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UVEDOMUJTE SI HROZBU  
VYDIERAČOV, BUĎTE JEDEN KROK  
PRED NIMI

■ Tempest  
IT makes sense

JUDGMENT  
DAY 12

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SE Manager, Check Point Software Technologies

WE LIVE  
IN AN  
**AMAZING**  
WORLD

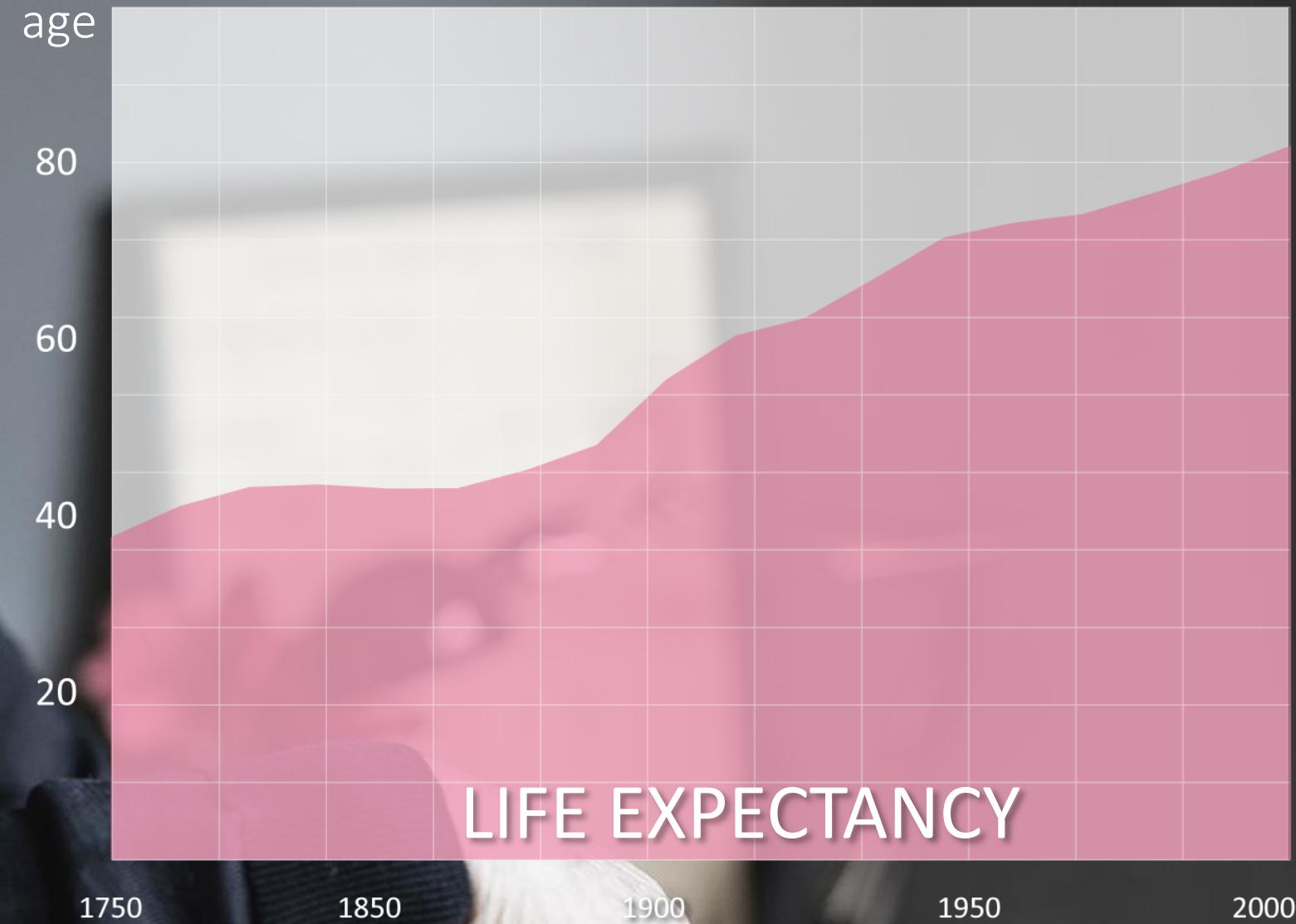




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WE LIVE LONGER

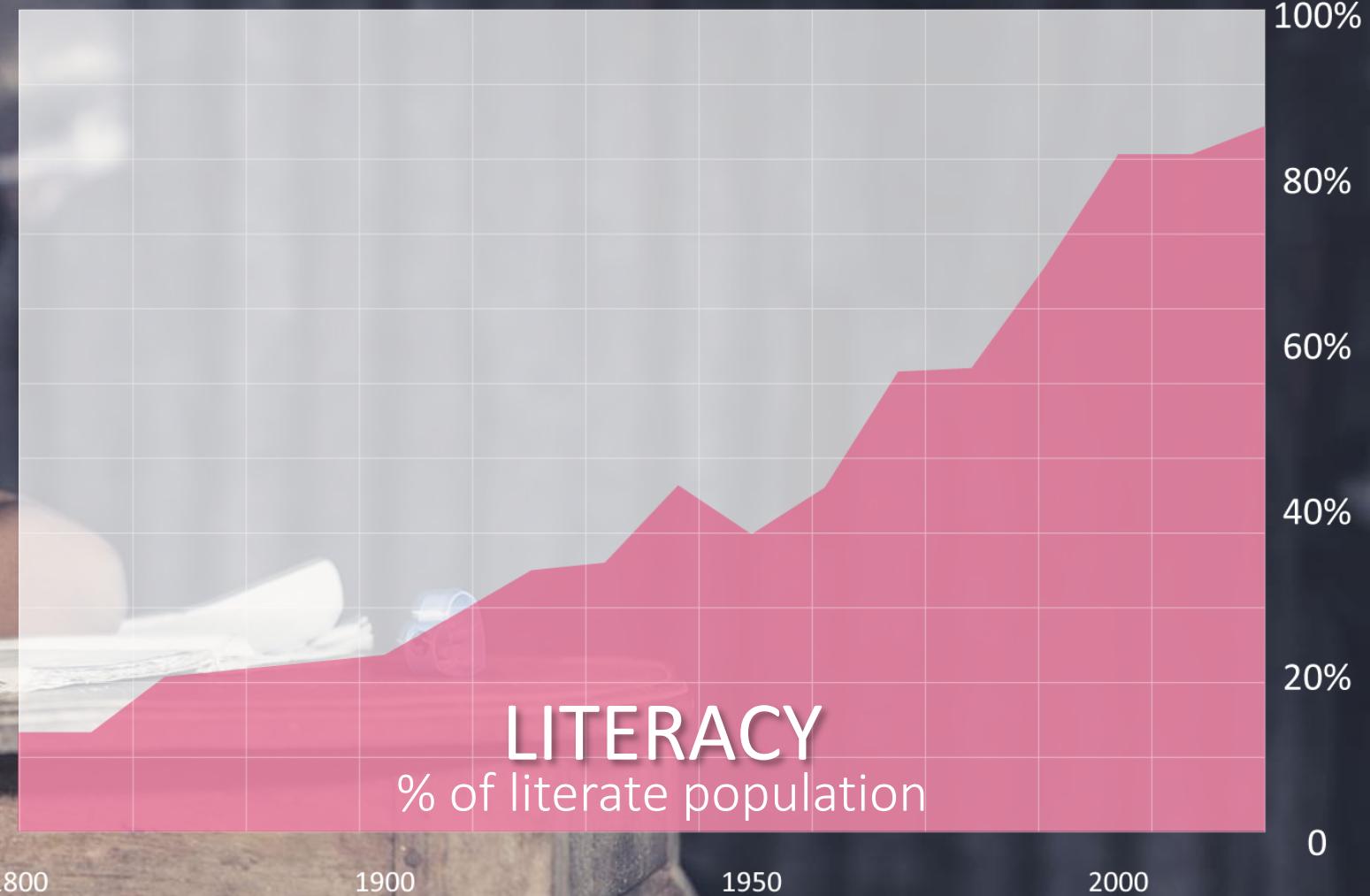


Source: ourworldindata.org



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# WE GET BETTER EDUCATION



Source: [ourworldindata.org](http://ourworldindata.org)

