

Taking the cloud path less travelled by CEOs in Asia Pacific

Business in the cloud: The future made possible

Cloud is entering its "primetime"

Technology-driven innovations have been drivers of societal and economic progress for more than 200 years, with sweeping impacts on people's lives. Using new inventions (electricity) and finding new ways to operate (assembly lines), companies have been able to scale production, create employment opportunities and improve access to products and services for more consumers.

In the mid-to-late 20th century, satellite communications, high-speed air travel and the internet helped companies across industries to expand globalization. And now we have disruptive technologies with unprecedented potential to fundamentally change the way we live, work, socialize, consume or learn, beyond the physical world.

What's so different about these disruptive technologies? From artificial intelligence (AI), additive manufacturing and robotics, to extended reality and the internet of things (IoT), their impact is accelerated when there is a strong, shared foundation. And that **new foundation is cloud computing.**

"Cloud is the most disruptive and valuecreating technology of our time — it is the foundation for the digital transformation that is driving profound changes in how businesses operate, compete and create value for all their stakeholders."

Paul Daugherty, Group Chief Executive, Accenture Technology Take smart city initiatives, for example. They rely on Internet of Things (IoT) solutions – where connected meters, sensors or cameras (hardware) are used to collect data about pollution, weather conditions, energy usage and/or traffic congestion. The large volumes of data collected need to be analyzed in ways that enable critical decisions to be made fast (e.g. issuing warning to the public about traffic conditions).

While IoT solutions can be rolled out using traditional on-premise IT for data collection and analysis, these have capacity limitations. The reality is that the large volumes of data created, especially during special or unexpected events (e.g. large sporting events or sudden natural disasters) can be analyzed faster and more effectively in the cloud, running algorithms and creating a closed feedback loop with sensors and their associated systems, such as those responsible for weather monitoring or police command centers.

Electrification took 70+ years to become widely adopted. In comparison, it's taken less than 20 years for cloud computing to reach its primetime: mass commercialization of cloud computing started with the launch of AWS by Amazon in 2006. The good news is that momentum for cloud adoption continues to grow. In a recent Accenture study, 80% of business executives suggested that they look to cloud as a means of mitigating business uncertainty, while 87% view cloud as a critical component for achieving sustainability goals to a moderate or great degree.

While cloud adoption by companies often starts as a way of simplifying and modernizing the IT landscape, it should not end there. This point of view examines the cloud path less travelled by CEOs today: one that starts with the ambition to achieve business reinvention leveraging cloud as the new foundation for the enterprise (Exhibit 1).

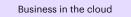


Exhibit 1: Choosing the cloud path less travelled (Grow & Innovate)

Migrate

Get your workloads to the cloud rapidly, securely and with confidence by selecting the right infrastructure for your business needs, whether that's public, private, hybrid or multi-cloud.



Ramp up your organizational speed and agility by re-structuring architectures, applications and data for cloud. Your workforce, operating model, and culture must also evolve for

cloud.

Grow & Innovate

Use cloud as a digital transformation lever to create greater differentiation and competitiveness in your industry, laying a strong foundation for rapid experimentation to reimagine products, services, experiences and business functions.

Choosing the Cloud path less travelled by CEOs today

The first two paths (Migrate and Accelerate) continue to be the remit for technology leaders today, as they focus on enabling more efficient and intelligent ways of providing services to the business. But the third path is about driving growth and innovation, without the constraints of legacy products, infrastructure, and ways of working.

Most companies start with the first path – **Migrate**. This typically means leveraging cloud technologies such as infrastructure-as-a-service (IaaS) or software-as-a-service (SaaS). The main outcome on this path is stronger ability to run business applications more efficiently. Moving both applications and data into the cloud also creates a strong foundation for faster experimentation.

Others choose the second path – **Accelerate**. This generally involves new cloud capabilities in analytics and software engineering. These new capabilities help companies actively take advantage of cloud-based data, AI, and machine learning, and, in doing so, run their businesses more intelligently. One example? New types of data (video, audio, or social media behaviors) can be combined with demographic information to make customer segmentation and ad targeting both more precise, and more timely. This path is where companies invest to modernize their technology landscape and upskill their workforce to support new capabilities. And many stop their cloud investments at this stage.

