

CPSC 430

Computers & Society

Class 5A: Computers and Network Security (Chapter 7)

Dr. Firas Moosvi | 2024_S2

Slides courtesy of Dr. Kevin Leyton-Brown

Class Outline

1. Announcements (5 mins)
2. Case Study 1: (30 mins)
3. Break (10 mins)
4. Case Study 1 Debrief (20 mins)
5. Case Study 2: (30 mins)
6. Break (10 mins)
7. Case Study 1 Debrief (20 mins)
8. Reminders before next class (5 mins)

Announcements

Case Study 1: Ransomware at Grey-Sloan Memorial Hospital



CTV

Grey-Sloan Memorial Hospital

Grey-Sloan Memorial Hospital is a fictitious hospital from the popular TV show: “Grey’s Anatomy”

Though this exact case is fictitious (and dramatic), it’s based on real events!

Discussion

What should Grey-Sloan memorial do?

- Pay the ransom and regain access to their computers?*
- Refuse to pay the ransom and switch to paper records?*

Discussion

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- Pay the ransom and regain access to their computers?*
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Debate format:

- 15 minutes to think, research, prepare your arguments
- A few people will have assigned “roles” (NOT positions),
- Everyone else may assume a role of Patient at the hospital, Family of patient at hospital, or Concerned Citizen

Discussion

What should Grey-Sloan memorial do?

- Pay the ransom and regain access to their computers?*
- Refuse to pay the ransom and switch to paper records?*

Debate format:

Discussion period will last a total of 15 minutes

Every member of the group must speak

Each hospital (cluster) can make a decision once 2/3 (67%) + 1 members approve

Any member can call for a vote, once every 5 minutes (maximum of 3 votes)

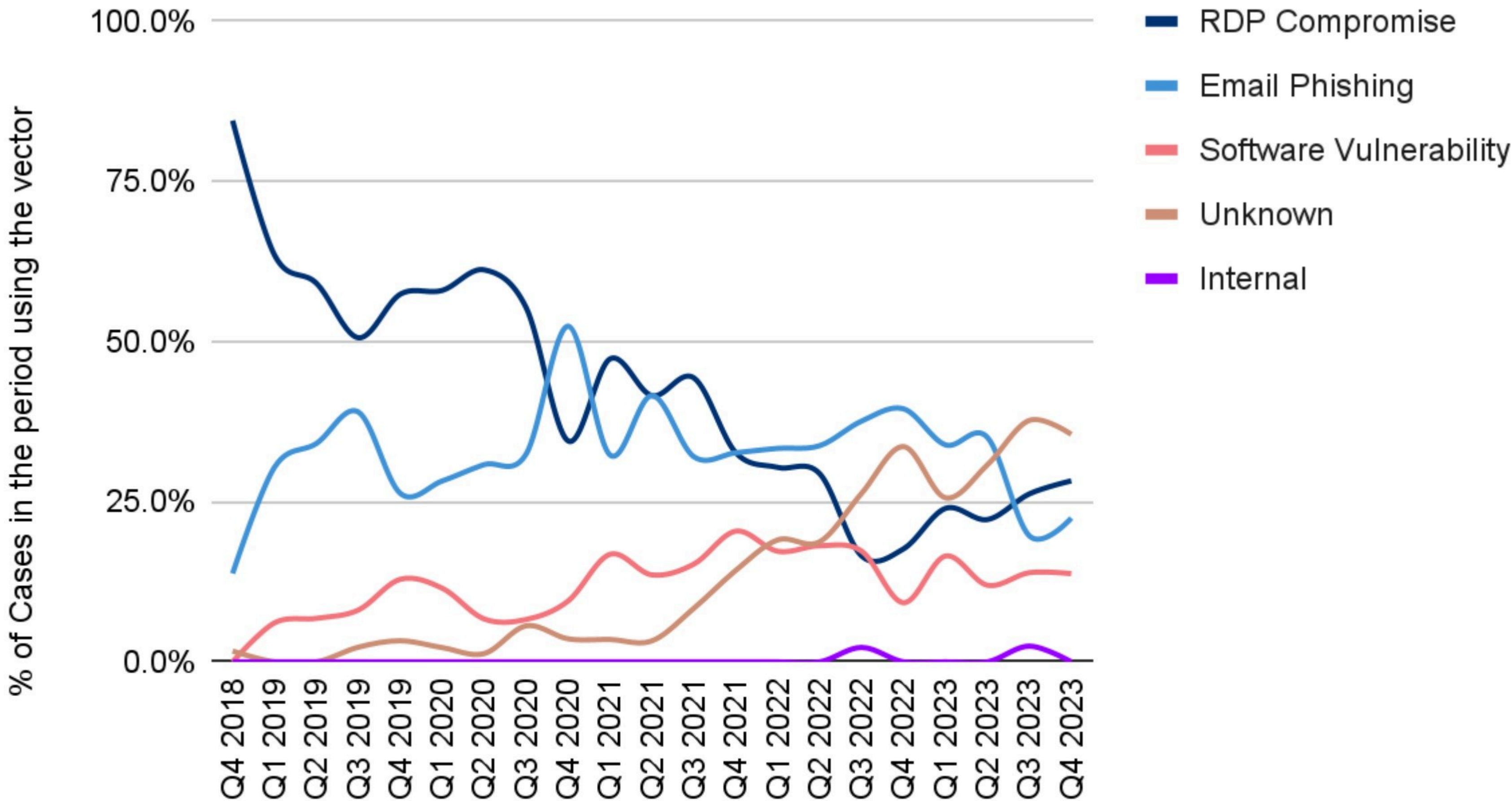
Break (10 mins)

