

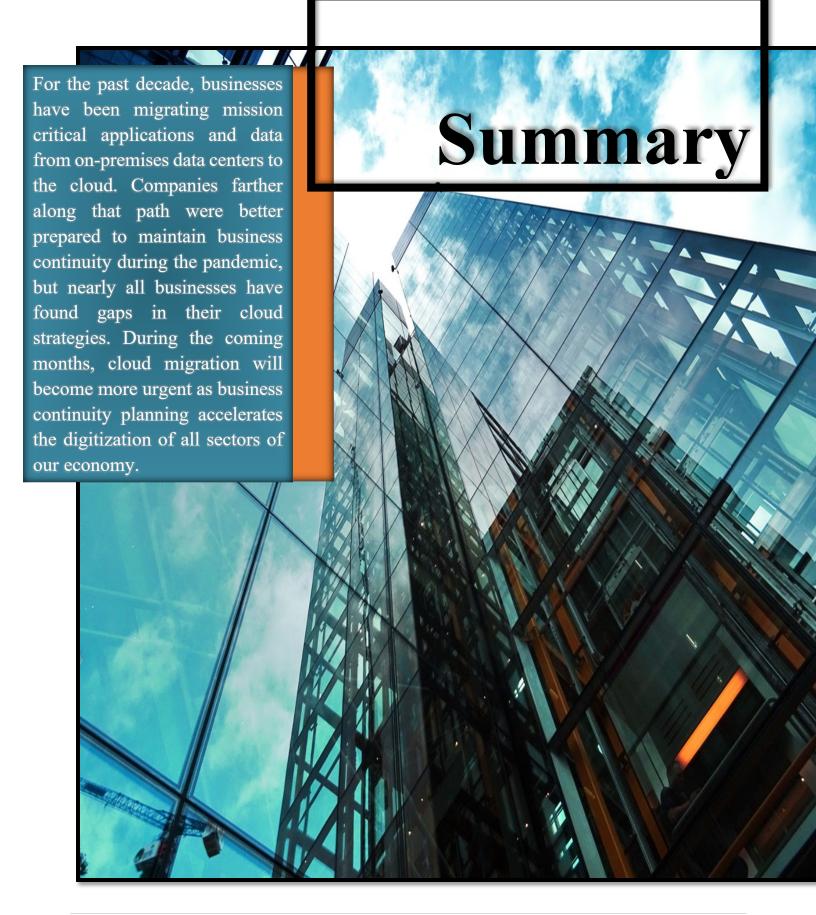
## **The Acceleration of Cloud Adoption**

Black Dragon Capital White Paper



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# Introduction



Just as the adoption of electricity and the completion of nationwide rail networks enabled the spread of the industrial revolution, the internet and cloud infrastructure have been catalysts to the digital revolution; and the global pandemic has acted as an accelerant. The fundamental economic changes being wrought of Disruption 2.0 presented in *Digital Disruption: 2.0 A Global Tech Tsunami* remain the same, but the speed of change has picked up.

The world has changed dramatically over the past few weeks as the global economy screeched to a halt. Every company on the planet has been affected. We showed in The Digital Tsunami Has Hit – What to Know About the Next Wave of Disruption and the New Ecosystem for Business – how the economy is being collapsed into a single, digital ecosystem. This ecosystem enables a previously unimaginable level of business agility.

Those industries and companies further along the evolutionary path have been able to maintain a higher level of business continuity while facing work from home mandates.

Black Dragon Capital invests exclusively in sports and media, ecommerce, and financial technology industries where digital disruption is already underway. As we've learned, the more the final product or service is digitized and the more its delivery is digital, the faster the entire workflow can be digitized. Once celebrated technologies and processes often are overwhelmed in the process.

" While digital banking channels have already been a critical component of any financial institution's customerfacing offerings, I expect adoption rates of digital banking tools like personto-person transfers and other digital payments will continue to accelerate, even after we are back to business-as-usual. For consumers who have preferred in-branch banking and have finally been forced to try the digital counterparts, many will embrace the newly found convenience." Nate Dudek, CTO, Payveris

#### The COVID-19 Effect

The global pandemic forced companies in all sectors to accelerate the adoption of digital technologies. Even those relatively far along the digitization path, such banking and streaming video services have been operating on an unplanned scale, a scale impossible to attain without cloud-based infrastructure in place. For the most part it has been successful, further eroding the inertia that delayed migration to cloud technologies. The pandemic has also added urgency to business continuity planning in a post-pandemic world, accelerating adoption even further.



