

Sun City Computer Club

Cyber Security SIG

December 2, 2021

**Questions, Comments, Suggestions welcomed at
any time**

Even Now

- Audio recording of this session as MP4 file
- Audio recording available at link shown above

Audio Recording In Progress

**SIG attendees are required to be members of the chartered club sponsoring that SIG.
Sun City Community Association By-law**

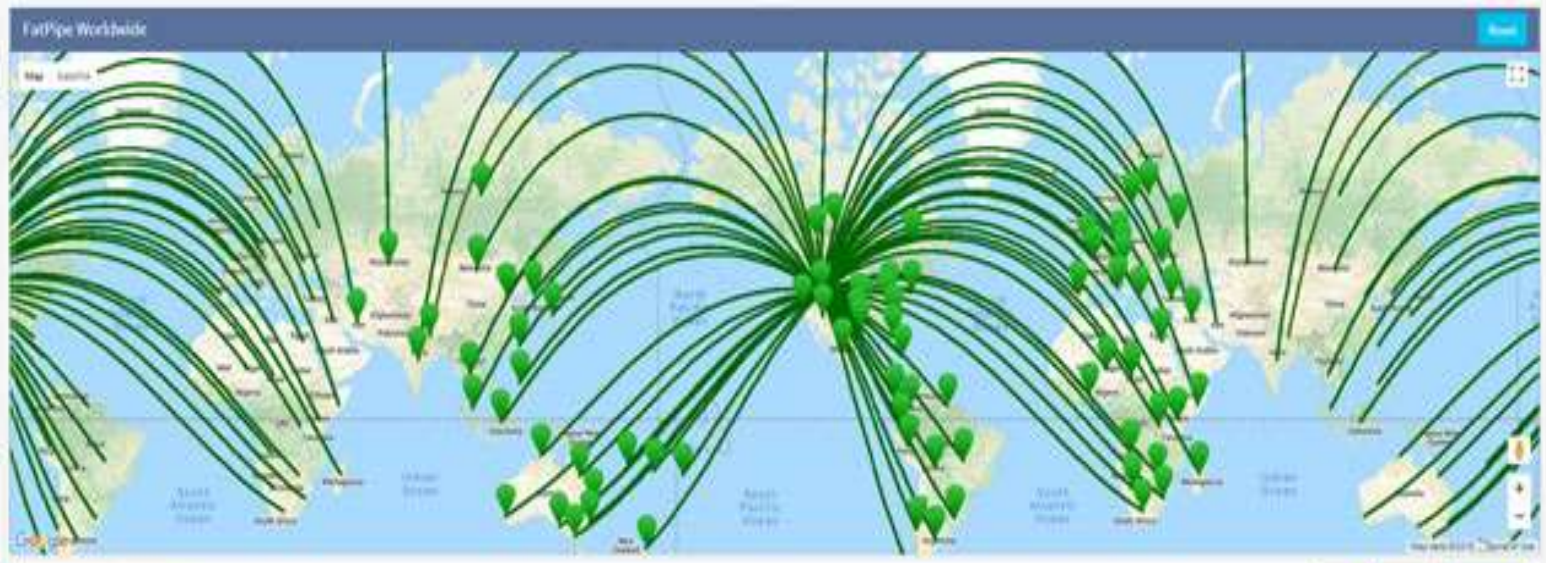
- Ever want to be a presenter??

Presenter???

- BotenaGo Malware
Golang
potential to attack millions
- FBI flash alert 16-Nov-2021
FatPipe MPVPN
- HP printer wormable security flaws
Printing Shellz
CVE-2021-39237
CVE-2021-39238
[HP Printer Patch Information](#)
- DNA Diagnostics Center data breach 2Million+

Current Issues

- URL Filtering
- IDS/IPS
- Tools
 - Speed Chart
 - Signature Update
 - QoS Statistics
 - IPSec QoS Statistics
 - Diagnostics
 - Set Booster
 - Generate Certificate Request
 - Session Details
 - WAN OMT Statistics
 - Protocol Statistics
 - IPSec Path Info
 - Application Visibility
- Orchestration
- EnterpriseView
- Dashboard
 - Statistics (Start Monitor)
 - ISP Report
 - ISP Outage Report
 - ISP Bandwidth Usage
 - Session Count
 - Settings



Device Status (From HQ)

● OK
 ● Down
 ● Unknown

Device	Status	IPSec	VPN	WAN 1					Used (K/MB)	WAN 2					Used (K/MB)	WAN 3					Used (K/MB)			
				Status	Lat	JR	Pkt Loss	Total (K/MB)		Status	Lat	JR	Pkt Loss	Total (K/MB)		Status	Lat	JR	Pkt Loss	Total (K/MB)				
FW01	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW02	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW03	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW04	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW05	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW06	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW07	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW08	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW09	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW10	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW11	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW12	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0
FW13	●	●	●	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0	●	0.0	0.0	0.0	0.0	40.0/40.0	0.0/0.0

