

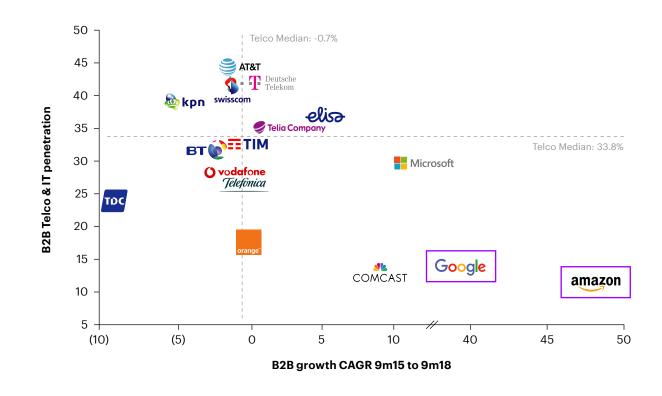
Business to Business (B2B) communications companies have long been dominated by one-to-one enablement: Users buy a hard bundle of services and connectivity for a single fee.

This traditional business is being disintermediated by Over-the-Top (OTT) players who position communications companies as "just" a connectivity provider within a marketplace of services.

The transformation journey we outline in this paper will enable communications companies to make a wise pivot to becoming a platform-based ecosystem player, orchestrating one-to-many enablement and positioning their businesses for profitable growth by playing a central role in the industry disruption.

1. Source: Company Reports, Accenture Analysis Note: B2B penetration implies B2B revenues as a % of total revenues. For Deutsche Telekom (Germany), Telefonica (Spain), BT (UK), Swisscom (Switzerland), KPN (Netherlands), TIM (Italy), data relates to the home countries. AT&T Data relates to the FY15-17 for growth and FY17 for penetration to make it fully comparable. Orange revenues are related only to the Business Services segment.

Today, digital natives lead B2B revenue growth¹



OTT players and disruptors have seized opportunities while communications companies have failed to invest in B2B services. As seen in the graph on page 2, while B2B revenue contribution represents over 30 percent of the total telco revenue, "digital natives" such as Amazon (with AWS—Amazon Web Services) and Google are B2B revenue growth leaders, recording growth rates of over 30 percent. In this context, it seems companies which exhibit scalability, reduced network complexity and fast time-to-market for new services, are well positioned to face new challenges in their B2B business.

5G and the Internet of Things (IoT) are among the technologies set to create a much bigger and broader landscape of enterprise opportunity. According to Gartner, "by 2020, 23 percent of the communications service providers' (CSP) large enterprise business communication revenues will be catalyzed by new digital services such as cloud, collaboration or IoT (among others), up from 13 percent in 2017".2

Realizing the radical opportunities being created in the B2B space by the connected world and 5G rollout requires a strong vision. Monetizing the investments necessary to make that world, and especially 5G, a reality, will largely come from scaling new business models and creating new opportunities in the B2B business. Driving return on investments in new B2B services also requires a complete transformation of business and operating models.

There is no quick fix. But we believe that adopting an innovation-led approach to transformation will enable B2B businesses to grow rapidly and, as they generate revenue, liberate the investment capacity necessary for further innovation. Successfully re-structuring for innovation requires an organizational model built to rapidly take advantage of evolving opportunities.

How you organize and change the operating model in these transformations is as fundamental as the choice of technologies. It is the operating model that unlocks the potential of technological investments.

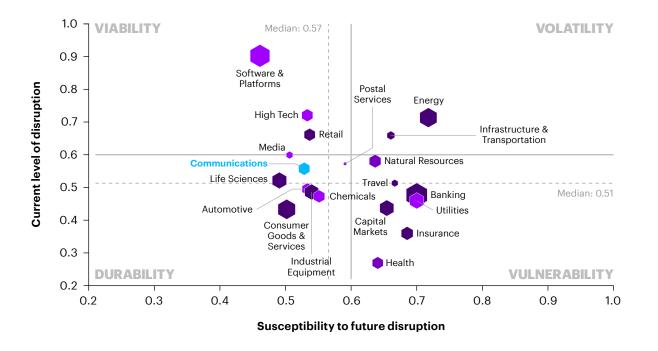
Source: Gartner Market Trends: Why, When and How CSPs Must Enable Large Enterprises to Adopt Digital Services, January, 2018



Across every industry, executives know that disruption is happening, but they feel unprepared and unsure how to respond.

