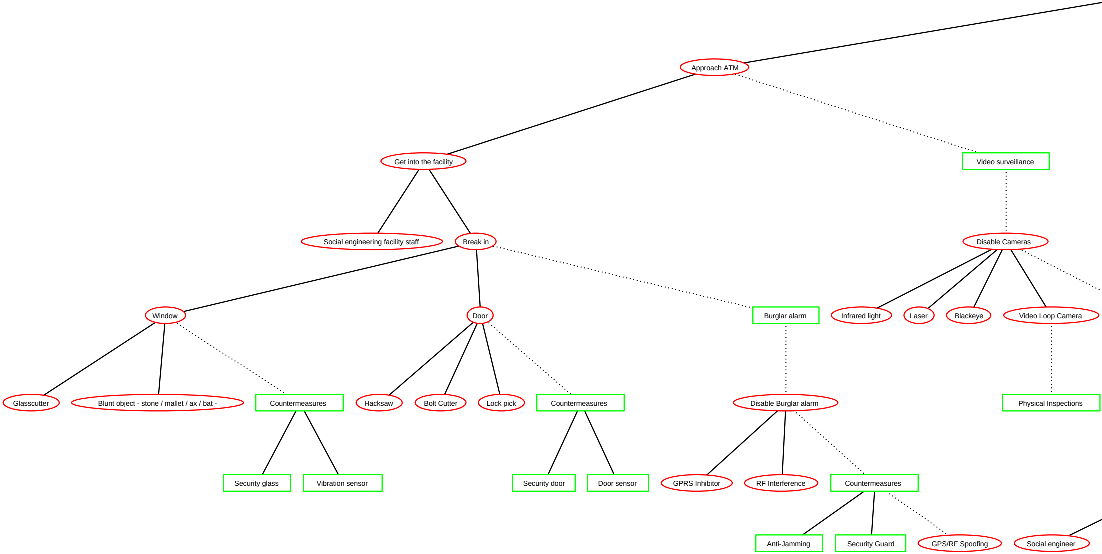
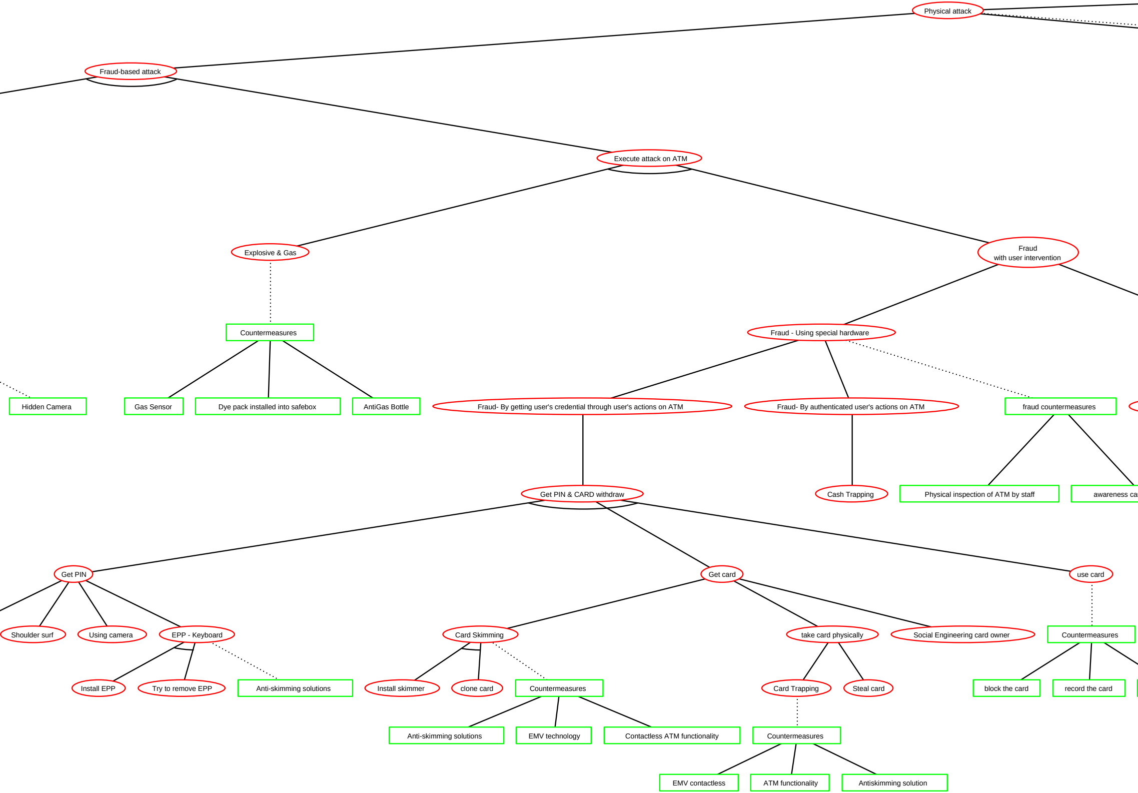
