SNS COLLEGE OF TECHNOLOGY

(Autonomous)

COIMBATORE – 35

DEPARTMENT OF COMPUTER SIENCE AND ENGINEERING (UG & PG)

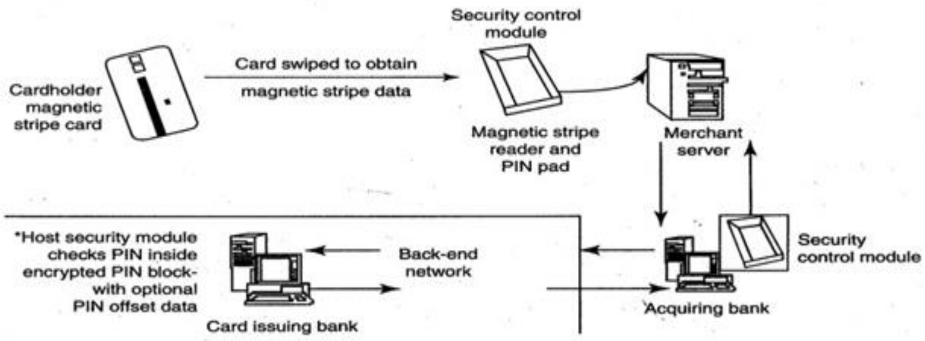
Third Year Computer Science and Engineering, 5th Semester

UNIT III - CYBERCRIME: MOBILE AND WIRELESS DEVICES

Topic Name : Credit card Frauds in Mobile and Wireless Computing Era

These are new trends in cybercrime that are coming up with mobile computing - mobile commerce (M-Commerce) and mobile banking (M-Banking). Credit card frauds are now becoming commonplace given the ever-increasing power and the ever-reducing prices of the mobile hand-held devices, factors that result in easy availability of these gadgets to almost anyone. Today belongs to "mobile computing," that is, anywhere anytime computing. The developments in wireless technology have fuelled this new mode of working for white collar workers.

This is true for credit card processing too; wireless credit card processing is a relatively new service that will allow a person to process credit cards electronically, virtually anywhere. Wireless credit card processing is a very desirable system, because it allows businesses to process transactions from mobile locations quickly, efficiently and professionally. It is most often used by businesses that operate mainly in a mobile environment.


Security control module
Card swiped to obtain magnetic stripe data
Cardholder magnetic stripe card
Magnetic stripe reader and PIN pad
Merchant server
*Host security module checks PIN inside encrypted PIN block-with optional PIN offset data
Back-end network
Security control module
Acquiring bank
Card issuing bank

There is a system available from an Australian company "Alacrity" called closed-loop environment for for wireless (CLEW). Figure above shows the flow of events with CLEW which is a registered trademark of Alacrity used here only to demonstrate the flow in this environment.

As shown in Figure, the basic flow is as follows:

- Merchant sends a transaction to bank
- The bank transmits the request to the authorized cardholder
- The cardholder approves or rejects (password protected)
- The bank/merchant is notified
- The credit card transaction is completed.