Accenture's Disruptability Index research confirms that disruption has become the norm in the communications industry. And, unlike other industries, communications companies are also the purveyors of disruption as the providers of the networks and technologies over which change happens.

While some industries wait for disruption, communications is right in the middle of it



Accenture's Disruptability Index³ analyzed 3,269 companies across 20 industries and 98 industry segments and looked at 15 factors to gauge and contextualize both the current level of disruption and susceptibility to future disruption.

The results show that disruption can be controlled but companies must constantly reinvent themselves to improve:

- Return on fixed assets
- Innovation and Research & Development effectiveness to find the future growth potential
- New and deeper ecosystem partnerships

^{3.} https://www.accenture.com/us-en/insight-leading-new-disruptability-index

Opportunity is hiding in plain 5iGht

The emergence of 5G presents a perfect storm for communications companies. Having already built trust with their clients, they can leverage 5G connectivity to enable the whole B2B2X supply chain.

Communications companies not only provide the connectivity, they can also help providers shape offerings, create the ecosystems in which they operate, assist in taking them to market and even partner to take a cut of revenues.

They hold a unique position in the market with both significant infrastructure assets and a foundation as a secure and trusted provider. Many digital disruptors have faced security and trust issues with users. Now is the time for communications companies to use their strong, trusted customer relationships and connectivity base as a competitive advantage.

As Smart City and IoT deployments continue to grow, communications companies can anticipate millions of micro-transactions a minute flowing across their networks, and that demands a new model for monetization. Yet simply leaping into the market and expecting to reap a share of the prospective rewards is unlikely to be successful.

Before companies begin developing a 5G playbook, it's necessary to take account of existing technical assets, the current state of the core network, execution/deployment/operations capabilities, and internal culture and customer base. This adds up to a map of the "network DNA" and then provides a foundation to determine appropriate new business models and what the company could become in the 5G future.

All that's missing is the reinvention that allows them to move as quickly and deliver as data-driven a product as their OTT competitors. That's why transformation is essential. To win the 5G race, communications companies need to take a step back and embark on a thoughtful process of determining their role in an expanding ecosystem.

Be all you can B2B

The products sold by communications companies to enterprises today mainly support the intranet of the enterprise (offices and employees).

The evolution of the 5G scenario expands the "intranet" to a more sophisticated extranet where the enterprise clients' needs move from pure in-house connectivity to embrace their full supply chain and interaction in an ecosystem of connected objects and people.

A smarter supply chain means distributed machines, distributed computing, multi-access edge computing and cryptographic connectivity which is based on enabling and securing a transaction in the field on connected objects. Supporting different connectivity options means evolving the business to behave in a completely different way.

The enterprise customers will need the connected objects in their supply chains to behave in the way that their end consumers expect. They'll also need the ability to feed back into the supply chain, continuously improving as they learn how to be more effective and efficient.

They become "connected industry orchestrators"—a world away from the old dumb pipe—and can create solutions that can be monetized across an industry vertical.

5G will allow communications companies to differentiate their offerings by enabling embedded connectivity products and services.

In a world of connected industries, communications companies will be able to create new tradeable assets. This will be possible by the knowledge of the behaviors and needs of the connected objects (touch points = data points) in combination with their unique assets (including multi-access edge computing and network slices).

This opens up an opportunity for an ecosystem play where the communications company can be an orchestrator of these transactions. This leads to a business model where monetization is service and transaction based, not on consumption of voice minutes or bytes.

For example, a communications company can develop a platform-enabled IoT solution for monitoring an increasingly complex energy grid. As more renewable energy sources join the energy grid, they become increasingly challenging to connect and monitor. Each device or sensor is potentially mission-critical and needs a reliable and secure solution that the grid operator can depend on.

The communications company now plays a central role in the solution and can capture new revenue with a high-value, data-driven and intelligent solution. If it successfully delivers a trusted answer, it can target other grid operators in other regions or markets. As 5G is rolled out, it can offer more complex solutions that deliver edge computing power, security and guaranteed quality of service to objects across the grid ecosystem. On the foundation of in-depth knowledge of that vertical market, the company can then scale the solution and grow their business across the vertical.

