

Digital Resilience: Protecting Municipal Workers from Cyber Threats

Frank Fazio - CySAT Security Inc.

A Few Things

- DO NOT download or try anything I show you
- In 3 days you will forget 95% of this
- Due to the sensitive nature of the information we will not be recording this
- X (Twitter): @zippytrippy LinkedIn: Frank C Fazio
- No, I will not hack your wife/husband/girlfriend/boyfriend or mistress

Who Am I

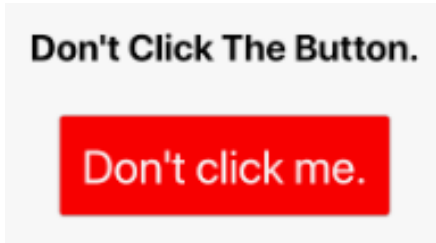
- 30+ years in the IT industry
 - Help desk, analyst programmer, database admin, cybersecurity
 - Founder – CySAT Security Inc.
- Lock picker
 - Padlocks, door locks, handcuffs
- Security conferences across US and Canada
 - Hacker teams – Unskilled Hackers, BlueTeamNinjas, ADDVulcan
- Presentations to employees, executives, law enforcement & hackers
 - New York, Ottawa, Michigan, PEI, Manitoba...
 - Municipal World magazine, IT World Canada, CBC News
- OSINT, Wi-Fi, SDR, Bluetooth, RFID, Bitcoin

Happy Cyber Security Month



- Increased phish testing
- Emails throughout the month
- Training / Videos
- Overall heightened awareness

Yeah... We Know...



Phishing

Sender

From Zoom <noreply@update-ZOOM.us> ☆
Subject **We've noticed that you are using old version of Zoom!**
To [REDACTED]

Greeting

Hey there,
Zoom latest release 5.6.6 build 824 is recommended to install.
Get it now to receive new features and safety enhancements.

Error

What's New:
• Fixed the UNC link bug
<https://secure.cyb3rsec.ca/?rid=ZG00Zky>

Error

You have received this email because you're currently use an old version.
Note: If you will delay your update, you will be prompted to update next time when you login.

No Signature

Keep it up to date!

Update Now

Click Here

Ransomware



Municipalities Attacked

- Municipality of Mekinac, Que. - Ransomware - \$30,000
- City of Stratford - Ransomware - \$75,000
- Town of Wasaga Beach - Ransomware - \$250,000
- Town of Midland - Ransomware – \$76,000
- City of Ottawa - Business Email Compromise - \$130,000
- City of Burlington - Business Email Compromise - \$503,000
- City of Saskatoon - Business Email Compromise - \$1,000,000+




NEWS RELEASE FOLLOW-UP

March 11, 2021

The council of the Municipality of Westlake Gladstone would like to thank you for your patience as we navigate through the malicious cyber security breach, in which a significant amount of money was electronically stolen from the Municipality's operating bank account.

Media briefing from the City of Saint John in relation to the Ransomware Virus




  Information and Privacy
Commissioner of Ontario
Commissaire à l'information et à la
protection de la vie privée de l'Ontario [Contact us](#)

[Home](#) > [Media Centre](#) > [News Releases](#) > [Ontario IPC concludes its review of Durham Region's privacy breach](#)

