

# Through the industry looking glass

A confluence of existing factors driving cloud transition has been further accelerated by the global pandemic, with cloud spending increasing 37% to \$29 billion during the first quarter of 2020. Despite the inevitable economic downturn in the wake of the pandemic, cloud spending is estimated to increase 19% for the full year, even as IT spending as a whole is forecast to fall 8%.

The spending may come from one or more of the 11 industries whose output is expected to grow over the next 12 months, including chemicals, forestry and paper products, automobiles and auto parts, beverages and food, household and personal use products, banks, other financials, pharmaceuticals and biotechnology, construction materials, technology equipment and software and services.

In a post-crisis world however, the need for tech infrastructure and cloud spending will likely accelerate in some industries more than others, as the chart below illustrates.

**A fresh look through an industry lens is critical to help better position your infrastructure solutions by customer need.**

Industry vertical	Impact of COVID-19	Post-COVID-19 tech infrastructure and cloud computing needs	Potential 2019-2024 CAGR <sup>1</sup> of tech infrastructure and cloud spending <sup>2</sup>
<b>Essential retail</b>	<p>Consumers more price-conscious, open to non-brand items</p> <p>Healthier diets mean fresh/preserved fruit spending is fastest growing segment</p> <p>Shortage of meat supply creates new consumer base for plant-based meat alternatives</p>	<p>Dynamic merchandise planning and pricing based on changing customer tastes</p> <p>Real-time inventory management (esp. of popular items such as hand sanitizer)</p> <p>Adaptive alternative supply sourcing (for example, switching to purchasing toilet paper from hotel/school suppliers)</p>	5.12%

<sup>1</sup> The CAGR reflects the weak economic activity in the first quarter of 2020 as a result of the pandemic. It may change depending on the economic recovery process over the forecast period.

<sup>2</sup> PwC analysis of data from Gartner, *Forecast: Enterprise IT Spending by Vertical Industry, Worldwide 2018-2024, 1Q2020 Update, 2020*.

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<b>Government and public sector services</b>	<p>Financial and logistical challenges exacerbated</p> <p>Pandemic accelerates need to digitize government functions to:</p> <ul style="list-style-type: none"> <li>• Galvanize healthcare resources for COVID-19 patients</li> <li>• Provide economic assistance to those unable to work due to lockdowns</li> <li>• Coordinate with external organizations to provide food and other needs</li> </ul>	<p>Remote work so government staff can work safely from home</p> <p>Systems upgrades to process surge of unemployment applications</p> <p>Collaboration with banks for faster payment disbursement of emergency loans</p> <p>Migration to digital court proceedings such as hearings via videoconferencing, document storage via cloud</p> <p>Data sovereignty remains key concern for governments</p>	<p>4.92% (for international and national governments with monetary policy flexibility)</p> <p>3.11% (for local and regional governments with strict budgetary rules)</p>
<b>Financial services</b>	<p><u>Payments and remittances:</u> Weaker economic activity reduces transaction volumes but e-commerce increases as more consumers shopped more online</p> <p><u>Loans and financing:</u> Rise in government subsidy programs boosts need to scale up processing</p> <p><u>Digital banking:</u> Closure of traditional bank branches due to lockdowns could see higher short-term interest in online banking</p>	<p>By 2023, fintechs estimated to originate 30% of corporate payments, connecting to banks via open APIs and running on real-time schemes<sup>3</sup></p> <p>Cloud-ready banks can quickly scale up and disburse emergency loans and grants</p> <p>Banks can use public versions of hybrid clouds for development agility; private versions for systems operations and data security</p>	<p>4.73%</p>
<b>Broadcasting and cable TV</b>	<p>Shelter-in-place mandates fuel growth in streaming subscriptions, cable TV consumption</p> <p>COVID-19 has had broad near-term negative effects, affecting programming schedules and ad buys</p> <p>Broadcast and post-production facilities have been forced to move from largely on-prem operations to a fully remote workflow</p>	<p>Cloud-based workflow and remote collaboration that allow production teams to create, manage and deliver content remotely from their homes</p> <p>Infrastructure platform convergence for faster decision making on new content and cross-channel distributions.</p> <p>Cloud storage to secure existing and new digital content</p>	<p>4.51%</p>

<sup>3</sup> IDC, *IDC Futurescape: Worldwide Payment Strategies 2020 Predictions*, November 20, 2019.

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<b>Advertising</b>	<p><u>Traditional media advertising</u> (broadcast and cable TV, print, radio and outdoor) is expected to decline, ranging between the low-to-high-teens in 2020<sup>4</sup></p> <p><u>Digital advertising</u> spending will likely be more resilient</p> <p><u>Political advertising</u> expected to offset a substantial portion of lost general advertising, esp. for local networks</p>	<p>Cloud-based solutions and services can help support digital advertising, including the selection, production, transaction and delivery of ads</p> <p>Clients can leverage data based on end-user access (via mobile, search, display, social and video formats) to help determine and adjust ad content and buys</p>	6.78%
<b>Healthcare — physicians, health care organizations</b>	<p>The pandemic has accelerated migration to:</p> <ul style="list-style-type: none"> <li>• Virtual outpatient visits including medical exam, medication counseling and progress monitoring</li> <li>• Virtual mental health counseling</li> </ul> <p>The global healthcare market is expected to grow at a CAGR of 6.6% between 2019 and 2024<sup>5</sup></p>	<p>Hybrid cloud models are particularly appropriate:</p> <ul style="list-style-type: none"> <li>• Many HCOs prefer infrastructure on an as-a-service basis so the cloud providers manage the data centers, leaving physicians time to communicate with patients and improve decision making</li> <li>• Some HCOs may want highly sensitive workloads and IT resources to remain in a traditional on-premise environment</li> </ul>	6.97%
<b>Life sciences, and medical technology</b>	<p>The pandemic has strained global medical-device supply chains</p> <p>Most medical devices have seen reduced demand (except for COVID-19-related products such as PPE and ventilators)</p> <p>The 2019-2024 CAGR of the global medical device market will likely fall below 5.7% as healthcare payers reassess budgets and delay device replacement.<sup>6</sup></p>	<p>The new connectivity standard of 5G and cloud computing will likely boost innovation of cutting-edge medical technology and procedures (such as robotic-assisted surgery) to fit a post-COVID-19 environment.</p> <p>Cybersecurity and privacy measures should be built into new medical devices.</p>	3.46%

Source: PwC analysis of industry data

<sup>4</sup> Fitch Ratings, *What Investors Want to Know: Coronavirus Impact on the TMT Sector*, May 13, 2020.

<sup>5</sup> Fitch Solutions, *Global Pharmaceuticals & Healthcare Report: Includes 10-year forecasts to 2029, Q2 2020, 2020*.

<sup>6</sup> Fitch Solutions, *Global Medical Devices Report: Includes 5-year forecasts to 2024, Q2 2020, 2020*.

