CURRENT CYBER THREATS

Cyberwar, consumerisation of IT and APT, or new trends in computer security

IT SECURITY ACADEMY

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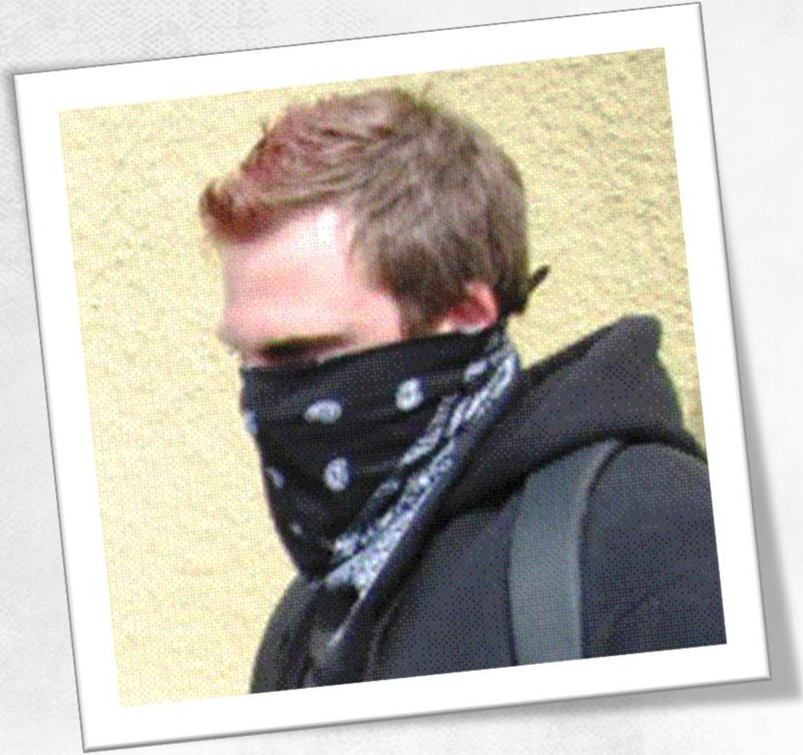
INTRODUCTION

The world of computer system connected to the Internet may prove dangerous for users if you downplay its perils:

- It follows its own rules
- Sticking to the rules doesn’t bring immediate benefits and may turn into a tedious routine, while bypassing or even flouting rules is often easy and not considered risky
- Computer experts have a vastly wider knowledge and interest in security than the average user
- For the longest time, there’s been an arms race between security specialists and cyber criminals
- The criminals have the upper hand now

