Cyber Security: SME’s & The Common Man

Hitesh Dharamdasani
Engineer, Informant Networks
Who am I?

- Security, Privacy, Cyber Crime
- GIT > George Mason > UC Berkeley > FireEye > With you
- Extensive research on Cyber Crime, Internet threats
- Currently Informant Networks & CESR
- I love the Internet, A LOT!
- http://hitesh.xyz
Agenda

• What is Cyber Crime?
• How global and local is cyber crime
• Cybercrime in our very own city
• How to be safe on the Internet
• Security and Privacy for SME
US agency in charge of power grid and nukes keeps getting breached

by John Zorabedian on September 11, 2015 | Leave a comment
FILED UNDER: Data loss, Featured, Law & order, Security threats

The government records show cyberattackers successfully compromised the DOE 159 times between October 2010 and October 2014, and was attacked a total of 1131 times during that period.

USA Today reports that 53 of the successful attacks were root compromises, meaning the attackers had administrator privileges on compromised DOE computer systems.

Of the 159 successful intrusions, 90 compromised the DOE Office of Science, which conducts energy research, and another 19 attacks compromised the National Nuclear Security Administration - the agency in charge of securing the nation's stockpile of nuclear weapons.
Please interrupt me at any point in time

You ask questions based on what you want to know,
You feel better, I feel better

Thats kind of the whole point anyways
"The best minds of my generation are thinking about how to make people click ads"

– Jeff Hammerbacher
Chief Scientist, Cloudera

“That Sucks”

- Hitesh
“The answers to your secret questions are probably on your <Social Network> page”

Social Network Options:
- Facebook
- Twitter
- Instagram
- Google Plus
- Pintrest
- …
Talk about growth

India lost Rs 34,200 crore to cybercrime last year

‘Consumer cybercrime cost India $8bn in a year’

Mumbai: Software security services provider Norton on Wednesday said consumer cybercrime has cost the country around Rs 42,000 crore in the past 12 months, impacting 42 million people.

Karnataka top cop loses 10,000 to phishing

3 Railway Loco Pilots Lose Rs 45,000 to Phishing

Bengaluru: About two months ago, State DG & IGP Om Prakash became a victim to this high-profile case points at the fact that average persons are even more gullible to such scams through the Internet.
Clearly, The problem is not solved
*need to give them my phone number*
“I tell people that if it’s in the news, don’t worry about it”

- Bruce Schneier
But we are in Belgaum
From least to most saddening

• The APMC Police station gets ~50 complaints relating to cyber theft (1/8th)

• 3 to 4 Industries in Belgaum have experienced Ransomware and had to pay 50-60K to get data back

• 2 companies lost an amount in crores because employees stole design documents via pen drives

• Some students from Computer Science in GIT have fallen victim to Phishing scams for jobs

• Sadly, I have only been looking for 4 months
Why do we have malware

• Ever wondered
  • Why you got spam for Pharma products?
  • Why is there more free Microsoft software than paid
  • More versions of pirated content than real content
  • Because its profitable!
  • Spam generates $9500 per day for its creators
  • Information is value
Identities = Money

• A name, address, phone number costs $3 on the internet

• 10 Million Yahoo accounts cost $25

• A credit card costs $10 (Depends on country)

• Voter ID, Drivers License, Social Security Number, Social Accounts and Your computer. All have a price

• Also, There are no free iPads/iPhones/iPods, just like there are no free lunches
And then this happens
The solution

• For the common man, Awareness is everything

• Don’t click on links sent by unknown individuals

• Also, There are no free iPads *can’t emphasize enough*

• Run an Anti-virus and Update it every single day

• Run genuine up-to-date software and install all updates

• Don't download and use apps/software from non-trusted sources

• If possible. Separate system for monetary work. Bank/Taxes Etc
What about SME?

• Not too big, Not too small, Just Perfect

• Monitor Everything. Even browsing to a page

• Firewalls block only what is known to be bad

• Anti virus needs updates, Updates only once per day. Too slow

• The Target/Sony/Home Depot hack
Knowing is *everything*

- Enable robust monitoring
- Keep a record of everything. Like CCTV tapes for the computer network
- Conduct Cyber Security awareness programs for staff and higher management
- Security measures are like insurance, You pay the premium with a hope that you never need it
Suggested Reading
Selfish promotion:
Includes some of our research

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Questions?