

# CASH GOES VIRTUAL

Handle Financial, a financial technology provider, implements A10 Lightning™ ADC to manage, control and secure workloads in the public cloud and significantly reduce operating expenses.

“ We chose A10 as our vendor and ended up saving over 90 percent in costs. We use A10 in our AWS environment and it has quickly become a critical piece in our infrastructure. We are very happy to be an A10 customer.”

George Nikaido | Handle Financial Engineer



## CASE STUDY

### COMPANY

Handle Financial

### INDUSTRY

Financial Services, FinTech

### NETWORK SOLUTION

A10 Lightning ADC

### CRITICAL ISSUES

- Decrease operating expenses
- Move production workloads to the cloud
- Eliminate management of on-premise hardware
- Enhance disaster recovery and business continuity strategies

### RESULTS

- A10 designed and implemented a custom cloud-native application delivery controller and load balancer via A10 Lightning ADC
- Gained a SaaS-based controller that delivered real-time analytics for the environments
- Reduced OpEx by a third



## A NEW WAY

Mobile, online and virtual payments have long been tied to customers who use debit and credit cards. Individuals who need to use cash are often left to make payments with antiquated processes.

Seemingly everyday tasks, like paying bills and taxes, repaying loans or even fulfilling child support responsibilities, were complicated ten-fold. In most cases, these cash transactions had to either be conducted in person or via money order. It's a tedious, time-consuming process for both the payee and the individual.

There was a way to make lives easier through technology.

## THE POWER OF CASH

In 2009, Danny Shader began a mission to assist these consumers and return power to the most respected form of currency: cash. He founded Handle Financial to build affordably-priced, innovative products that make it easier for consumers to conduct financial transactions with a wide range of retailers, businesses and government agencies.

Shader, now the company's CEO, has a long history of connecting users with technology. Among one of his many accomplishments, Shader co-founded Accept.com, one of the first person-to-person payments providers, which was acquired by Amazon in 1999.

It was through this experience — and recognizing an underserved segment of the market — that the vision for Handle Financial was born. The company's electronic cash transaction network enables consumers to pay rent and utility bills, repay loans, buy tickets, make online purchases and do much more with cash.

"Why should people who don't have a bank account be disadvantaged to those who do?" Shader told the Dallas Morning News (when the company operated under a different name).

Today, consumers use Handle Financial to conveniently make payments on their own schedule at more than 28,000 trusted locations, including CVS, 7-Eleven and Family Dollar stores.

But, like any startup, scaling technology to maintain growth introduces many challenges — both operational and technical.

## NEEDING MORE FROM THE CLOUD

Handle Financial's use of networking technology to support its business began with reliance on a traditional on-premise solution for load-balancing, security and traffic management, namely the proven A10 Thunder<sup>®</sup> ADC. Handle Financial used the cloud, but it was primarily for development work and quality-assurance testing.

As security improved and public clouds grew in popularity, Handle Financial moved all resources, applications and workloads to Amazon Web Services (AWS).

The approach worked for a while. For months, the company ran 28 Elastic Load Balancers (ELB) from AWS. It started with simple databases, but as Handle Financial grew, it made more sense to move production workloads over, too. At the time, it was easy to use ELBs and Amazon-native solutions where possible.

But, according to Handle Financial engineer George Nikaido, this created two significant problems.

First, their workloads in AWS scaled to such large volumes that margins were razor-thin, eliminating many of the benefits of going to the cloud in the first place. Second, there were technical capabilities the ELBs couldn't provide, such as static IPs (which didn't allow partners to whitelist the company) and SSL client-server authentication.

Nikaido knew the cloud was their future, but also understood his company needed better solutions for managing, securing and controlling its environments.

## 'ALL ABOUT ENGINEERING AGILITY'

Nikaido and the Handle Financial team had such success with their A10 Thunder ADCs, they knew they would again look to A10 for guidance. But, they also wanted to demonstrate due diligence, so they reviewed solutions from F5, as well.

Like any responsible organization, cost was a major factor. But, they also didn't want to sacrifice performance, flexibility and functionality. It was a lot to ask.

Their experience with F5 was less than desirable. They offered little to no insight or strategy, basically offering standard out-of-the-box products found on the website — none of which were the cloud-native solutions the team really wanted.

