

Phreaking

Richard Baskerville
Georgia State University



What is phreaking?

Phreaking involves the theft of telecommunications, e.g. making stolen long-distance or trunk telephone calls (Phone Phreaking) or illegally using a computer network.



Why do phreaks phreak?

PPhreaks and hackers
PCall-Sell Operations



Is phreaking a serious problem?



Why isn't the equipment fixed?

P In-Band Signal Spoofs

- Newer systems redesigned
- Older systems salvaged or sold as used equipment
- Vulnerability remains in some CPE & older PTT systems

P Exchange Toll Fraud



What in-bank spoofs still work?



P Red Boxes that generate tones that indicate to the owner that coins have been deposited in the phone,

P Green Boxes (used by the receiver of the call) that generate tones instructing the originating coin phone to return the coins,

P Clear Boxes used to unblock coin phone microphones which are blocked when the paid call period has expired.



What in-bank spoofs still work?



P White Box is an ordinary touch tone generator easily available from radio and telephone electronics shops. These can sometimes be used to make calls from telephones that have no dialing switches, like courtesy telephones in airports or emergency telephones in parking garages.

Private Branch Exchange (PBX) Toll Fraud

P WATS + DISA (Wide Area Telephone Services and Direct Inward System Access)

P Finger-hack

P Digital Voice Services Tricks

P Social Engineering

P Operator Deceit

P Collect Call Deceit

P Shoulder Surfing



How can phreaking be prevented?



- P Physically disabling the DISA
- P Longer, multi-level, expiring DISA access codes
- P Physically disconnect the PBX control computers from access by networks and dial-up links.
- P Good password practices on this system should also be maintained.

How can phreaking be prevented?



- P Monitor PBX toll traffic very frequently for abuse, including weekends.
- P Check automated telephone services for outdial capability
- P Routine expire voice mailbox access codes
- P Train operators and telephone users against known "social engineering" techniques
- P Use security servers and firewalls.
