Webinar Inixindo Jogja

Meningkatkan Keamanan Pusat Data: Melindungi Aset Digital di Era Ancaman Siber yang Semakin Canggih

Andrian The

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Instruktur Inixindo Jogja bidang:

- IT Governance / Management
- Cyber Security
- Secure Software Design
- Secure Software Development
- Certified Information Systems Auditor

PDNS 2 Diserang Ransomware

28 JUNI 2024

Serangan ransomware di Pusat Data Nasional Sementara (PDNS) 2 menjadi sorotan.

Ransomware adalah jenis perangkat perusak yang mencegah pengguna mengakses sistem, baik dengan mengunci layar sistem atau file pengguna.

- Kominfo dan BSSN mengaku tak memiliki back-up atau cadangan data PDN yang diserang Ransomware.
- BSSN mengungkapkan hanya 2% data yang diserang ransomware berhasil ter-backup

Para pelaku meminta uang 8 juta dolar AS atauatau sekitar Rp131 miliar.

SUMBER iNews.id ● NASKAH Dini Listiyani ● INFOGRAFIS Johan

PikiranRakyat.com

FAKTA-FAKTA BRAIN CIPHER:

HACKER YANG BOBOL PDNS 2 DI SURABAYA

1. Serangan yang Menghebohkan

Pada 20 Juni 2024, Brain Cipher melumpuhkan PDNS 2 dengan ransomware, mengunci data dari 282 institusi dan mengganggu layanan e-KTP, SIKDIS, dan SIM Nasional.

2. Modus Operandi

Brain Cipher menggunakan ransomware untuk menyerang dengan memanfaatkan kerentanan di Windows Defender, memungkinkan mereka mengakses dan mengenkripsi data di PDNS 2.

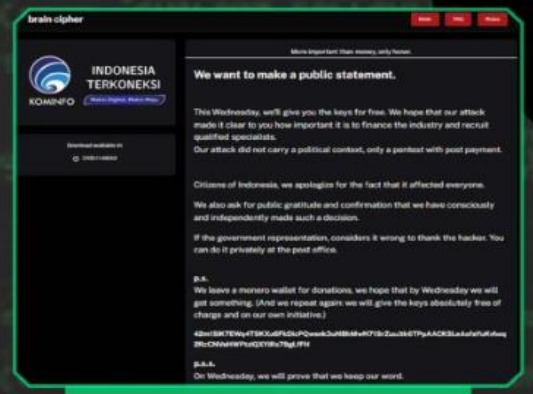
INFOGRAFIK: FIAN/PRMN, TEKS: MITHA PARADILLA RAYADI/PRMN

RANSOMWARE BRAIN CIPHER KASIH KEY PDNS GRATIS

Foto: X @stealthmole_int

Hacker Iba, Brain Cipher Bakal *Kasih Kunci Pemulihan Sistem PDNS Secara Gratis*

PERETASAN PADA PDNS 2 YANG DIKELOLA TELKOMSIGMA TELAH BERLANGSUNG SELAMA 12 HARI



"Kami membuka donasi dalam bentuk monero. Kami harap pada Rabu (2/7/2024) akan berbuat sesuatu. Kami ulangi, kami akan memberikan key sepenuhnya dan (keputusan) ini murni inisiatif kami," tulis terduga Brain Cipher Ransomware, dikutip dari postingan perusahaan intelijen siber, Fusion Intelligence Center StelathMole di X (Twitter)

Efek lumpuhnya pusat data, sebanyak database

282

institusi pemerintah pusat dan daerah, kementerian lembaga mengalami gagal akses via cloud

Kementerian Komunikasi dan Informatika (Kominfo) belum memberi pernyataan terkait hal ini. Direktur Jenderal Aplikasi Informatika (Aptika) Semuel Abrijani Pangerapan belum merespons permintaan atas komentar

Kelompok ini berharap peretasan PDNS tersebut mendorong pendanaan dan SDM yang lebih layak di sektor teknologi ini

SUMBER: BLOOMBERG TECHNOZ | INFOGRAFIS: ARIE PRATAMA

INDICATOR OF COMPROMISE BRAIN CIPHER RANSOMWARE

RILIS : 27 JUNI 2024

No	*Indicator Of Compromise*	*Hash*	*File*	*Path*
1.	c60a0b99729eb6d95c2d9f8b76b9714411a3a751	SHA1	Win_old.exe	C:\User\itadmin\music\
2.	9c5698924d4d1881efaf88651a304cb3	MD5	Win_old.exe	C:\User\itadmin\music\
3.	935c0b39837319fda571aa800b67d997b79c3198	SHA1	Win.exe	Any Path
4.	448f1796fe8de02194b21c0715e0a5f6	MD5	Win.exe	Any Path

13.	131.253.33.203	IPv4
14.	184.25.191.235	IPv4
15.	20.99.133.109	IPv4
16.	20.99.186.246	IPv4
17.	204.79.197.203	IPv4

- Reverse Engineering Ransomware Brain Cipher penyerang PDN: https://blog.compactbyte.com/2024/07/01/reverse-engineering-ransomware-brain-cipher-penyerang-pdn/
- Reverse Engineering Dekriptor Babuk untuk PDN: https://blog.compactbyte.com/2024/07/03/reverse-engineering-dekriptor-babuk-untuk-pdn/

Ancaman Utama Pusat Data Saat Ini

1. **Unauthorized Intruders :**
   Pelanggaran keamanan fisik
2. **DDoS :**
   Distributed Denial of Service
3. **Ransomware :**
   Data dienkripsi dan meminta tebusan untuk dekripsi
4. **Malware at Scale :**
   Malware yang menyerang DCIM
5. **SSL-induced Blind Spot :**
   SSL untuk inflitrasi & eksfiltrasi data

