openHPI Course: Cyberthreats by Malware

Welcome to Course Week 2

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Recap Course Week 1

We provided a general overview of the cyberattacks by malware:

- Why is the Internet at all and each single user such an interesting target for malware attacks?

- Who are the attackers on the Internet?

- How does one can get infected with malware?

- What are the reasons for malware infections?

  - human factors
  - technical failures

Different Types of Malware

**This week we will consider the different types
of malware:**

- One differentiation of malware is by the **way they spread**:
    - **virus**
    - **worm**
    - **trojan**
- Malware can also be differentiated by the **actions** it takes
    - exfiltrate data
    - manipulate systems
    - …

Different Types of Malware

We will consider the most-common types of malware:

- Botnets
- Rootkits and Backdoors
- Adware and Spyware
- Scareware and Rogueware
- Ransomware
- Keylogger

Further Content of This Week

Furthermore, we will highlight some interesting malware examples:

- **Emotet** – "The Social-Engineering Malware"
- **Carberp** – "The Phishing Malware"

In order to support you to protect yourself we will discuss some **protective measures** against malware attacks

Finally, we offer two excursuses about:

- **Firewalls**
- **Anti-Virus-Scanner**