Going far beyond network provisioning, communications companies can provide ubiquitous connectivity layers to support the digitalization of operations and in turn drive new efficiency, agility and innovation. This may happen in sole support of a business customer, in partnership with other providers or in market-bending new ecosystems.

Whether the result is introducing wearable technology on an assembly line, underpinning Smart Cities or turning inventory management into a data-driven science, anything underpinned by connectivity can become a key path to growth for the communications companies that seize the opportunity—connecting not just "things" but enabling value chains across industries and across markets.

Anything underpinned by connectivity can become a key path to growth for the communications companies.

The path to a connected industry orchestrator

Starting as a connectivity provider, communications companies need to embark on a multi-step journey to move to the future enablement of connected industries.

A typical journey to becoming a connected industry orchestrator entails three stages:

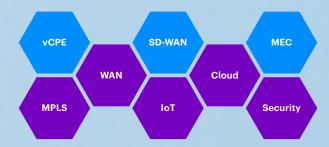
- As a connectivity provider, companies sell basic data, voice and connectivity. Revenues are secured from one-to-one service fees.
- Typically, the middle ground is something we call "Connectivity++," and here, many companies are already either planning or selling new offerings such as Software-Defined Wide Area Network (SD-WAN), multi-access edge computing (MEC) and other digital services. The company is moving into selling digital services and cloud-based services (sometimes in partnership with the digital disruptors), SD-WAN, MEC, IoT and security offerings. Revenues may move to fixed fees as opposed to fees based on usage.
- Becoming a connected industry orchestrator entails selling full connected industry solutions, connecting value chains, embracing sensors, cloud connectivity and Device as a Service. Revenues move to transaction fees, necessitating a broad reach to build up total revenues combined from many small elements.

The journey to become a connected industry orchestrator passes through the realization of connectivity++

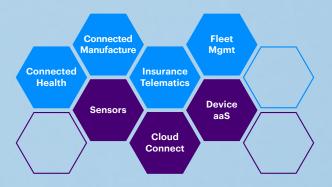
From a connectivity provider...



... to Connectivity++ ...



... to a connected industry orchestrator.





Becoming a connected industry orchestrator:

Evolving the connectivity provider

Connectivity providers need to get more efficient at selling basic data, voice and connectivity services, through innovative cost transformation programs while improving basic network operations.

Most communications companies have ongoing cost transformation programs, but these are mainly about survival—chasing low-hanging fruit like tighter procurement or trimming overhead. By building more competitive cost structures to improve flexibility, they can increase profits and drive up investment capacity. Channeling freed-up investments toward experimentation and making core offerings cheaper and better are great starting points to release funding for reinvestment in a reimagined B2B business.

Finding "fuel for growth"

To help our clients make the right decisions on costs, investment and growth, Accenture partnered with Ovum to undertake a cost-benchmarking assessment of 26 global CSPs. The findings make it clear that ad-hoc, piecemeal cost-cutting and unfocused investment in new areas won't deliver the turnaround in performance that CSPs are seeking.⁴

^{4.} Source: "Fuel for Growth: Harnessing Digital to Cut Costs in the communications Industry" https://www.accenture.com/us-en/insights/communications-media/how-telcos-harness-digital-for-growth

Traditional networks have a one-size-fits-all approach, providing the same service characteristics. For communications companies to make the most of future B2B opportunities they will need to reinvent and transform their network assets, to help facilitate the move to Network Functions Virtualization (NFV) and Virtual Network Functions (VNF), while leveraging methodologies like Agile and DevOps. These help to minimize the time to market for launching new services deployed on the cloud or on the "edge."

Moreover, network operations, including the provisioning (order to activate), maintenance (ticket to repair) and service experience management processes are already encountering reshaped customer expectations and need to be transformed to cope with a software-based digital network scenario and new, more flexible products.

Transforming the operating model toward customer centricity and agility, and injecting automation (Robotic Process Automation, AI) into the core culture, will provide a future-proofed foundation for communications companies to scale, de-risk and orchestrate the end-to-end execution of large network programs across complex delivery ecosystems, anticipating expectations and providing a seamless experience.