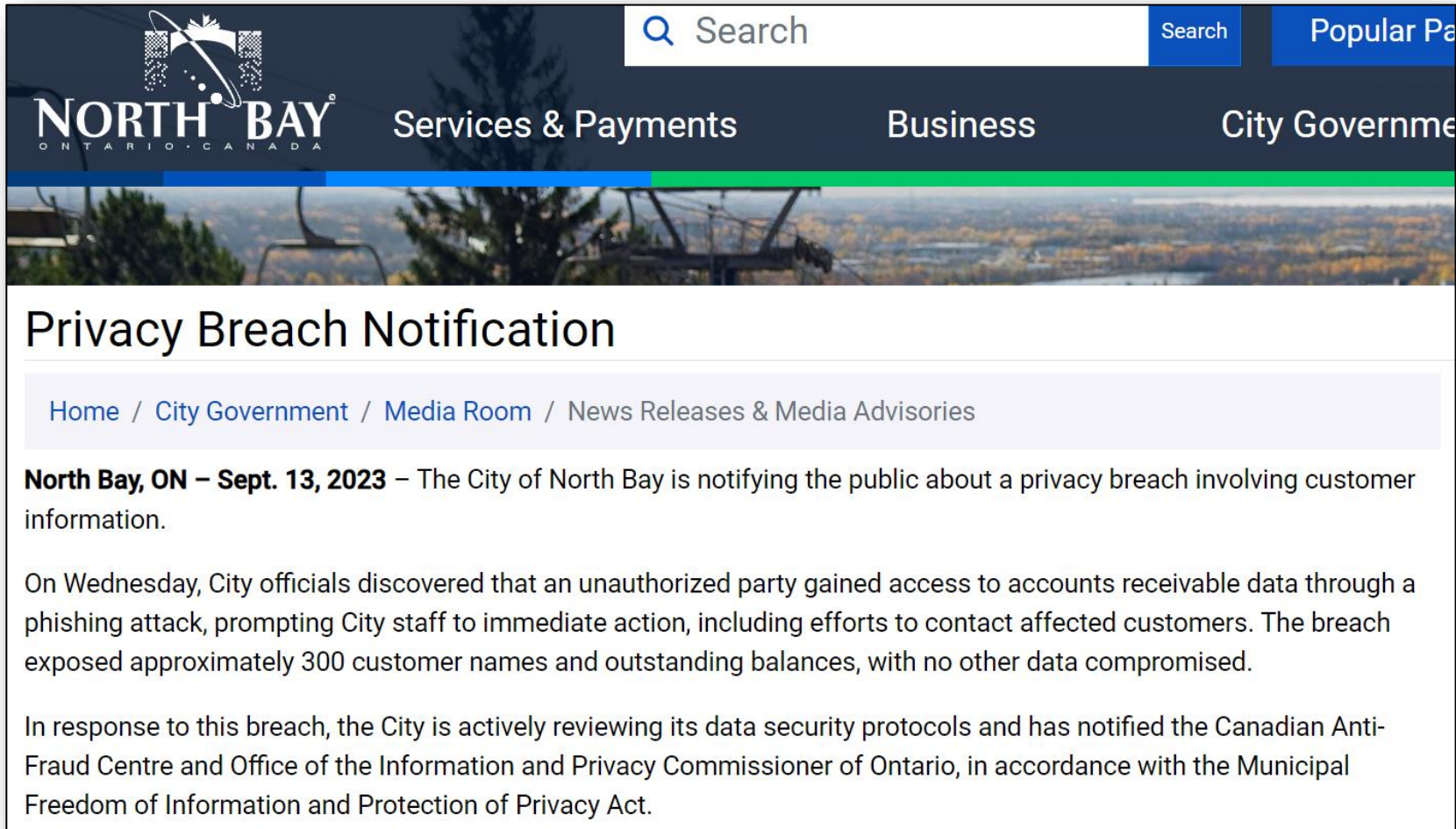
Ontario IPC concludes its review of Durham Region's privacy breach

NEWS

Ransomware costs continue to climb for Wasaga Beach

By [Ian Adams](#)  Wasaga Sun

Privacy Breach



The screenshot shows the top navigation bar of the City of North Bay website. It includes the city logo, a search bar, and menu items for 'Services & Payments', 'Business', and 'City Government'. Below the navigation is a banner image of a scenic view. The main content area features a large heading 'Privacy Breach Notification' and a breadcrumb trail: 'Home / City Government / Media Room / News Releases & Media Advisories'. The notification text begins with 'North Bay, ON – Sept. 13, 2023 – The City of North Bay is notifying the public about a privacy breach involving customer information.' It details a phishing attack on Wednesday that exposed approximately 300 customer names and outstanding balances. The city is currently reviewing its data security protocols and has notified the Canadian Anti-Fraud Centre and the Office of the Information and Privacy Commissioner of Ontario.

Privacy Breach Notification

[Home](#) / [City Government](#) / [Media Room](#) / [News Releases & Media Advisories](#)

North Bay, ON – Sept. 13, 2023 – The City of North Bay is notifying the public about a privacy breach involving customer information.

On Wednesday, City officials discovered that an unauthorized party gained access to accounts receivable data through a phishing attack, prompting City staff to immediate action, including efforts to contact affected customers. The breach exposed approximately 300 customer names and outstanding balances, with no other data compromised.

In response to this breach, the City is actively reviewing its data security protocols and has notified the Canadian Anti-Fraud Centre and Office of the Information and Privacy Commissioner of Ontario, in accordance with the Municipal Freedom of Information and Protection of Privacy Act.

