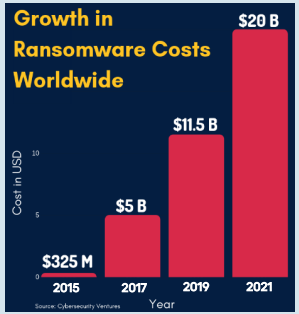
Ransomware

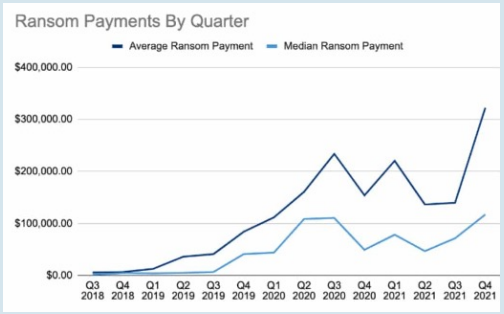
Developments and remediation

Ransomware

Developments worldwide

- IT technology (dependency) increases
- Successful ransomware attacks increases
- Ransomware attacks become more sophisticated and faster





Strategies

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- **Firewalls**
- **Network segmentation**
- **Multi Factor Authentication**
- **Laptop harddisk encryption**

- **Determine risk appetite**
- **Classification of data (assets)**
- **Vulnerability analysis**
- **Applying risk strategy (on assets)**
- **Policy, plans and procedures**
- **Training**

Is your strategy quick and effective enough, against modern ransomware threats?

- **Execute**
  -Business Conitinuity Plans
  -Disaster Recovery Plans
- **Restore from**
  -online backups
  -offline backups

- **MDR + EDR products** (anti-malware)
- **SIEM / SOAR**
- **IDS / IPS**
- **Anomaly detection**

Ransomware casus 2022

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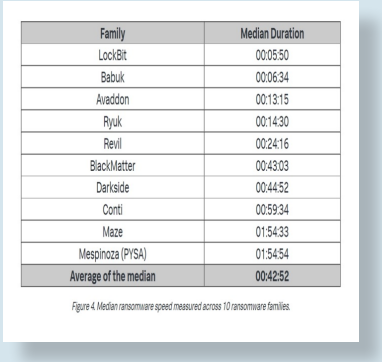
Lapsus$, a few 16 year old teens, robbed Millions by bribing companies with ransomware and fast; 25 minutes from infection to encryption of the servers.

The young criminals run predefined automated scripts:

- Send an email with attachment (spear phishing)
- The victim opens the document in email
- By using zero day exploits, access rights are obtained (undetected)
- Use “live-of-the-land-techniques” to access other machines
- Install the ransomware on all machines
- Encrypt the files on all machines
- Negotiate about ransom and/or publish sensitive information.



Family	Median Duration
LockBit	00:05:50
Babuk	00:06:34
Avaddon	00:13:15
Ryuk	00:14:30
Revil	00:24:16
BlackMatter	00:43:03
Darkside	00:44:52
Conti	00:59:34
Maze	01:54:33
Mespinoza (PYSA)	01:54:54
Average of the median	**00:42:52**

Figure 4. Median ransomware speed measured across 10 ransomware families.

Victims with anti-malware in place: Nvidia, Microsoft Azure, Samsung, Okta, Brazil Gov, T-Mobile, Vodafone, UK Gov (among others)

Endpoint protection effectiveness

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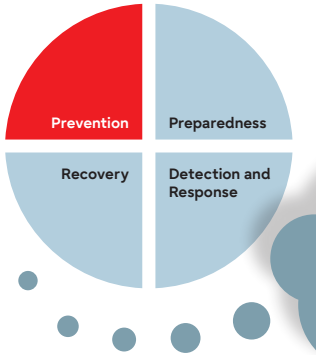
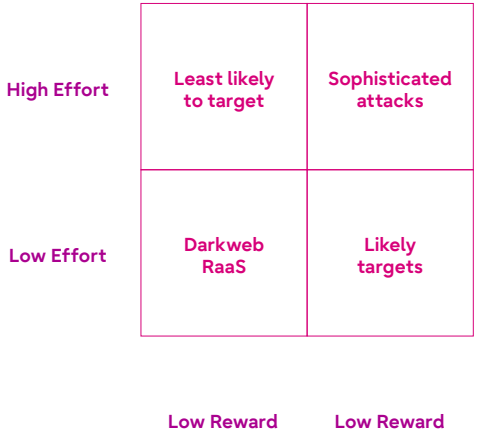
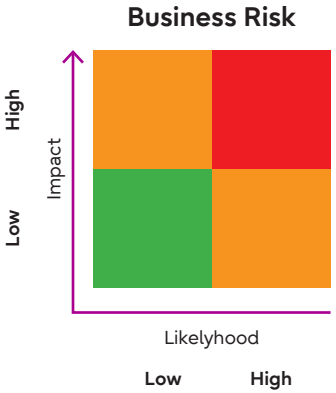
	Known Malware >30 days	Recent Malware 1<30 days	Unknown Malware 0-day
Current XDR + EDR products			
Online connected to internet	TXT EXE	TXT EXE	TXT EXE
Offline	TXT EXE	TXT EXE	TXT EXE
Ransomware prevention as a Service			
Online connected to internet	TXT EXE	TXT EXE	TXT EXE
Offline	TXT EXE	TXT EXE	TXT EXE