- **The goal of this course is to understand why we are losing this war**

INTRODUCTION

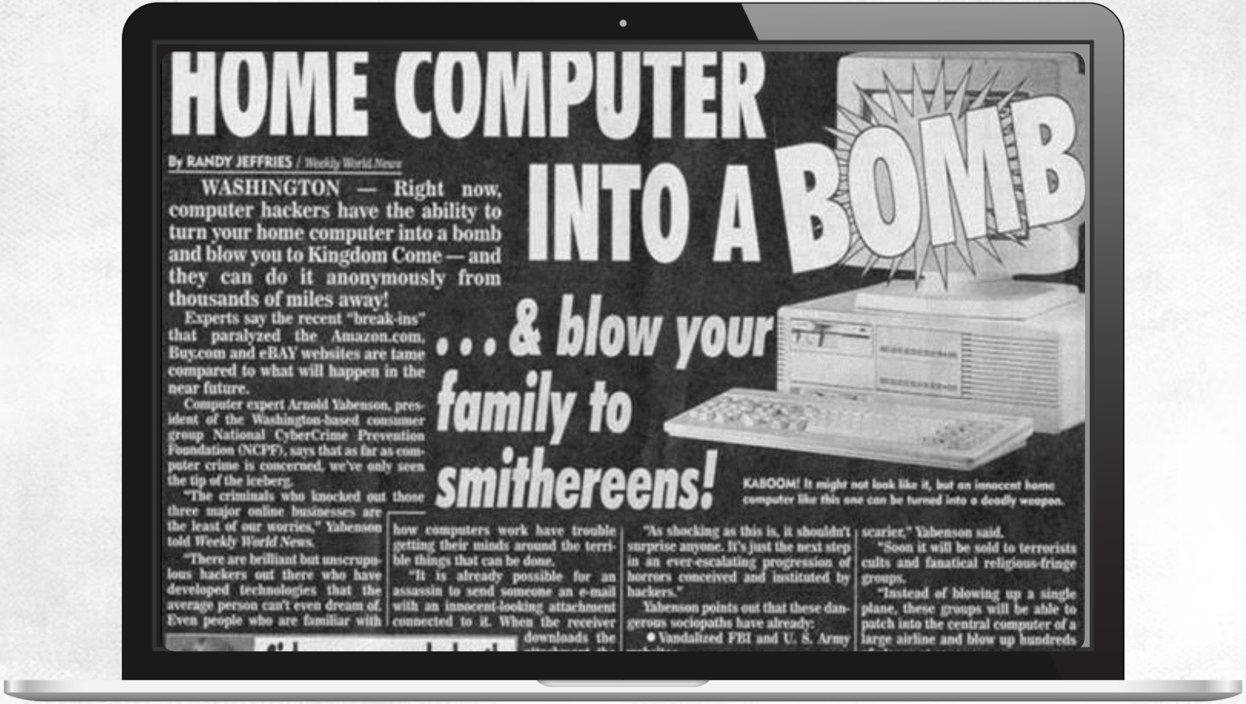


LET'S SAY THERE ARE TWO BILLION INTERNET USERS WORLDWIDE, ALL OF THEM PROTECTED AGAINST 99% OF THREATS

Even if each user is only attacked once a month, statistically 20 million attacks monthly reach their targets and compromise the systems, meaning 240 million machines become infected yearly

PREHISTORY

The 1990s: Fear of the Unknown



HOME COMPUTER INTO A BOMB

. . . & blow your family to smithereens!

By RANDY JEFFRIES / *Weekly World News*

WASHINGTON — Right now, computer hackers have the ability to turn your home computer into a bomb and blow you to Kingdom Come — and they can do it anonymously from thousands of miles away!

Experts say the recent "break-ins" that paralyzed the Amazon.com, Buy.com and eBAY websites are tame compared to what will happen in the near future.

Computer expert Arnold Yabenson, president of the Washington-based consumer group National CyberCrime Prevention Foundation (NCPF), says that as far as computer crime is concerned, we've only seen the tip of the iceberg.

"The criminals who knocked out those three major online businesses are the least of our worries," Yabenson told *Weekly World News*.

"There are brilliant but unscrupulous hackers out there who have developed technologies that the average person can't even dream of. Even people who are familiar with how computers work have trouble getting their minds around the terrible things that can be done.

"It is already possible for an assassin to send someone an e-mail with an innocent-looking attachment connected to it. When the receiver downloads the

"As shocking as this is, it shouldn't surprise anyone. It's just the next step in an ever-escalating progression of horrors conceived and instituted by hackers."

Yabenson points out that these dangerous sociopaths have already:

- Vandalized FBI and U. S. Army

scarier," Yabenson said.

"Soon it will be sold to terrorists cults and fanatical religious-fringe groups.

"Instead of blowing up a single plane, these groups will be able to patch into the central computer of a large airline and blow up hundreds