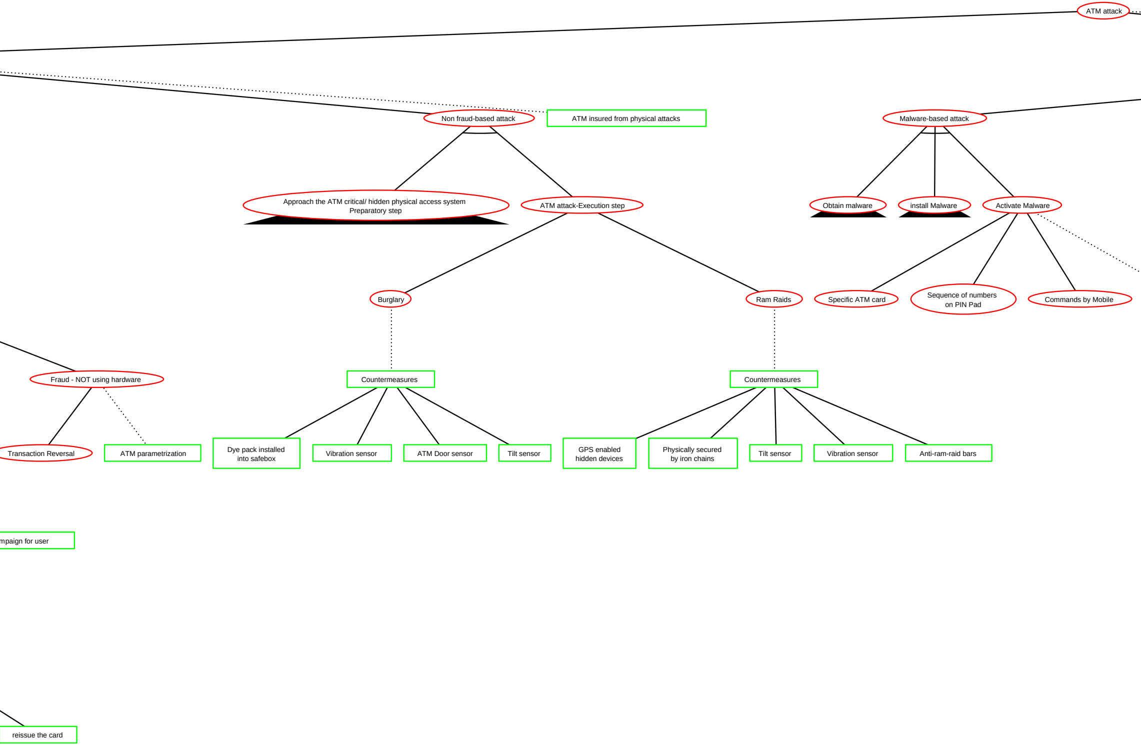
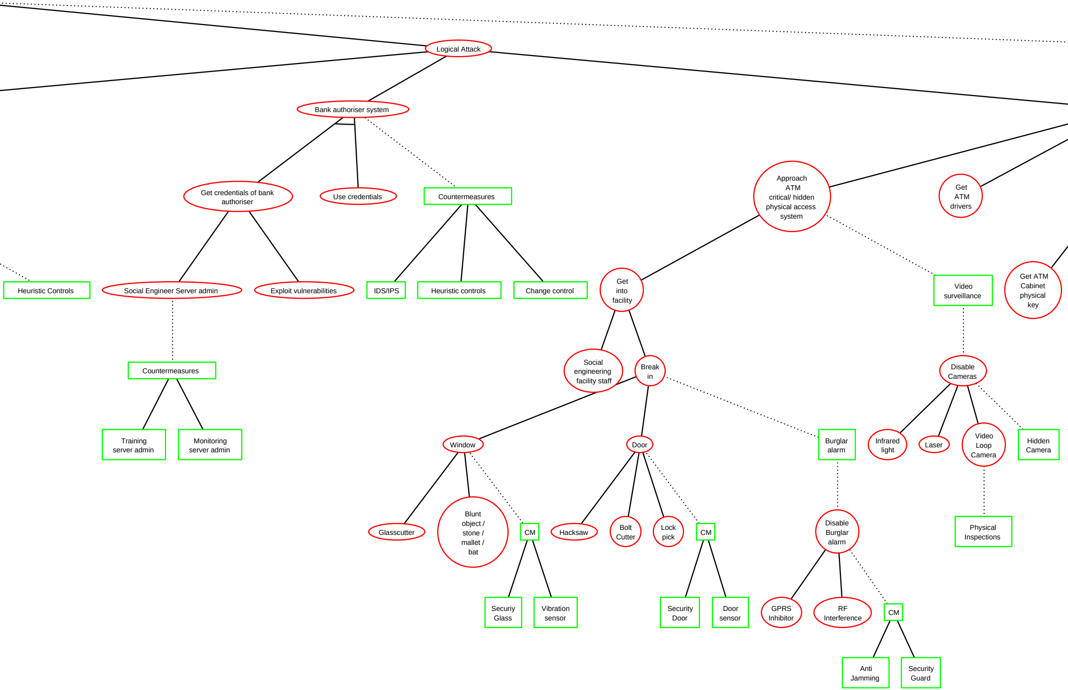

