

# OPCUG

## Disaster Recovery



*Users helping users*

# Why backup

- We don't backup for backups' sake
- We backup so we can recover
- Untested backup may be worthless
- Untested recovery process may not work

# What if a hard drive fails?

- I prefer image backups
  - Backs up everything (OS, programs, data)
  - Restore
    - everything
    - selected files/folders
  - Can be automated

# Disaster

- *Boot device not found*
- HP replaced SSD
- ... and the motherboard  
(remember this)

# My recovery tools

**Bootable "rescue disk"**



**External hard drive with  
backup image**



# My computer

3 USB ports

One Type-A

Two Type-C

Two Type-A devices!



# Options

- Hub on Type-A port (\$\$\$)
  - may need powered hub
- Type-C to Type-A dongle (\$\$\$)
- Type-C flash drive or USB drive (\$\$\$)
- Flash drive big enough for backup image & make it bootable (\$\$\$)
- Or...

# Cheapest option

- Repurpose old 1 TB external drive
- EaseUS Todo Backup “rescue disk”
- Copy backup image to the drive
  - boot from rescue disk
  - run EaseUS Todo Backup from rescue disk
  - access backup image on same rescue disk



# Oops...

- “Rescue disk must be formatted FAT32”
  - FAT32 limited to
    - max 32 GB partition
    - max file size 4 GB
  - my backup image is 147 GB

# Final solution

- Wipe 1 TB external hard drive
- Create 10 GB partition
  - it could have been much smaller
- EaseUS “rescue disk” on 10 GB partition
- Test boot from drive
- Create NTFS partition in remaining space
- Copy backup image to NTFS partition
- Successfully restored entire image



# Oops #2

- Remember HP replaced the motherboard?
  - Windows Hello requires you to set a PIN
  - PIN is stored on *motherboard* in TPM
- After restoring SSD
  - Windows Hello recognized my face
  - would not log me in – no match for PIN
  - didn't like my password
  - did not see my WiFi
    - may have been able to fix if I could have gotten to Microsoft account on web
  - locked out!



# Local account to rescue!

- Recent Q&A
  - extra local admin account to fix problems
- Logged in using my local admin account
  - connected to WiFi
  - logged back into regular account
  - was able to use password
  - was able to reset PIN

# Bottom line

- Think not only about backup
- Think about recovery
  - Can you boot from a “rescue” disk?
  - Can you access your backup files
  - Do you have a local account with Admin privileges?
  - Have you practiced restoring at least a few files?
- Be prepared!