Yukon, PEI, Nunavut...

Government websites down in four provinces, territories; cyberattacks blamed in two

BOB WEBER

CHARLOTTETOWN

THE CANADIAN PRESS

PUBLISHED SEPTEMBER 14, 2023

COMMENTS

SHARE

BOOKMARK

LISTEN TO ARTICLE

Government websites in four provinces and territories were shut down Thursday, with at least two jurisdictions blaming cyberattacks for their outages.

Websites for Yukon, Manitoba, Prince Edward Island and Nunavut were all inaccessible. P.E.I. and Yukon said cyberattacks were behind their shutdowns.

Winnipeg

CityNews Everywhere News Watch

Manitoba government confirms it was hacked in recent cyber attack



A woman types on a keyboard in Vancouver on Wednesday, December 19, 2012. A rash of cyberattacks on Ontario municipal governments in which hackers demand a ransom to unlock compromised systems has prompted the provincial police force to...

Read More

How Do We Minimize Exposure?

- TRAIN our employees
- TEST our employees
- REWARD our employees
- CONSTANTLY

How Do We Minimize Exposure?



A Hacker Can Target...

Software & Hardware

BORN Ontario says personal data of 3.4 million people affected by MOVEIt breach

It revealed which groups were impacted



ALL IN ONE
CYBER
POWERED
BY
CANADIANS

Cyber
By Abigail Adrisico
Sep 26, 2023 / Share

Ontario's prescribed perinatal, newborn, and child registry has revealed that a data breach has compromised the personal health information of around 3.4 million people.

LATEST NEWS



LIFE & HEALTH
Sun Life extends partnership with charity supporter Indigenous

Better Outcomes Registry & Networks

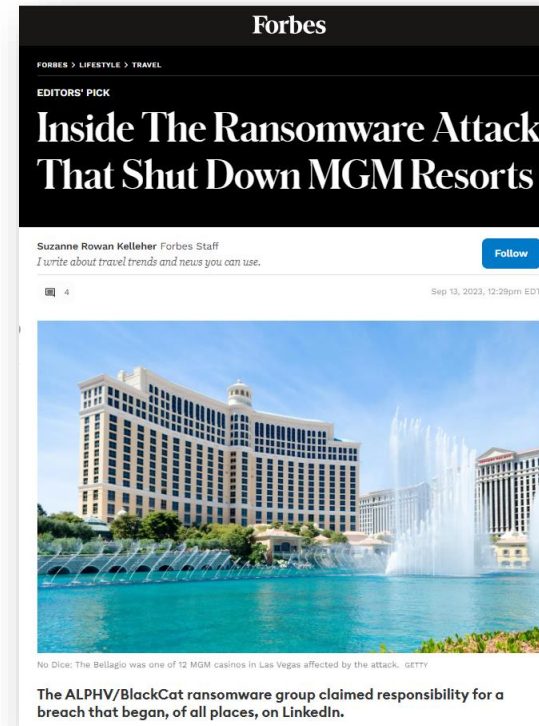
Child was born
2010 – 2023

- Name
- Address
- Postal code
- Date of birth
- Health card number
- Dates of service
- Lab test results
- Pregnancy risk factors
- Type of birth
- Procedures
- Pregnancy and birth outcomes

Social Engineering

Services affected:

- Check in
- Electronic payments
- Digital keycards
- Slot machines
- ATMs
- Paid parking
- Phone system



LAS | AMO
Business
Services

[intact] public
entities

- 90% of attacks start with phishing
- Phishing attacks with phone calls are 3x more effective

