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**BUSINESS
SOLUTIONS**



Cybersecurity in Healthcare

The Digital Patient & Data Protection

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 CYBER SECURED BY
ElevenPaths

Wien
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Digital transformation opens up the door for cyber attacks...

Powered by ThreatCloud Intelligence

THREATCLOUD

LIVE CYBER ATTACK THREAT MAP

ATTACKS TODAY

(since 12AM PST)

2,637,386

ATTACKS YESTERDAY

6,534,804

TOP TARGETS BY COUNTRY

USA

THREAT STATS

Last Week

Last Month

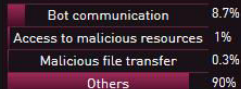
Average Infection Rate



Most Frequent Attack Source

USA

Infecting Malware Types



LEARN ABOUT CHECK POINT
THREAT PREVENTION SOLUTIONS >

| TIME | ATTACK | SOURCE | TARGET | Source | Target |
|----------|------------------------|----------|--------|--------|--------|
| 18:56:34 | Trojan.WIN32.XMRig.A | Malaysia | India | | |
| 18:56:34 | Andromeda.TC.iabbaaabb | NJ,USA | India | | |
| 18:56:33 | Andromeda.TC.iabbaaabb | NJ,USA | India | | |
| 18:56:33 | Trojan.WIN32.XMRig.A | Canada | India | | |
| 18:56:33 | Trojan.WIN32.XMRig.A | Canada | India | | |

Digital context of healthcare cyber attacks

Almost 100 million health-care records were compromised in 2016⁽²⁾

In 2017 a 211% increase where reported⁽¹⁾



Data breaches, how do they impact patients?

Personal Health Information facilitates all types of crimes...

- Fraudulent prescriptions
- Identity theft
- 3rd party medical care in victim's name
- Public knowledge
 - Cyberbullying
 - Blackmail



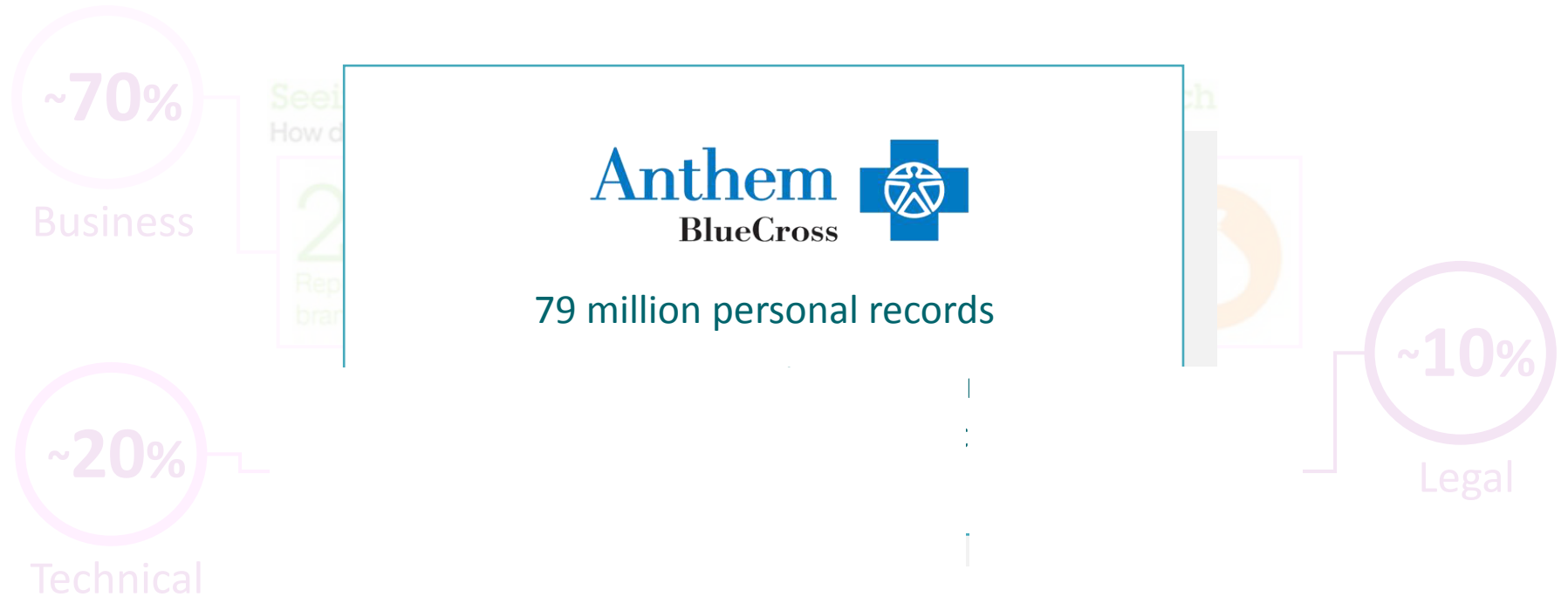
~40%

Victim patients are informed of identity theft only when they received collection letters...