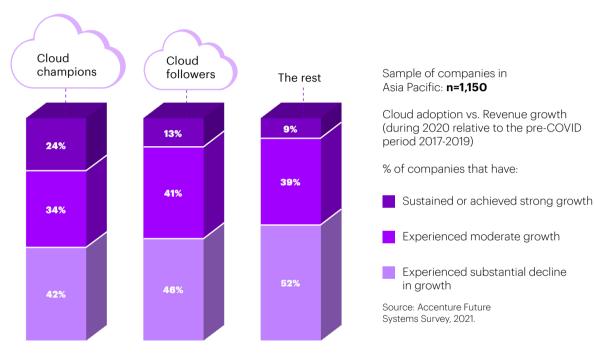
Currently, only a few companies take the most ambitious path, which we call **Grow & Innovate**. Companies that do embark on this path expect cloud to become the foundation for business reinvention in the long term, unconstrained by their legacy technology and processes. This opens up opportunities to create new digital value propositions and experiences for existing customers, or even launch entirely new businesses to disrupt the market (e.g. Fukuoka Financial Group, Inc. is leveraging cloud native capabilities to build Minna Bank, Ltd., a new online only digital bank). Companies that have their ambition set on business reinvention start with this path, while also recognizing the need to build scale with a strong technology backbone, talent and the right economic model.

Understandably, business context is a key factor influencing the initial choice of path for a company's cloud journey. And although a company might start with the **Migrate** path, as its cloud experience matures, it can move on to the **Accelerate** or even the **Grow & Innovate** paths. Those companies that are ambitious enough to embrace the third path, (Grow & Innovate) recognize the power of cloud in reinventing the business across multiple functions, for the long run.



Why take the Cloud path less travelled?

Our research suggests that there are few companies across Asia Pacific that have adopted the full spectrum of cloud capabilities. Notably, only 20% of companies are true "Cloud champions" – based on their wide adoption and deeper penetration of cloud technologies in multiple business functions in the past five years. (Figure 1) Figure 1: Companies that embraced cloud strategically in the last five years were more than 2.5 times more likely to sustain or achieve double digit revenue growth (24%) than the rest of the sample (9%)



Note: Cloud champions (20% in our sample) are companies that have adopted all technologies needed across Migrate, Accelerate and Grow & Innovate paths (e.g., from Software-as-aservice to Edge Computing) and applied these technologies in their core business functions such as Marketing & Sales and New Product / Service Development, among others; Cloud followers; (58% in our sample) are companies that have adopted only a subset of cloud technologies across the three paths and applied them selectively in their core business functions, and those companies that have adopted and applied all cloud technologies primarily in their IT function. The rest (22% of companies in our sample) includes chose companies that have adopted only a few cloud technologies arong their IT function. Sustained or achieved strong growth includes companies that have sustained or achieved double cligit revenue growth in 2020 relative to pre-COVID time period (2017-2019); Moderate growth drop substantially in 2020 relative to pre-COVID time period (2017-2019).

The Grow & Innovate path opens new possibilities for CEOs to address some of the most pressing questions today, in new ways. For instance:

- How can we better react to changes in customer demands and get products/ services to market more quickly?
- How can we scale our new businesses and attract new customers?
- How can we accelerate adoption of more responsible business practices (e.g. sustainability), and create trust in our brand?

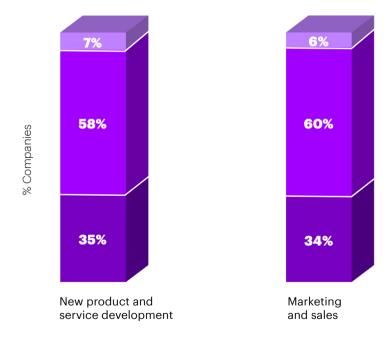
Two challenges CEOs need to conquer

Most companies struggle to realize full business value from their cloud initiatives. In order to avoid further disappointments, there are two main challenges that CEOs need to conquer:

- Embracing the power of cloud to create and launch brand new products and services (i.e. build something different from the ground up).
- Embracing the power of cloud to transform the economics of functions outside of IT (i.e. marketing, sales, and customer service).

Only 35% of companies say they've realized the full potential of cloud investments

Source: "Sky High Hopes: Navigating the Barriers to Maximizing Cloud Value", Accenture, 2020 Figure 2: Despite relatively strong adoption, most companies in Asia Pacific are not using the power of cloud to develop new offerings, or to transform their marketing and sales functions



Sample of companies in Asia Pacific: **n=1,150**

% Companies based on their cloud adoption and strategic use

Rest of the sample

Cloud adopted but not used in the business function

Cloud adopted and used in the business function

Source: Accenture Future Systems Survey, 2021.