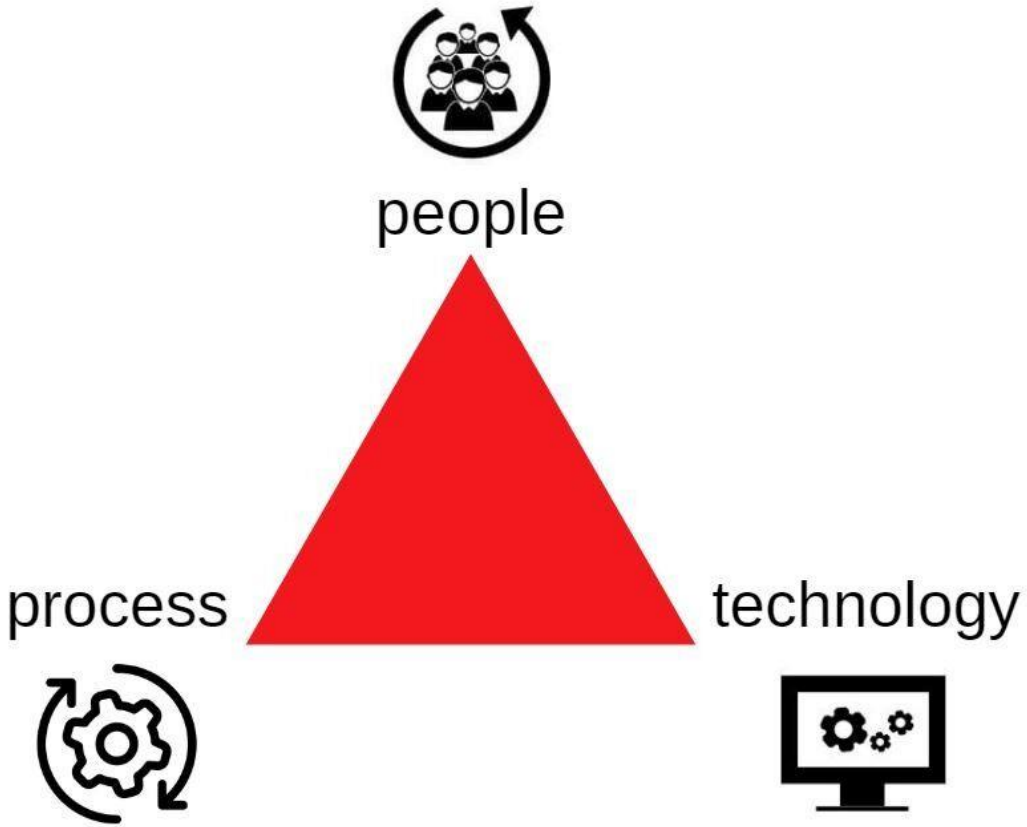
nxtra by airtel

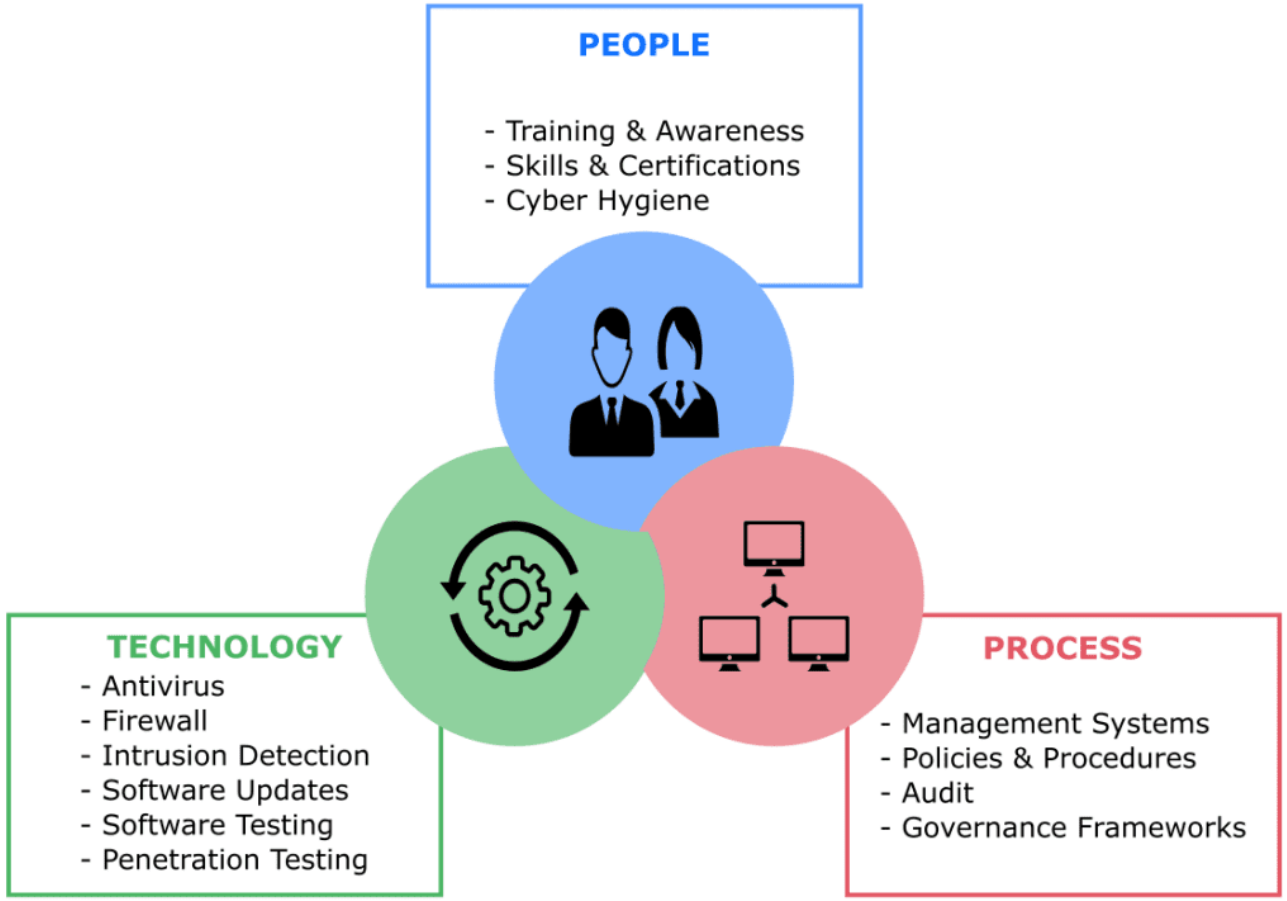
Prioritas Utama Keamanan Pusat Data

nxtra by airtel

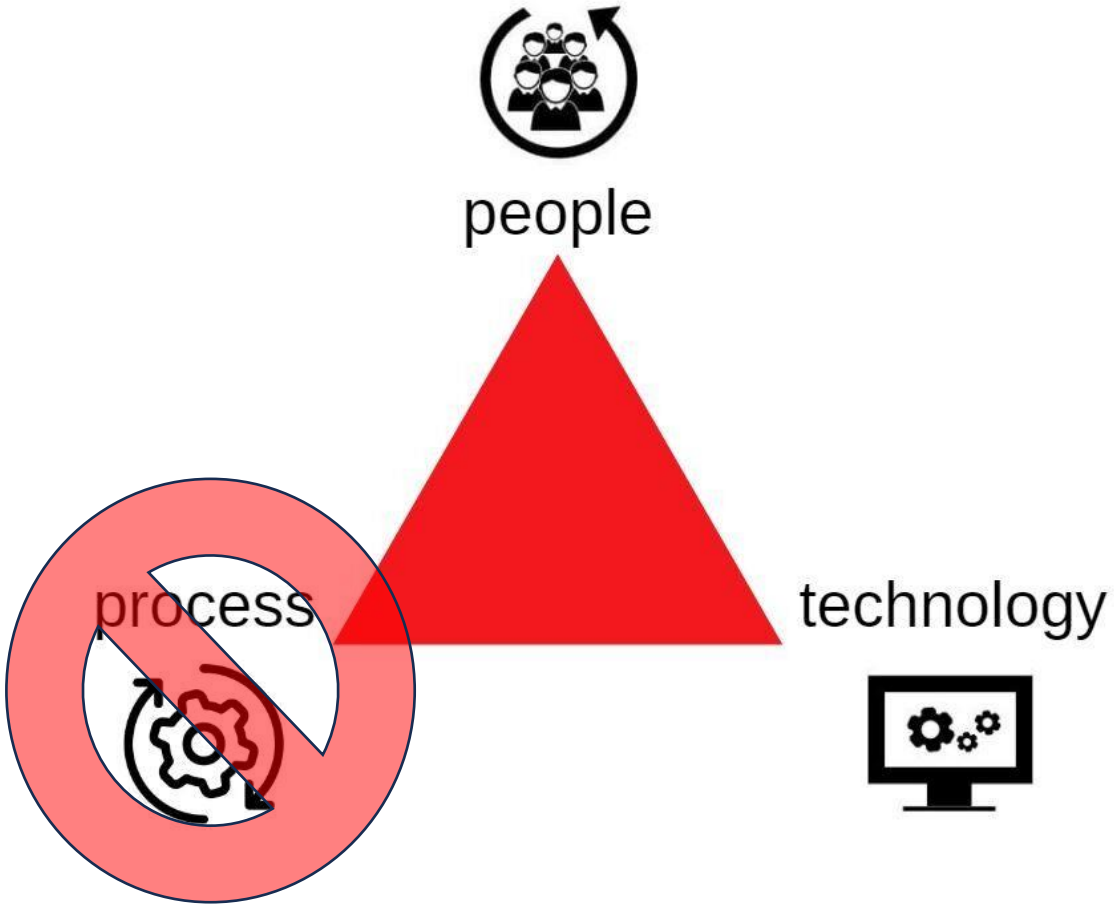
1. **Advanced Physical Security Measures**
2. **Network Segmentation**
3. **Security Information & Event Management**
4. **ML & AI enabled Cyber Defense**
5. **Zero Trust Network Access**
6. **Tools to Address Specific Threats:**
   Misalnya : FWaaS, XDR, dan RPaaS
7. **Anti Phishing Tools & Employee Education**
8. **Secure By Design & Secure By Default**
9. **Robust Audits & Compliance**

