GET OUT YOUR MOBILE DEVICES!

JOIN UP!

Website is preferred so you can ask questions!

How to join

Web

1. Go to PollEv.com
2. Enter CYBERZEN
3. Respond to activity

Text

1. Text CYBERZEN to 37607
2. Text in your message
Is this easy?

Yes

No
Hold onto your breaches!
Who am I?
(while you are joining up – you are joining up, right?)

Anne has 25 years of experience in technology, securing technology from people and securing people from technology.

9 years in banking.

Bankers rock. It took her a few years to become acclimatized to a highly-regulated industry, but now she embraces it.

Information shared is good. Information hoarded is bad.

The sky isn’t falling.
We can still be secure.
We just need to be zen.
What do you want to hear about?

- FTC Safeguarding Customer Information changes
- Threat intelligence - what have the reports been saying?
- Zero-trust?
- Data Privacy - living in the day and age of GDPR & CCPA
- Protecting your bank for the layperson
- What's all this AI/ML?
- Blockchain 101 (what's a real-life use case for banking?)
Topics or questions before we get into the premade topics?

Top
True Cybersecurity is preparing for what’s next, not what was last.

- Neil Rerup
True Cybersecurity is preparing your risk appetite for what’s next, not what was last.

- Me
likelihood of a major security breach in the next year

- **2019**
  - 10% I have no doubt that we will have to respond to a major incident in the next 12 months
  - 18% It’s highly likely
  - 37% It’s somewhat likely
  - 22% It’s somewhat unlikely
  - 6% It’s highly unlikely
  - 7% Don’t know

- **2018**
  - 9% I have no doubt that we will have to respond to a major incident in the next 12 months
  - 21% It’s highly likely
  - 29% It’s somewhat likely
  - 22% It’s somewhat unlikely
  - 11% It’s highly unlikely
  - 8% Don’t know
Clicking on attachments 96%
Password Reuse

96%
Public Wifi

78%
Providing DNA

59%
Sharing a USB stick
47%
Internet Connected Devices

38%
Using an online banking app

21%

(2nd lowest of 20)
Topics or questions before we get into the premade topics?
What do you want to hear about?

- FTC Safeguarding Customer Information changes
- Threat intelligence - what have the reports been saying?
- Zero-trust?
- Data Privacy - living in the day and age of GDPR & CCPA
- Protecting your bank for the layperson
- What's all this AI/ML?
- Blockchain 101 (what's a real-life use case for banking?)
Safeguarding customer information
# FTC changes safeguarding customer information

## The Addition

<table>
<thead>
<tr>
<th></th>
<th>&lt; 5000 Customers</th>
<th>Implement Now?</th>
</tr>
</thead>
<tbody>
<tr>
<td>One Neck to Wring (CISO)</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CIS0 and IS are qualified</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>CIS0 and IS are continually trained and updated in their field</td>
<td>Y</td>
<td>N?</td>
</tr>
<tr>
<td>CIS0 and IS are verified in taking measured steps to maintain current knowledge</td>
<td>Y</td>
<td>N?</td>
</tr>
<tr>
<td>CIS0 to report to the board annually on the status of the program and all material matters</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Information security PROGRAM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Risk Assessment – including mitigation and acceptance</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Service providers based on risk assessment</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Education and awareness based on risk assessment</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Access control – zero trust – for both digital and physical (MFA, secure disposal)</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

“N” under Implement Now = 6 months grace time

### FTC changes safeguarding customer information

<table>
<thead>
<tr>
<th>The Addition</th>
<th>&lt; 5000 Customers</th>
<th>Implement Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident response plan that covers things through the risk assessment</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Encrypt everything</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Identify everything</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Audit trails during events with the incident response plan that covers everything based on the risk assessment.</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Monitoring users – procedures and policies</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Continuous monitoring – annual penetration test and 2x a year vulnerability scan</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Procedures to assess security and all the changes</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Secure development and review of secure development</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Make sure this is all in the IS program and it’s being updated</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

“N” under Implement Now = 6 months grace time

Questions about FTC Safeguarding Customer Info changes?

Top
Artificial Intelligence / Machine Learning

In a very small nutshell
What's all this?

Artificial Intelligence
Early artificial intelligence stirs excitement.

Machine Learning
Machine learning begins to flourish.

Deep Learning
Deep learning breakthroughs drive AI boom.

Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

AI & ML
how can this be used?

Automation
- Reduced cost
- Compliance
- Uniformity
- User experience

Natural Language
- Underwriting
- Trading
- Advising

Security (maybe?)
- Anomaly
- Financial monitoring
- Network security
Questions about AI/ML?
Data Privacy: GDPR and CCPA

Security and Privacy are becoming synonymous
Are you GDPR compliant?

