Mobile Hacker Spaces

Thomas Wilhelm
About the Talk

• Concept behind Hacker Spaces
• (Dis)Advantages of Mobile Hacker Spaces
• Real-World Example
About the Talker

• Thomas Wilhelm
  – Contributing Author:
About the Talker

• Thomas Wilhelm
  – Certifications: ISSMP CISSP SCSECA...
  – Work:
    • Fortune 50 Company
      – Penetration Testing & Risk Assessments
    • Adjunct Professor
  – Education:
    • PhD Student (IT - Information Security)
Concept Behind Hacker Spaces
(Sorry if you know this already)

• Definition (hackerfoundation.org):
  – Any gathering of Hackers as a community to share ideas, collaborate on projects or merely enjoy each other's company could be considered a hacker space.
  – 4 Types:
    • Local Gatherings
    • Conventions
    • Hacker Group Living Situations
    • Fixed Hacker Research Spaces

My mind – “Oooh! I want one!”
Hacker Spaces

- A Few Hacker Spaces:
  - CCC: Chaos Computer Club
    - 2k+ members
  - C-Base
    - 300 members
  - NYC Resistors
    - 18 members

*My Mind – “Larger than what I’m willing to do”*
Cost of a Hacker Space

• Cost:
  – C-Base (300 members)
    • July – Almost went bankrupt
    • Received “20,000 of the needed 30,000 Euros needed in 6 weeks”\(^1\)
  – NYC Resistors (18 members)
    • “can get a place near Lemur, looking at around $2,250”\(^2\)
  – Local Rent: 1250 sq.ft. @ $800/mo

*My Mind – “Just too expensive”*
Hacker Spaces - Ideas

• Garage
  – Advantages:
    • Free (not really, but at least not extra)
    • Power
    • Convenient
Hacker Spaces - Ideas

• Garage
  – Disadvantages:
    • Cold in winter (live in Colorado)
    • Availability to users
    • …and (yes, you guessed it)…
Hacker Spaces - Ideas

What... a... dump.

My Mind – “Yeah... I’m not cleaning that.”
Hacker Spaces - Ideas

• Other ideas:
  – Room in house
    • Too Stressful
  – Diners / Restaurants
    • No permanency
  – Local College
    • Scheduling / Sponsorship
Brainstorming

• What did I want:
  – Cheap (I’m a student, remember?)
  – Isolated from neighbors
  – Modular
  – Place for classes
  – Cool (optional…. VERY optional)
Mobile Hacker Space

• Used Buses
  – Minibus Chevy 3500 Diesel 1999 USD $15,900
  – Charter bus Chevy P-30 1995 USD $4000
  – Minibus GMC Shuttle Bus 2002 USD $22,950
  – Minibus International Goshen 1999 USD $23,000
  – Minibus Ford E-350 Diamond 1999 USD $14,500
  – Charter bus Prevost/LeMirage 1989 USD $30,000
  – Minibus Ford Krystal KK28 2003 USD $39,000
  – Charter bus Eagle/Series 15 1989 USD $19,000
  – Charter bus Jonchere 1984 USD $12,000

http://www.used-buses.net
Mobile Hacker Space

- Class B Motor home
  - A van-sized camper
Let’s Get These Out of the Way, Now…

• Answers to FAQs:
  – YES, I know the 70s want it back
  – NO, there is no shag carpet in it… (now)
  – NO, I do NOT live down by the river
  – NO, I don’t have candy in there for little kids
Mobile Hacker Spaces

• Advantages
  – Mobile (duh!)
    • Park it anywhere
      – Park, coffee shop, friends house, Restaurant
    • Go to where the hacking opportunities are
      – Wardriving, conventions, gatherings
  • Mobile classroom
Mobile Hacker Spaces

• Advantages
  – Cost is minimized
    • Purchase price + gas + insurance
  – Supports large range of people
    • Small groups inside (max 8)
    • Large groups outside (based on hardware)
Mobile Hacker Spaces

• Advantages
  – Modular
    • Equipment can be switched out
    • Interior can be changed depending on project needs
  – Storage space for hauling
    • Events, long distance travel
Mobile Hacker Spaces

• Disadvantages
  – Mobile (duh!)
  • Gas is ridiculous
  • Insurance costs
  • Wear and tear
  • Theft
  – Limited Space
  • Cannot buy more square footage
Mobile Hacker Spaces

• Disadvantages
  – Electricity (HUGE limiter)
    • Batteries
      – Square footage is limited
      – Expensive / Expansive
  • Plug into the grid
    – Limits your mobility
Mobile Hacker Spaces

- Disadvantages
  - Subjected to the elements
    - Air circulation varies
    - Heat of equipment
    - Unwashed bodies
  - Colorado = Friggin’ Cold
  - Las Vegas = Friggin’ Hot
  - No fun hacking in the rain
Making a Mobile Hacker Space
Making a Mobile Hacker Space
Making a Mobile Hacker Space

• Different Interior Configurations
  – Workspace
    • Laptops
  – Lecture
    • Video Presentations
    • Demonstrations
Making a Mobile Hacker Space

• **Workspace** (2 people)
  –Pegboard
  –Shelving Unit
  –Power Strip
  –Switch
  –Plenty of wall space for whatever else
Making a Mobile Hacker Space

• Lab Space
  – Overhead “bunk”
  – 20+ sq. ft
  – Needs to be secured during travel
Making a Mobile Hacker Space

- **Cost Breakout:**
  
  - Original Purchase Price: $2,000
  
  - Cost of Interior Components: TBD
    (No Computer / Network Gear)
      
      - 5 Panels w/ Shelving: TBD
      - Hanger Framework: TBD
      - Flooring: TBD
  
  - Total: TBD
Lab (currently) fully loaded:

- 4 networks
  - 2 Wireless (1 Internet, 1 Intranet)
  - 2 Hardwire (1 Internet, 1 Intranet)
- 2 Servers
  - VMware (if Windows is OS)
Mobile Hacker Space Projects

• Hardware/Software
• Vehicle
• Interior / Special projects
Mobile Hacker Space Projects

• Hardware/Software
  – Wireless
    • War driving
    • Honeypot
  – Hardwire
    • De-ICE.net Pentest LiveCDs
Mobile Hacker Space Projects

- Vehicle
  - Electrical Improvements
    - Battery bank under vehicle
    - Invertors
    - Solar Panels / Wind Generator
Mobile Hacker Space Projects

- Interior / Special projects
  - Solar Power
    - 24x7 power for lab
  - Wired / Wireless sound system
  - Internet Security System
  - Voice Activation System
Conclusion

• Questions?

• Contact: twilhelm@herot.net
• Project Site: http://De-ICE.net