TOP SECRET

"Prisons are easier to enter than Visa's top-secret Operations Center East (OCE), its biggest, newest and most advanced U.S. data center". Rick Knight, Visa's head of global operations and engineering, is responsible for its security and functioning. Why all the precautions? Because Visa acknowledges that (1) hackers are increasingly savvy, (2) data is an increasingly desirable black-market commodity, and (3) the best way to keep itself safe is with an information network in a fortress that instantly responds to threats.

Every day, Visa processes some 150 million retail electronic payments from around the globe. (Its current record for processing transactions is 300.7 million on December 23, 2011.) And every day, Visa's system connects up to 2 billion debit and credit cards, millions of acceptance locations, 1.9 million ATMs, and 15,000 financial institutions. So what seems to us a simple swipe of a card or keying in our card numbers on an online transaction actually triggers a robust set of activities including the basic sales transaction processing, risk management, and information-based services. That's why OCE's 130 workers have two jobs: "Keep hackers out and keep the network up, no matter what." And that's why Visa doesn't reveal the location of OCE— on the eastern seaboard is as specific as the description gets.

Beneath the road leading to the OCE, hydraulic posts can rise up fast enough to stop a car going 50 miles per hour. And a car won't be able to go that fast or it will miss a "vicious hairpin turn" and drive off into a drainage pond. Back in medieval days, that would have been known as the castle moat, which was also designed as protection. There are also hundreds of security cameras and a superb security team of former military personnel. If you're lucky enough to be invited as a guest to OCE (which few people are), you'll have your photo taken and right index fingerprint encoded on a badge. Then you're locked into a "mantrap portal" where you put your badge on a reader that makes sure you are you, and then put it on another reader with your finger on a fingerprint detector. If you make it through, you're clear to enter the network operations center. With a wall of screens in front of them, each employee sits at a desk with four monitors. In a room behind the main center, three security über-experts keep an eye on things. "Knight says about 60 incidents a day warrant attention."

Although hackers are a primary concern, Knight also worries about network capacity. Right now, maximum capacity is currently at 24,000 transactions per second. "At some point, over that 24,000-message limit, 'the network doesn't stop processing one message. It stops processing all of them,' Knight says." So far, on its busiest day, OCE hit 11,613 messages processed. OCE is described as a "Tier-4" center, which is a certification from a data center organization. To achieve that certification, every (and yes, we mean every) mainframe, air conditioner, and battery has a backup.