Case Study 1

Debrief

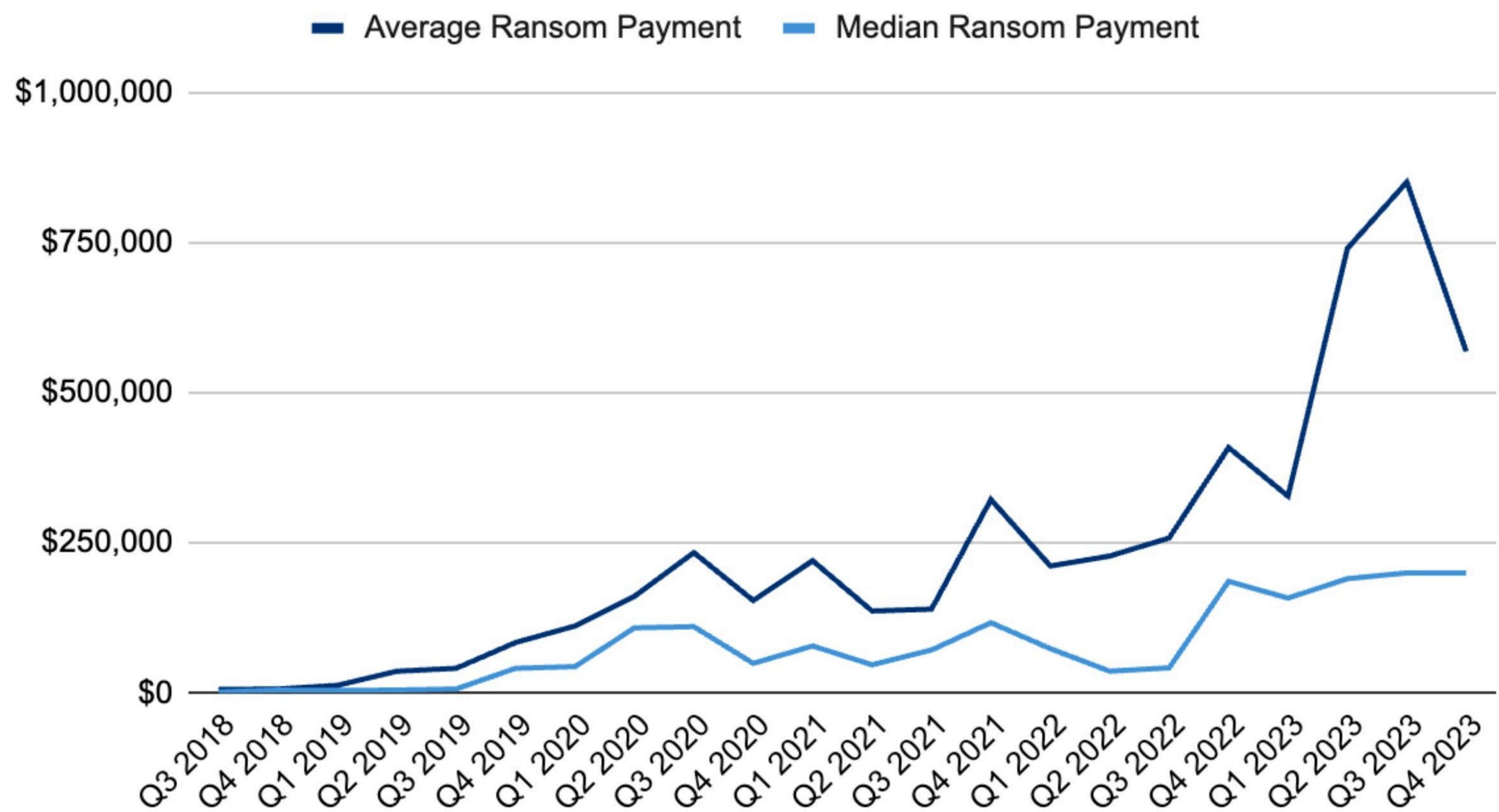
Ransomware Debrief

Ransomware Attack Vectors



Ransomware Debrief

Ransom Payments By Quarter



Average Ransom Payment

\$568,705

-33% from Q3 2023

Median Ransom Payment

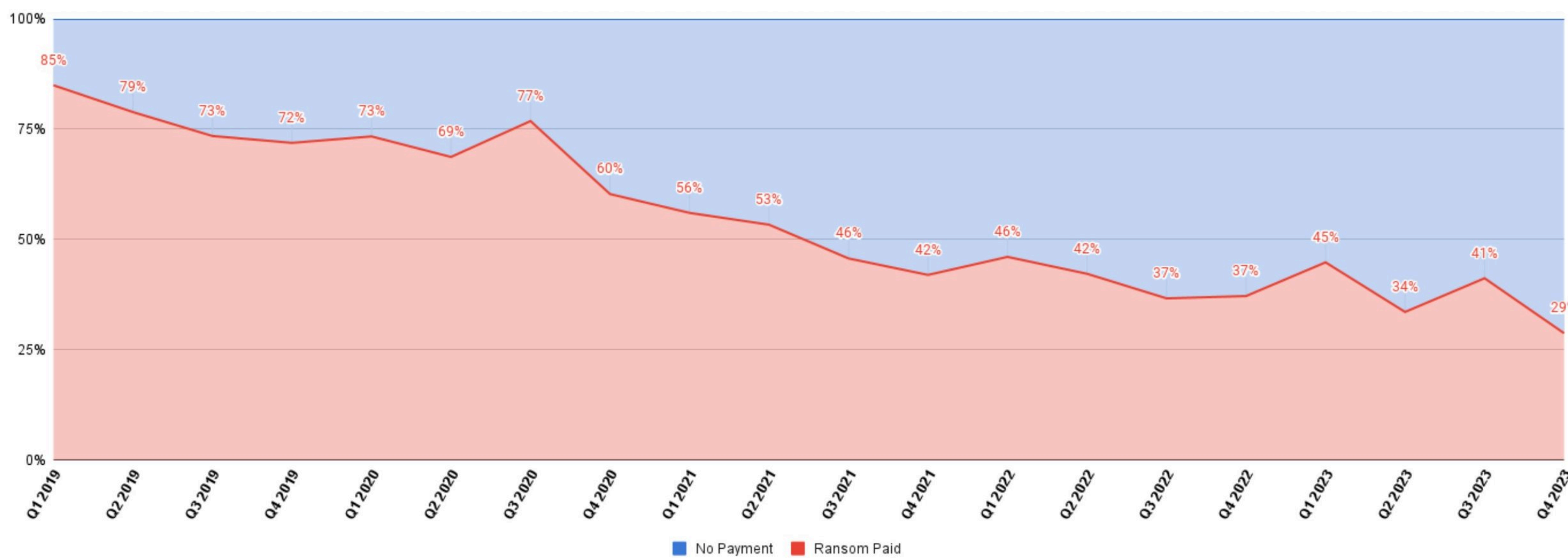
\$200,000

No Change from Q3 2023



Ransomware Debrief

All Ransomware Payment Resolution Rates



Reference: [Coveware Quarterly Ransomware Reports](#)

Case Study 2: NSA strikes again - EternalBlue

Wannacry Hacking Attack

WANNACRY HACKING ATTACK



WANNACRY debate

- Lots of questions arise from this:
 - Should the NSA exploit software vulnerabilities to facilitate their surveillance?
 - Should the hacker have released the exploit publicly?
 - What responsibility do companies/institutions/organizations have to invest in hardware/software maintenance and compliance with best practices ?

Break (10 mins)

Case Study 2

Debrief

Reminders before next class