

# ***Crypto-viruses and damage prevention***

Primož Govekar

How to control damage caused by  
crypto-viruses and other ransomware

# *Ransomware*

- Malicious software
- Does something bad to your data
- Blackmails / takes ransom



# *How do we get it?*

- Over e-mail attachment
- Following an Internet link
- Visiting infected internet page
- USB key
- Network propagation
- ...



# *It does bad things to your data*

- Encrypts the data
- Finds all of available storage areas
- Decrypt key known only to blackmailer
- Time-limited decryption



# *Pay or Lose*

- 400 to more thousands of EUR
- Be fast, or double
- Don't call the Police to restore data
  - They are really unable to help



# *Nothing worth?*

- Really?
- What about:
  - Personal photos,
  - Other memories in digital form,
  - Business documents
  - ...



*What to do?*



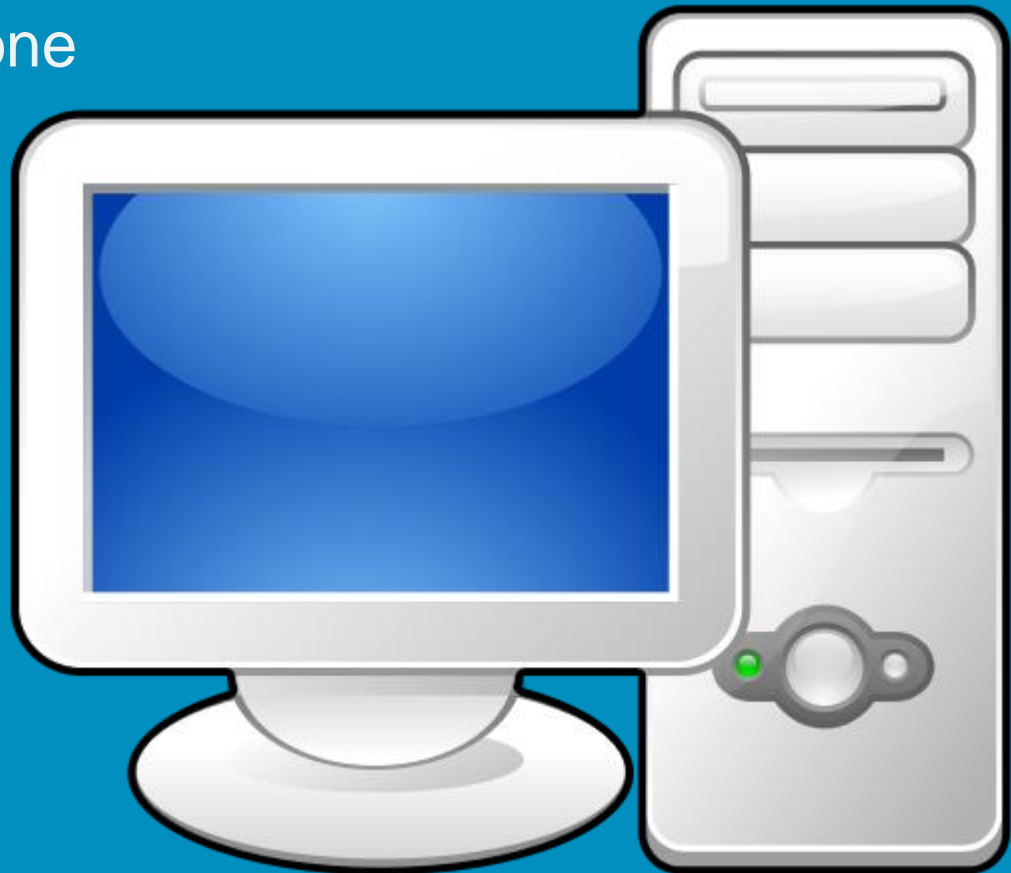
# *Backups need to be*

- Planned
- Done according to plan
- Checked
- Actively improved through time
  
- PDCA?