Let's look at some specific cloud acceleration examples in Black Dragon's portfolio sectors.

## Fintech

Banking products and service have been largely digitized for years. In 2015 Bernardo Batiz-Lazo wrote in the Atlantic, "ATMs recede into the noise of everyday memory. [Yet] few stop to reflect on how they — and the computer infrastructure that supports them — became the backbone of contemporary retail payments." From that day in 1969 when a Chemical Bank branch in Rockville Center, New York, launched the first ATM in the US, banking has been on a relentless march towards digitization. At a time when branches typically opened at 9 AM and closed at 3 PM, the bank boasted that when it opened on the morning of September 2, 1969, it would never close again. Chemical Bank kept its word.

The 1980s witnessed the birth of ATM networks that linked banks' systems, so every ATM could be used by any customer. During the 1990s and 2000s, online banking and automated bill payments evolved from novel to necessity. Today internet banking has transitioned to widespread adoption of mobile and cloud technologies, and digital payments in many forms are commonplace. The issues of scale, security and cost of cloud technologies have been proven in an industry that has the largest volume of transactions in the world, is global in nature, and arguably has the most valuable asset being transferred – money!

The pandemic of 2020 has forced the still sizable number of digital laggards among consumers to embrace the full gamut of digitized banking services. Experts predict they may not go back to their paper-based ways.

Though digital banking is mature, the full workflow has not been digitized, and the pandemic illustrated the need for more agile infrastructure. Many institutions encountered employees inadequately prepared to work from home, VPNs unable to accommodate the load of thousands of employees working remotely, and phone systems not adaptable to a distributed workforce. One branch manager told us tellers were pressed into service to answer customer phone calls to walk them through their first online banking sessions. Unfortunately, tellers still had to come to the branch because they lacked a modern cloud-based VoIP system to allow the tellers to answer bank calls from their homes

Even before the pandemic, many banks were in the process of augmenting their cloud-based systems, but few were scenario planning for complete, nationwide work from home mandates. While mobile and cloud-based technologies are in place for customer applications, the infrastructure elements for the bank itself were less mature. Expect more robust cloud-based back offices and elastic call centers to augment connected banking more supporting person to person transfers across payment networks in a fully virtualized environment, able to transact and service customers from any device anywhere.

"Current events will lead to a transformation [banks'] business continuity plans to incorporate all aspects of full mobility to allow between 80 and 90% of their employees to work remotely, as opposed to the 40% that are properly equipped today. This includes all aspects from hardware and networking security systems, cloud deployments, telephony in the cloud, teleconferencing and virtual meeting facilities, and automated servicing channels based on AI chatbots, among others."

Hernando Torres, President and CEO, ASI Group

### Ecommerce

The category that defined the internet revolution was only hampered by the physical constraints of delivery, logistics and supply chain disruption when the pandemic struck. Over the past two decades, this has transitioned to a massive explosion of mobile and digital commerce around the world, leading all retailers to adopt some form of digital commerce or perish. Retailers cannot avoid the adoption of digital commerce. Examples, such as Sears and ToysRUs provide a warning to those who fail to embrace consumer patterns of buying. The world's ecommerce infrastructure is strong, but still has room for growth.

"The retail industry has been permanently disrupted by the change in customer behavior caused by the reaction to COVID-19. Sectors such as food that were slow ecommerce adopters are now heavily investing in the systems and automation necessary to serve the customer digitally. Other retailers without a strong ecommerce presence are going to find it hard to win back customers lost because of the closing of physical stores. This will further accelerate the growth of online shopping."

**Ken Bonning, Founder, Orion Advisors Group, Ecommerce Expert** 

Prior to the pandemic online grocery shopping was one notable category not as broadly embraced by consumers as electronics or other hard goods. A swath of shoppers steadfastly clung to the habit of hand selecting meat, produce and bakery goods at the local grocer.

Covid-19 changed the risk-benefit calculations, so shoppers were willing to take their chances on the possibility of pickers selecting a bruised banana in order to avoid trips to crowded stores.

