



Not All Clouds Are Created Equal

By Sam Goodner



CHANGE CAN BE DIFFICULT when it comes to the servers, hard drives, and other hardware and software systems that have long served as the foundation of your company's IT infrastructure. There's something reassuring about seeing those machines on their racks with their fans whirring and lights blinking. Your IT team falls into routines of performing regular maintenance and working with vendors to install upgrades, but those things provide only a false sense of security. Migrating those on-premise systems to a cloud computing platform enables you to save money, eliminate myriad cyber and physical security risks, strengthen your organization's compliance posture, and introduce new operational efficiencies that increase revenue.

The term "cloud computing" refers to the delivery of computing services—servers, storage, databases, networking, software, analytics, and more—via the internet. Cloud computing has become one of the most important technological innovations driving digital transformation across most industries, including transportation and parking. It allows businesses to run operations and scale more quickly, efficiently, and cost-effectively while also significantly reducing the risks of the loss or theft of business-critical data.

The cloud computing model resembles the electricity grid. Instead of buying, installing, and maintaining a power generator and other necessary equipment on your property, you connect

to the grid and offload those responsibilities and costs to your utility provider. The utility company generates and delivers electricity and maintains all equipment. If the amount of electricity you require fluctuates throughout the day, you don't have to worry about whether there's an adequate supply to meet your needs. You just flip the switch and draw more from the grid. In return, you pay the utility provider a monthly fee.

If you're a Netflix subscriber, you're familiar with cloud computing. You don't have to install hardware and store all of Netflix's movies and shows in your home. You pay a monthly fee to access that content via Netflix's app, which connects you to its servers over the internet.

On Premises: Expensive and Risky

If you cancel your Netflix subscription, you lose access to its content. That loss of ownership and control is a common crutch that organizations lean on when making the argument for keeping their IT systems on premises. What they don't realize is how much time and money they waste maintaining those systems while simultaneously increasing the risks that system downtime or a security threat will cripple their operations.

Hardware requires ongoing maintenance and replacement, and the software solutions running on those systems need to be patched, upgraded, or replaced on a regular basis. You must have IT professionals on staff with the necessary expertise to constantly make those upgrades, patch servers, and create and maintain data backups in case your hard drives crash or are damaged in a disaster such as a fire or a flood. The worst-case

scenario is your server going down unexpectedly and bringing your operations to a halt.

If you accept credit card payments, you are collecting, processing, and storing your customers' highly sensitive information. Hackers covet that financial data for their own use or to sell to other thieves on the so-called "dark web."

That is why the PCI Security Standards Council (PCI SSC) established the Payment Card Industry (PCI) Data Security Standard (DSS), a set of technical and operational requirements that apply to any organization that collects, processes, transmits, and/or stores cardholder data. These requirements include:

- Building and maintaining a secure network.
- Implementing technologies to protect data, such as end-to-end encryption, anti-malware, access control solutions, etc.
- Regularly monitoring and testing networks and proving compliance to auditors.

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Cloud Computing Business and Compliance Benefits

Migrating your on-premise systems to the cloud eliminates all of these IT, security, and compliance risks. You no longer have to purchase, maintain, and update equipment or software. You shift those responsibilities to your cloud services provider partner, freeing you and your staff to focus on your core competencies and business priorities. System updates and upgrades are done remotely with virtually no downtime, so there is no need to shut down lanes. Additionally, you can standardize multiple locations on one platform. Scaling resources up or down based on need is quick and easy because you're paying for more or less cloud space rather than purchasing and provisioning new physical servers.

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The result is much faster and a more satisfying customer experience. It is easier for your guests to find parking, which reduces congestion and improves traffic flow. Using real-time data, you can control your revenue and parking operations from virtually anywhere 24/7, including via mobile devices to maximize occupancy and revenue. Accessing and using real-time intelligence enables you to introduce new, more efficient, and cost-effective operating processes, which translates to a significant drop in support calls/emails and in higher customer satisfaction levels.

A parking strategy should also go beyond just controlling access and revenue; a parking technology provider should deliver an ecosystem of future-ready mobility solutions that will evolve with technologies such as private sector ride-sharing services, driverless cars, and frictionless access to better serve urban communities.

Migrating to the cloud will also significantly improve your security and compliance postures. As soon as a customer swipes a credit card, the information stored on the card is encrypted at the head of your credit card readers and sent directly to the payment gateway. You do not store payment card information

locally and you achieve instant and ongoing complete PCI compliance.

That raises an important consideration when you're evaluating any cloud services provider. Your vendor should not store your customers' payment card information on its systems either. It should partner with a proven cloud platform provider, such as Amazon Web Services, Google Cloud, or Microsoft Azure, which has the necessary resources and expertise to protect sensitive business information without interrupting your daily workflows.

Don't Let Cloud-lite Fool You

Not all clouds are the same. A vendor may offer to house the IT systems locally at its own data center. However, that hosted, or hybrid model—also known as “cloud-lite”—sometimes has many of the same limitations of an on-premise operation, especially when it comes to maintenance, security, and future-ready capabilities.

Yes, it removes the responsibility of maintaining the hardware from your shoulders, but the IT architecture doesn't change. The burden of PCI compliance remains on your shoulders, just as it did with your on-site servers. To achieve PCI compliance with a hosted model, you must follow the hundreds of guidelines and ongoing maintenance required as opposed to a cloud-based system managed by a PCI DSS level 1 service provider, who takes on 98 percent of the burden for you.

No Time to Waste

McKinsey & Company reports cloud-specific spending will grow at more than six times the rate of general IT spending through 2020. The chances are that group includes your competitors. Don't fall behind. Migrate your IT systems to the cloud to create a dynamic, future-proof system that will expand and support new capabilities as technology and customer demand evolves. The parking industry has been dominated by complicated, unreliable technology and processes for too long. Your guests deserve better, and so do you. ♦



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