Keeping the lights on during the COVID-19 pandemic

Forward-looking businesses are offloading data center maintenance and management to the cloud to keep things running during the COVID-19 pandemic.

The Future of Information Services & Technology

For years, proponents have urged businesses to better enable employees to work from home, citing benefits like increased productivity, less commute time, better work-life balance and enhanced preparedness for business continuity should a localized disaster strike, such as a tornado, hurricane, earthquake, flood, etc.

Overnight, the COVID-19 global pandemic made the final argument for work-from-home, making it a mandated reality for millions of workers - ready or not. Many global enterprises suddenly must support more and more people working remotely, whether or not they're equipped to deliver and support workloads at scale. This has sent businesses scurrying to quickly embellish digital channels/platforms, increase bandwidth, add virtual private networks (VPNs), provision more laptops and offer thin-client applications to their employees and customers to improve operational collaboration and enforce social distancing.

A proper business continuity plan followed up with precision execution can ensure that enterprises deliver such capabilities. However, what happens to the on-premises data center where a physical presence is required? Even with workplace virtualization technologies like remote consoles and "out-of-band networks" reducing the need for on-site data center operations staff, the fact is, physical boxes in on-premises data centers still need to be managed, guarded and secured by people.

Take the February 2019 data center meltdown of a major U.S. bank, which crippled the organization's online and mobile banking capabilities. The company needed to shut down one of its data center facilities due to a smoke condition. It took two days to bring the facility back up, and only with significant effort, which required the physical presence of data center staff.

Imagine if this happened during the COVID-19 crisis. The time taken to fix the issue would increase exponentially due to a lack of people resources and hesitation to collaborate in-person. Even physical security could become compromised, which raises grave concerns.

Continuing to Support Our Way of Life

The fact is, as our dependence on IT intensifies, data centers have become the substratum of how we live, work and play. From banking to insurance to 24×7 news, everything is supported by cloud infrastructure housed in virtual data centers. If these data centers go down, critical business functions, financial networks and in some cases our whole way of life become threatened. As a result, virtual data centers need to be continuously supervised and constantly cared for.

The Uptime Institute's 2019 Data Center Survey puts this into context.

• The staffing problem affecting most of the data center sector has become a crisis

Sixty-one percent of respondents said their organizations had difficulty retaining or recruiting staff - up from 55% a year earlier.

• Outages continue to cause significant problems for operators

Just over one-third (34%) of all respondents had an outage or severe IT service degradation in the past year, while half had an outage or severe IT service degradation in the past three years.

• Ten percent of all respondents said that their most recent significant outage cost more than $1 million

(The study authors note that "most recent" could have been at any time in the past.)

The Virtues of Virtual Data Centers

Forward-looking businesses are taking a different approach - they're offloading data center maintenance and management to the cloud. One reason for this is scale, as cloud service providers have mastered the art of managing scale. In addition to proactively planning for capacity, businesses can leverage auto-scaling features to rapidly meet any unplanned surge in demand.

Cloud infrastructure is also highly automated and allows for the creation of scaling policies that set targets and add or remove capacity in real-time as demand changes. Thus, utilization and cost are optimized, while the need is reduced for having more people on the ground.

Most CSPs now provide a multi-tenant architecture that allows different business units within an organization or multiple organizations to share computing resources. This allows organizations to optimize their resources and staff vs. having their own data centers.

Lastly, the physical security in and around CSP data centers tends to be more robust and proven than what enterprises can individually afford. Most CSPs have rigorous and ongoing processes for assessment and mitigation of potential vulnerabilities, often performed by third-party auditors.

Preparing for the Future

With many proven methods and tools, cloud migration is involved, but it isn't difficult. For businesses that take a meticulous optimization approach, the cloud can be more cost-effective than CapEx-hungry data centers. Even in the context of coronavirus, digital platforms running on the cloud can unleash cost and operational advantages via centralized control while meeting bandwidth challenges that flare up during peak usage periods.

Perhaps it's our hyper-connected world, but severe disasters seem more frequent than ever. As businesses respond to the many challenges COVID-19 presents, they also need to keep their eye on the horizon to prepare their data centers to withstand any disaster that strikes in the futures.