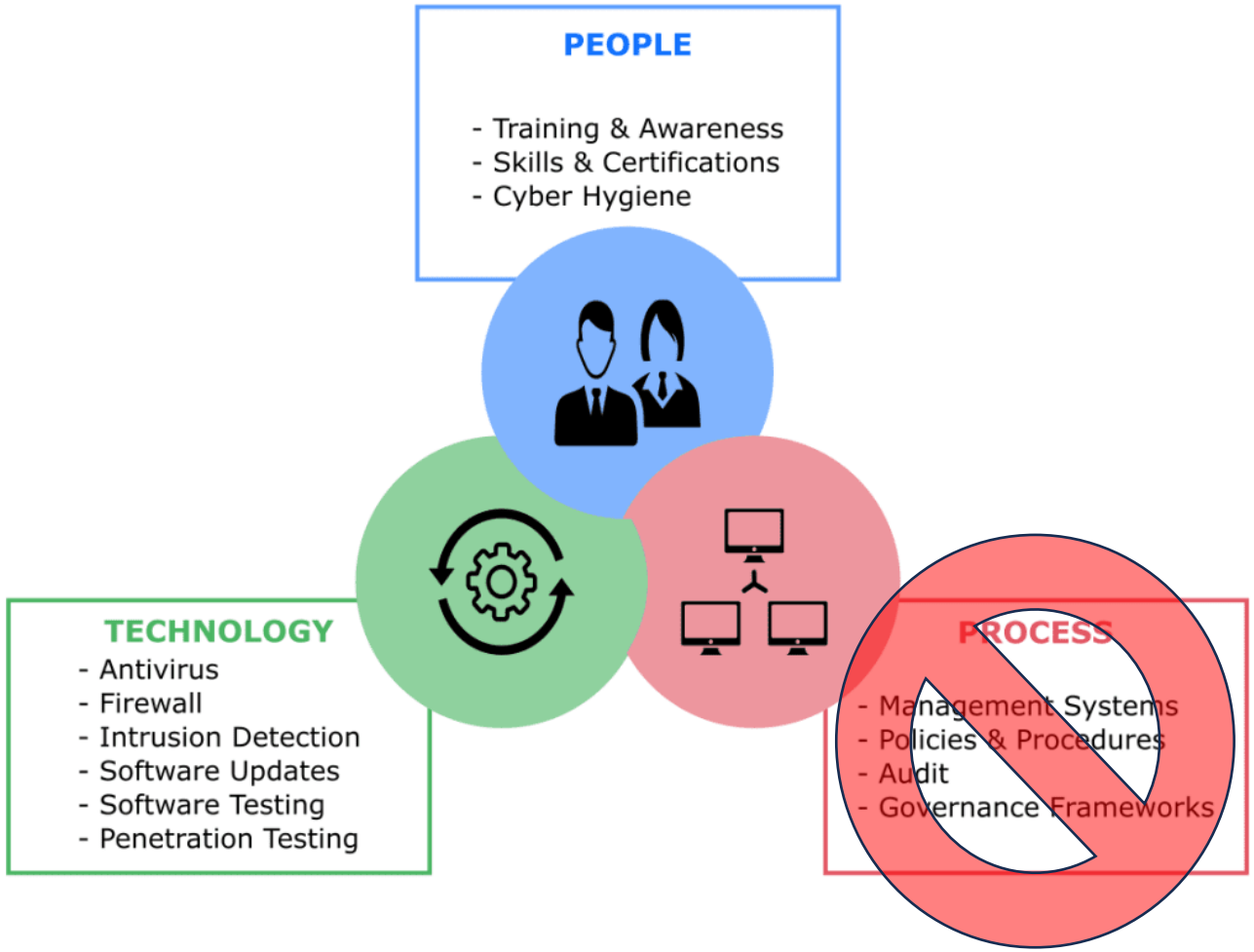
Apa yang Dibutuhkan untuk Keamanan Pusat Data?