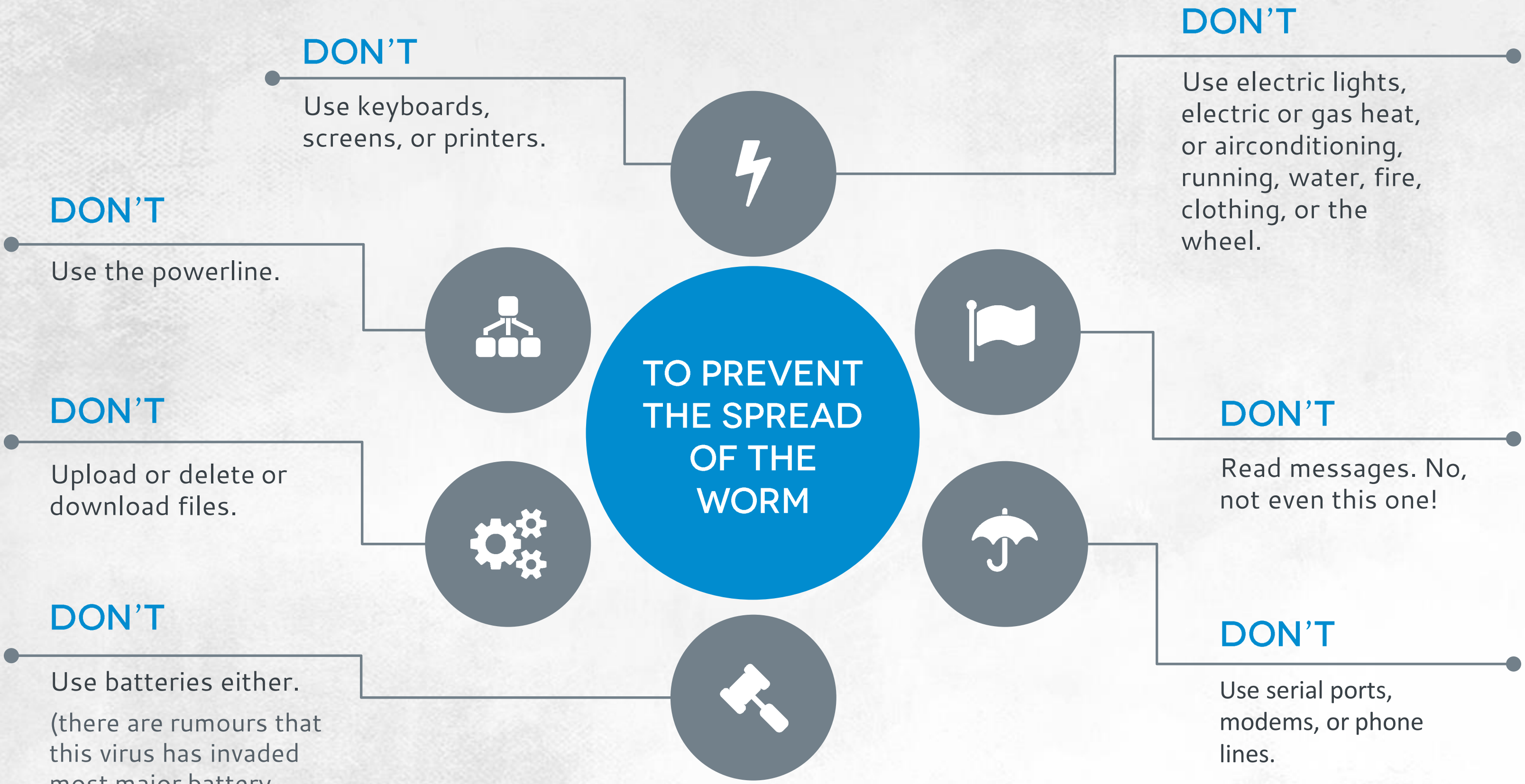
KABOOM! It might not look like it, but an innocent home computer like this one can be turned into a deadly weapon.

PREHISTORY

The 1990s: Fear of the Unknown

WARNING:

There's a new virus on the loose that's worse than anything I've seen before! It gets in through the power line, riding on the powerline 60 Hz subcarrier. It works by changing the serial port pinouts, and by reversing the direction one's disks spin. Over 300,000 systems have been hit by it here in Murphy, West Dakota, alone! And that's just in the last 12 minutes.



TO PREVENT THE SPREAD OF THE WORM

DON’T

Use keyboards, screens, or printers.

DON’T

Use the powerline.

DON’T

Upload or delete or download files.

DON’T

Use batteries either.

(there are rumours that this virus has invaded most major battery plants, and is infecting the positive poles of the batteries.)

DON’T

Use electric lights, electric or gas heat, or airconditioning, running, water, fire, clothing, or the wheel.

DON’T

Read messages. No, not even this one!

DON’T

Use serial ports, modems, or phone lines.

HISTORY

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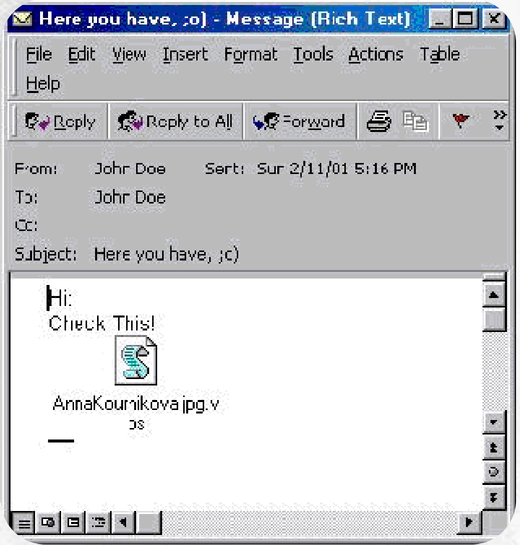

Here you have, ;o) - Message (Rich Text)
File Edit View Insert Format Tools Actions Table Help
Reply
Reply to All
Forward