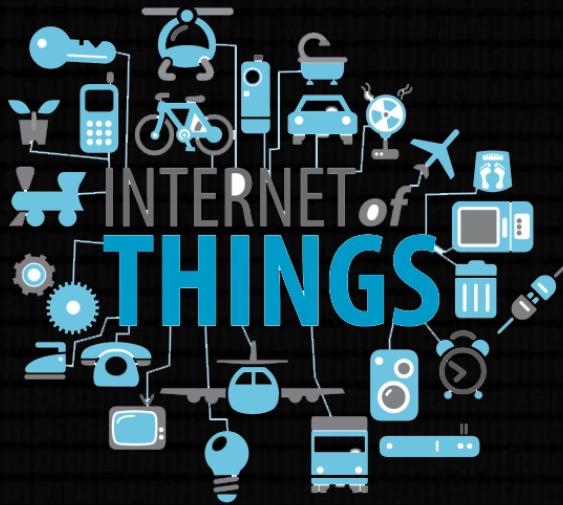
# OUR LIFE IS MORE COMFORTABLE



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Mobile Devices



IOT



Autonomous  
systems





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# TECHNOLOGY EVOLUTION IS EXPONENTIAL

# TAKE 30 LINEAR PACES...



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30 Meters



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TAKE 30 EXPONENTIAL Steps...

26X

Around the Earth!