- 127.1.0.0 – 127.255.255 proposal
16 million more IPv4 addresses
- Microsoft honeypot stats
6 characters
- GoDaddy breach
1.2 million customers
2 month window
- NetGear routers
UPnP remote code execution
Check home infrastructure regularly

Current Issues

Vulnerable Devices

AC1450 - 1.0.0.36	D6220 - 1.0.0.72 ¹	D6300 - 1.0.0.102
D6400 - 1.0.0.104 ¹	D7000v2 - 1.0.0.66	D8500 - 1.0.3.60 ¹
DC112A - 1.0.0.56	DGN2200v4 - 1.0.0.116	DGN2200M - 1.0.0.35
DGND3700v1 - 1.0.0.17	EX3700 - 1.0.0.88	EX3800 - 1.0.0.88
EX3920 - 1.0.0.88	EX6000 - 1.0.0.44	EX6100 - 1.0.2.28
EX6120 - 1.0.0.54	EX6130 - 1.0.0.40	EX6150 - 1.0.0.46
EX6920 - 1.0.0.54	EX7000 - 1.0.1.94	MVBR1210C - 1.2.0.35BM
R4500 - 1.0.0.4	R6200 - 1.0.1.58	R6200v2 - 1.0.3.12
R6250 - 1.0.4.48	R6300 - 1.0.2.80	R6300v2 - 1.0.4.52 ¹
R6400 - 1.0.1.72 ¹	R6400v2 - 1.0.4.106	R6700 - 1.0.2.16
R6700v3 - 1.0.4.118	R6900 - 1.0.2.16	R6900P - 1.3.2.134
R7000 - 1.0.11.123 ¹	R7000P - 1.3.2.134	R7300DST - 1.0.0.74
R7850 - 1.0.5.68	R7900 - 1.0.4.38	R8000 - 1.0.4.68
R8300 - 1.0.2.144	R8500 - 1.0.2.136	RS400 - 1.5.0.68
WGR614v9 - 1.2.32	WGT624v4 - 2.0.13	WNDR3300v1 - 1.0.45
WNDR3300v2 - 1.0.0.26	WNDR3400v1 - 1.0.0.52	WNDR3400v2 - 1.0.0.54
WNDR3400v3 - 1.0.1.38	WNDR3700v3 - 1.0.0.42	WNDR4000 - 1.0.2.10
WNDR4500 - 1.0.1.46	WNDR4500v2 - 1.0.0.72	WNR834Bv2 - 2.1.13
WNR1000v3 - 1.0.2.78	WNR2000v2 - 1.2.0.12	WNR3500 - 1.0.36NA
WNR3500v2 - 1.2.2.28NA	WNR3500L - 1.2.2.48NA	WNR3500Lv2 - 1.2.0.66
XR300 - 1.0.3.56		

- HTTP Request Smuggling

Modern WEB hosting is multi-tiered
Load balancing, filtering, caching, etc.

connection oriented i.e., persistent

So request boundaries

Content-Length

```
POST /search HTTP/1.1
```

```
Host: normal-website.com
```

```
Content-Type: application/x-www-form-urlencoded
```

```
Content-Length: 11
```

Transfer-Encoding

```
POST /search HTTP/1.1
```

```
Host: normal-website.com
```

```
Content-Type: application/x-www-form-urlencoded
```

```
Transfer-Encoding: chunked
```

Vulnerability understood and noted but

Current Issues

- Proposed UK law bans default passwords IoT devices
- Apple suing NSO group – Pegasus
Facebook also suing NSO group
- Crypto meaning bleed
Cryptography -> crypto currency
- Edge synching caution

Current Issues

Personal



⌘ Not syncing

Get your favorites, passwords, and other browser data on all your devices.

[Microsoft Privacy Statement](#)

Turn on sync

[Manage profile settings](#)

Microsoft Edge syncing

Get your favorites, passwords, and other browser data on all your devices.

- Buy now, pay later
- Quadpay

Microsoft Edge with Zip

- V96.0.1054.29 or higher
- Edge://settings/privacy

Edge "Super Duper Secure Mode"

Security

Manage security settings for Microsoft Edge

Manage certificates

Manage HTTPS/SSL certificates and settings



Microsoft Defender SmartScreen

Help protect me from malicious sites and downloads with Microsoft Defender SmartScreen



Block potentially unwanted apps

Blocks downloads of low-reputation apps that might cause unexpected behaviors



Typosquatting Checker ?

Warn me if I have mistyped a site address and may be directed to a potentially malicious site.



Use secure DNS to specify how to lookup the network address for websites

By default, Microsoft Edge uses your current service provider. Alternate DNS providers may cause some sites to not be reachable.



Use current service provider

Your current service provider may not provide secure DNS



Choose a service provider

Select a provider from the list or enter a custom provider

Enhance your security on the web ?

