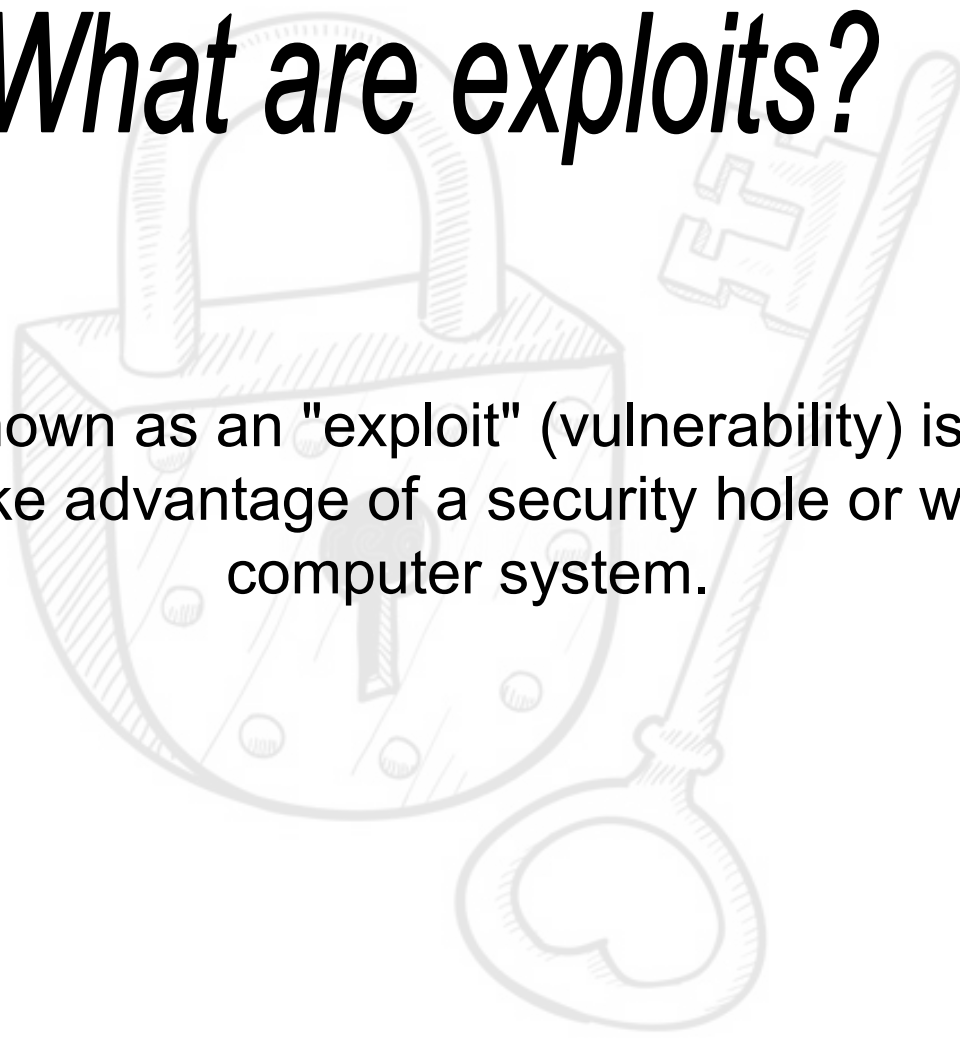# *Apple Malware, Exploit History and*

Background

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What are exploits?

A software known as an "exploit" (vulnerability) is designed to detect and take advantage of a security hole or weakness in a computer system.

