

Ethics: Cyber Security 101

Ransomware Attack

SETTING: AN INSURANCE COMPANY OFFICE (OPEN CONCEPT). SARAH IS MIDDLE MANAGEMENT IN THE ACTUARIAL DEPARTMENT. SHE IS ON THE PHONE WITH JIM AN ACTUARY WORKING ON CALCULATING INSURANCE QUOTES. SHE SKIMS HER EMAIL AS SHE IS SPEAKING.

CHARACTERS: MIDDLE MANAGER -SARAH, SARAH'S BOSS- MICHELLE, ACTUARY- JIM

SCENE ONE

SARAH

HER DESK HAS AN "I LOVE MY PET" FRAME WITH A DOG PHOTO IN IT AS WELL AS A FEW PHOTOS OF HER KIDS. SHE SKIMS HER E-MAIL AND SEES A SOCIAL MEDIA NOTIFICATION FROM MICHELLE IN MARKETING SAYING "HEY CHECK OUT THIS QUIZ. I THINK YOU'LL FIND IT REALLY FUNNY! www.quizzes.com/findoutwhichdogyouare" SHE ALSO SEES THAT THERE ARE OVER A 1,000 LIKES AND 560 SHARES FOR THE QUIZ. AS SARAH CONSIDERS THE MESSAGE SHE IS ALSO SPEAKING ON THE PHONE.

Jim, I need the home insurance projections for Idaho ASAP.

SHE CLICKS ON THE LINK FOR THE PERSONALITY POOCH QUIZ AND SKIMS THE POP-UP ASKING FOR PERMISSION TO ACCESS HER CONTACTS, PHOTOS AND SOCIAL MEDIA PROFILE. SHE THEN CLICKS ACCEPT.

SARAH INTERNAL DIALOGUE (INTERESTED/RELAXED VOICE)

Well, Michelle took this and shared her contacts so it has to be okay.

JIM

Muffled response heard through the phone

SARAH

I know the deadline is quick but Steve wants them by Friday

SARAH INTERNAL DIALOGUE (SARCASM)

Do I like summer or fall better?

Not sure about favorite activity. It's a toss up between curling up by a fire or going for a walk....

WE SEE THE SARAH TAKING THE QUIZ AND HER RESULTS AS THE MUFFLED VOICE OF JIM IS STILL HEARD. SARAH MAKES SOOTHING SOUNDS TO CALM JIM DOWN AS SHE LISTENS AND TAKES THE QUIZ

A pug?! There's no way, I am nothing like a pug. Maybe I will take it again to see if I can get better results. (WE HEAR JIM'S MUFFLED VOICE AGAIN A BIT LOUDER THAN BEFORE AS HE TRIES TO REGAIN HER ATTENTION). Oh, sorry Jim, I was distracted by something Steve sent.

SARAH LOOKS THROUGH THE FILE FOLDER ON HER DESK BEFORE PULLING OUT A FILE AND EMAILING MICHELLE AS SHE IS ALSO FINISHING THE CONVERSATION WITH JIM.

No, you make a good point. I'll mention extending the deadline. (PAUSE) Hey - I need to check on something. Let me get back to you.

WE SEE HER FLIP HER SCREEN FROM THE QUIZ TO THE CORPORATE SHARED DRIVE

SARAH INTERNAL DIALOGUE

That's weird I didn't think I'd logged out of the shared drive?

SHE TYPES IN HER USERNAME AND PASSWORD BUT GETS AN ERROR MESSAGE. SHE TRIES SEVERAL MORE TIMES UNTIL THE SCREEN SHOWS SHE IS LOCKED OUT AND TO TRY AGAIN LATER.

MICHELLE

COMES OVER TO SARAH'S DESK LOOKING WORRIED

Sarah, have you had trouble logging into our shared drive? I can't get in.

SARAH (WORRIED)

Umm... yeah. Do you think IT is running a test?