Phishing / Vishing

Man Gets Jail Time for Trying to Hack a Prison and Release His Friend

AJ Dellinger
4/29/18 12:29pm • Filed to HACKING

10.6K 26 2

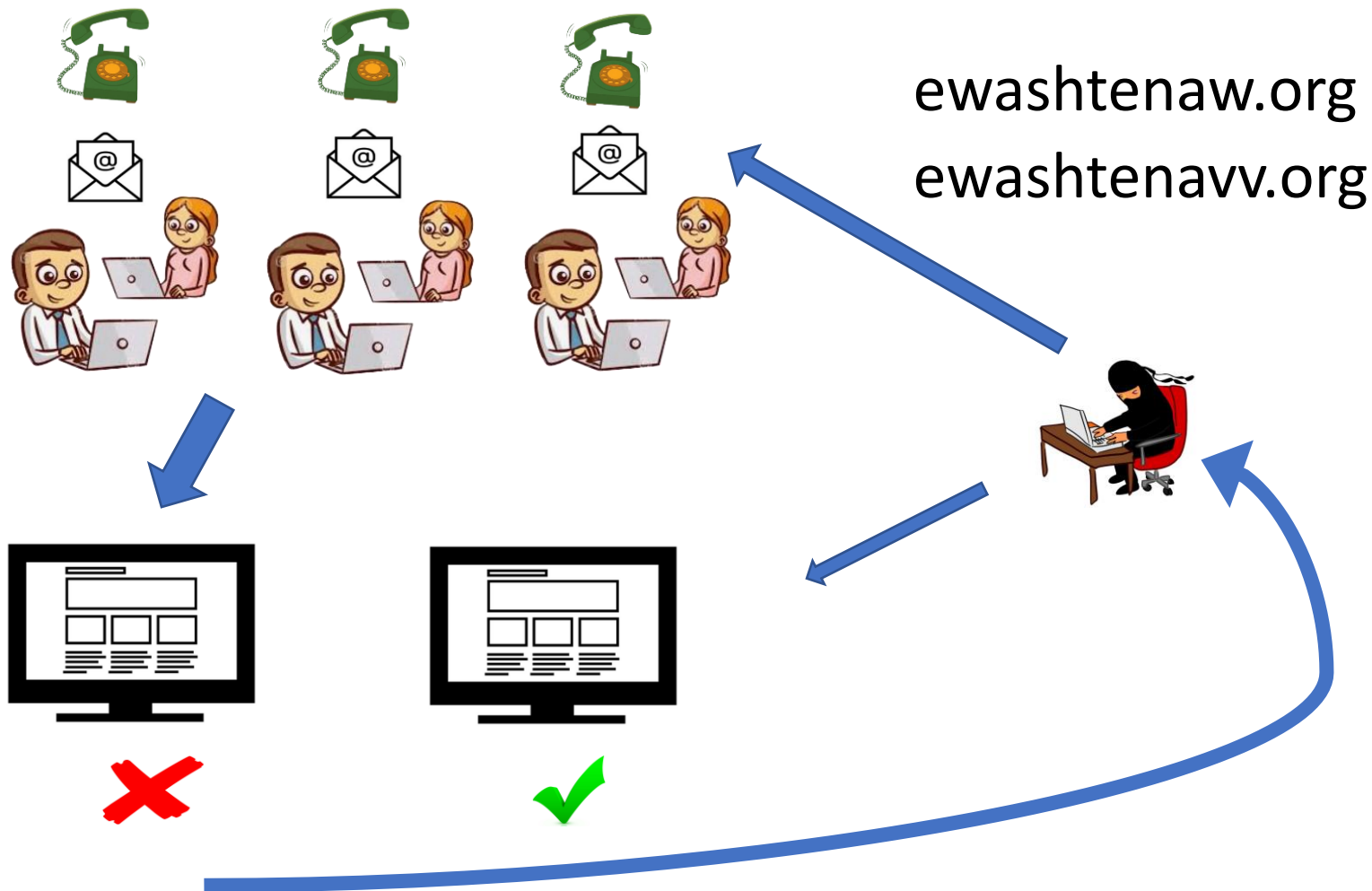


Photo: Getty

A Michigan man will spend the next seven years and three months behind bars as punishment for attempting to hack a county jail's computer system and altering prison records to get his friend released early.

In addition to 87 months in jail, Konrads Voits—a 27-year-old from Ypsilanti, Michigan—was also hit with a fine of \$235,488 that he is ordered to pay to Washtenaw County for the cost accrued in investigating the intrusion, [Bleeping Computer](#) reported.

Voits, who [pleaded guilty](#) to one count of damaging a protected computer



Protect Yourself – Vishing Attacks

- Never provide personal information over the phone
- Do not answer calls from unknown numbers... leave to voicemail
- Stay skeptical with unsolicited calls
- Verify caller identity by calling back
- Visa, hotel, taxes

The Latest Updates

QR Codes

A QR code (quick response code) is a type of matrix barcode (or two-dimensional barcode) invented in 1994 by the Japanese automotive company Denso Wave.