Approach ATM
Get into the facility
Video surveillance
Social engineering facility staff
Break in
Disable Cameras
Window
Door
Burglar alarm
Infrared light
Laser
Blackeye
Video Loop Camera
Glasscutter
Blunt object - stone / mallet / ax / bat -
Countermeasures
Hacksaw
Bolt Cutter
Lock pick
Countermeasures
Disable Burglar alarm
Physical Inspections
Security glass
Vibration sensor
Security door
Door sensor
GPRS Inhibitor
RF Interference
Countermeasures
Anti-Jamming
Security Guard
GPS/RF Spoofing
Social engineer


Physical attack
Fraud-based attack
Execute attack on ATM
Explosive & Gas
Fraud
with user intervention
Countermeasures
Fraud - Using special hardware
Hidden Camera
Gas Sensor
Dye pack installed into safebox
AntiGas Bottle
Fraud- By getting user's credential through user's actions on ATM
Fraud- By authenticated user's actions on ATM
fraud countermeasures
Get PIN & CARD withdraw
Cash Trapping
Physical inspection of ATM by staff
awareness ca
Get PIN
Get card
use card
Shoulder surf
Using camera
EPP - Keyboard
Card Skimming
take card physically
Social Engineering card owner
Countermeasures
Install EPP
Try to remove EPP
Anti-skimming solutions
Install skimmer
clone card
Countermeasures
Card Trapping
Steal card
block the card
record the card
Anti-skimming solutions
EMV technology
Contactless ATM functionality
Countermeasures
EMV contactless
ATM functionality
Antiskimming solution


ATM attack
Non fraud-based attack
ATM insured from physical attacks
Malware-based attack
Approach the ATM critical/ hidden physical access system
Preparatory step
ATM attack-Execution step
Obtain malware
install Malware
Activate Malware
Burglary
Ram Raids
Specific ATM card
Sequence of numbers
on PIN Pad
Commands by Mobile
Fraud - NOT using hardware
Countermeasures
Countermeasures
Transaction Reversal
ATM parametrization
Dye pack installed
into safebox
Vibration sensor
ATM Door sensor
Tilt sensor
GPS enabled
hidden devices
Physically secured
by iron chains
Tilt sensor
Vibration sensor
Anti-ram-raid bars
mpaign for user
reissue the card


Logical Attack
Bank authoriser system
Get credentials of bank authoriser
Use credentials
Countermeasures
Approach ATM critical/ hidden physical access system
Get ATM drivers
Heuristic Controls
Social Engineer Server admin
Exploit vulnerabilities
IDS/IPS
Heuristic controls
Change control
Get into facility
Video surveillance
Get ATM Cabinet physical key
Countermeasures
Social engineering facility staff
Break in
Disable Cameras
Training server admin
Monitoring server admin
Window
Door
Burglar alarm
Infrared light
Laser
Video Loop Camera
Hidden Camera
Glasscutter
Blunt object / stone / mallet / bat
CM
Hacksaw
Bolt Cutter
Lock pick
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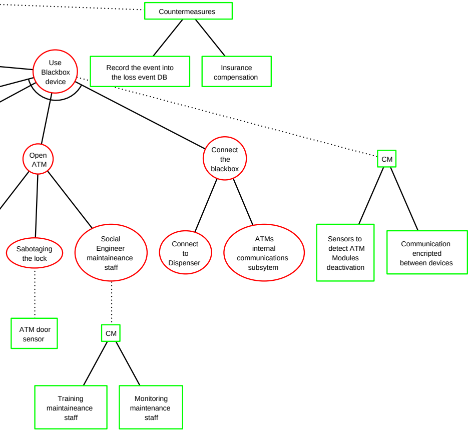
Disable Burglar alarm
Physical Inspections
Securiy Glass
Vibration sensor
Security Door
Door sensor
GPRS Inhibitor
RF Interference
CM
Anti Jamming
Security Guard


Countermeasures
Record the event into the loss event DB
Insurance compensation
Use Blackbox device
Open ATM
Connect the blackbox
CM
Sabotaging the lock
Social Engineer maintaineance staff
Connect to Dispenser
ATMs internal communications subsytem
Sensors to detect ATM Modules deactivation
Communication encripted between devices
ATM door sensor
CM
Training maintaineance staff
Monitoring maintenance staff