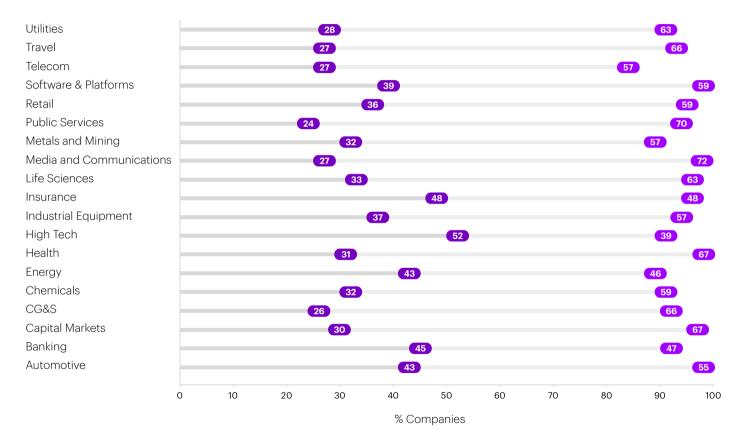


Creating and launching brand new products and services

Accenture Research shows that only 35% of companies surveyed in Asia Pacific are leveraging the cloud technologies they adopted to develop new products and services (Figure 2). In some industries, the evidence of a missed "cloud opportunity" is even higher: notably, 72% of companies in Media and Communications, and 70% of companies in Public Services face such a missed opportunity (Figure 3). In every industry, there are always exceptions.

In telecommunications, **Rakuten Mobile** in Japan is one notable example of a company that has leveraged cloud to power product and service innovation.

Figure 3: Despite relatively strong adoption, most companies in Asia Pacific are not using the power of cloud to develop new products and services



Sample of companies in Asia Pacific: **n=1,150**

% companies by industry based on their adoption vs. use of cloud for new product and service development

Adopted cloud & used for new product and service development

 Adopted cloud but not used for new product and service development

Source: Accenture Future Systems Survey, 2021.

Rakuten Mobile

is a wireless telecommunications operator launched in 2018 (as a subsidiary of Rakuten Inc). Leveraging cloud, Rakuten Mobile built an innovative solution that not only significantly lowered its operating costs but also created a new revenue-generating stream.

Rakuten Mobile built the world's first fully virtualized mobile network in the cloud, an innovative solution to automate the function and maintenance of its radio network – which is normally used to transmit the mobile signal from the mobile phone's antenna to the tower. Instead of deploying hardware that needs regular maintenance at the physical location where multiple mobile towers are located, Rakuten Mobile connected its antennas to a cable that controls multiple sites, thereby virtualizing its radio network. The result: lower costs associated with infrastructure deployment and field support for hardware maintenance and real-estate leasing, along with increased pace and quality of software delivery.

Within a month of its commercial launch in April 2020, data traffic on the network had risen significantly, to the point where it was soon handling 2.5 times higher levels of data traffic than a typical operator in its industry. The innovative virtualized cloud network solution led to instant savings of around 30% on network operating costs, compared to other traditional incumbents.

The substantial reduction in operating costs enabled the company to pass the savings directly to its customers. For example, Rakuten Mobile started offering its customers 4G and 5G mobile services in one simple plan – Rakuten UN-LIMIT V – at the same low price as 4G. Market evidence shows that customers found this offer attractive.

Boosted by the success of its virtualized mobile network, Rakuten Mobile expects to expand this service on an international basis. For example, the company is looking to sell its cloud-based solution as "telco as a service" to other telecom operators in other countries. Tareq Amin, Rakuten's CTO, said "We have enough evidence now that going to global markets with our platform is an amazing opportunity to create a new market segment for telco cloud."



Why are so many companies not leveraging cloud capabilities for new product and service development?

The reality is that, in many cases, CEOs are not effectively building a bridge between their business growth ambitions and the magnitude of change needed (i.e. in talent and organizational culture) to embrace new ways of working (i.e. having timely access to high quality and high frequency data) enabled by cloud. Another possible explanation is a lack of cloud fluency, not only within business divisions but also at senior executive levels.



Transforming the economics of revenue-generating functions

Most value will likely come from changing the economics in functions outside of the IT department – what CEOs will need to measure is not only the impact on operating expenses, but also the top-line impact enabled by cloud. Our research indicates that 60% of companies in Asia Pacific have adopted but are not using cloud for marketing and sales functions (Figure 2). The good news? In some industries, companies are taking advantage of cloud to transform their revenue-generating functions. For example, in Retail, 50% of companies are using cloud to improve the top-line impact of their marketing and sales functions, compared to only 19% of companies in Life Sciences, 22% in Utilities, and 25% in Consumer Goods & Services. (Figure 4).