WE SEE A RANSOM DEMAND IN BRIGHT GREEN AND BLUE FONT POP POP UP AS MICHELLE AND SARAH CHAT. THE DEMAND IS FOR 13 BITCOINS TO REGAIN ACCESS TO THE INSURANCE COMPANY'S NETWORK. MICHELLE AND SARAH STARE AT THE SCREEN AND THEN EACH OTHER.

[FAQ](#)

[When is Ghostly Locker?](#)

Ghostly Locker is a Ransomware-as-a-Service platform that was developed partially by me several months ago for private use. It has served its purpose well but it's time for Ghostly to go public.

You can find out more about Ghostly Locker [here](#).

[Why is Ghostly Locker going public?](#)

Ghostly Locker is going public because, as you might have noticed, currently there is no solid RaaS available to Torum members and CryptBB members. Also, the influx of low-quality overpriced ransomware has also been an important factor in the decision of providing Ghostly Locker to the public.

[Will Ghostly Locker stay public?](#)

No. Once a certain number of public buyers is reached, public registration will be closed again.

[Is Ghostly Locker really FUD?](#)

Currently yes. This subject is quite delicate because keeping a public ransomware FUD for long will be tough. This is the reason why public registration is open for a limited time only.

I do encourage you to use a packer alongside Ghostly Locker to make sure your build is FUD.

[Buyer's guide](#)

You can purchase a Ghostly Locker subscription via [Terminal's escrow service](#) or via direct payment.

Also, to make your purchase experience effortless, you can also purchase Ghostly Locker via CryptBB PMs in 4 easy steps:

- [Step 1](#)
PM me your **username** you will use to register with, your **bitcoin wallet** and the **subscription plan** of your choice.
- [Step 2](#)
You will receive a reply within *2 business days* with your **subscription token**, a link to your **darknet dashboard**, and the **payment wallet** where you will have to transfer the funds once you register.
- [Step 3](#)
Register using the **subscription token** you've been provided with at step 2. After registering, login to check that your account is functional.
- [Step 4](#)
After logging in, you will be redirected to the default page for inactive accounts. Transfer the funds to the **payment wallet** provided to you at step 2. Your account will be activated shortly after.

A testing period before the escrow is released will not be provided!

[Future developments](#)

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SARAH

What is happening?!

BOTH WOMEN TURN TO LOOK AT EACH OTHER. PANIC WRITTEN ON THEIR FACES. MICHELLE'S PHONE BEGINS RINGING AT HER DESK. WE SEE MICHELLE RUN BACK TO HER DESK.

MICHELLE

(SOUNDS TIRED AND TENSE)

Hi Jim, what's up?

JIM

(VOICE OVER ONLY/SOUNDS FRUSTRATED AND SLIGHTLY ANGRY)

Hello? MICHELLE? I keep having problems with insurance shared drive. I can't open any folders. I was just speaking to Sarah about the latest calculations for Iowa and then suddenly I was logged out of the company portal. All my calculations are on there. I don't have them backed up anywhere else!

MICHELLE

(SOUNDS TIRED BUT STILL TRIES TO SOOTHE JIM)

Okay, Jim, take a deep breath. We'll figure this out. We're having some technical problems on our end as well.

SCENE 2: CHOICE ONE
LETTING PEOPLE KNOW

SCENE BEGINS WITH MICHELLE MAKING EYE CONTACT WITH SARAH AND MOTIONS FOR HER TO FOLLOW HER TO THE WOMEN'S BATHROOM. BOTH LOOK EXTREMELY NERVOUS AND WORRIED.

MICHELLE

Look, Sarah I don't know if we can keep this a secret much longer!

SARAH

We have too! I don't know about you but I don't want to lose my job.

MICHELLE

I don't either but isn't IT going to find out anyway?

SARAH

How are they going to find out?

MICHELLE

Um, I.T. can trace it back to us....?? (duh-snarky)

SARAH

Let them try, since the whole system is down, I doubt they'll find out.

MICHELLE

Even if they don't, we still shouldn't have taken the quiz during work hours.

SARAH

Well...

MICHELLE

Look, I'm going to tell to IT regardless

SARAH

That's fine, but leave me out of it. I don't want anything to do with this. I had no idea this would happen.