Goals:

- Reveals Apple's Security History
- Helps users determine trust level for the company (with their data)
- Reveals the most exploited OS

Purpose:

Learn about and examine Apple's security history in order to assess its effectiveness

Significance:

- This research is necessary since Apple vulnerabilities are becoming more prevalent, and we need to learn the patterns behind exploits to reduce them.
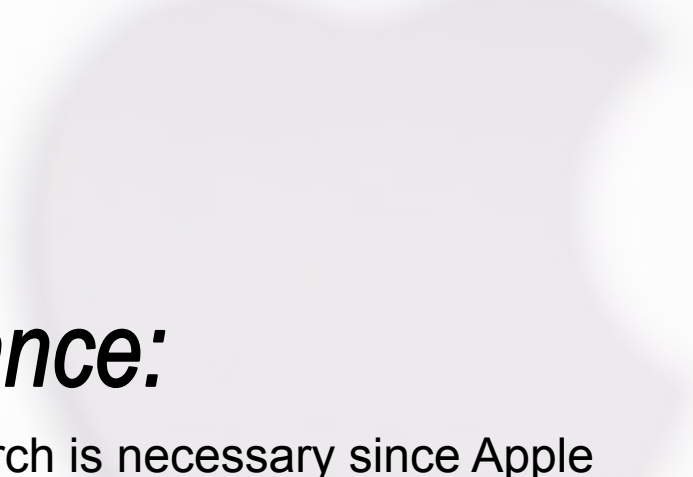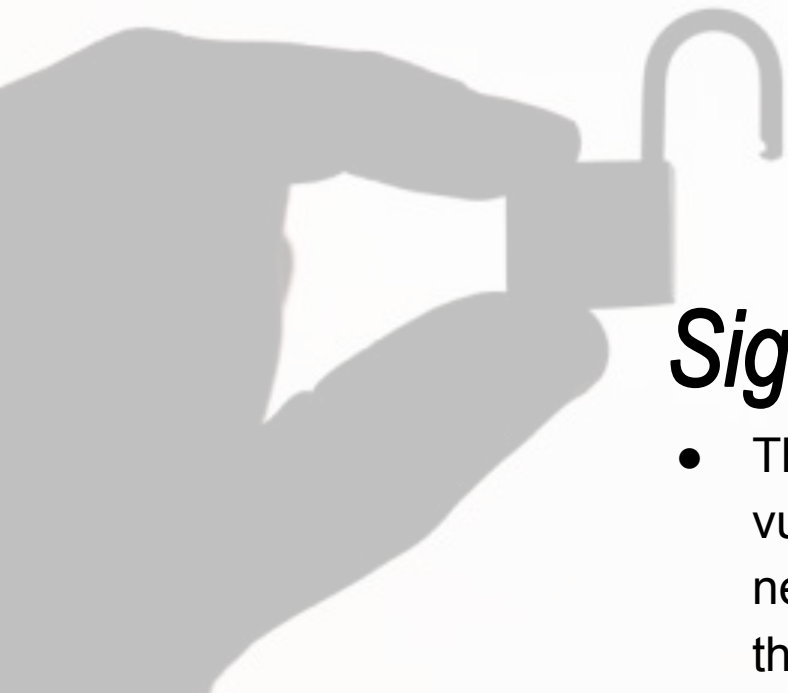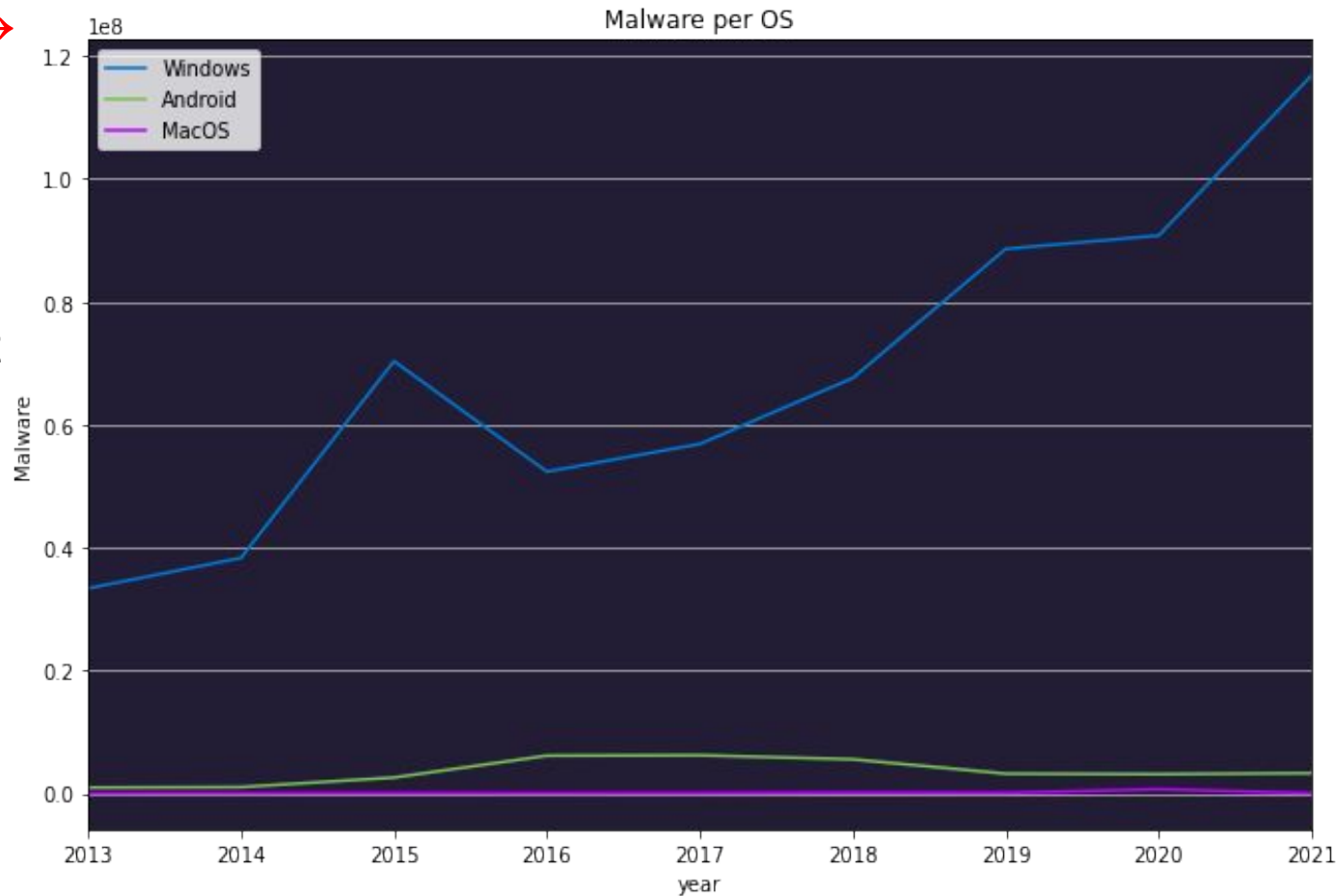
Datasets:

