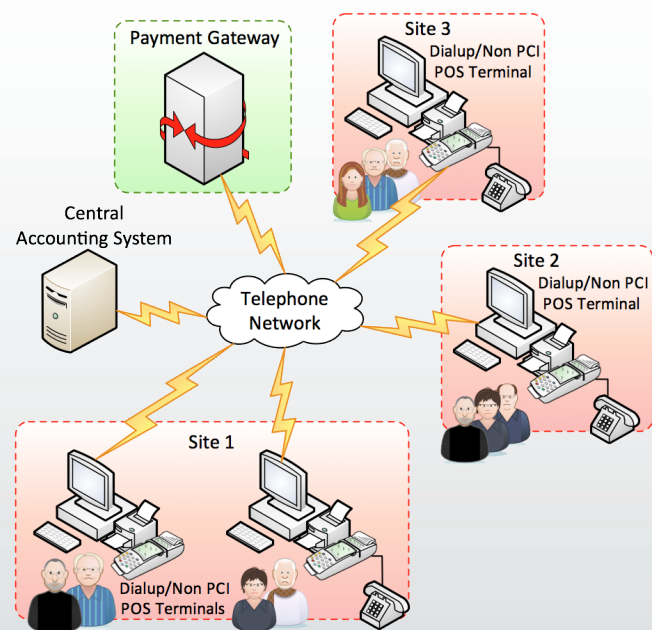# A Mako Networks Case Study - Return on Investment

This scenario illustrates why implementing a Mako solution makes sense for a small retail merchant.

Brand name and reputation mean everything in retail. Customers pick stores based on brand recognition, and a strong brand is one with a high degree of polish and professionalism. Customers want stores to look good, offer a great shopping experience, and finish with a flawless checkout procedure. In turn, retail stores count on high transaction volumes and a steady supply of inventory to keep their businesses up and running.

But the customer experience actually is supported by the systems in place behind the scenes. Inventory control needs to ensure a suitable selection of products is in each store, financial data needs to be pooled together across locations, and the payment system needs to be fast and efficient. It's imperative for retail chains that their Information Technology (IT) systems are up to scratch.

Let's take a look at how an IT system might be set up for a chain of three retail stores, selling clothing in separate cities.

There are several considerations in this scenario, principally around communication. Each store has one payment terminal used for customer transactions that connects to a payment processing company through a dial-up phone line. That same phone line is shared with the store's sole telephone, meaning that while transactions are being processed, the phone line is busy. Conversely, when the phone line is in use, customer transactions can't be processed.

The phone lines are complicating matters, and using a dial-up connection to get an authorisation means payments can be slow. What if there was a faster and cheaper way for the payment terminals to communicate with the payment processor, while still permitting the phone lines to be used freely?

Also consider that these store locations are acting as independent businesses rather than cooperating to deliver value as a unit. The three locations could be connected for collaboration, information sharing and inventory tracking to improve overall operations. And what about the customer experience? Would the stores attract more business if they offered Wi-Fi access for customers?