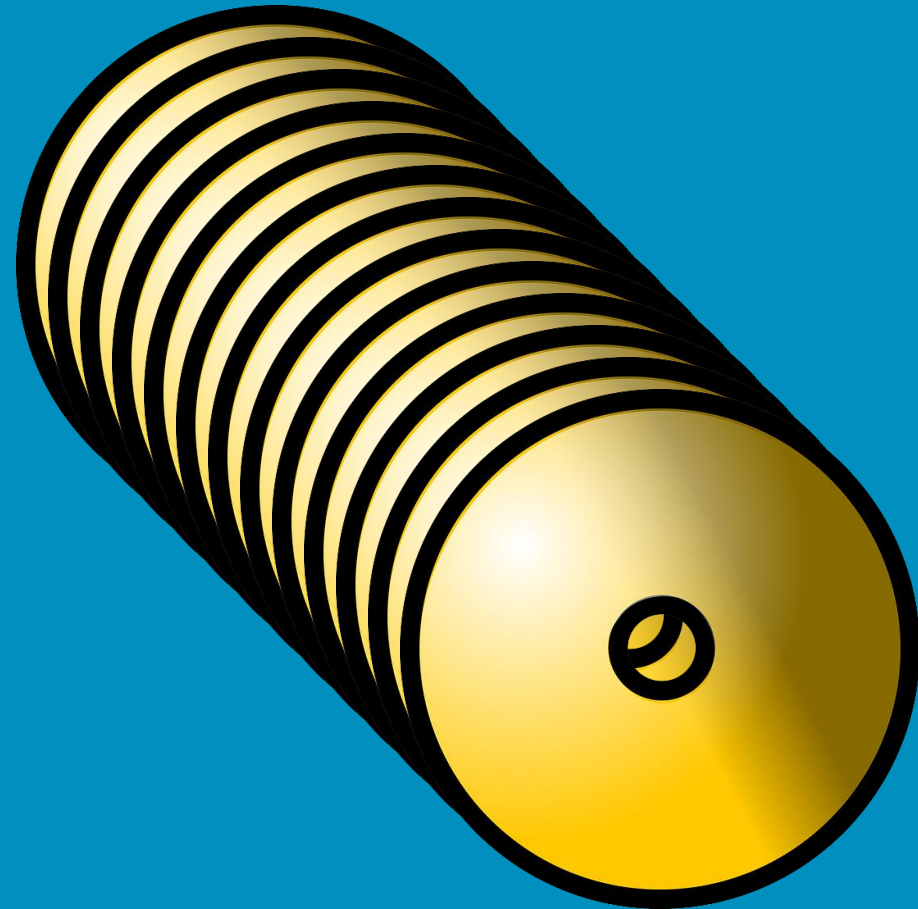
# *How to do?*

- Plan it for specific device
  - PC different than phone
- Backup to
  - CD/DVD/Blu-ray
  - USB device
  - Cloud
  - Network Device



# *Backup to CD/DVD/BlueRay*

- Slow
- Small capacity
- Requires manual work
- Limited endurance
- + Many redundant copies
- + Cannot be erased
- + Low investment



## *Backup to USB device*

- Requires manual work
- Slow
- Can be accidentally erased
- Moderate investment
- Small number of redundant copies
- + Can be disconnected
- + Mostly appropriate capacity



# *Backup to Cloud*



- Can be accidentally erased
- For proper capacity needs to be paid
- Can be accessed by unwanted people
- Low investment but higher running costs
- Cloud policy defines redundant copies
- + Not to worry about
- + Automated
- + Capacity on demand

# *Backup to Network device*

- Can be accidentally erased
- Needs attention
- High investment but no big running costs
- + Redundant copies are freely definable
- + Automated copying from devices
- + Big capacity available



***Thank you for your attention***

- [primoz.govekar@parsek.com](mailto:primoz.govekar@parsek.com)