1,073,741,824 Meters

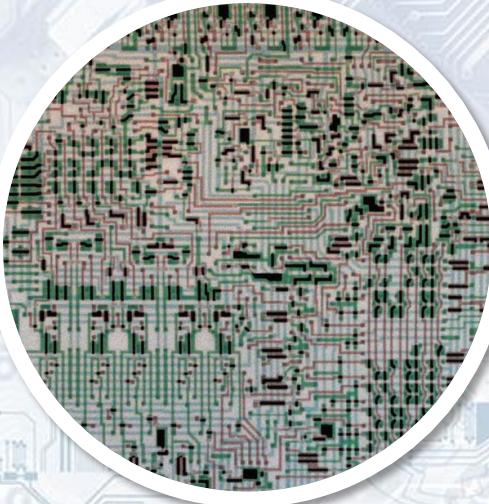
# THE FUNDAMENTAL OF EXPONENTIAL TECHNOLOGY

Moore's law



**1951**

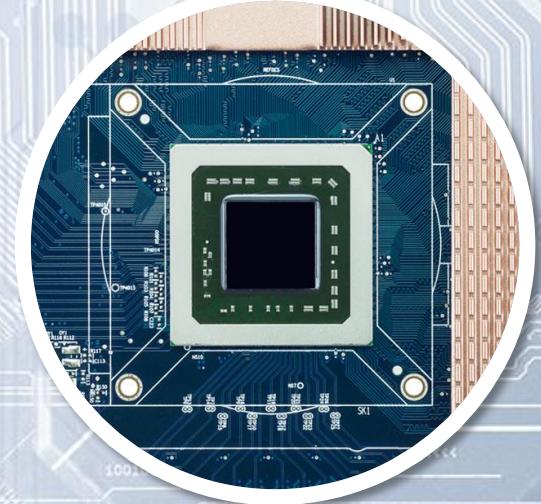
**2 Transistors**



**1971**

Intel 4004

**2300 Transistors**  
**\$1**



**2012**

Nvidia GPU

**7.1 B Transistors**  
**\$0.0000001**

NETWORKED  
SUPERCOMPUTERS  
IN OUR POCKET



1 iPhone holds 50,000 of these

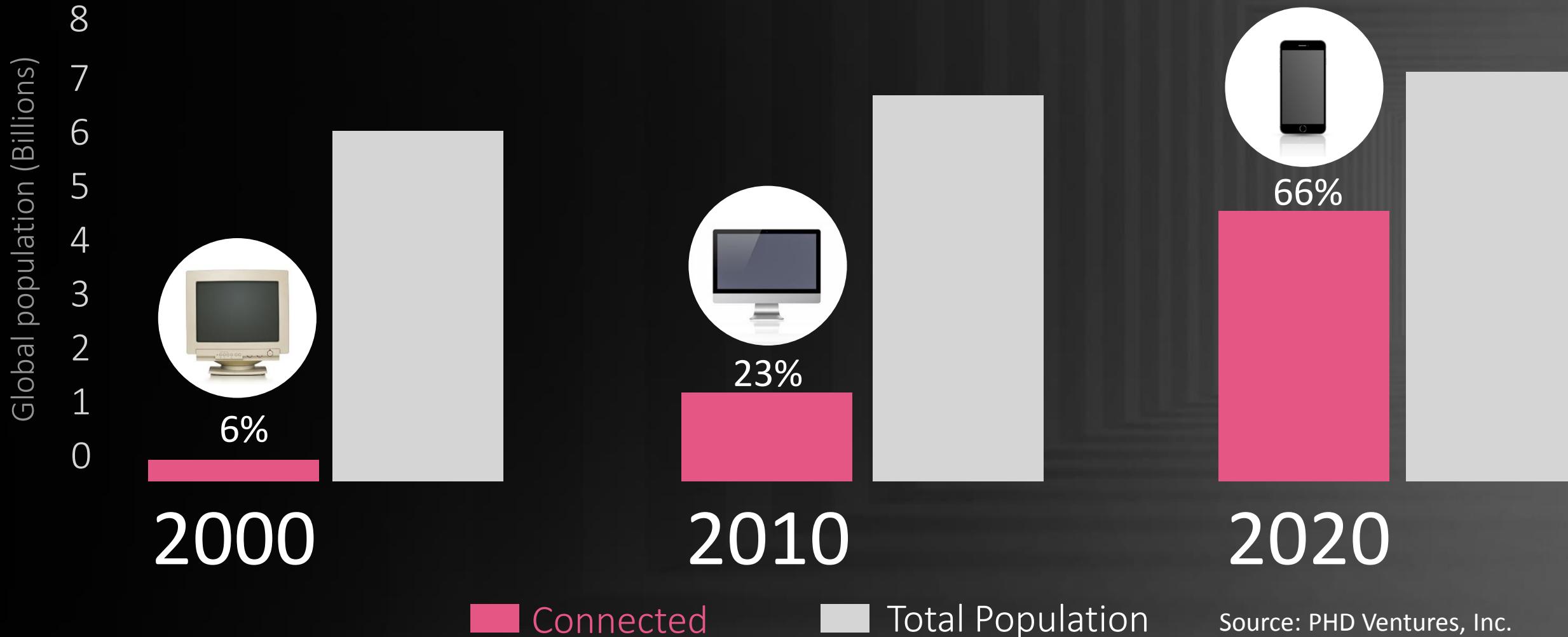




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# THE CONNECTED WORLD 5 BILLION NEW MINDS

% world population using internet



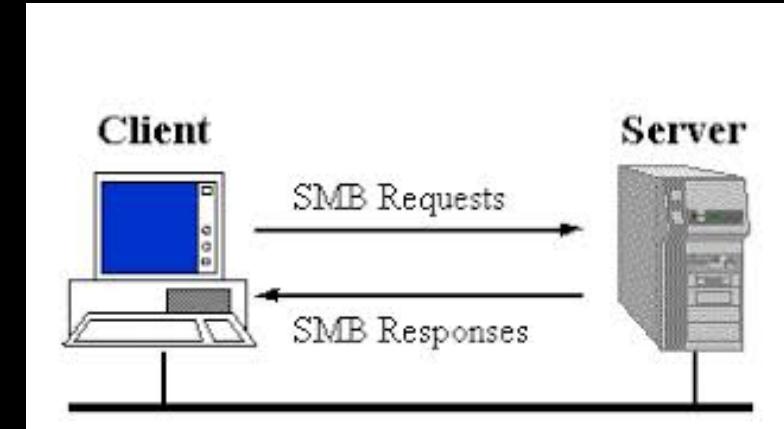
# 1 DAY FOR WANNACRY

- More than 150.000 machines infected within single day
- 150 countries affected
- Estimated loss \$4 billion USD



# Wannacry

- SMB – network protocol mainly used for providing shared access to files, printers, and serial ports and miscellaneous communications between nodes on a network.
- „Weapon-grade“