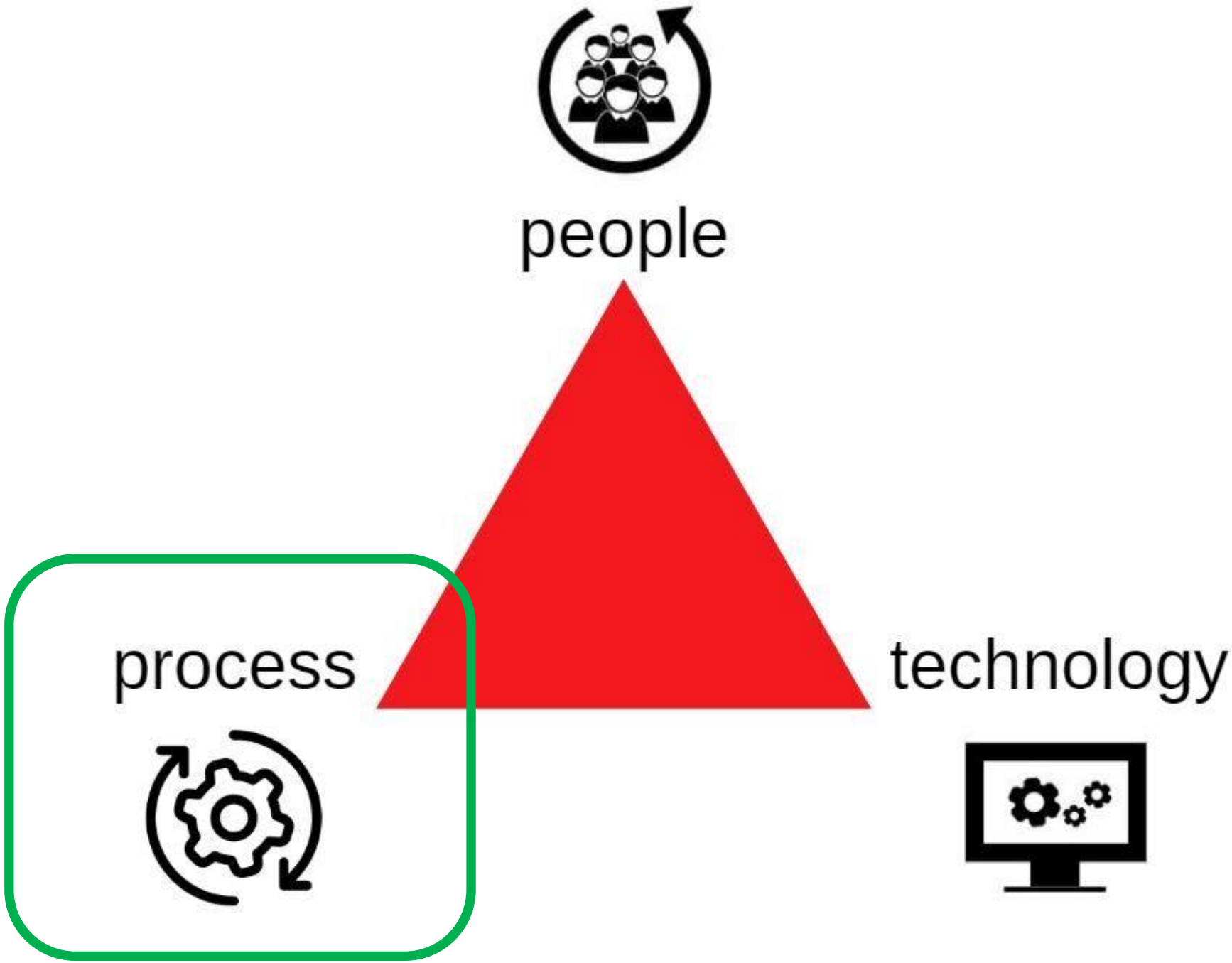


Mana yang Gagal di PDNS 2?

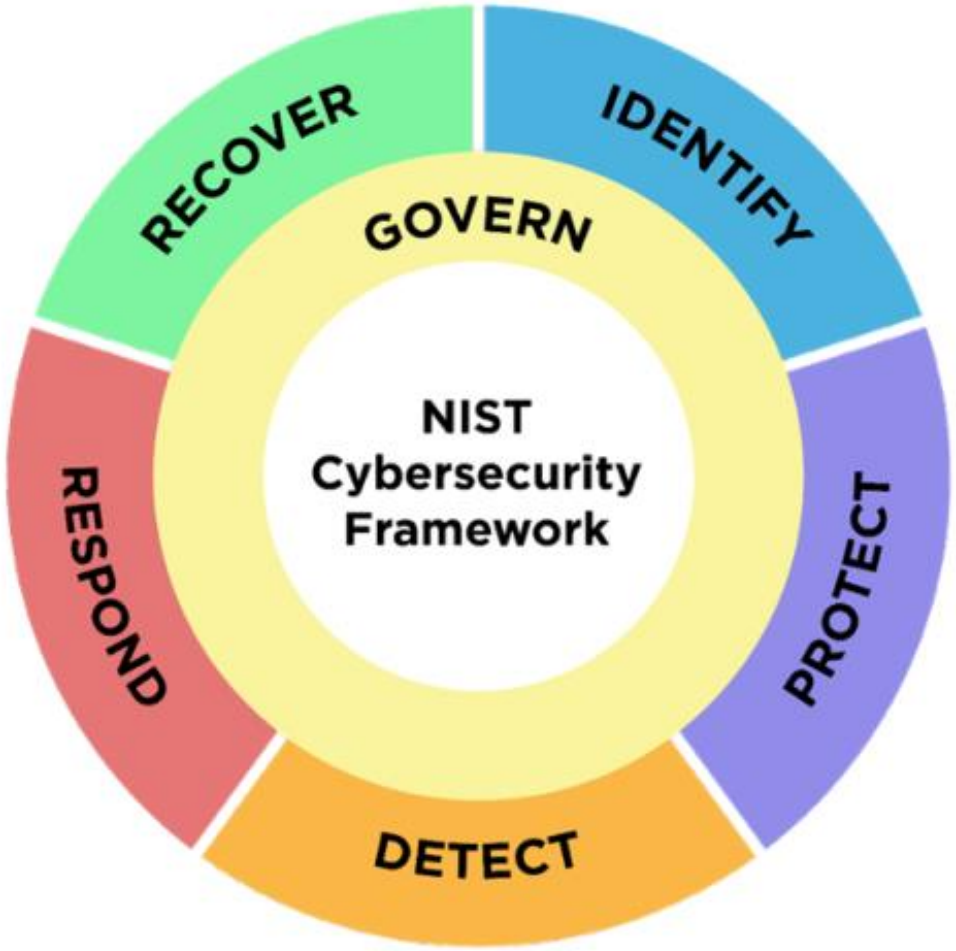


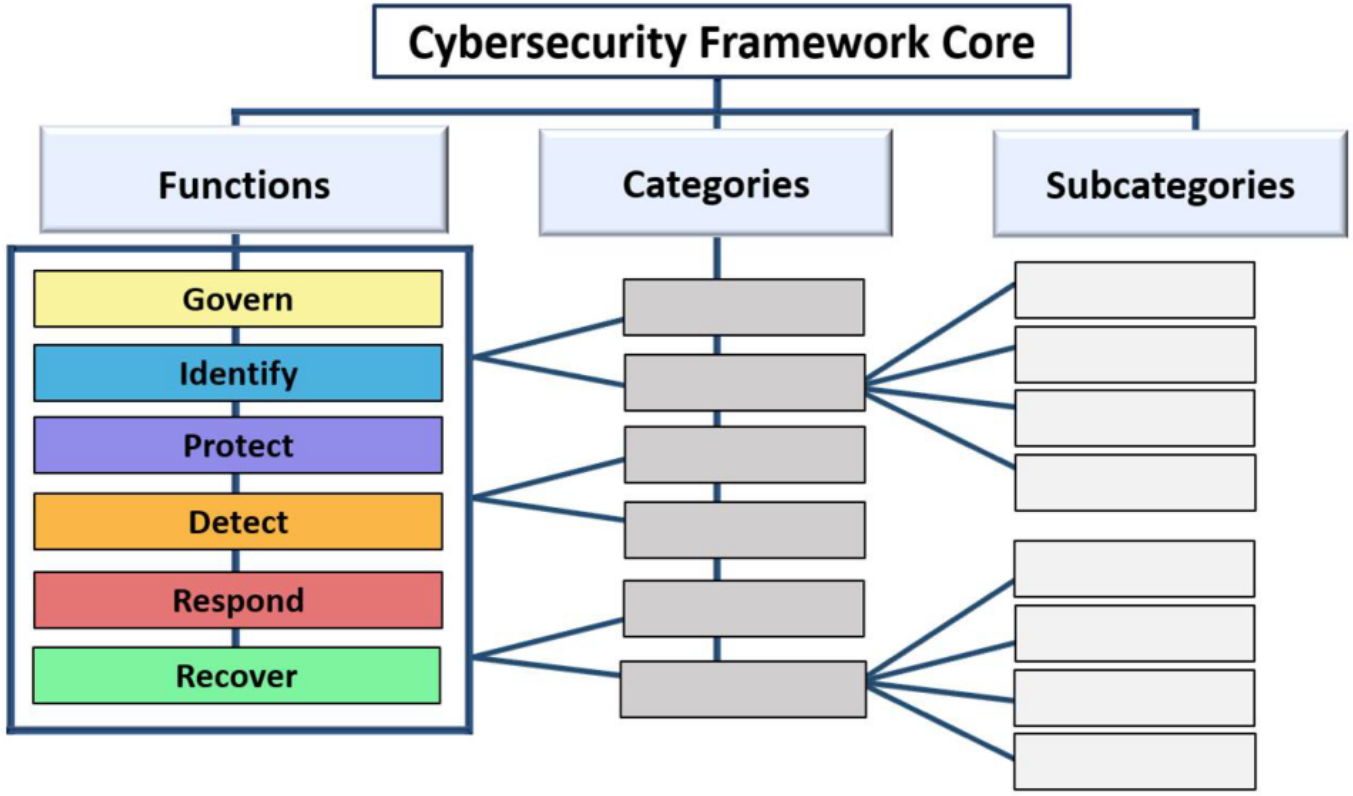



NOT TO DO
TO DO
APA YANG PERLU DILAKUKAN?
DIMULAI DARI MANA?