"The rapid, global spread of the COVID-19 virus has changed online grocery shopping habits forever. Out of sheer necessity, it has educated the public that buying food; fruits and vegetables, perishable products, etc., is reliable, doable, and easy. Estimates of online grocery sales volume is three to four times higher than before the outbreak. A recent survey by Coresight Research found that 58% of people say they are likely to avoid public areas such as shopping centers as the outbreak continues."

Moris Chemtov, CEO, Digital Goodie / Maginus, Ecommerce Leader

Sophisticated ecommerce solutions like grocery shopping will develop more sophisticated cloud-based connections to other links in the value chain. What appears to the user as a single transaction in a mobile app will ultimately link multiple cloud-based systems spanning the full value chain from manufacturing through last mile services. It's inevitable cloud-based applications will collapse the current workflow and bring new intimacy to sellers and buyers of goods and services

## Media technology

Few sectors of the economy have digitized product delivery as thoroughly as the media. During the late 1990s the music sector was disrupted so quickly thoroughly bv transformation that adjacent sectors took the cautionary tale to heart by rights management adopting payment systems to weather the coming digital onslaught. millennials may never step into a physical branch of a bank, Generation Z may never handle physical media. More notably, they may never purchase the media they consume. All media, including music, television, news, sports and even movie tickets will purchased through subscriptions.

Paradoxically, among Black Dragon's target sectors, media companies' workflows are the least digitized and cloud-enabled among our focus sectors. Powerful, workflow-compressing digital tools have been widely adopted since the 1990s and early 2000s. They include digital editing, digital storage, and digital content management. Yet the march to a future in the cloud has been grounded on-premises, sometimes justifiably, by costs, bandwidth, security concerns and simple institutional inertia.

## Cost

A typical media file is larger than the content of a banking or ecommerce transaction by a factor of 10,000 or more. Calculations that did not take business continuity during a pandemic in account encouraged fully on-prem solutions.

## **Security**

After the 2014 Sony Studios hack, the any idea of storing the industry's crown jewels on the public cloud was illogically discarded. Amazon, Microsoft, Google, and Microsoft each have dedicated security teams, budgets and capabilities that dwarf those of the largest media companies.

## Inertia

Every CIO who has overseen cloud migrations project is too familiar with the institutional inertia of middle management creating friction for any initiative that reduces their departmental headcount. Eventually the sleeper cells are defeated, but it is a time consuming and socially disruptive process to get the right people in the right places using the right tools.

Until the pandemic struck, migration of workflows to the cloud was not a priority for large media enterprises. Faced with the need for business continuity while 95% or more of the workforce was at stuck at home, priorities shifted. Technologists devised in real-time media management and workflow strategies to right size the organization's cloud footprint. Meanwhile, the security discussions shifted from the requirement for perfect security to the acceptance of reasonable security risk. The onprem wall has been breached and gates will continue to be opened after the pandemic passes.

While live action production does not lend itself to distributed workflows (distributed cast and crew on virtual location is ways off), but animation and post-production have been successfully cloud-enabled.

Long term effects on media production workflows will spread well beyond the Hollywood. Any enterprise that uses video, even tangentially, will embrace the cloud because it enables them to utilize the best talent no matter where they are. They will produce better and more content at lower cost.

"[Technology] that utilizes the cloud as more than just a data repository and transfer service [will be adopted] during and following the COVID-19 pandemic. Traditional post-production has largely remained stagnant with on-premises paradigms, and this is incongruent to the current work from home model."

Michael Kammes, Director of Business Development, BeBop Technology

"Remote content creation, live streaming, and distance learning [are now] entrenched, [and] they will not go away. Education, both K-12 and college will never be the same."

Gary Bettan, President, Broadfield Distributing, Inc.

# Conclusion

The pandemic has given industry leaders a crash course in leveraging the cloud to maintain business continuity during a crisis. They were not given time for thorough testing, proof of concept development, or complex modeling and forecasting. Every business had to flip the switch, prepared to correct course midflight if necessary.

Cloud providers and the services they enable have proved largely successful during difficult times. As businesses return to normal operations, lessons learned in the trenches will not be forgotten. Cloud disruption is at an inflection point.