# THE PLAYERS



## CYBER CRIMINALS

## STATE SPONSORED CYBER AGENCIES

### TARGET

CONSUMERS AND ALL ENTERPRISE

CRITICAL INFRASTRUCTURE & LARGE ENTERPRISES

Mass infection

Targeted attacks

### MOTIVATION

FINANCIAL

POLITICAL

### THREATS

UNKNOWN MALWARE

ZERO-DAY

### SOPHISTICATION LEVEL

MEDIOCRE

WEAPON GRADE

### INVESTMENT

LOW

NATIONAL BUDGETS

### EXAMPLES

SAN FRANCISCO MTA,  
WANNACRY, NOTPETYA, EQUIFAX

UKRAINE POWER GRID, SONY HACK

# Monetizácia ?



DoS 2.0 ?

# Ransomware



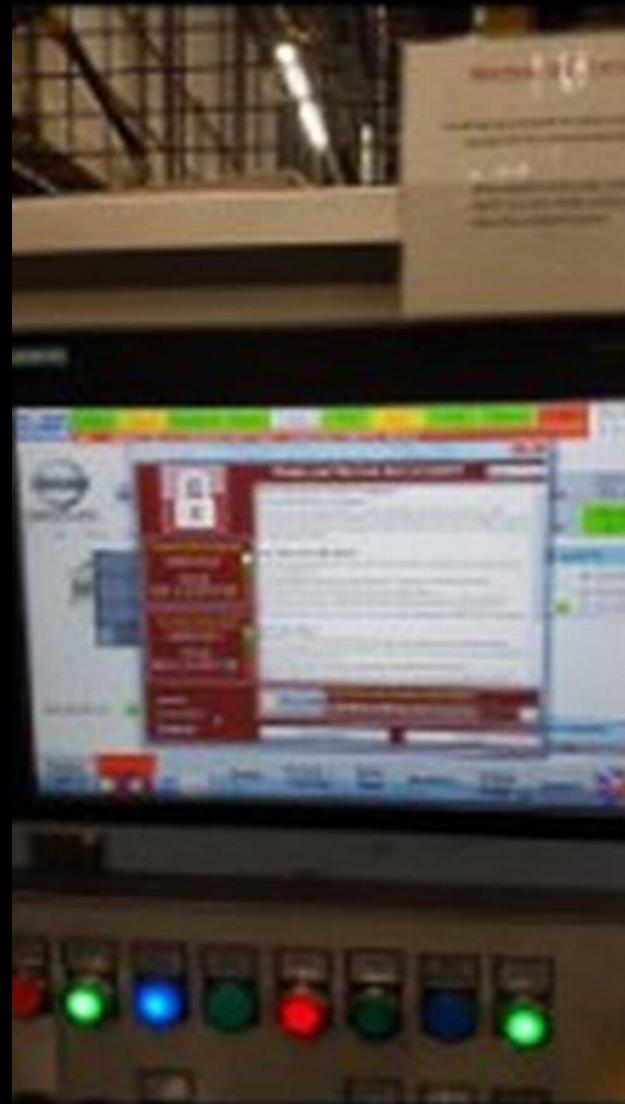
# Ransomware



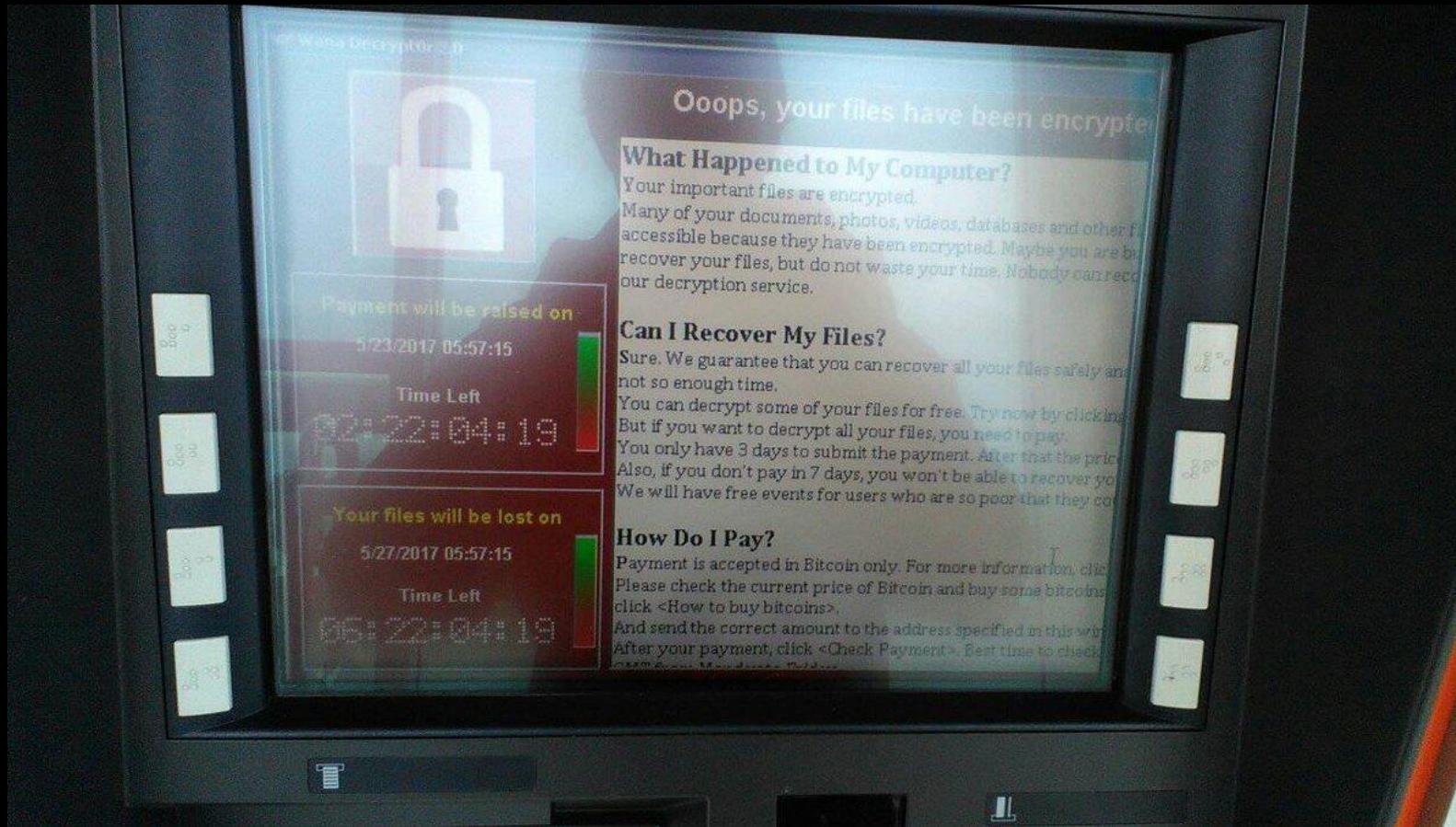
# Ransomware



# Ransomware



# Ransomware



# Ransomware



# Ransomware



Čo s tým?

PREDCHÁDZAŤ A BLOKOVAŤ !!

# PREDCHÁDZAŤ A BLOKOVAŤ !!

Procesy

Technológia

# Procesy

- Čo najrýchlejší „Vulnerability patching“ prípadne „virtual patching“
- Nepublikovať SMB do internetu a iné nepotrebné protokoly
- Vysekať (lokálne) privilegované účty na koncových stanicach
- Edukácia užívateľov
- SOC team a reakcia na incidenty, procesy

# Technológia

- Blokovat' (nie detekovať)
- Segmentácia siete + IPS (primárne internej a DC)
- Chránte koncové body (vektory, protokoly, mobilita)
- Adoptovať nové technológie (Sandboxing, Machine-learning, NG-AV)
- Celková revízia architektury
- Zálohujte



- Ransomware = reálna a závažná hrozba „weapon-grade“
- Nie je otázka „či“ ale „kedy“
- Predchádzať a blokovať

*„Očakávajte len to najlepšie,  
ale budte pripravení na to najhoršie“*

*Dale Carnegie, spisovateľ a kouč*



**JUDGMENT  
DAY 12**

ĎAKUJEM