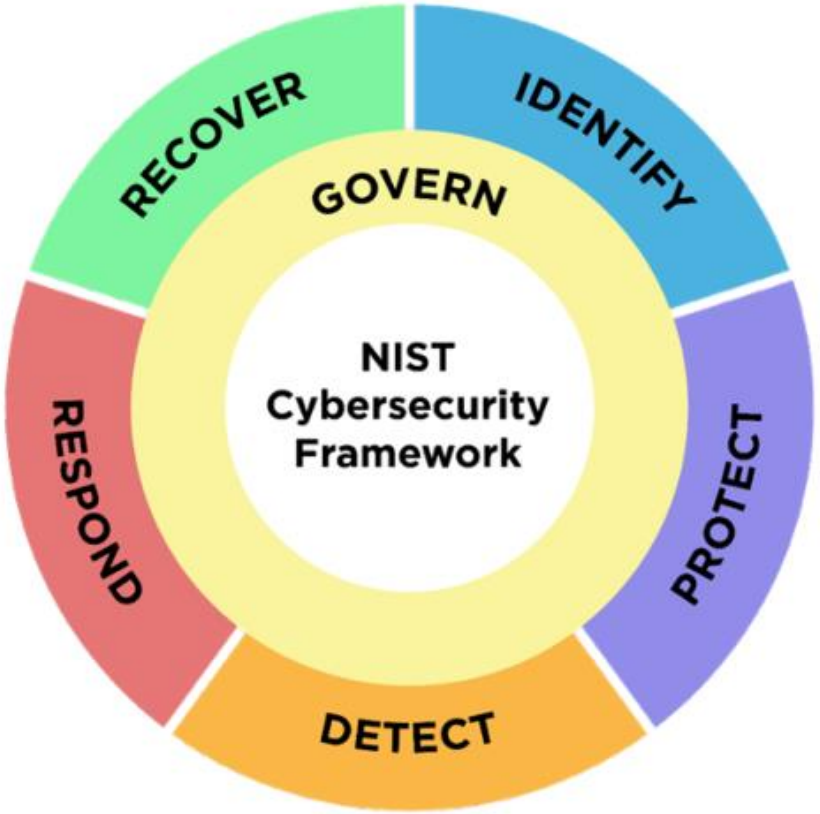

people
process
technology

The NIST Cybersecurity Framework (CSF) 2.0





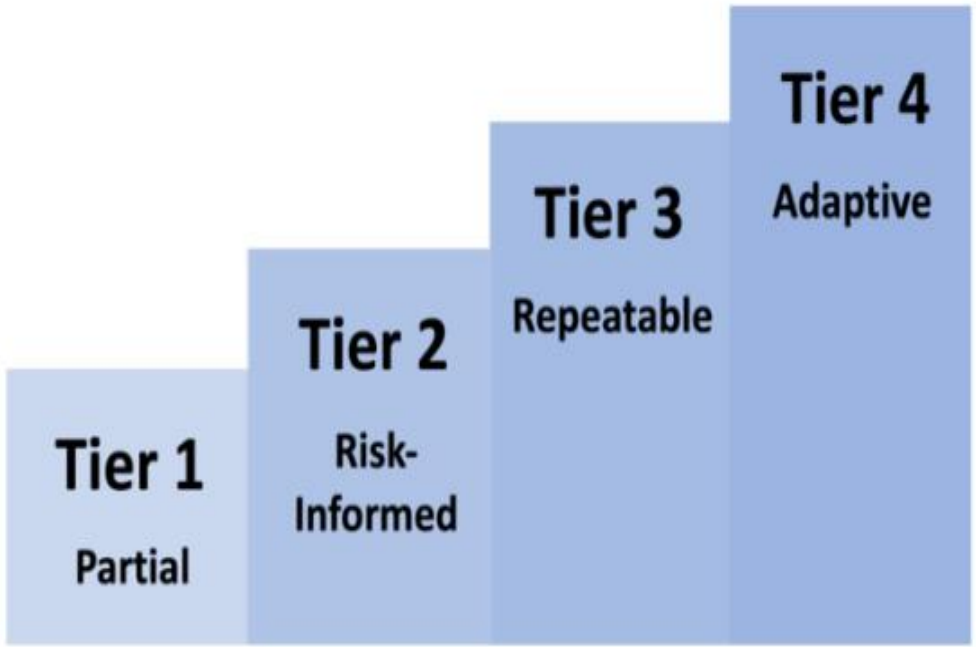
The NIST Cybersecurity Framework (CSF) 2.0



Function	Category	Category Identifier
Govern (GV)	Organizational Context	GV.OC
	Risk Management Strategy	GV.RM
	Roles, Responsibilities, and Authorities	GV.RR
	Policy	GV.PO
	Oversight	GV.OV
	Cybersecurity Supply Chain Risk Management	GV.SC
Identify (ID)	Asset Management	ID.AM
	Risk Assessment	ID.RA
	Improvement	ID.IM
Protect (PR)	Identity Management, Authentication, and Access Control	PR.AA
	Awareness and Training	PR.AT
	Data Security	PR.DS
	Platform Security	PR.PS
	Technology Infrastructure Resilience	PR.IR
Detect (DE)	Continuous Monitoring	DE.CM
	Adverse Event Analysis	DE.AE
Respond (RS)	Incident Management	RS.MA
	Incident Analysis	RS.AN
	Incident Response Reporting and Communication	RS.CO
	Incident Mitigation	RS.MI
Recover (RC)	Incident Recovery Plan Execution	RC.RP
	Incident Recovery Communication	RC.CO

