Hackers are Humans too

Cyber leads to CI leads

Introductions

- [redacted]
- Cyber-counter intelligence
- My primary focus is MAKERSMARK (Russia)
- CSEC – Covert Network Threat (CNT) group
  - New name, same Cyber/CI group you know and love
  - Cyber and traditional CI sitting side by side
  - Focused on Foreign Intelligence, not Information Assurance

Goals

- How do we attribute cyber intrusion sets?
- How do we go beyond the hacking face of a CNE program?
  - Expose management structure, operators
  - Requirements, technological advances
- This presentation portrays only one method
  - Passive infrastructure tasking/contact chaining
  - Many other are available

Initial Seed

- Infrastructure tasking
  - Mostly exposed through malware/content delivery
- Careful and manual monitoring of anomalous network sessions
- Nothing fancy
- Not Web 2.0, but it works

Overview

- MAKERSMARK
  - Misuse of Operational Infrastructure
  - Poor OPSEC practices

MAKERSMARK (Russian CNE)

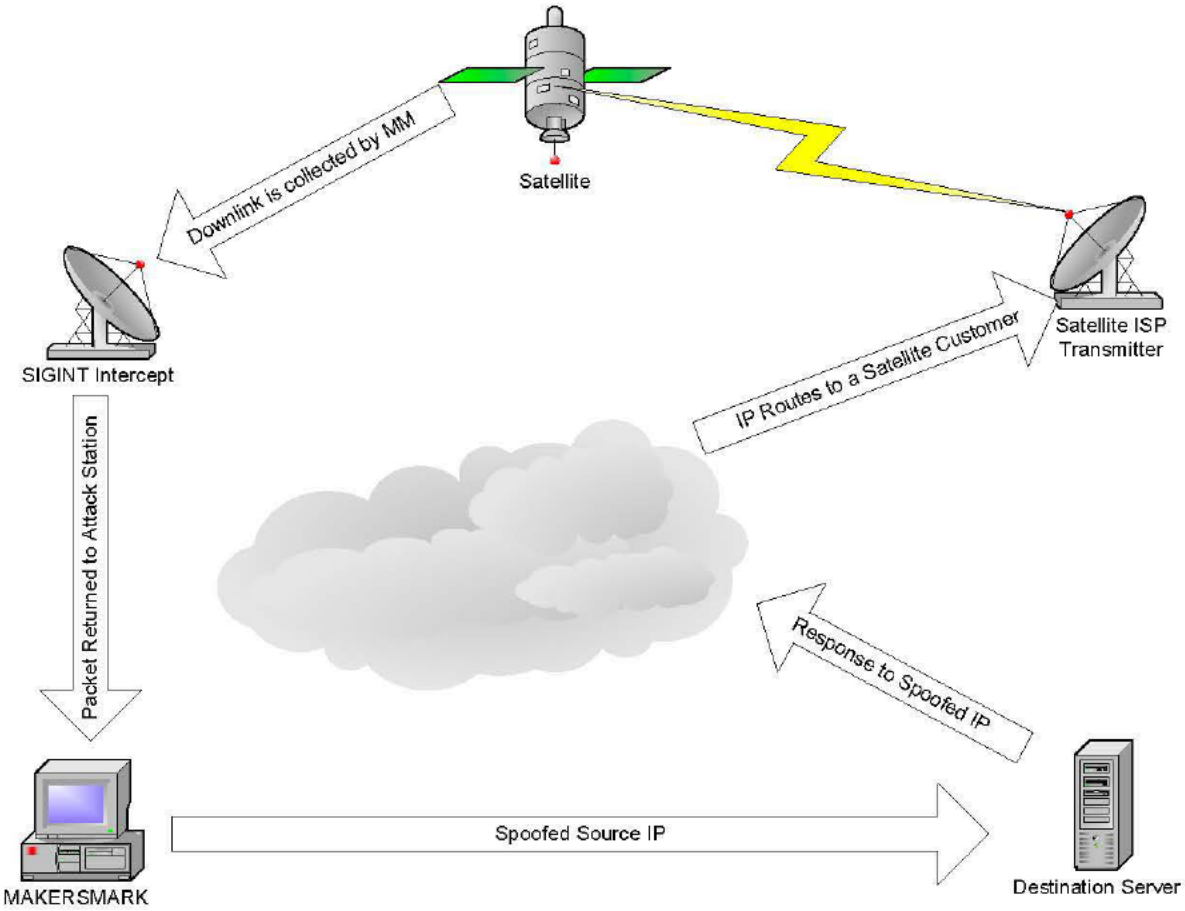
Designed by geniuses

Implemented by morons

MAKERSMARK

- The MAKERSMARK less attributed (LA) systems are really well designed
- This has not translated into security for MAKERSMARK operators
- Personal browsing through LA systems
  - Workshops, ORBs, and controllers
- Development shop infected by crimeware
  - 4th party collection

MAKERSMARK: Less Attributed Overview



MAKERSMARK: Misuse of Infrastructure

- Less Attributable infrastructure used for highly attributable purposes:
  - Hosting implant callback servers
  - Live testing of new implant protocols
  - Collecting exfiltration
- This is not CNE best practices

MAKERSMARK: Misuse of LA Systems

- Personal Social Networking
  - Vkontakt
  - (mail/inbox/bk).ru accounts
- Personal Email
  - Webmail/POP
  - Personal retrieval through masquerading infrastructure
- Personal web browsing

MAKERSMARK: 4th party collection

- Implant development shop infected by GUMBLAR botnet
  - Crimeware
  - Sends pharmaceutical spam
- Exfiltration to Canadian "bullet proof" host
  - HTTP/FTP logins
  - Collection of MM operator browsing habits
  - MM LiveJournal accounts included in collection

Closing Remarks

- You have to keep an eye out
  - A lot of value can be lost by not following leads
  - Typically the window to exploit information is short
  - Knowing what to look for is half the battle
- These exploitation opportunities don't last forever
- As a CNE program matures, so will its OPSEC

Questions?