

# Edge vs cloud computing: which is the best investment?



Edge computing reduces the burden of data transport to the cloud, decreases transfer delays and increases locality. *Karl Hilzinger*

by **Stirling Larkin**

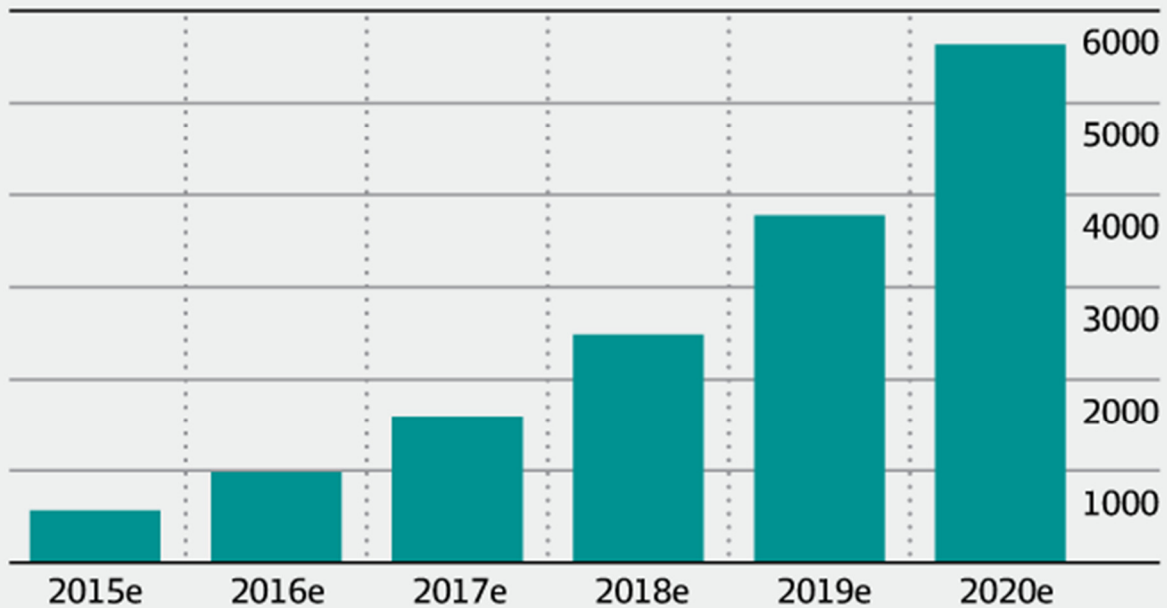
Proactive investing requires making choices that often demand a level of conviction about a decision many years ahead of its time.

For Australian ultra high net worth (UHNW) investors – many of whom invest in fintech in California, Boston, Berlin or Shanghai and heavy IT infrastructure via private equity, seed or even syndicated capital – a bifurcating choice is being asked of them to either invest further into existing cloud-based infrastructure or its nascent alternative, known as "edge" computing.

Decisions need to be made with serious consequences for invested capital.

With the [Internet of Things](#) (IoT) expanding from a base of 980 million devices in 2018 to an estimated 5.6 billion devices by 2020, edge computing, in essence, allows data produced by IoT devices to be processed closer to where they have been created instead of sending its data across long routes to data centres or clouds in the United States, northern Europe or even Siberia.

## Estimated number of global enterprise and government IoT\* devices connected to an Edge solution (millions)



\*Internet of things

SOURCE: BI INTELLIGENCE

Edge computing architecture places high-performance computer, storage and network resources as close as possible to end users and devices. For an isolated Australia, this is not an immaterial factor.

This arrangement reduces the burden of [data transport to the cloud](#), decreases transfer delays and increases locality.

With the opportunity for better productivity and efficiencies, the real potential of edge computing to displace the cloud has financial consequences for those already vested in cloud-aligned capital investments.

What this also means for big data of Australian corporates and SMEs is yet unclear. But if there is any economy to benefit from a geographic proximity latency enhancement, it would be Australia, which still predominantly relies on cloud centres found on the opposite ends of the planet.

Tech pundits argue that both could coexist. In an "edge plus cloud" economy, processing is divided between the edge and the cloud, with the former complementary to and not a substitute for the public cloud. The latter, after all, has scale benefits that would be financially punitive for edge solutions to replicate.

The issue facing private wealth communities is that in previous situations where binary inflection points between technological advancements arose, those who maintained or further invested in the declining choice faced catastrophic capital losses with diminishing exits.

## Listed opportunities

For Australian investors who may not have access to the same exclusive opportunities UHNW global investors enjoy, there remain attractive listed opportunities in both cloud and edge technologies, including those presented by Pivotal Software (NYSE: PVTI), Red Hat's OpenShift applications (NYSE: RHT) and VMware Inc (NYSE: VMW).

If edge computing supersedes the public cloud, VMware presents timely potential. This is because the advancement of "virtualisation" (the act of creating a virtual version of something, including virtual computer hardware platforms, storage devices and computer networks) would require edge servers, allowing multiple applications to share a single physical edge server by running inside a virtual machine.

VMware's vSphere controls 90 per cent market share in what has emerged as a winner-takes-all virtualisation market and is the vendor that benefits most from the shift towards edge.

Pivotal Software would gain in either technology as it bridges the software development gap between the public cloud and edge computing. Its Cloud Foundry software leads to large gains in developer productivity, regardless of where the workload is deployed, and is continuing to gain market share thanks to the rapid ascent of IoT firmware requirements.

Whether edge computing augments the cloud or replaces it is unclear. But in a globalising economy where technological rotations and capital flows oscillate at an ever-faster pace, private wealth investors need to remain as vigilant about where and how to invest as they concern themselves about when to invest and exit.

According to market intelligence firm International Data Corporation, the amount of data being generated is doubling every two years. By 2020, the amount of data is predicted to reach 44 zettabytes annually. The proactive investor knows that the infrastructure sitting behind this will be either tested or changed and that perceptiveness allows them to take action today.

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