Implementasi NIST CSF 2.0

CSF Profiles



CSF Tiers

Target

Goals

- Core outcome description
- Informative References
- Implementation Examples

Current

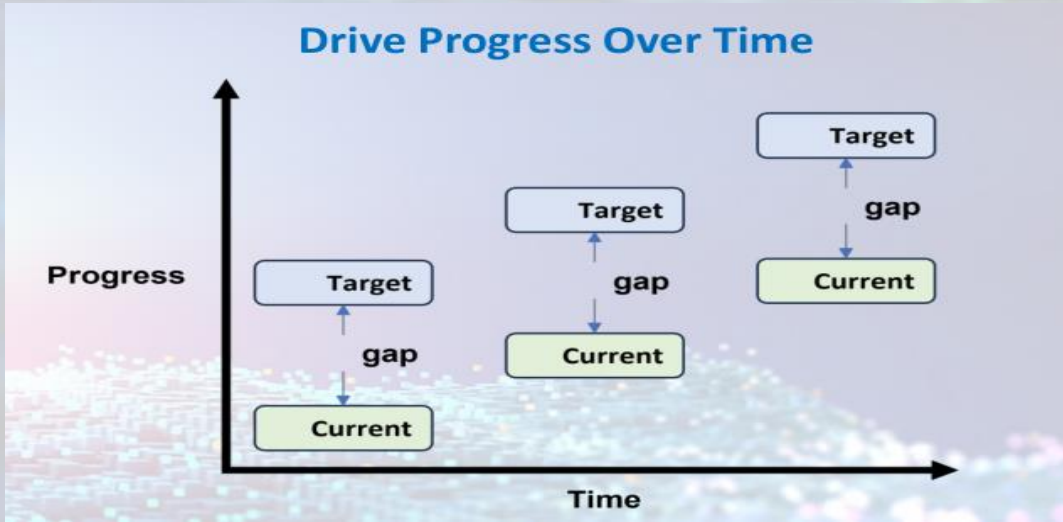
Improvements

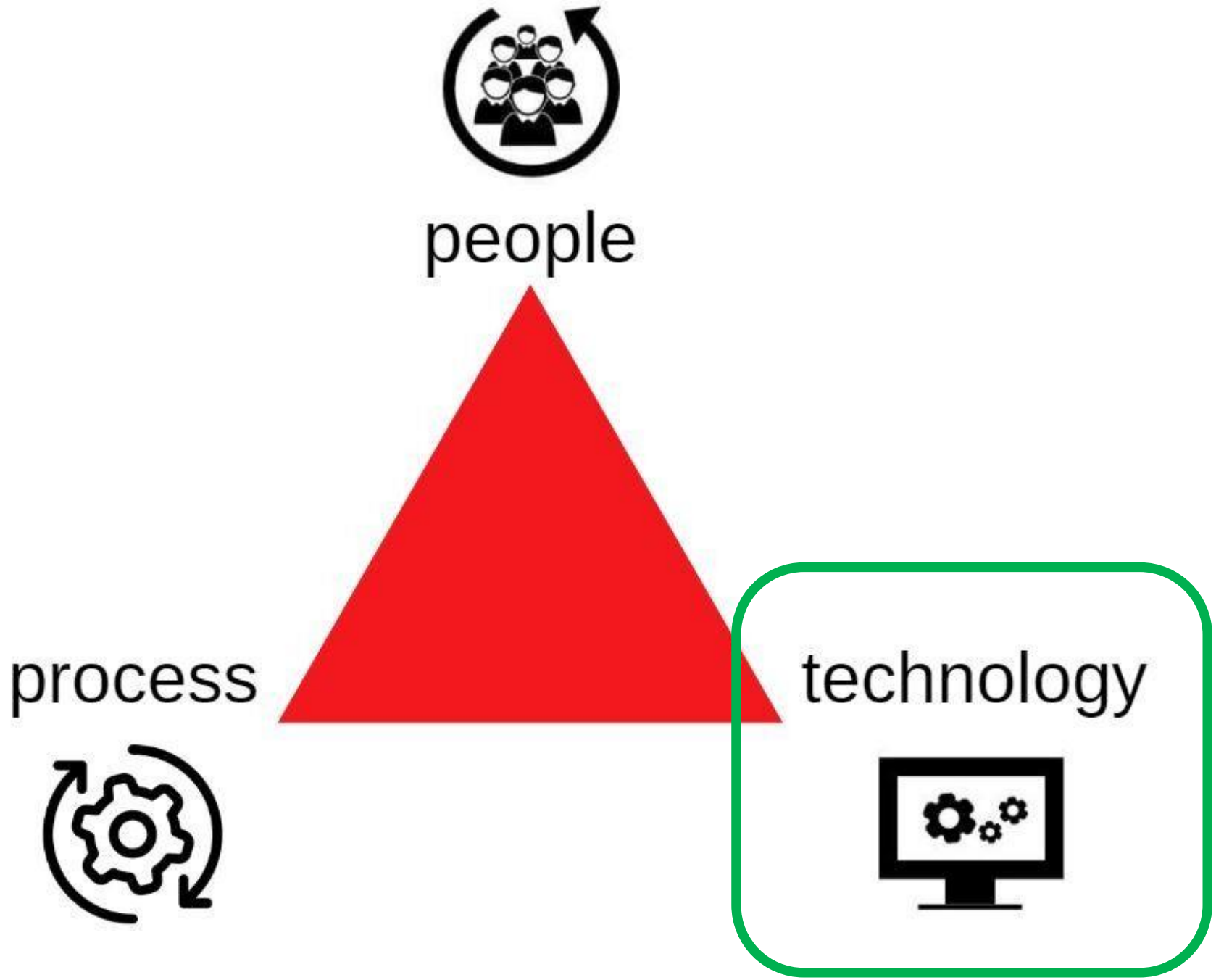
- action
- priority
- owner
- deadline
- resources

Current

Practices

- people
- process
- technology




people
process
technology

The CIS Critical Security Controls v8

3 Implementation Groups for CIS Controls

The number of Safeguards an enterprise is expected to implement increases based on which group the enterprise falls into.

153
TOTAL SAFEGUARDS

IG3

IG3 assists enterprises with IT security experts to secure sensitive and confidential data. IG3 aims to prevent and/or lessen the impact of sophisticated attacks.

23
SAFEGUARDS

IG2

IG2 assists enterprises managing IT infrastructure of multiple departments with differing risk profiles. IG2 aims to help enterprises cope with increased operational complexity.

74
SAFEGUARDS

IG1

IG1 is the definition of essential cyber hygiene and represents a minimum standard of information security for all enterprises. IG1 assists enterprises with limited cybersecurity expertise thwart general, non-targeted attacks.

56
SAFEGUARDS

Top 5 Attacks	IG1 CIS Safeguards	All CIS Safeguards
Malware	77%	94%
Ransomware	78%	92%
Web Application Hacking	86%	98%
Insider Privilege and Misuse	86%	90%
Targeted Intrusions	83%	95%

associated with malware, ransomware, and other top cyber threats.