Yes

No
privacy

gdpr is here, ccpa is coming

GDPR

- Applies to businesses processing data within EU plus companies outside processing info of EU residents
- Protection of any person, not just consumers
- Penalties with a maximum of 4% of global annual turnover or 20 million euros
- Rights: to be informed, access, deletion, rectification, portability, objection
- Six different legal basis for processing
- Information for requests will include all the information a company has on that individual

CCPA

- Applies to residents of California
- Protection of consumers
- Fines up to 2.500 USD per violation per consumer (7500 USD for intentional ones)
- Right to access, deletion, - the right to object, + the right to opt out
- No clear definition of the legal basis, only mention of consent from the customer
- Information of requests will only extend to twelve months prior to a request

https://blog.5ca.com/ccpa-vs-gdpr
privacy

gdpr is here, ccpa is coming

Get your data in order.
Questions about GDPR and CCPA or data privacy?
Security is not complicated

Security simplified

It doesn’t have to be complicated. Honest.
protecting your bank for the layperson
Questions about how to simplify security?

Top
What has been hackening?

Threat intelligence

Data is only as good as the source.
knowledge is power

16% were breaches of Public sector entities

15% were breaches involving Healthcare organizations

10% were breaches of the Financial industry

43% of breaches involved small business victims

Verizon data breach report 2019
knowledge is power

- 71% of breaches were financially motivated
- 25% of breaches were motivated by the gain of strategic advantage (espionage)
- 32% of breaches involved phishing
- 29% of breaches involved use of stolen credentials
- 56% of breaches took months or longer to discover
knowledge is power

**Delivery Method**

- 94% email
- 23% web
- 0% other

**File Type**

- 45% Office doc
- 26% Windows app
- 22% other
knowledge
is power

Compromise

Exfiltration

Discovery

Containment

Seconds     Minutes     Hours      Days     Weeks     Months     Years

0%          20%        40%       60%        0%       20%       40%       60%
<table>
<thead>
<tr>
<th>Frequency</th>
<th>927 incidents, 207 with confirmed data disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 3 patterns</td>
<td>Web Applications, Privilege Misuse, and Miscellaneous Errors represent 72% of breaches</td>
</tr>
<tr>
<td>Threat actors</td>
<td>External (72%), Internal (36%), Multiple parties (10%), Partner (2%) (breaches)</td>
</tr>
<tr>
<td>Actor motives</td>
<td>Financial (88%), Espionage (10%) (breaches)</td>
</tr>
<tr>
<td>Data compromised</td>
<td>Personal (43%), Credentials (38%), Internal (38%) (breaches)</td>
</tr>
</tbody>
</table>
Questions on data breach report?

Top
new ways
to track

BLOCKCHAIN

For real, how long have we been talking about this?
How comfortable are you with blockchain/distributed ledger?

Very Comfortable
I'm learning
I know it exists
I don't want to know it exists
how card payments – thank you Kate Holloway! –
work today (in some cases)
blockchain payments possibilities

Merchant/Bank Sends Money

Blockchain Network Verifies

Transaction Approved

OR

Transaction Sent

Blockchain verifies account

Approved – Transaction goes through regular means
Conversion Starts

Hardware is tracked to acquirer

Hardware is checked in

Software downloads tracked

Merchant conversions tracked
Questions on blockchain?
Isn’t this just a negative thing to say?
Appropriate Risk
Secure data.
Just verify.
Continuous verification.
(aka: verify more)
Questions on zero trust?

Top
Multifactor Authentication

82%
trusted tools for protecting enterprise data

Encryption

72%
Password Manager

70%
trusted tools for protecting enterprise data

Firewalls

61%
Logging Out

61%
trusted
tools for protecting enterprise data

Third-party penetration testing

59%
trusted tools for protecting enterprise data

Security Information/Event Management

53%
trusted tools for protecting enterprise data

Security Awareness Training

52%
So cost?
Let’s talk numbers – yearly per person, 25 people in the bank

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFA</td>
<td>$75</td>
</tr>
<tr>
<td>Encryption</td>
<td>$4 (if you want a secure website)</td>
</tr>
<tr>
<td>Password Manager</td>
<td>$30</td>
</tr>
<tr>
<td>Firewall</td>
<td>$120</td>
</tr>
<tr>
<td>Logging Out</td>
<td>$0</td>
</tr>
<tr>
<td>SEIM / Anomaly Detection</td>
<td>Let’s hold off</td>
</tr>
<tr>
<td>Training</td>
<td>$17</td>
</tr>
</tbody>
</table>

Total: $246
Me:
abenigsen@bbwest.com