

Covid-19 and the Cloud: Editorial

C. Peoples¹

¹Ulster University, c.peoples@ulster.ac.uk

Received on 30 November 2020, accepted on 30 November 2020, published on 22 December 2020

Copyright © 2020 C. Peoples, licensed to EAI. This is an open access article distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/3.0/>), which permits unlimited use, distribution and reproduction in any medium so long as the original work is properly cited.

doi: 10.4108/eai.22-12-2020.167658

1. Introduction

Cloud computing is an important mechanism of support in our day-to-day lives, from both personal and professional perspectives. Often running at the back-end of a business, supporting us in our employment or in personal applications, clouds provide redundancy in CPU, memory and other compute resources. In a more unexpected context, cloud has proven its ability in helping organisations avoid succumbing to circumstances beyond their control. We have seen this most recently throughout the current Covid-19 pandemic [1], when there has been a need for organisations to operate in an agile way, and to demonstrate capacity to adapt day-to-day operations to a remote mode of execution. Ability to do this has been critical to organisational success and, subsequently, there has been increase in the volume of certain types of operations supported by public clouds [2].

2. A Surprising Decline in Growth Rates for Cloud Providers during Covid-19

Given this situation however, it is interesting that the growth rate of some cloud provider organisations, including Microsoft Azure, has been in decline in the period of Covid-19 [3]. This is somewhat unexpected however, can be attributed to the fact that, despite more remote operations, businesses who use cloud are scaling operations back to save costs and, ultimately, support their own business survival through the pandemic – Gartner identify that cloud business process services (BPaaS) declined between 2019 and 2020. Furthermore, the data centers hosting cloud resources face challenges in their manning: It has been the case that some data centers have been unable to keep their infrastructure running throughout this period due to a lack of human manpower [4]. Additionally, the unexpectedness of the crisis led to outages - it is estimated that one in twenty data centres had

an outage during the pandemic [5]. Finally, we may be unlikely to see new customers of cloud at this time: Some organisations have not yet made the move to cloud – the financial services industry, as one example, is not advanced in its adoption of cloud [6]. While their operations might benefit from cloud use, they had not integrated it into their business operations prior to Covid-19. Making a move as significant as migrating to a publically-hosted cloud is unlikely to be attractive for such organisations at any time, but may be particularly intimidating during a situation as challenging as a pandemic. Organisations who lag behind in cloud participation include those who do not employ staff with the technical knowledge and experience to support this adaption to operations. Where companies do not have significant technical expertise in-house, it makes sense to outsource this technology service need to specialists external to the organisation. However, even the service providers were operating on reduced staff at this time, and therefore did not have the resources to exploit the existing opportunities.

The declining growth rate may therefore be less surprising than it first appears, although nonetheless, potential exists for expansion of this industry, both during and after Covid-19. This takes into account the strategies for growth during possible pandemics in the future, as they are, in the worst case scenario, anticipated to occur [5].

3. Market Leadership in Cloud use during a Pandemic

Due to the ease with which cloud supports operational agility, rapid scalability, and improved security, the pandemic, which has forced many types of operations to become remote, has brought about a stronger case for organisational workload to be moved to public, or hybrid public and private, clouds. Indeed, those companies which have thrived during the pandemic, beyond the pharmaceuticals who are working for a Covid-19 vaccine, are those who have demonstrated agility and ability to

adapt quickly, scale their resources, and adequately support employees in their use of this technology.

Amazon might be considered to be a leader in prosperity during Covid-19 due to the \$401.1 billion market capital added [7]. Amazon initially had capacity to support customers in preparing their homes for the crisis. However, this led Amazon to temporarily close its warehouse for non-essential products as a result of rapidly rising costs. Nonetheless, the move to online shopping, coupled with prioritisation of its cloud dimension, has enabled Amazon to thrive. This is likely also be due to the fact that Amazon has provided support for companies who need it as a priority throughout Covid-19, specifically the health-related organisations. AWS has, for example, been used to support the UK's National Health Service in this period [8]. The attention which Amazon has given, even forward-facing through its website, to its response to the pandemic demonstrates impressive reaction to a situation that has caused many organisations to falter.

4. The Gaps in Solutions to Support Cloud Virgins through a Crisis

By comparing the operations of organisations against the successes of Amazon, the pandemic has highlighted the limitations of current working practices for many. As a consequence, in a survey carried out by the Uptime Institute in 2020, a fifth of the organisations surveyed said they were likely to speed their move to cloud as a consequence of the pandemic [5], in recognition of the ways which they were falling behind. Many organisations are, however, daunted by a move to cloud. Some organisations are scared of the security risks of operating their business in a public space. Others are concerned about the cost. Some know that they lack the technical expertise to make a move to cloud. The risk of not knowing exactly what to do and/or how to do it could result in an expensive mistake.

5. Conclusions

Service Providers therefore have a particular priority at this time to offer cost-effective service options, not to maximise profits, but instead to maintain relationships for their own, similar survival. Furthermore, there is an opportunity for service providers to support organisations in making the move to cloud, recognising that many do not have the technical competence to do so, and that this can be a critical factor in their decision to make the move, or not. If we get some relief from this current pandemic, there is a priority to respond to these gaps in a timely way, if and before the next pandemic arrives.

References

- [1] Government Digital Service. Coronavirus (COVID-19). Available: <https://www.gov.uk/coronavirus>.
- [2] Gartner. Gartner Forecasts Worldwide Public Cloud Revenue to Grow 6.3% in 2020. Jul. 2020. Available: <https://www.gartner.com/>.
- [3] Waters, R. Microsoft Sales Boosted by Both Work and Play from Home. Financial Times. Jul. 2020. <https://www.ft.com/>.
- [4] Linthicum, D. and Kavis, M. Weathering the Storm: Leveraging Cloud for Business Continuity. Deloitte. Apr. 2020. Available: <https://www2.deloitte.com/>.
- [5] Lawrence, A. Post-pandemic Data Centers. Uptime Institute Intelligence. Aug. 2020. Available: <https://uptimeinstitute.com/>.
- [6] Institute of International Finance. Cloud Computing: A Vital Enabler in Times of Disruption. Jun. 2020. Available: <https://www.iif.com/>.
- [7] T. Braithwaite. Prospering in the Pandemic: The Top 100 Companies. Financial Times. Jun. 2020. Available: <https://www.ft.com/>.
- [8] Day One Team. How AWS Helped the NHS Accelerate its COVID-19 Response. The Amazon Blog. Jul. 2020. Available: <https://blog.aboutamazon.co.uk/>.