Sources:

1. <https://www.experian.com/assets/data-breach/white-papers/consequences-medical-id-theft-healthcare.pdf>

Data breaches, how do they impact companies?



Sources:

1. 2017 Ponemon Cost of Data Breach Study, IBM
2. <https://thenextweb.com/security/2014/11/11/tightening-social-media-security/>
3. Reuters, June 24, 2017

Why?



Business...

In general, cyber crime damages will cost the world \$6 trillion annually by 2021, up from \$3 trillion in 2015

In this context, patient data is particularly relevant as healthcare-related data has more value than other types of personal information



\$1-\$2



\$50

Sources:

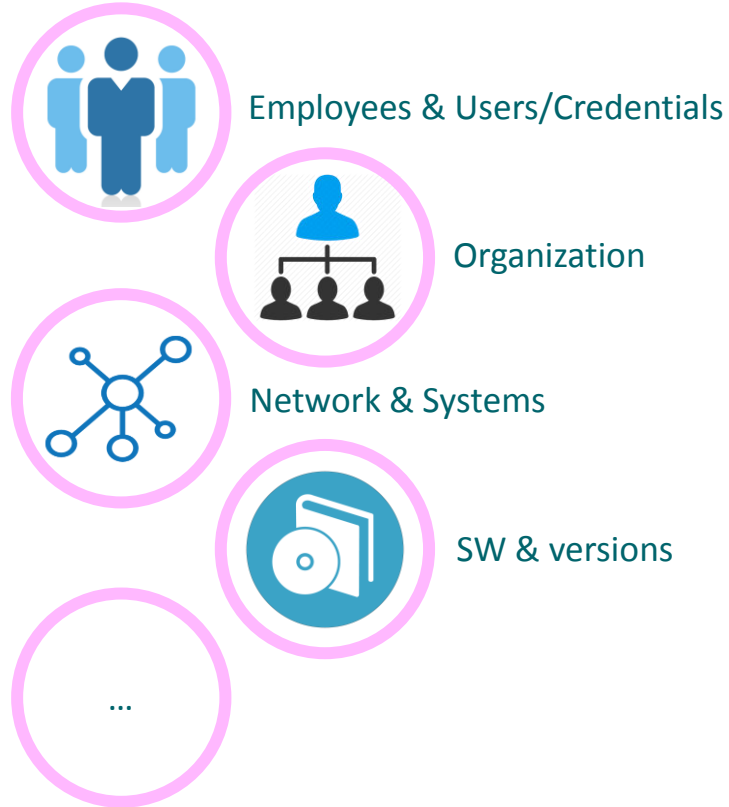
1. Cybersecurity ventures
2. <https://www.experian.com/assets/data-breach/white-papers/consequences-medical-id-theft-healthcare.pdf>

How is it done – data breaches?

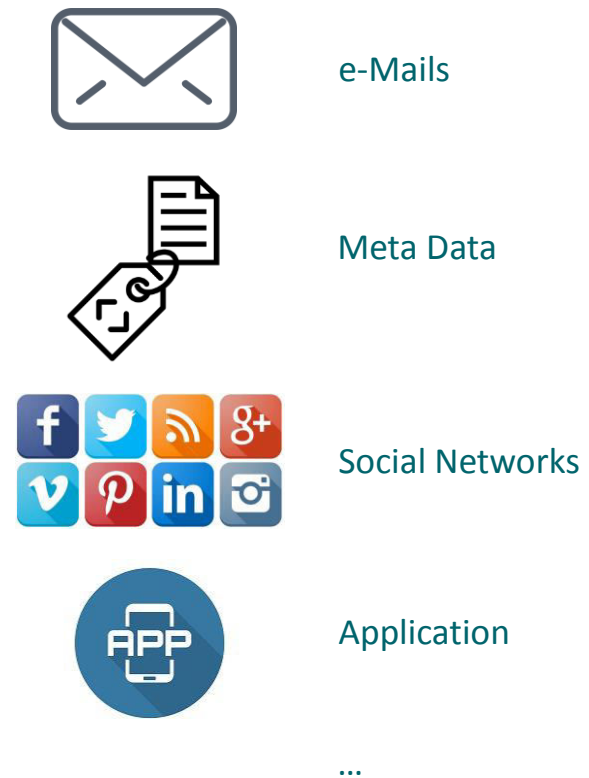


INFORMATION IS KEY

What are they looking for?



