



APV SERIES CASE STUDY

Cash Depot

Array application delivery controllers (ADCs) provide Cash Depot with scalable, high-performance 2048-bit SSL acceleration and application availability for ATM secure transaction processing.

Background

Cash Depot, Ltd. is a full service ATM service provider catering to both merchants and financial institutions. Cash Depot provides in-house transaction processing, which enables the company to provide the fastest possible transactions to its customers. The ATM service provides a secure connection between the ATM and the head-end processing switch and connects financial services networks such as Pulse, Visanet or Fiserv on the back-end to link ATM users to their financial institution. In addition to providing secure transaction processing services, Cash Depot also sells, leases, rents, ships and supports ATMs in the most efficient way possible to maximize profitability and satisfaction for its customers.

Industry:

ATM secure transaction processing

Challenges:

Increasing volume of SSL transactions

Impact of processor-intensive 2048-bit encryption

Make performance and availability a competitive advantage

Drive down networking costs without sacrificing quality

Solution:

Redundant pairs of Array APV2600 application delivery controller appliances

AppVelocity-S hardware-accelerated SSL encryption

Benefits:

6x faster ATM transactions

24/7 availability and consistent performance under maximum traffic loads

Cost-effective migration from 1024 to 2048-bit SSL encryption

Headroom and horsepower to accommodate business growth

Array as a trusted partner for application delivery networking

ROI in less than 6 months

Challenges

Prior to deploying Array Networks, Cash Depot relied on a RISC-based solution comprised of VRRP and Stunnel for SSL tunneling. However, with the growth in traffic and a move to 256-bit certificates, Derald Groth, Cash Depot's technology architect, realized that it would not be long before the company would require a new more scalable solution. After investigating the possibility of using a free solution such as a high-availability (HA) proxy along with Stunnel, the idea was abandoned because the solution would not provide the performance, scalability, reliability and support needed to meet Cash Depot's requirements. Consequently, Cash Depot began looking at vendors that offered dedicated appliance-based application delivery controllers for performing load balancing and SSL acceleration.

Cash Depot first looked at Coyote Point, but discovered that it would be a two-box solution since Coyote Point indicated that its appliance couldn't do both high performance SSL transaction processing, and high performance load balancing and traffic management all in one. Not wanting a two-box solution, Groth looked at other vendors, including F5, but the purchasing price was hard to justify when Array can do just as good of a job at significantly lower cost and, according to Groth, "if you pay twice as much as you need to for each piece in the architecture, it adds up. We'd prefer to reinvest in the core of our business – purchasing new ATMs and acquiring new customers."

Solutions

Array application delivery controllers were placed in front of servers running the Smart Connect secure transaction processing switch, providing security for connections between the ATMs and Cash Depot's network and providing load balancing and availability for the Smart Connect

application. Cash Depot purchased two pairs of APV2600 appliances. Two APVs were deployed in the primary data center and two were deployed in Cash Depot's disaster recovery data center. If an ATM can't get to one network, it can go to the other network for back-up.

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Derald Groth
Technology Architect, Cash Depot

The Transmission Control Protocol (TCP)-based connections that the Array appliances are supporting are six times faster than the dial up connections they replaced and are also more secure. The SSL encryption provided by the Array appliances is part of a larger security architecture that includes the use of Hardware Security Modules to encrypt PINs between ATMs on one end of the transaction and the financial institution at the other end. For each ATM transaction, the Array appliance decrypts the SSL connection and passes the traffic on to a Smart Connect server running in a virtualized server environment. The Smart Connect application then performs its tasks and forwards traffic to financial services networks and sends transaction information to Cash Depot's disaster recovery data center to provide redundancy and availability for its customers.

In addition to providing security and availability for ATM transaction, the Array appliances also allow Cash Depot to perform maintenance and

updates to the Smart Connect application without disrupting user transactions. Prior to implementing the Array solution, Cash Depot would select a time period with minimal transactions to conduct maintenance and updates. Although the disruption was minimized, it still left customers without the ability to use ATMs for a period of time.

Benefits

With Array, Cash Depot received the best of both worlds, a scalable appliance capable of meeting its requirements in a single box, at a price point that makes sense for the business. With Array, transactions can be seamlessly handled by one Smart Connect server while maintenance and updates are performed on another, giving ATM users 100% uptime.

Array application delivery controllers have been running since October and, despite running computationally intensive 2048-bit SSL encryption, the appliances have been cruising right along. In November 2013, Cash Depot had its busiest day

ever with the Array appliance processing a large volume of transactions without a hitch. This is a huge leap for Cash Depot, positioning them for increased future growth.

In addition to being impressed by the Array appliances, Groth was also impressed with the Array technical staff that assisted in getting the appliance tuned for his specific application. He noted that, "Aside from performance and scalability, one of the key factors in purchasing from Array as opposed to using an alternative solution, is the people who are standing behind the product."

Cash Depot is now positioned to significantly increase transaction volume three-fold and increase the number of ATMs on the network six-fold. Having purchased Array Networks' scalable, high-performance SSL acceleration and application availability solution, Cash Depot has laid a solid foundation for seamlessly absorbing increased ATM traffic and continuing to grow their business.