CIS Center for Internet Security®

CIS Controls

MS-ISAC® Multi-State Information Sharing & Analysis Center®

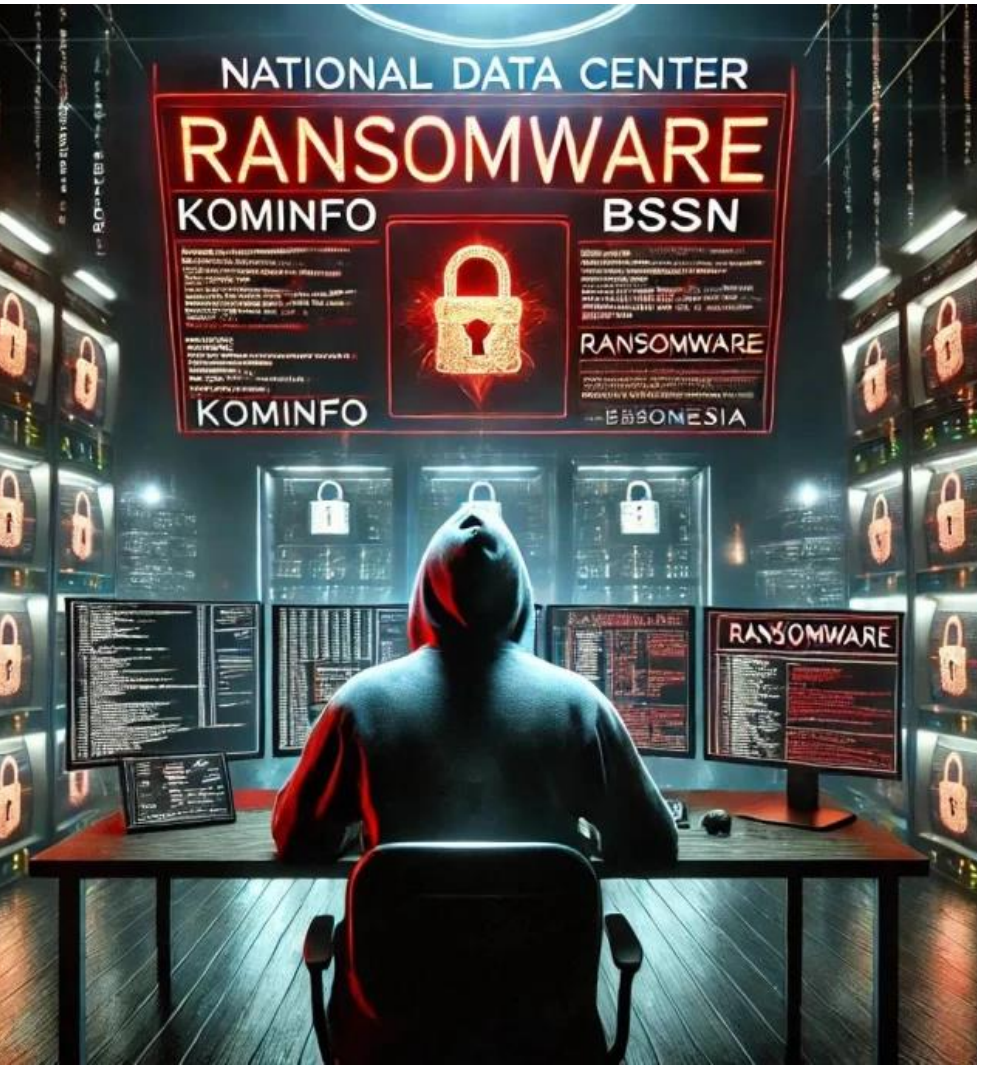
Establishing Essential Cyber Hygiene

https://www.cisecurity.org/controls/v8

Pemetaan NIST CSF 2.0 dengan CIS CSC v8

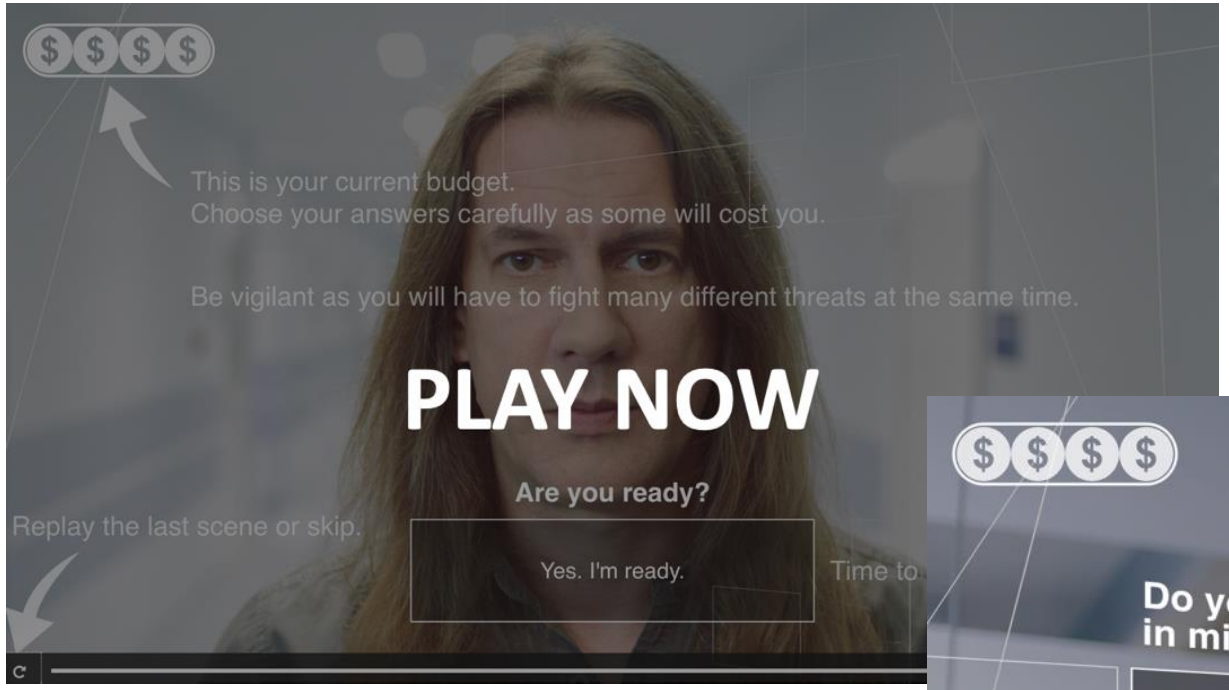
https://www.cisecurity.org/controls/v8

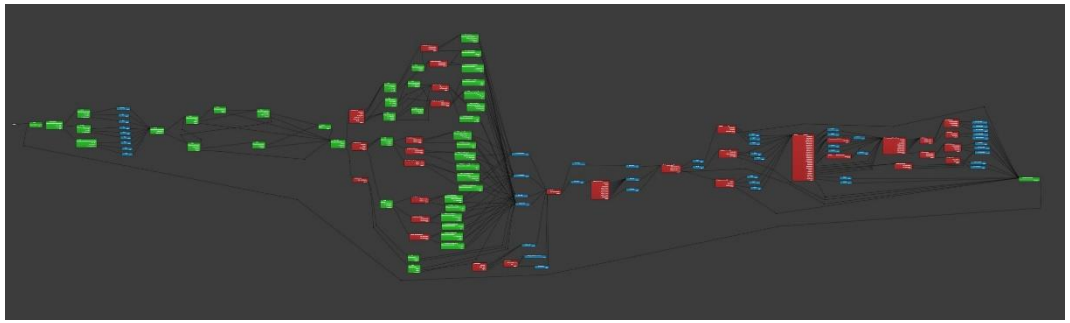
Organizational Profile Scope : Ransomware

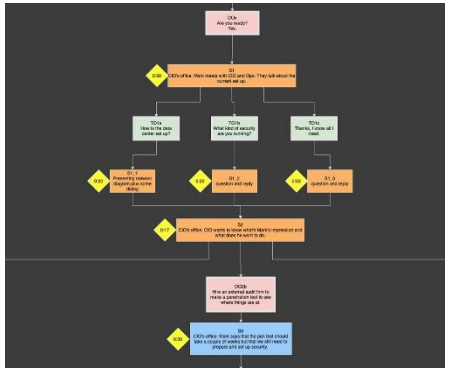


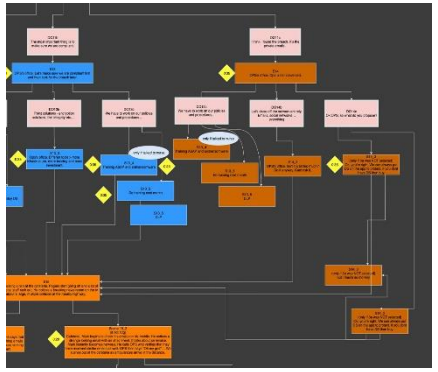
1. **NIST IR 8374 Ransomware Risk Management: A Cybersecurity Framework Profile**
   Profil untuk memitigasi risiko Ransomware
2. **Cyber Risk Institute (CRI) Profile version 2.0**
   Pemetaan Profil Ransomware ke NIST CSF 2.0
3. **CIS Controls v8 Mapping to CSF 2.0**
   Pemetaan ke CIS Controls v8
4. **Establishing Essential Cyber Hygiene**
   Tools & Resources untuk CIS Controls v8