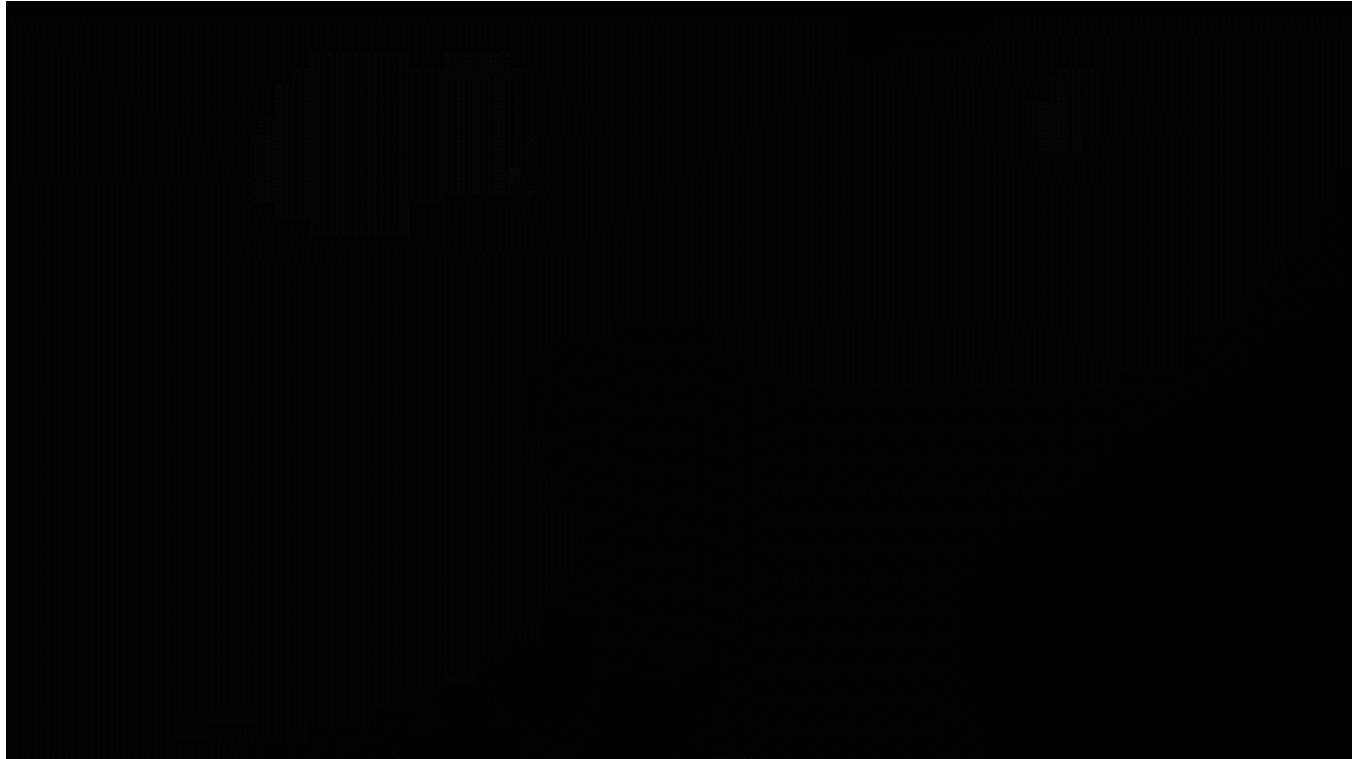
How do they get it?



Example of how an attack is designed



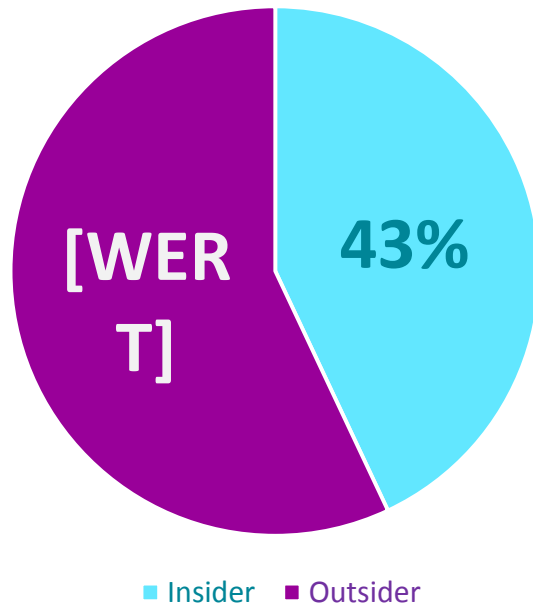
Professionals...





Reality around the origin of data breaches is...

Healthcare Data Breaches



... which generates the need of focus protection not only on data security controls, but also on user awareness



Awareness –
Patients & Healthcare
Professionals



SW Patching



Security Controls



Compliance & Processes
(GDPR, HIPAA, ...)

Conclusions

With digital transformation, healthcare organizations are faced with the challenge of protecting patients' information, and...



...with the right pieces and a plan...



... results will be obtained!



THANK YOU!



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What can patients do to help protecting their information?



- Caution with emails
- Do passwords changes frequently – and don't repeat the same password between services
- Have a anti-virus on your device
- Be careful with what information you put on the social networks



- Update patches (cover known vulnerabilities)
- Protect information with security controls (access control, encryption, secure collaborative tools, etc.)
- Update and maintain security policies, including compliance
- Have an incident plan in place