



#### What is Cybersecurity?

Cybersecurity is the capability to defend and protect digital assets, including networks, communication, systems, computers and data, from cyberattacks.

Modern cybersecurity strategies make use and combine advanced technologies and human resources to prevent, detect and eliminate a variety of digital threats and adversaries.

#### What are the Threats?

Today organizations, no matter if they are governmental, military, civil or private, have to deal with an uncountable number of any kind of attacks like:

- Social Engineering, of which the main part are Phishing E-Mails
- Ransomware, which is a data-encrypting program that demands payment to release the infected data
- Denial of Service Attacks (DoS/DDoS)
- Malware (Virus, Trojans, Spyware, Botnets, Adware etc.)
- Third party software, web and cloud computing vulnerabilities
- Remote access, as well as internal security breaches

## What do you have to protect?

As a general rule of thumb, there are the following elements, which have to be protected to maintain cybersecurity in an organization:

#### **Endpoint Protection**

Endpoints are the most vulnerable components of any IT-infrastructure. Almost every endpoint contains sensitive data. An endpoint security solution must protect:

**Data** – from any modification, stealing or encrypting attempt

**Software** – from unsafe or unauthorized access due to malicious code

**Network Connection** – by "controlling" inbound and outbound traffic. Any modern Endpoint Security Solution includes modules, like anti-malware or antivirus, application control, "firewall", host intrusion prevention system and more

#### **Network and Channel Protection**

Network and Channel Protection as a security element provides secure data transfer and communication by protected backbone channels between all connected sites and locations.

### **Perimeter and Application Firewall Protection**

A Perimeter and Application Firewall is the first line of defense in your network. It defends the boundary between your private and a public network. The Perimeter Firewall filters both, internal and external traffic. It implements appropriate control policies, technology to prevent accidental or intentional data leakage and network intrusion prevention capabilities to provide real-time protection against a wide array of threats.

#### **Threat Detection and Response Protection**

The TDR as a security element focuses on perimeter security and assets within the network and correlates network and endpoint events. It decreases significantly detection time of events and provides guidelines for responses and forensic information to investigate threats.



#### Infrastructure and Cloud Protection

It protects websites and web based applications from different kinds of cyber threats which exploit vulnerabilities in a source/programming code.

#### **Information Protection**

It is the security process and/or policy to prevent unauthorized access, use, disclosure, disruption, modification or destruction of information.

This is commonly known as the CIA (Confidentiality, Integrity and Availability) principle to protect your Information.

#### **Operational Protection**

OPSEC is a risk management process that identifies the critical information and develops a protection mechanism to ensure the security of your sensitive data.

#### **End User Protection**

There are many reasons, how such threats can be created, mainly through the use of Social Media, Text Messaging, App Downloads, E-Mails and bad Password creation or usage. It is therefore of high importance to educate the staff by periodically occurring Security Awareness Training Programs.

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#### **How to protect?**

As a guide line how to implement a comprehensive cybersecurity solution one can follow a simple 5-point strategy:

#### **Choose a Framework**

There are different frameworks which are principally similar with some more focused on different industries. One of the most common is the NIST Framework (NIST – National Institute of Standards and Technology of the USA).

NIST Cybersecurity Framework				
Identify	Protect	Detect	Respond	Recover
Asset Management	Access Control	Anomalies and Events	Responce Planning	Recovery Planning
Business Environment	Awarencess and Training	Security Continuous Monitoring	Communications	Improvements
Covernance	Data Security	Detection Processess	Analysis	Communications
Risk Assesment	Info Protection Processes and Procedures		Mitigation	
Risk Management Strtegy	Maintenance		Improvements	
	Protective Technology			

#### **Get together with peer organizations**

When it comes to developing a program, don't be on an island. Peer up with related organizations and join regional or international organizations.