Optimizing the back office

AT&T has been successful in using DevOps to create new efficiencies in its back-office processes. Its initiatives span the development of workflow tools, robotic process automation, and even hyper-automating processes with Artificial Intelligence (AI). It has also developed microservices to "decompose" large legacy applications into smaller functional solutions like price quote, pre-sales order, sales order, credit check and back-end billing. Each of these microservices can be used across AT&T's organization with greater agility and efficiency.⁵

^{5.} https://www.lightreading.com/artificial-intelligence-machine-learning/atandt-vp-using-ai-to-hyper-automate-processes-/a/d-id/745229

Becoming a connected industry orchestrator:

Connectivity++, growing beyond the core

Connectivity++ is about evolving the core business to a platform-based model predicated on connectivity, proximity and trust. Through this platform, communications companies can launch new services.

When digital experience and data are combined with the programmability of SD-WAN, users gain the flexibility and agility to serve new demands. The result is a unified customer experience that enables ubiquitous connectivity, data and analytics, and new products that are controlled and managed by customers. Communications companies can utilize that knowledge to understand their customers' business, then assemble components into a truly valuable solution package that enhances the customer relationship.

Also, B2B customers want to procure, manage, monitor and control their cloud computing services seamlessly online but that's often not an option for large enterprises working with their communications providers. There's an opportunity here to offer streamlined and fully integrated B2B sales processes, to enable self-service lifecycle management and to introduce predictive, customercentric assurance.



Fully investing in Al and human-machine collaboration can boost revenues by 46 percent.⁶

6. Source: Accenture Reworking the Revolution Future Workforce Research https://www.accenture.com/us-en/insights/ communications-media/telco-future-workforce

When supporting the enterprise customer experience via a sales enablement platform, companies must also create an open and flexible product catalog which offers synergies with third-party and technical services options. Enhancing self-service channels for monitoring and asset lifecycle management is also a must, as well as creating sales and service domains with marketing capabilities powered by analytics. Through adopting a platform-based approach, communications companies can deliver a zero-touch sales model that captures B2B user data which can then be used in new product development and improvements to service.

Successful companies recognize that digital transformations are, at their core, people transformations and are reorganizing and reskilling their future workforces to capitalize on digitally enabled growth opportunities. They are also

introducing intelligent tools not just to streamline operations and pursue new value, but to better support their employees and augment their skills. Clearly, these efforts pay off.

The second shift focuses on pursuing longer-term, transformational opportunities. This involves creating a culture of innovation and redesigning processes and organizational structures to enable fluid teaming. It also requires entirely new skills—many of which can't be taught in a classroom. In Accenture's "It's Learning. Just Not As We Know It" report, analysis of data from The Occupational Information Network (O*NET) of the US Department of Labor has revealed that for almost every role in the digital age, a combination of complex reasoning, creativity, emotional intelligence and sensory perception skills will be needed.7



^{7.} https://www.accenture.com/us-en/insights/future-workforce/transforming-learning

Becoming a connected industry orchestrator:

Rise of the connected industry orchestrator

For communications companies, transforming the product and service development mindset to innovation-led is really where the money will be made. To do this, there's a need to move to a design thinking and co-creation approach with partners, customers, employees, academics, researchers and others.

Large corporations will always need basic connectivity, but in the future may choose to run their own campus networks from a global, hybrid cloud platform. This will, of course, still need sophisticated security and application programming interfaces (APIs), etc. Communications companies have an opportunity to experiment with new models that support emerging ecosystems, identifying new, sustainable business models which leverage, monetize and scale key control points.

This will also influence who communications companies partner with and the kinds of partnerships they cultivate. It's time to go beyond traditional interconnection agreements to look at creating solutions that solve specific challenges.

Currently, many are experimenting with partnerships with global platform cloud providers. Communications companies can also add value by bringing their established client relationships into ecosystems (including governments, local authorities and small companies) which create

opportunities for all the members. If they can provide solutions which drive productivity for ecosystem members, they will be serious contenders for new business.