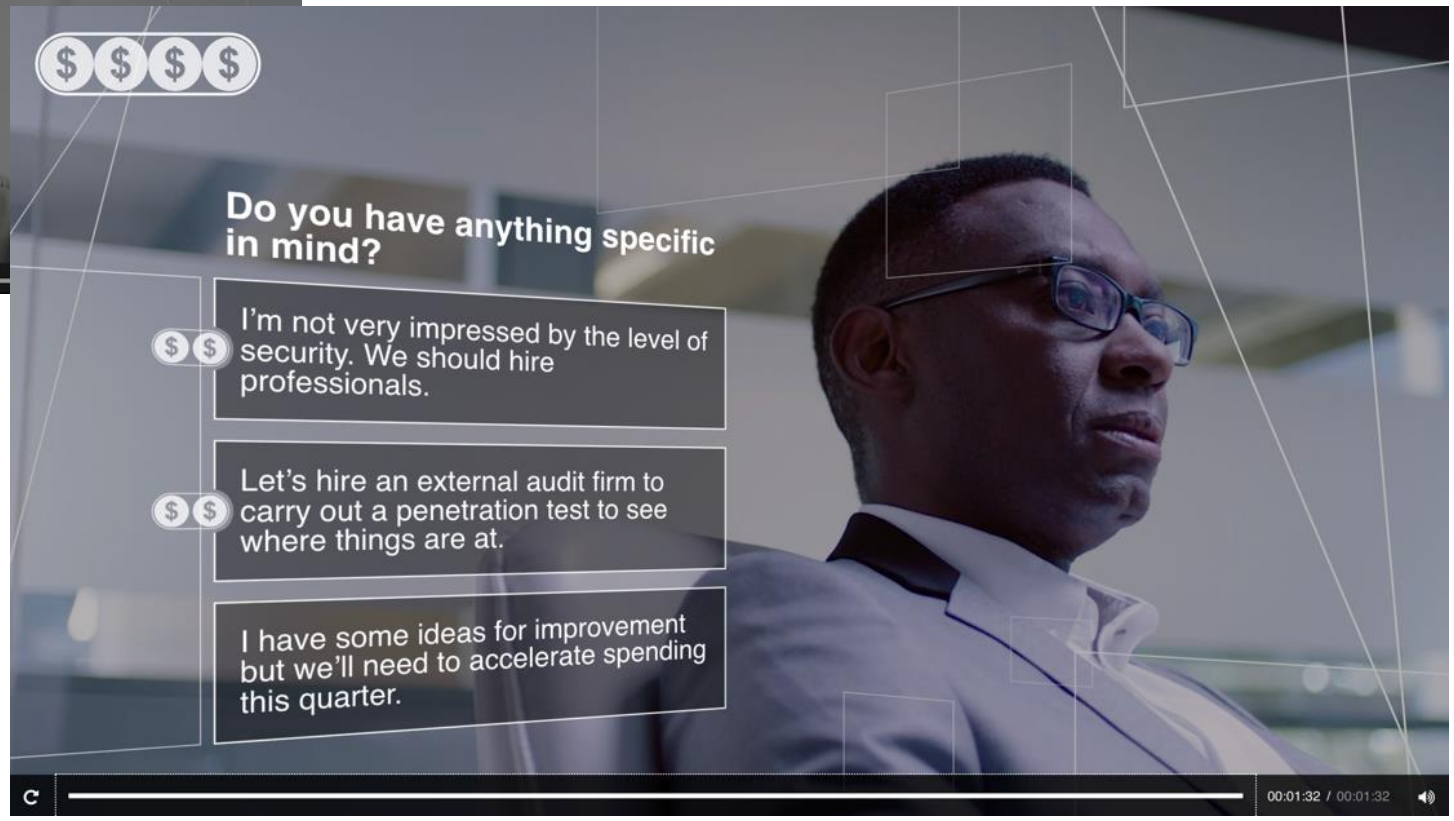

WILL YOUR
DECISIONS
HELP SAVE LIVES?
DATA CENTER ATTACK: THE GAME
CLICK TO PLAY
TREND MICRO



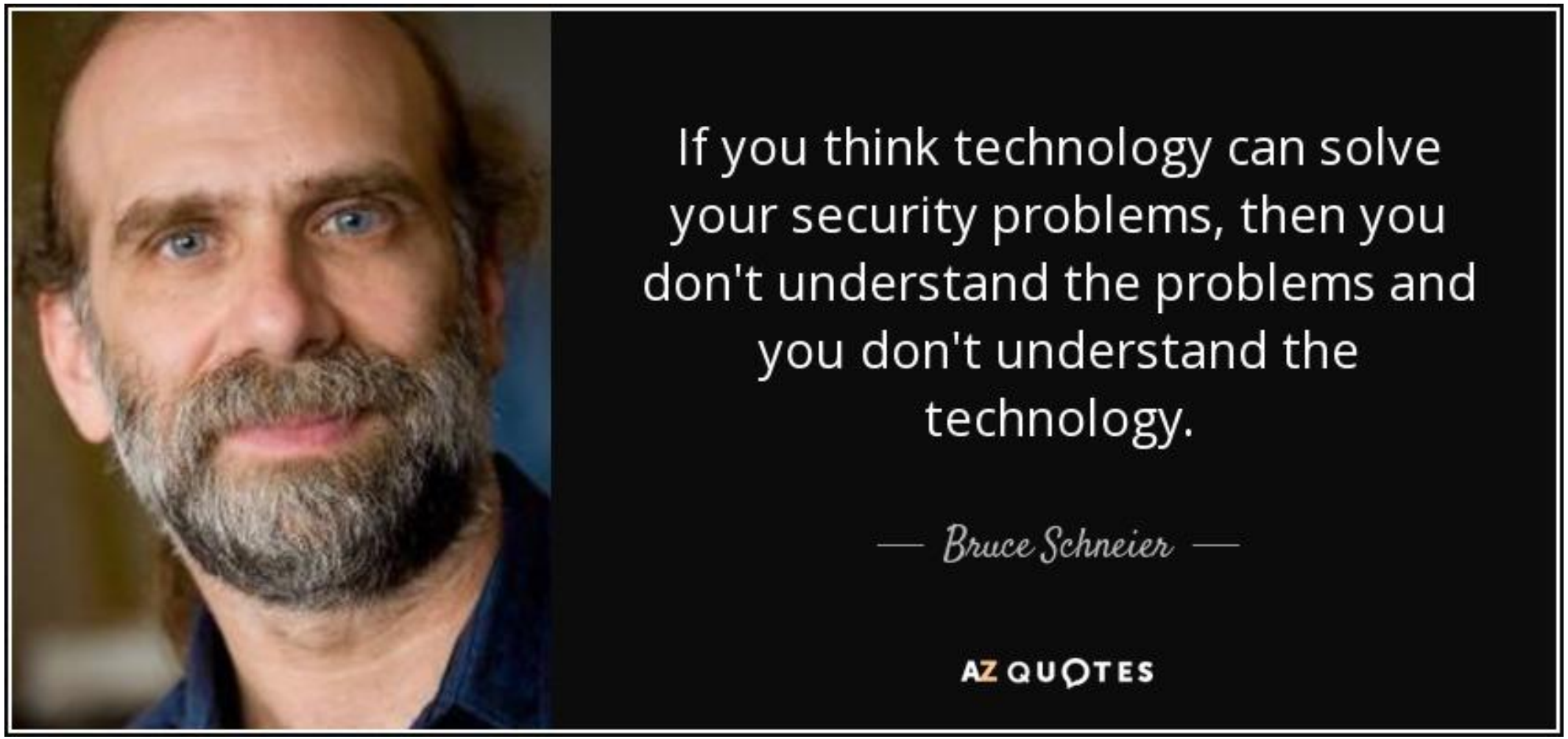








https://resources.trendmicro.com/datacenter-attack.html


If you think technology can solve your security problems, then you don't understand the problems and you don't understand the technology.
— Bruce Schneier —
AZ QUOTES