#### **Collaborate with other departments**

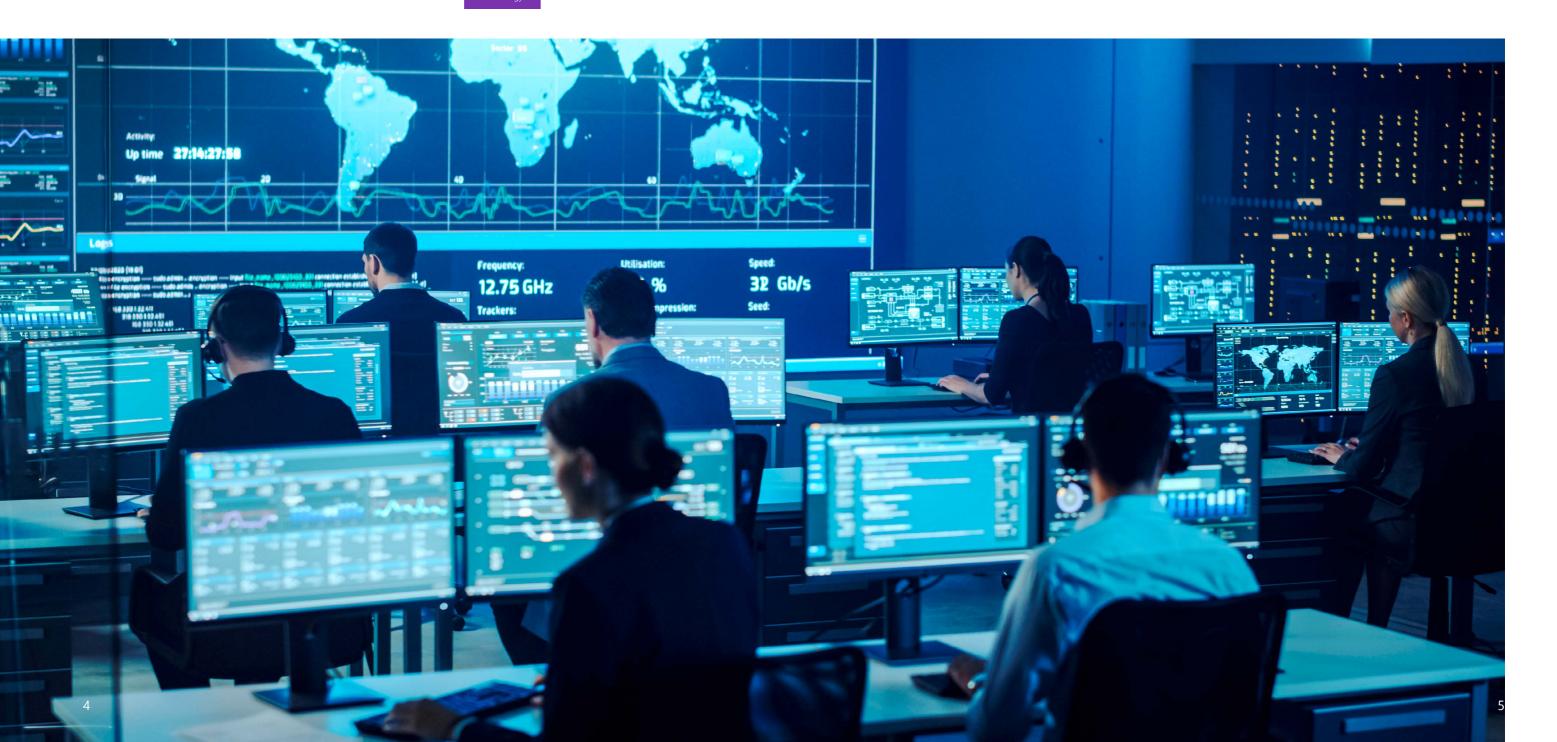
Cybersecurity policies, procedures, and plans are often written by a single person or small team of people. It is important to get other business and technology leaders across departments or affiliated "organizations" involved in creation of policies.

## Assign Responsibilities and hold Accountability

It is in the organization's best interest to identify responsibilities and accountabilities for various aspects of the cybersecurity program across the entire organization.

### Measure Program-Metrics and Share Results

Identify measurements for as many aspects of the program as you possible can and share the results with your superiors or stakeholders frequently. That way you can visualize the success of the program.



# What Protelion GmbH can do for you?

Protelion GmbH, together with its global partners, provides Solutions, Products and Services to identify the necessary steps towards an establishment and implementation of your comprehensive cybersecurity strategy.

## What can you expect from Protelion GmbH?

Protelion GmbH provides solutions to all aspects as described and focusing its deliveries on a People, Process, Technology approach.

#### People

- End User Education and Awareness Seminars
- Cyber Range Training for Security Operation Center operators
- Operational Training on Products and Cybersecurity Tools

#### **Process**

- General Cybersecurity Consulting (ICT Security Architecture)
- Identity and Access Management
- Vulnerability and Risk Assessment
- Support in Process and Policy development, Strategy layout

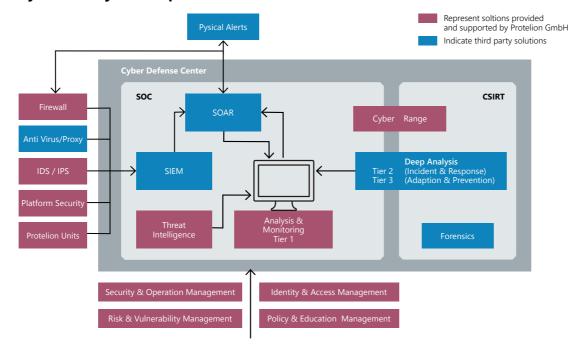
#### Technology

- Analysis and Monitoring Environment
- TDR (Threat Detection and Response)
  - Treat Intelligence
  - Intrusion Detection Systems (IDS)
  - Intrusion Prevention Systems (IPS)
- Next Generation Firewalls
- Platform Security
- Encryption for backbone, distribution networks and End User devices
- Protelion technology supports third-party appliances like: NG-Antivirus, Proxy-Servers etc.



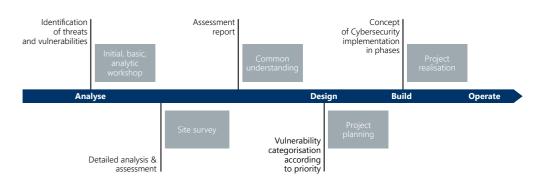
# PROTELION

#### **Cybersecurity landscape**



# Protelion GmbH shares a long time working together philosophy to support our clients in the best way possible.

#### Working together



Common defined milestone towards a complete cybersecurity solution

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