ATM Confidentiality/Integrity/Availability

Automated Teller Machine (ATM) we use them all the time, but do we really know what goes in to making an ATM secure. There are certain key aspects that deal with ATM’s; you have confidentiality, integrity, and availability requirements that make for a successful ATM.

Confidentiality

The first key is that when you use an ATM you are under the assumption that your information is confidential throughout your transaction. What it confidentiality;” confidentiality is applicable to the communications mechanism over which a service provider and service requestor interactions occurs. We capture the name, the key length and provide a link to the standard that defines the details of the encryption technique (or algorithm)” (Oaks). Confidentiality is by far one of most important aspects of ATMs it is what we want all of our information to be during an ATM transaction. ATM’s can issue three different mechanism that help to insure confidentiality they are time out, invalid card and stolen card. For the Time Out if a customer fails to enter the PIN within an allowed time limit then the card will be returned and the transaction cancelled. With the Invalid card if the card is not recognized it will be returned, and the last being a stolen card. If the ATM recognizes that the card is a stolen card it will be retained by the machine. These three step help to insure that someone else is not accessing your account information when they don’t have access. There are other steps that an ATM takes that further increases the confidentiality of the system. (akb_eee)
**Integrity**

Integrity is the second key point of ATM’s, because “The security of ATM transactions relies mostly on the integrity of the secure crypto processor: the ATM often uses commodity components that are not considered to be "trusted systems".” (Automatic Teller Machine Information, 2012) This makes it great for critical safety and financial data used for activities such as electronic funds transfers, air traffic control, and financial accounting. Information can be erased or become inaccessible, resulting in loss of availability. This means that people who are authorized to get information cannot get what they need. (Juvva, 1998) If a system cannot get user information then no one would bother using it, the integrity of the ATM gives users the knowledge that they will be able to access their information when they need it. Without integrity the system would not have the adequate confidentiality to keep user information safe.

**Availability**

Availability is one of the last key aspects of an ATM. Availability is what makes ATM’s so useful in our world. Most ATMs are connected to interbank networks, enabling people to withdraw money from machines not belonging to the bank where they have their account. This is a convenience, especially for people who are travelling: it is possible to make withdrawals in places where one's bank has no branches, and even to withdraw local currency in a foreign country, often at a better exchange rate than would be available by changing cash. (Automatic Teller Machine) The availability of an ATM does not solely depend of where the ATM is located; there is more to insuring availability than this. Another way to insure availability of an ATM is to make sure that network is running. “Availability of the network itself is important to anyone whose business or education relies on a network connection. When a user cannot get
access to the network or specific services provided on the network, they experience a denial of service” (Juvva, 1998). Without network availability the ATM would not be able to communicate with banks and there would be no way for account transactions to be processed.
Bibliography