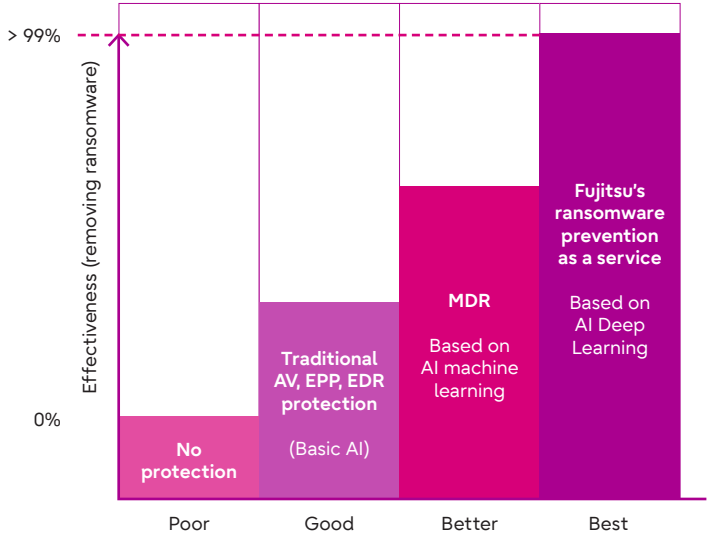


- Bad protection
- Limited protection
- Full protection
- Malicious office doc.
- Malicious executable
- Phishing email
- Infected USB (drive)

Ransomware risks







Ransomware risks

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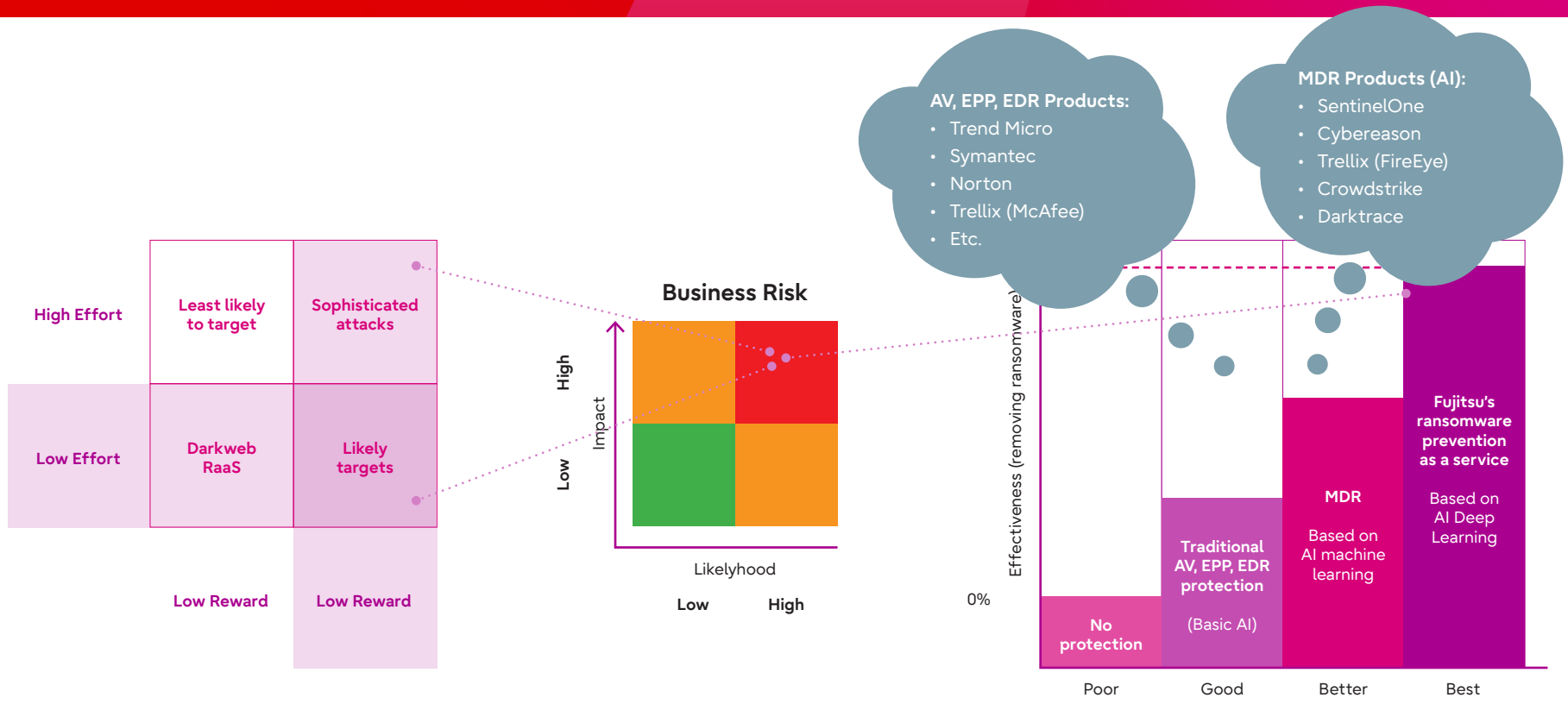

Take aways

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Consider to uplift your ransomware protection:

- **If you feel that you can become the next victim, due to:**
  - vulnerable legacy systems
  - lots of vulnerabilities on the network
  - uncontrolled and unmanaged systems/ engineers on your network criminals that are likely to target your company (because of your attractive assets)
- **If you do not have sufficient protection place**

Thanks