From: John Doe Sent: Sun 2/11/01 5:16 PM

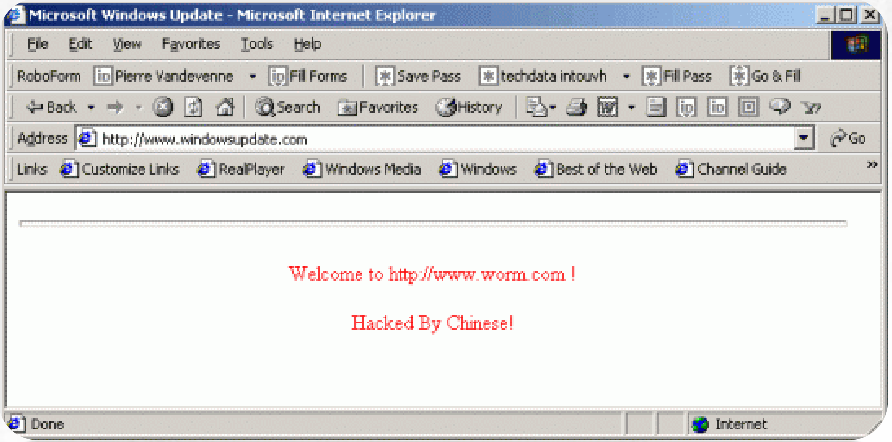
To: John Doe

Cc:

Subject: Here you have, ;o)

Hi:
Check This!

AnnaKournikova.jpg.vbs


Microsoft Windows Update - Microsoft Internet Explorer
File Edit View Favorites Tools Help
RoboForm Pierre Vandevenne Fill Forms Save Pass techdata intouvh Fill Pass Go & Fill
Back Search Favorites History
Address
Go
Links Customize Links RealPlayer Windows Media Windows Best of the Web Channel Guide
Done
Internet

http://www.windowsupdate.com

Welcome to http://www.worm.com !

Hacked By Chinese!

HISTORY

CODE RED:

- Exploited an IIS server vulnerability to deface affected websites
- Infections doubled every 27 minutes
- Every 20 or 27 days, it run denial of service attacks against selected web servers

HISTORY

NIMDA:

- Propagated in 12 different ways
- Infected more than 2 million computers in three days

KLEZ:

- Spread over the entire web in just 2.5 hours

NOW
RECENT YEARS:

The Cyber Crime Era

NOW RECENT YEARS:

The Cyber Crime Era

ZOTOB (2005):

- THE FIRST COMMISSIONED VIRUS TARGETED SPECIFIC COMPANIES, WAS WRITTEN TO MAKE A PROFIT.
- "IT'S ALL ABOUT MAKING MONEY, AND [I] DON'T CARE IF PEOPLE REMOVE THE WORM BECAUSE IT'S THE SPYWARE STUFF THAT [I] INSTALL THAT'S MAKING [ME] THE MONEY" ATILLA EKICI, ONE OF ZOTOB CREATORS

Fame-seeking is no longer a motivator for attackers. They are now profit-driven

The lack of mass media coverage on viruses doesn't mean computer systems have become more secure lately: quite the opposite

CYBER CRIME

It's an Evolution, not Revolution

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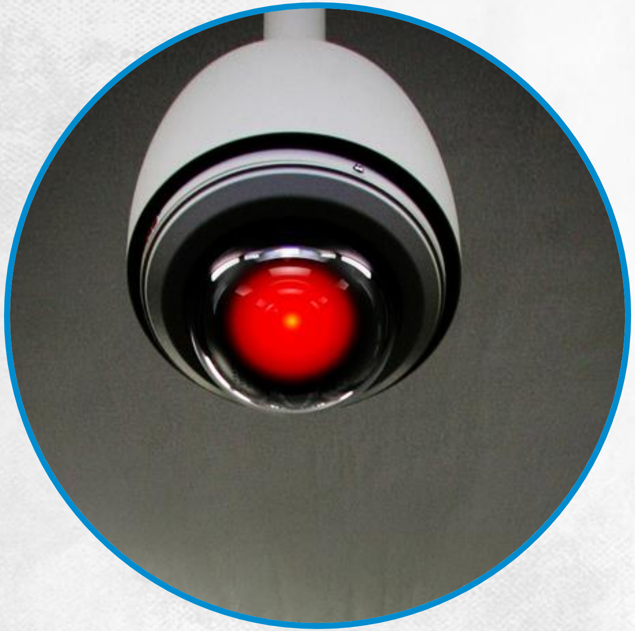
Most security solutions only protect you from a fraction of threats



85%

HERE'S WHAT YOU'LL LEARN IN THIS MODULE:

What popular beliefs about computer systems security are in fact just myths?

Does organised crime taking an interest in computer systems security change its landscape?

What is a cyberwar?

HERE'S WHAT

YOU'LL LEARN IN THIS MODULE:

How has the consumerisation of IT reshaped our security?

What types of attacks threaten every computer system?

What is the ultimate objective of the attacks?

SEE YOU

IN THE TRAINING