There's a better way this system could be set up to address these concerns and improve the overall shopping experience.
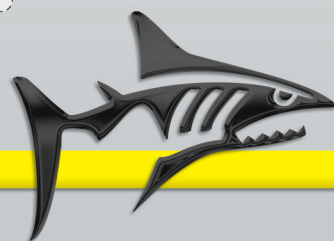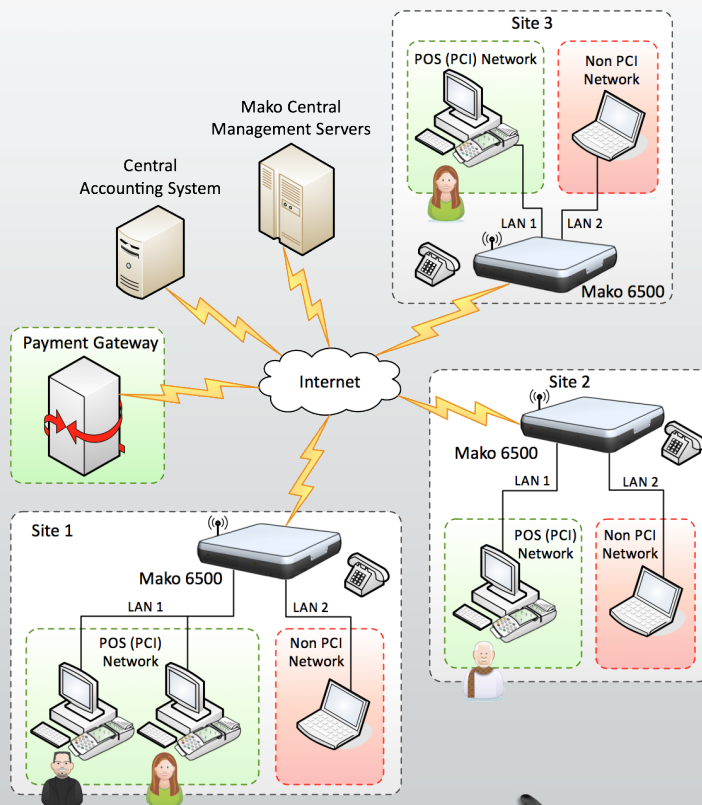

- Three store locations, geographically dispersed across the country
- One payment terminal per location
- One dial-up connection per store for the payment terminals to the payment processor
- One telephone per store for customer enquiries
- One central inventory and accounting system, independent of the stores

A Mako Networks Case Study - Return on Investment

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The first step is to switch the payment terminal network from phone lines to an Internet-based IP system complemented by a Mako Networks managed appliance. The Mako solution securely links the payment terminals, computers and store locations into one integrated system that works together as a unit to help the business run.

For example, each store now has separate Internet connections and phone lines, permitting both to be used at the same time. When stores need to add additional payment lines during busy times, like during the Christmas shopping season, expanding is as easy as plugging in an extra terminal to the Internet connection.

The Mako system can create a Virtual Private Network between store locations and the central inventory and accounting system to securely share information about stock levels and purchases, ensuring that each location has stock and products keep moving.

If stores want to provide WiFi access for customers, they can do so securely and easily. The Mako managed appliance has an option to provide secure wireless Internet access that incorporates monitoring, so stores know what websites are accessed, when, by whom and for how long. This Mako Guardian feature permits blocked or restricted access through customisable settings and an easy-to-use interface.

Should a store need technical assistance, technical support personnel can log on remotely to the computer system to diagnose and troubleshoot any issues. This alleviates the need for a site visit from a technician, or for the retail staff to have any degree of technical expertise.

But perhaps one of the most compelling reasons for the retail chain to have a Mako Networks system is reducing credit card fraud. The Mako system locks down the payment network against all of the most common forms of network tampering, including terminal manipulation or external hackers. It's a true plug-and-play solution that helps businesses comply with new security protocols from the credit card companies called the Payment Card Industry Data Security Standards (PCI DSS).

What is PCI DSS?

In 2006, the five major credit card companies – American Express, Discover Financial Services, JCB International, MasterCard Worldwide, and Visa Inc. – created the Payment Card Industry Data Security Standards (PCI DSS) to reduce the risk of credit card fraud and protect cardholder data.

These standards are a set of guidelines for businesses to make sure there are basic security steps in place to protect credit card information. While the PCI DSS can't prevent all card fraud from taking place, these standards can help substantially reduce the chances of card information falling into the wrong hands.

The standards apply to all merchants and organisations that store, process or transmit cardholder data, and also include specific requirements for any software or equipment used in the card transaction process.

Simply stated, if a business accepts or processes payment cards, it will have to address the PCI DSS in some way.

The PCI DSS consist of 12 requirements that ensure cardholder data is protected at all times, from start to finish in any transaction. But compliance is more than a simple checklist, so these criteria require regular check ups to make sure that cardholder information is always protected.

Depending on how a business is set up, meeting all of the PCI DSS requirements can be a lengthy and rigorous process. Mako Networks helps businesses reduce the scope of PCI DSS and simplify the compliance process for businesses of all sizes.

Contact information

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