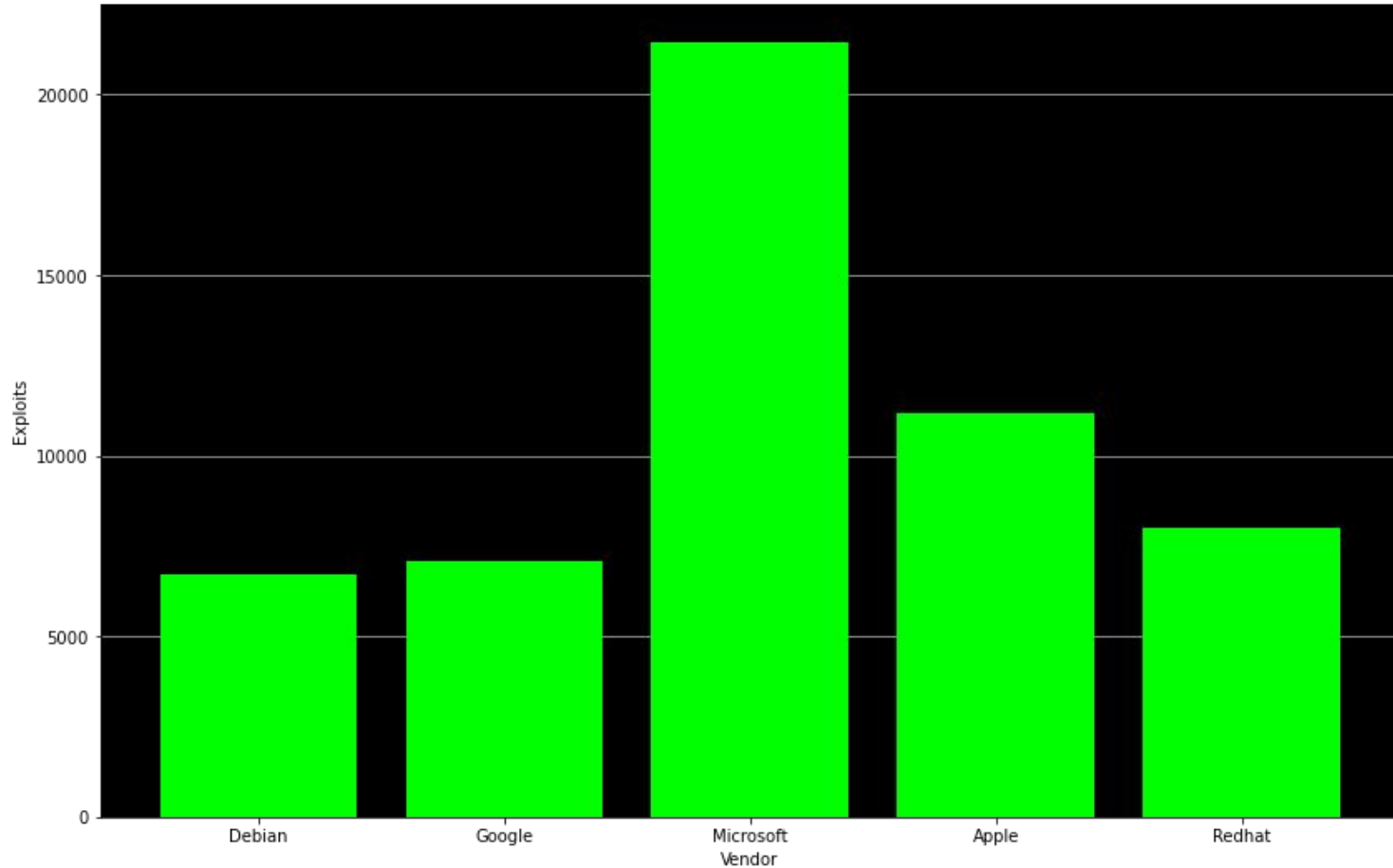| Title	Source
Malware per year	AV-test
Most exploited Vendors of all time	cvedetails
Exploits per year (2002 to 2019)	Kaggle