A10, on the other hand, collaborated with Nikaido and offered to build a unique solution that fit the requirements of the Handle Financial deployment. Based on past projects, Nikaido expected A10 to be open, responsive and engaging. They weren't disappointed.

"A10 is all about engineering agility," he said.

This engagement led to Handle Financial deploying the advanced A10 Lightning™ ADC (Application Delivery Controller), which is a cloud-native, software-defined solution that provides integrated load-balancing, performance optimization, application security and per-application analytics. It even solved Nikaido's issues with SSL certification authentication.

Nikaido was specifically drawn to the solution's web application firewall (WAF) and cloud-native load-balancing, which he implemented for Handle Financial's environment. The entire infrastructure — including security, workloads and traffic — is managed by the A10 Harmony™ Controller, which can be self-managed and reside on-premise or in a private cloud, or utilized as a SaaS-based offering managed by A10.

The self-service A10 Harmony Controller delivers centralized management and per-application analytics for secure application services across any underlying infrastructure — from traditional on-premise data centers to public, private and hybrid clouds. This helps reduce troubleshooting time to seconds, and enables automation and self-service to streamline app provisioning.

## BUSINESS CONTINUITY

Handle Financial's infrastructure shift wasn't limited to management and security. The team's plan also had to account for a new disaster recovery (DR) and business continuity (BC) strategy. They needed to add a second data center for disaster recovery, but doing so with hardware would significantly impact their operating expenses (OpEx).

With the A10 Lightning ADC solution in place, Handle Financial implemented an agile, cost-effective DR plan. First, the team developed a production facility that features a dozen application servers, software routers and VPN connections. Next, the company replicated the necessary databases. In the event of a disaster, Handle Financial will spin up the application stack as needed in real time.

Ultimately, this cloud-based, A10-powered deployment reduced Handle Financial's OpEx by a third.

## CONTROL & VISIBILITY

While Lightning ADC exceeded Nikaido's expectations, he was overwhelmed by the value, simplicity and importance of the solution's analytics capabilities. By connecting his AWS environments to Lightning ADC and the Harmony Controller, Nikaido had real-time data at his fingertips.

"Typically, retailers have really old infrastructure and problems were occurring on their end," Nikaido said. "They swore it was Handle Financial. But we were able to show them the analytics and prove that it wasn't something caused on our end."

*With the A10 Lightning ADC solution in place, Handle Financial implemented an agile, cost-effective DR plan.*

## POSITIVE IMPACT

Shader, Nikaido and each Handle Financial team member understands the responsibilities they have to their customers. While the impact apps have on users' lives is often hyperbole, Handle Financial positively improves everyday tasks. The company empowers citizens by making their cash an asset, not a nuisance or liability. It's the perfect blend of technology and citizen-centric services.

<p><b>WITH A10</b> Handle Financial was able to:</p>	 <p>Control, secure and manage their AWS-based workloads and applications</p>	 <p>Reduce OpEx costs by a third</p>	 <p>Deploy a more cost-effective DR/BC strategy</p>	 <p>Make better decisions with real-time analytics via a SaaS-based controller</p>
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Most users don't think about the back-end infrastructures, security or load-balancers required to power the millions of apps and services we all take for granted. But, there are network architects and engineers all over the world — just like George Nikaido — who take on these challenges daily. It's a responsibility he doesn't want to take on without A10.

"We really wouldn't want to go there again," he said. "We could do it, but we'd lose the benefits. We would have trouble with the SSL cert and have a far more complex and expensive environment."



**A10 LIGHTNING ADC**

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### *ABOUT HANDLE FINANCIAL INC.*

Handle Financial Inc. is a cloud-based financial technology provider operating under industry-leading compliance and security standards. The company's three core offerings form a robust money movement platform that provides secure, real-time bill payments for consumers, an extensive network of retail locations for businesses to collect cash payments and best-in-class bill presentment technology for financial services companies.

### *ABOUT A10 LIGHTNING ADC*

The A10 Lightning™ ADC (Application Delivery Controller) is a cloud-native solution to optimize the delivery and security of applications and services running over public or private clouds. A10 Lightning ADC is purpose-built for containers and microservices-based application architectures and elegantly integrates with DevOps processes.

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ABOUT A10 NETWORKS

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Part Number: A10-CS-80181-EN-01 JULY 2017