SCENE 3: CHOICE 2: FREEZING DOING NOTHING

SCENE BEGINS WITH A CALL FROM JIM TO MICHELLE.

JIM (SOUNDS FRUSTRATED)

Michelle, something is definitely going on with the shared drive. It's a mess over in actuarial.
We can't do anything!

MICHELLE

Jim, I have no idea what happened. (SHE IS FIDGETING WITH THINGS ON HER DESK
AND LOOKING AROUND AS OTHER OFFICE WORKERS ARE CLEARLY
FRUSTRATED)

I'm sure IT is on top of things and this will be worked out in a few hours. Why don't you suggest
people take an early lunch as IT solves this?

MICHELLE MAKES EYE CONTACT WITH SARAH AND MOTIONS FOR HER TO
FOLLOW HER TO THE WOMEN'S BATHROOM. BOTH LOOK EXTREMELY NERVOUS
AND WORRIED.

MICHELLE

This wasn't even our fault. We didn't do anything wrong. Now, everyone is frustrated and can't
do any work.

SARAH

Let's leave it to I.T. to fix and pretend nothing happened. We can act surprised if anyone says
anything.

MICHELLE

I can't deal with this stress. I think I'm going to tell everyone I have a migraine and just head
home.

SARAH

Completely understand. I'm going to sit outside for a bit and hope no one notices I'm not at my
desk. In all this chaos I doubt people will expect me to be working and I need just a bit of space to
think.

MICHELLE AND SARAH PART WAYS AND LEAVE THE BATHROOM. WE SEE THEM
WALKING TO THEIR RESPECTIVE DESKS AS THE SCENE ENDS.--

CASE STUDY EXAMPLES

Garrety, M. (2019, June 7). "27 hospital, health system data breaches in 2019." *Becker Hospital Review*

<https://www.beckershospitalreview.com/cybersecurity/27-hospital-health-system-data-breaches-in-2019.html>

Terhun, C. (2015, July 17). UCLA health system data breach effects 4.5 million patients. *LA Times* <https://www.latimes.com/business/la-fi-ucla-medical-data-20150717-story.html>

Morecraft, B. (2019, August 8). "State Farm hit by data breach." *Insurance Business America* <https://www.insurancebusinessmag.com/us/news/cyber/state-farm-hit-by-data-breach-174829.aspx>

Newman, L. (2019, February 17). "Hacker lexicon: What is credential stuffing?" *Wired* <https://www.wired.com/story/what-is-credential-stuffing/>

Popper, N. (2020, February 9). "Ransomware attacks grow, crippling cities and businesses." *NY Times* <https://www.nytimes.com/2020/02/09/technology/ransomware-attacks.html>

The following are links from a website that compiles case studies of cyber attacks, all three are attacks against insurance companies. All three attacks were disclosed in 2018 but the attacks occurred in 2017 or 2016. Each case study shows how many people were impacted, how long the information was exposed, what information was stolen, and the second two give examples of what those companies offered as compensation.

<https://www.cybersecuritycasestudies.com/library/2600-patients-suffer-data-breach-at-healthcare-company>

<https://www.cybersecuritycasestudies.com/library/500-000-patients-may-have-had-their-personal-information-exposed>

<https://www.cybersecuritycasestudies.com/library/134-512-patient-records-accessed-by-hackers-at-us-healthcare-company>

5 best practices for cyber security, obtained from in class presentation by Darin Seiler, Adrian College Director of IT

- Enable two way factor authentication
- Update your software
- Create a strong unique password
- Sign up for data breach alerts
- Backup your data

Possible discussion questions

What option would you suggest for someone in Michelle and Sarah's position? What option would you choose if you were in Michelle and Sarah's position?

How should Jim discipline Michelle and Sarah? (Does this discipline vary based on what option they chose?)

What have you learned from this video?

Can you think of other ways hackers may try to infiltrate a company's computer network?

Should the company institute cybersecurity training?

Should companies have policies that limit or do not allow employees to be on social media during work hours?