★ Values x 10⁸ ⟶

❖ Windows had the most malware
❖ MacOS had the least

Malware per OS

- Most exploited:
  - Windows

- Second exploited:
  - Apple

- Least exploited:
  - Debian

Top 5 Most Exploited Vendors

Number of Apple Exploits/Year
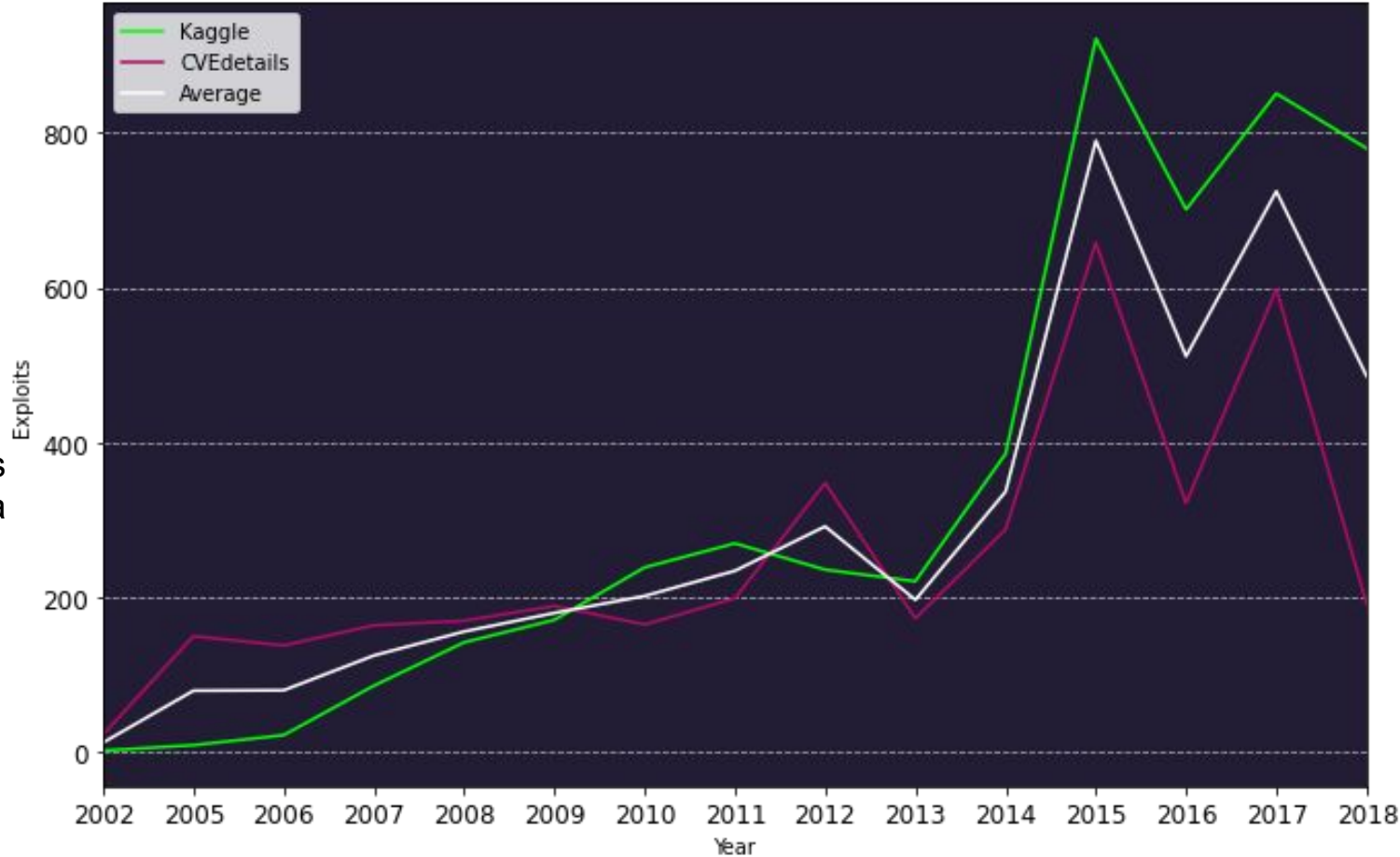
- Similarity of two datasets from each source

