optic lines. This was one of the
 primary drivers of Digital Colony's acquisition of Zayo.
- A reliable network of towers, especially outside urban areas, is of paramount importance for the delivery of the fast 5G radio waves to the customers. The consequence is increased M&A activity regarding tower providers (e.g., American Tower's acquisition of Eaton Towers).
- Consolidation in the wireline market happened due to the increased pressure from mobile companies to substitute fixed broadband with often faster mobile broadband offerings. One of those deals was the acquisition of Frontier Communications' associated assets in Washington, Oregon, Idaho, and Montana by WaveDivision.

The **slowdown in worldwide M&A activities** observed from 2018 to 2019 is expected to continue over the next few years for several reasons:

- With most of the global economy being kept on a short leash by the COVID-19 pandemic and changing responses, economic forecasts change daily. Ramifications of the global health crisis have yet to be estimated on a more accurate level. However, the slowdown of economic activity is also expected to have a negative impact on investor appetite and M&A activity.
- Reduced investments are expected due to increasing financial and regulatory uncertainty. Overall economic conditions have started to worsen and a substantial economic slowdown is becoming more likely, especially in Europe and the USA, regions which traditionally have the highest numbers and volume of transactions. The focus during the next year will be on continuing investments in 5G relevant infrastructure and exploring new asset classes such as spectrum and active networks.
- Due to the substantial acquisitions in 2018 and the future financing required to deploy 5G, big-ticket acquisitions will become less likely as resources must be leveraged more efficiently. This decrease is already visible through the significant decline in acquisitions with a deal value greater than US\$10 billion (see again Figure 3).
- Decreasing revenues in the traditional connectivity business as well as new opportunities from the next-generation wireless technology will force operators to invest in SDN/NFV providers, cloud computing operators, and content providers to exploit new sources of revenue.

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The Company

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Our corporate history reveals how we arrived at this point. Detecon International is the product of the merger of the management and IT consulting company Diebold, founded in 1954, and the telecommunications consultancy Detecon, founded in 1977. Our services focus on consulting and implementation solutions derived from the use of information and communications technology (ICT). All around the globe, clients from virtually all industries profit from our holistic know-how in questions of strategy and organizational design and the use of state-of-the-art technologies. Detecon's know-how bundles the knowledge from the successful conclusion of management and ICT projects in more than 160 countries. We are represented globally by subsidiaries, affiliates, and project offices. Detecon is a subsidiary of T-Systems International, the business customer brand of Deutsche Telekom. In our capacity as consultants, we can benefit from the infrastructure of a global player spanning our planet.

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The rapid development of information and telecommunications technologies has an increasingly significant influence on the strategies of companies as well as on the processes within an organization. The subsequent complex adaptations affect business models and corporate structures, not only technological applications.

Our services for ICT management encompass classic strategy and organization consulting as well as the planning and implementation of highly complex, technical ICT architectures and applications. We are independent of manufacturers and obligated solely to our client's success.

Footnotes

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