Today, most CEOs understand cloud propositions when it comes to reducing the IT spend. However, there is a bigger opportunity: addressing the selling, general and administrative (SG&A), or cost of goods sold (COGS) spend using cloud capabilities. For instance, Accenture's estimates indicate that achieving 1-2% of savings in COGS, in a Consumer Goods & Services company, is more valuable in real terms than addressing 25-40% savings in IT. Such cost savings in COGS can be achieved by making operations leaner, more predictable and of higher quality (i.e. by leveraging cloud and data).

In addition, our experience indicates that, by using cloud strategically, Consumer Goods & Services companies can achieve an 8-14% uplift in online revenue through marketing optimization and 3-5% uplift in revenue through dynamic pricing.

CEOs would need to recognize that, without cloud, such revenue uplift potential is much lower and would generally take a lot longer to achieve. Why? Because cloud enables every digital capability, from digital marketing and commerce, to customer segmentation and experience.



% Companies

Figure 4: It is time for companies to start using cloud to change the economics in customer-facing, revenue-generating functions

Sample of companies in Asia Pacific: **n=1,150**

% companies by industry based on their adoption vs. use of cloud for marketing and sales

 Adopted cloud & used for marketing and sales

 Adopted cloud but not used for marketing and sales

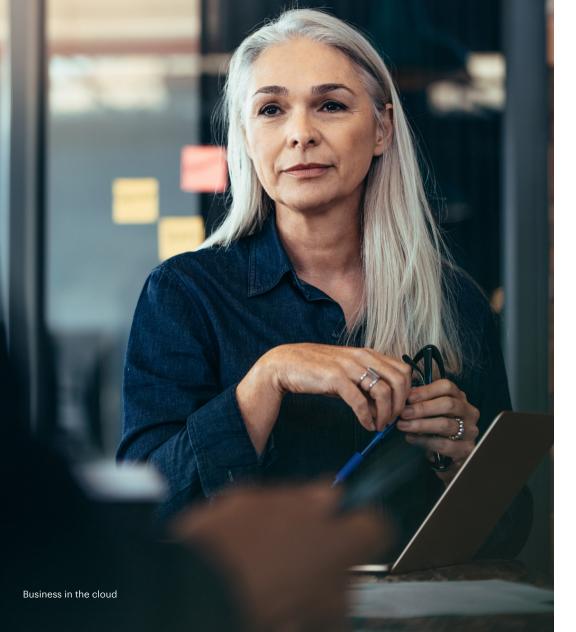
Source: Accenture Future Systems Survey, 2021.

A large global manufacturer

One striking example of the power of cloud in action is a large global manufacturer with a presence in China. As the impact of the pandemic in 2020 accelerated, this company had to make some changes to strengthen its resilience. These included adjusting its supply chain and manufacturing labor base, reducing spending, and suspension of new acquisitions. But at the same time, the company continued to expand its e-commerce business. In 2019, the company's global e-commerce sales topped US\$1 billion and, with the pandemic, the company expected to see strong growth for the foreseeable future.

To realize its growth ambition in China, the company is leveraging the capabilities of AliCloud. How? By connecting its existing customer data into the Tmall marketplace (which is China's largest B2C e-commerce platform). Specifically, AliCloud's advanced machine-learning algorithms are used to identify and then target customers on Tmall platform. For example, the company was able to test live propositions with its customers, and push changes or add new campaigns much faster than in the past. Based on the results of these digital experiments, the company could prioritize products with rising popularity over others in the inventory. Initial results from a campaign that took place between June and September 2020 showed an increase of 118% year-on-year growth in the number of unique visitors and 85% year-on-year growth in gross merchandise volume (GMV) – a metric that looks at total sales monetary value for merchandise sold through a specific marketplace over a certain time frame.

Key to the success of modern-day e-commerce strategy today is the ability to increase the accuracy of targeting the right customers. This helps increase the conversion rate and significantly reduces customer acquisition costs – making a significant impact on revenues. No surprise that this company intends to make cloud-powered e-commerce its top corporate and global strategic priority.



Making cloud the future foundation of the business

There is a clear momentum around cloud adoption, with many companies attracted by the efficiency gains from running their IT operations differently. However, using cloud to prepare for business reinvention is a subject that many CEOs still view as uncharted territory.