Little Data



Moderate Data



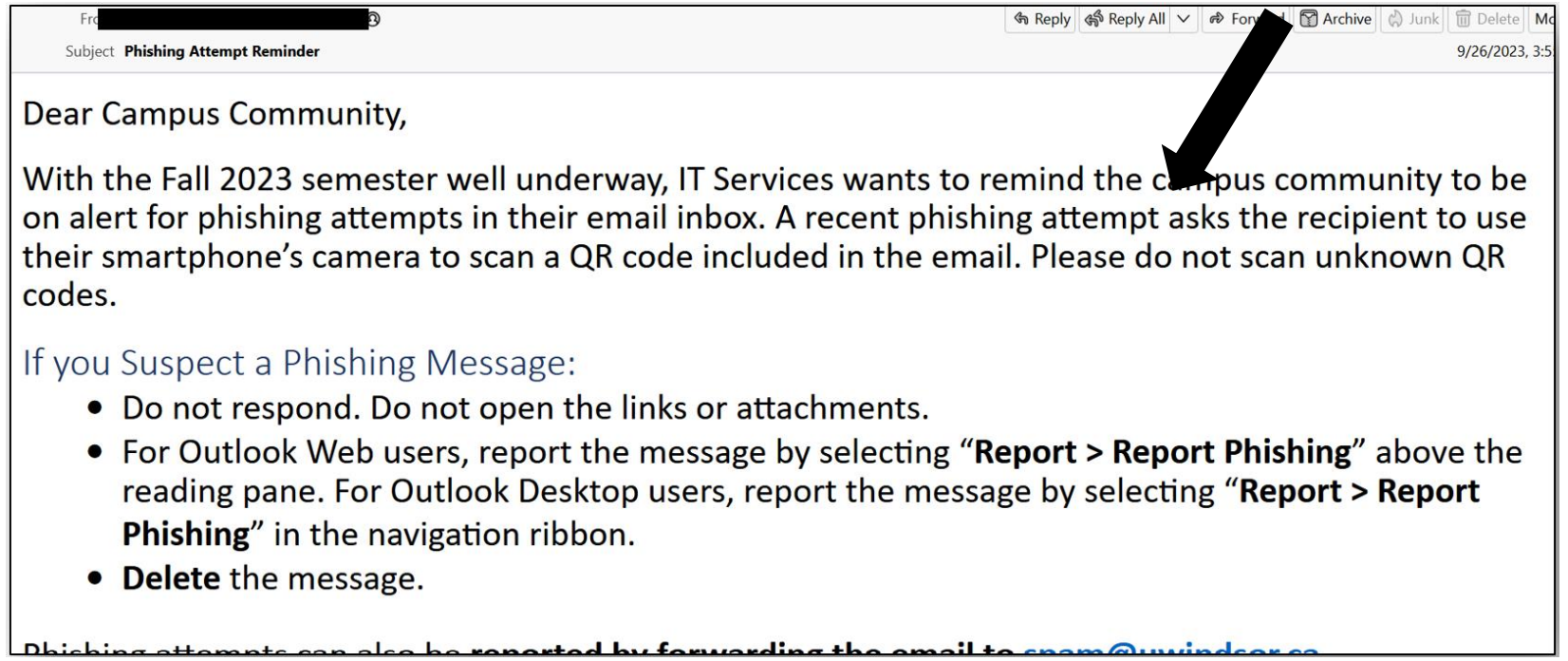
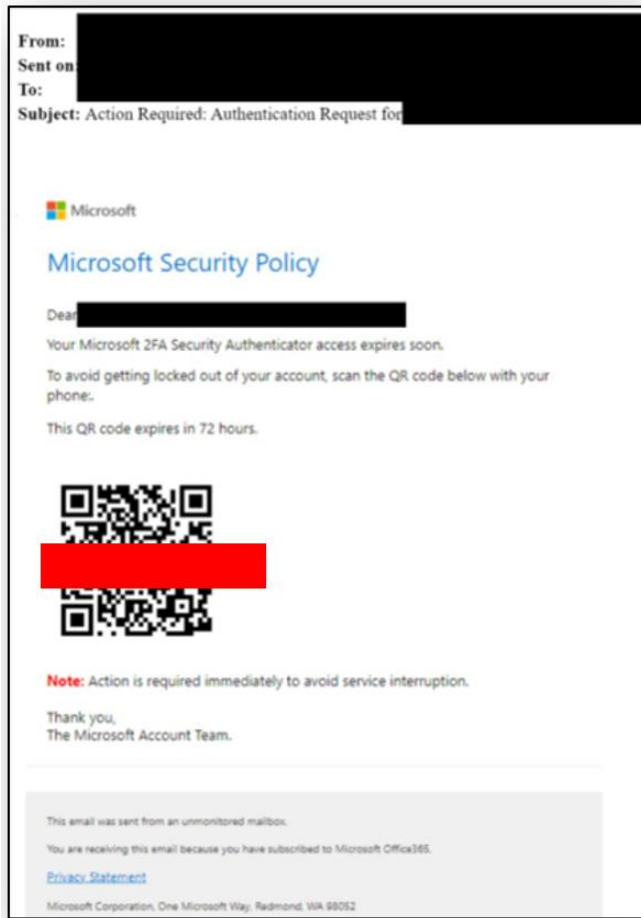
Loads Of Data