- The two lines have different peak levels due to different data sources

Kaggle Apple Exploits (2000 to 2018)
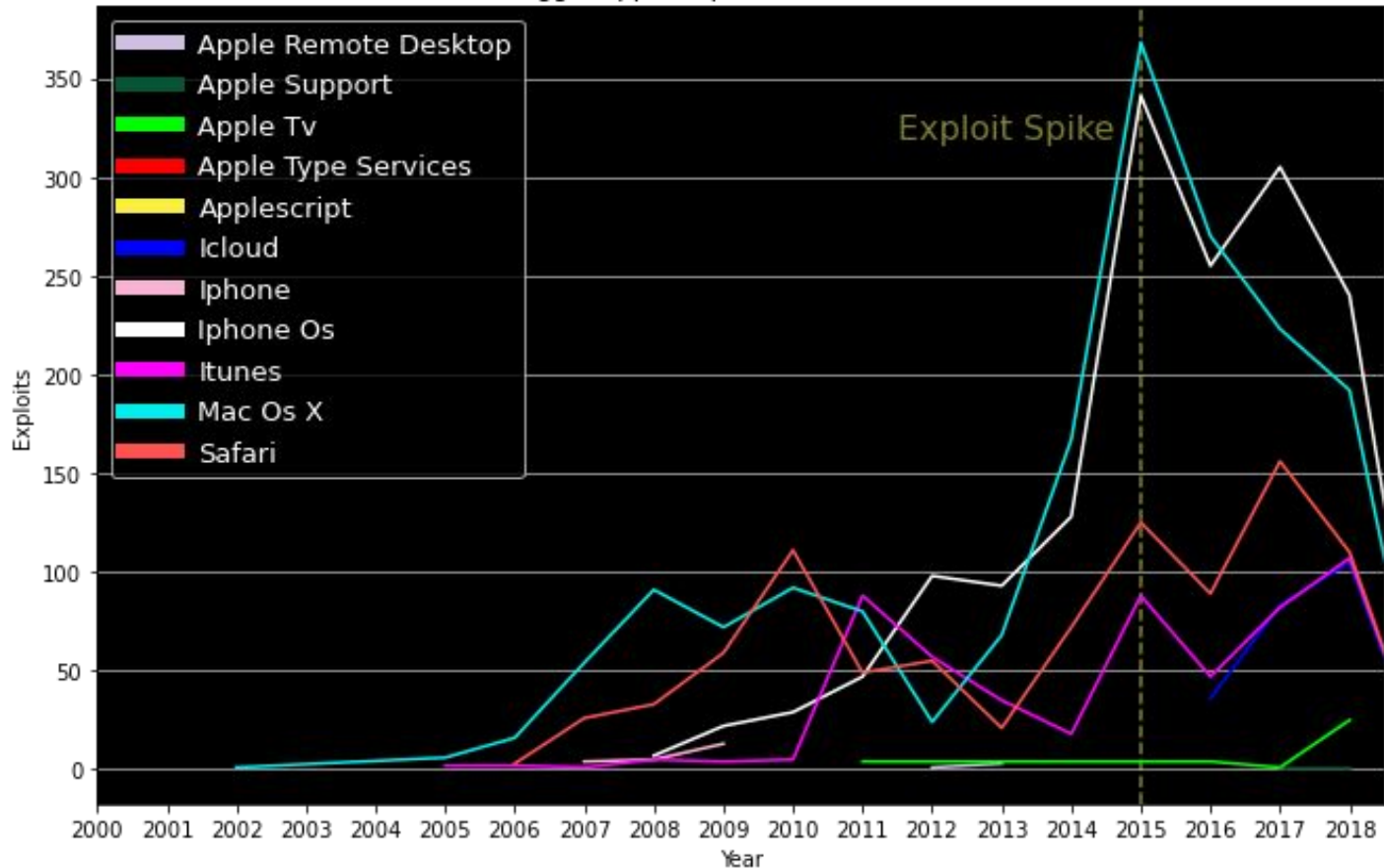
- Due to numerous Apple product releases in 2015 and 2017, the number of exploits surged.

- Mac OS X / Mac OS and iPhone OS were the most exploited since they were the most utilized

Legend:
- Apple Remote Desktop
- Apple Support
- Apple Tv
- Apple Type Services
- Applescript
- Icloud
- Iphone
- Iphone Os
- Itunes
- Mac Os X
- Safari

Exploit Spike

Top Findings:

➢ Windows is the most exploited vendor
➢ Apple was the most exploited vendor in 2015
➢ 2017 was similar to 2015 in Apple exploit quantity
➢ Exploit amount spikes up when Apple releases new products

➔ <u>Limitations:</u>
- ◆ Exploits and malware are not the only factors of security
- ◆ Datasets for malware quantity might be skewed (Data collected from a German company)
- ◆ Datasets for exploits were obtained from government websites (Certain data may be classified)

● <u>Future Work:</u>
- ○ Android Security History
- ○ Windows Security History
- ○ Effects of exploit on Apple's financial status
- ○ Apple Security Methods towards malware

References

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