Our recommendation to those CEOs is to:

- 1. Set a higher value bar
- 2. Embrace change differently
- 3. Build "one team"
- 4. Move forward responsibly



1. Set a higher value bar

Companies that embrace the cloud with long-term commitment are more likely to achieve success, both in financial and non-financial terms. Indeed, business context will compel different companies to commit to one cloud path (Exhibit 1) very early. But the typically safer, more contained choice is only a starting point. Ultimately, cloud enables rapid scale at the right price point and eliminates barriers for entering new markets. Cloud offers the potential to turn underutilized intangible assets (e.g, behavioral data driving customized offerings) into financial value for customers and the business. In addition, CEOs should pay greater attention to the non-financial benefits cloud provides. For instance, by pursuing a green approach, companies can substantially reduce total IT emissions, and accelerate their contribution to meeting climate change commitments.



2. Embrace change differently

In order to grow and innovate differently, CEOs should recognize that cloud-led programs are modern tools of strategic, broad-based organizational change. But, make no mistake: cloud-led programs differ substantially from the traditional enterprise change programs and as such, require a different implementation approach. Our experience shows that an incremental-release approach involving new cloud capabilities focused on unlocking tangible value in specific business functions (e.g. billing, sales effectiveness, customer care) can build confidence before companies "go all in" with their multi-year cloud commitments.

Ultimately, CEOs would need to be ready to use cloud-led programs to re-wire the enterprise operating model. This involves a major workforce and culture shift, in addition to the changes in IT landscape (e.g. systems, architecture).

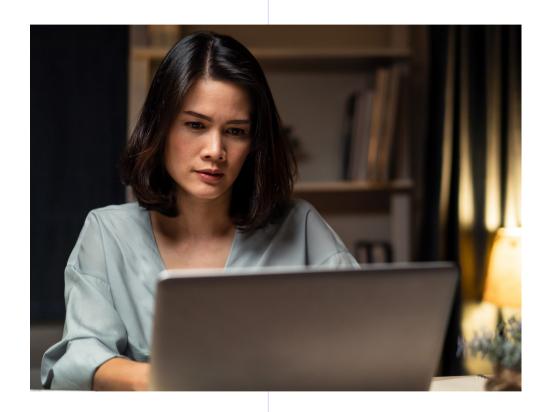
Notably, it is essential for the new operating model to integrate and lean on an ecosystem, which enables data to be exchanged in a secure and purposeful fashion (e.g. to create more meaningful customer and employee experiences).



3. Build "one team"

When it comes to cloud-led enterprise change programs, most companies assume they need more project managers. In our experience, what's needed is actually a more specialized, and diverse talent pool – including software engineers, data scientists, cloud architects, and cyber security specialists – as well as legal advisors, and even AI ethicists. Organizations will, for example, need talent with legal acumen to guide them through the labyrinth of data compliance and regulations, especially in Financial Services. While many of these roles will be in-house, CEOs should focus on accessing technical talent by leveraging or working with the wider ecosystem in which their businesses operate. Companies also need to change the hiring process, to attract the best talent and retain them in an environment where Technology Quotient is as important as Intelligence Quotient or Emotional Quotient*.

*Technology quotient (TQ) - TQ measures an individual's ability to assimilate or adapt to technology changes by developing and employing strategies to successfully include technology in work and life; Emotional quotient (EQ) - EQ is a measure of an individual's ability to identify, evaluate, control, and express emotions; Intelligence quotient (IQ) - an intelligence quotient is a total score derived from a set of standardized tests or subtests designed to assess human intelligence.



4. Move forward responsibly

All parts of the organization need to learn to leverage data at scale. This calls for a change in behavior: ranging from faster experimentation enabled by cloud, to learning how to adjust to increasing Al-augmentation in business processes. For example, as cloud-powered chatbots become a norm in managing customer queries around product features or price, organizations need to learn to design their call-handling process to focus on the "emotional" aspects of each caller. A re-engineering mindset enables introduction of customer care processes powered by new types of data (i.e. behavioral) in ways that ensure the human experience does not deteriorate due to low-touch, tech-powered service. Decision-makers need to ensure that responsible practices are embedded into every part of the organization, from technology, to product development, to marketing, sales and customer service.

It is easy to acknowledge that cloud computing is essential to the future of business. The problem is that most companies are missing the opportunity to truly reinvent their business by using cloud strategically. Many CEOs are exercising caution in their advocacy for cloud-led change across their enterprise – they prefer to leave such decisions to their CTOs and CIOs.

CEOs would need to encourage their organizations to embrace a future that is powered by cloud – a future where new products and services can be created and launched faster; a future where underserved customers can be reached at scale; a future where the workforce is sufficiently up-skilled and tech-savvy; and a future where the way businesses are run is more responsible.

Now is the moment for truly visionary CEOs to focus on creating shared success by embarking on a more ambitious cloud path, together with the rest of their C-suite.

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