But hard decisions are needed, for example about being more inclusive to enable innovation. Simply orchestrating vendors in a connectivity network will not add value—moving to a more open and different platform-based play, based on a modern IT architecture, will be the key to enabling growth.

The growth of APIs will only accelerate these kinds of partnerships. Communications companies that have self-service portals will be able to develop marketplaces for B2B services and streamline access to a range of solutions that go beyond their core. They can shape their offering to target specialist market segments like Health, which may need new levels of security or analytics tools. They can thus differentiate through understanding their customers and becoming a catalyst for digital growth.

Finally, communications companies' networks are obviously of huge value to ecosystems. That will be even more true when those ecosystems come together with the 5G-driven IoT. Going right back to basics, every player in the system will need access to global coverage

of radio networks and a distributed compute resource. This compute capability is going to be fundamental to drive in-field machine learning and to the ability to process data locally.

For example, objects such as autonomous cars will need fast instructions on what to do next; fast-moving data is essential. That's simply not going to be possible to handle with current cloud services.

Communications companies have an unprecedented opportunity to be able to orchestrate solutions for industries and across industry value chains—and to be an ecosystem player that helps to solve real issues for both businesses and society.

This will require a new, platform-based business model which incorporates reach and tradeable assets and allows that fast-moving creation of services. It's about a lot more than just technology, which is why communications companies in general have been slow to move in that direction.

Many CSPs are already on the journey

Department of Veterans Affairs (VA) taps Philips, T-Mobile, Walmart, for telehealth

The VA announced partnerships with Walmart, T-Mobile and Philips to expand veterans' access to telehealth services. Walmart will sponsor VAled telehealth services offered in locations where veterans' healthcare is underserved, while Philips will provide telehealth technology at 10 Veterans of Foreign Wars and American Legion outposts across the country. T-Mobile, for its part, has agreed to host the VA's mobile health (mHealth) app for free on veterans' digital health devices.8

Vodafone

Vodafone offers IoT solutions which enable companies to see the location and status of vehicles, freight and other assets throughout the supply chain. This can have a direct effect on revenue and customer satisfaction, as well as safeguarding legal compliance and driver safety.9

KPN, Shell and partners test industrial 5G applications in the port of Rotterdam

In Rotterdam harbor, KPN, Shell, Huawei, ExRobotics, Accenture and ABB have tested the first industrial 5G applications with the new generation of mobile networks. Thanks to 5G, manufacturing can be optimized, industrial maintenance can be better predicted and safety further improved. With 5G technology, large-scale deployment of wireless sensors is also possible, and the process industry is given direct access to relevant digital information from the production environment.¹⁰

KDDI, Toyota and Accenture leverage combined data to improve taxis and manufacturing

Working with the JapanTaxi Co. Ltd, the companies developed a taxi dispatch support system which combines data from

taxi logs, smartphone information, event metrics and analytic engines to predict demand and allocate taxis where they are needed most at any given time.11

Telstra

Offers a fully integrated delivery and support model, including data and network security, to effortlessly manage all IoT devices from a single, centralized location and integrate them with back-end applications in near real-time. The result is an end-to-end partner ecosystem delivering a seamless IoT experience for B2B customers.12

- 8. https://mhealthintelligence.com/news/va-announcestelehealth-partnerships-with-walmart-philips-t-mobile
- 9. https://www.vodafone.com/business/industry/transport-logistics
- 10. https://overons.kpn/en/news/2018/kpn-shell-and-partners-testindustrial-5g-applications-in-the-port-of-rotterdam
- 11. https://siliconangle.com/2018/12/05/kddi-toyota-accentureleverage-combined-data-improve-taxis-manufacturing-reinvent
- 12. https://www.telstra.com.au/business-enterprise/solutions/ internet-of-things/platforms-and-services

Finding the way

The route to connected industry orchestrator requires a significant transformation journey but has equally significant returns for those who are brave enough to take it.

Successful transformation is about more than completeness of vision. It's about execution. Play to your strengths and make transformation a reality.

The biggest threat to communications companies' future B2B success is inaction. It isn't new ideas, technology or disruptors. The companies that are going to be successful are the ones that understand their transformation challenges today and execute on a strategy that will enable them to continually rotate to the new.

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