- Website
- Phone Number
- 4000 Characters of text
- Link to download app from Apple/Google
- Authenticate online accounts
- Send/receive payment information

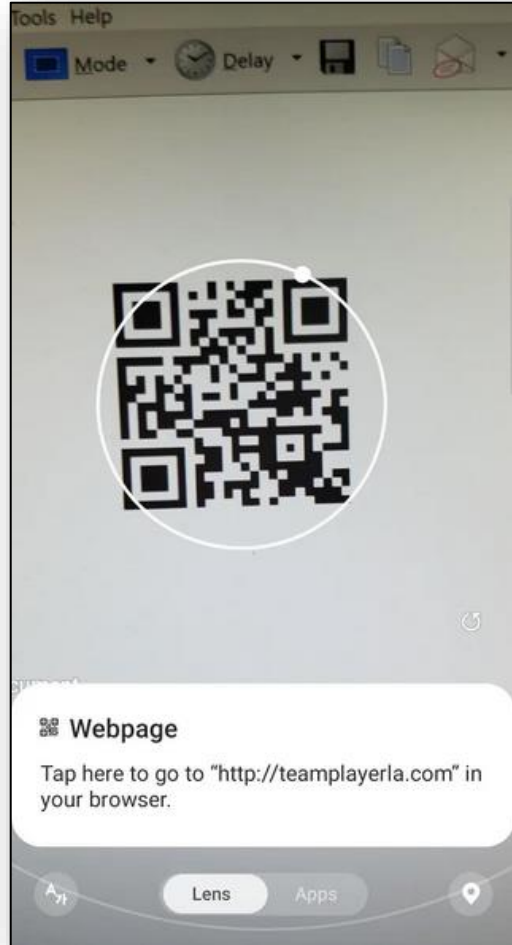
QR Codes



The Latest...



QR Codes – Protect Yourself










- CHECK THE URL
- Use a QR code scanner that verifies URL
- Don't scan strange QR codes


Future of QR Codes...




Downloading Apps

Data collected
Data this app may collect






-  **Personal info**
Name, Email address, User IDs, Address, and Political or religious beliefs
-  **Financial info**
User payment info
-  **Photos and videos**
Photos
-  **Contacts**
Contacts
-  **App activity**
App interactions, In-app search history, Other user-generated content, and Other actions
-  **App info and performance**
Crash logs and Diagnostics
-  **Device or other IDs**
Device or other IDs



YouVersion Bible App + Audio
Life.Church



Data shared
Data that may be shared with other companies or organizations

-  **Personal info**
Email address, User IDs, and Political or religious beliefs
-  **Financial info**
User payment info
-  **App activity**
App interactions
-  **App info and performance**
Crash logs and Diagnostics
-  **Device or other IDs**
Device or other IDs

Protect Yourself – Downloading Apps

- Only install apps from Official Google / Apple Store
- Avoid apps from unknown developers
- Read the reviews
- Check app permissions
- Delete apps you aren't using
- Update apps you are using

Protect Yourself – I Have No Idea

Flight diverted after woman unlocks husband's phone, finds he's cheating



A couple flying Qatar Airways forced the jet to turn around after the woman unlocked her husband's phone and found he was having an affair.

A couple flying Qatar Airways forced their jet to turn around after the woman unlocked her husband's

Final Thoughts

- Your work password **MUST** be unique
- Your work email should not be used for personal activities
- There is no silver bullet - look out for each other



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