Are you satisfied with this?



Turn on this mode to browse the web more securely and help protect your browser from malware. Choose the level of security you need:

Balanced

(Recommended)

- Adds security mitigations for sites you don't visit frequently
- Most sites work as expected
- Blocks security threats

Strict

- Adds security mitigations for all sites
- Parts of sites might not work
- Blocks security threats

Exceptions

Turn off this feature on sites you choose

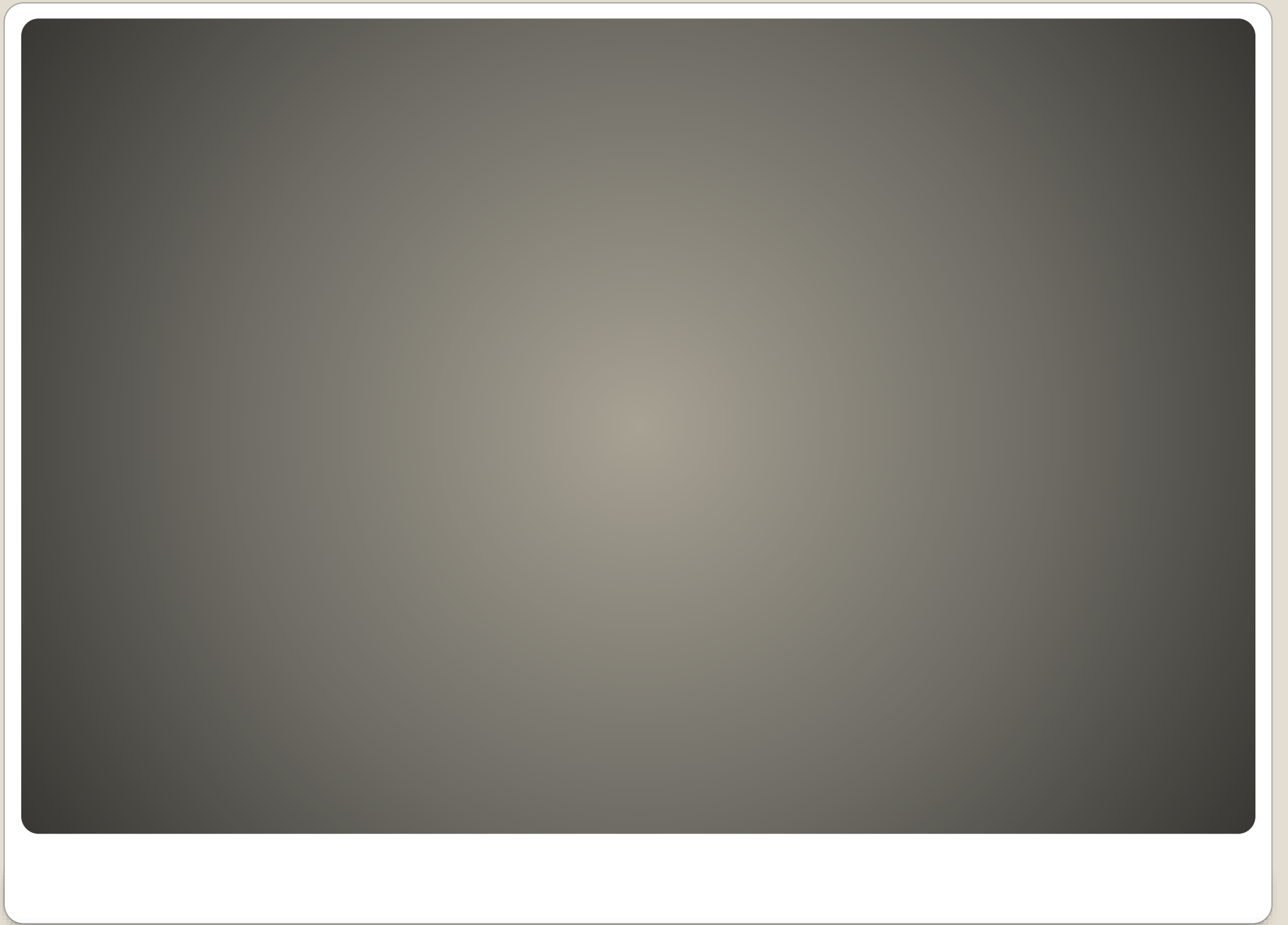


- Remove Just-In-Time compilation
- Enable Intel Control-flow Enforcement Technology
- Balanced – learn mode
- Strict – No
- Exceptions
- Android & macOS to follow
- As will Arbitrary Code Guard

Edge “Super Duper Secure Mode”

- IKEA reply-chain phishing attack
- MediaTek chips vulnerability
 - low level – thus ALL apps using microphone
- RATDispenser
 - OrderInformation.txt.js
 - Clicking on links in eMail danger

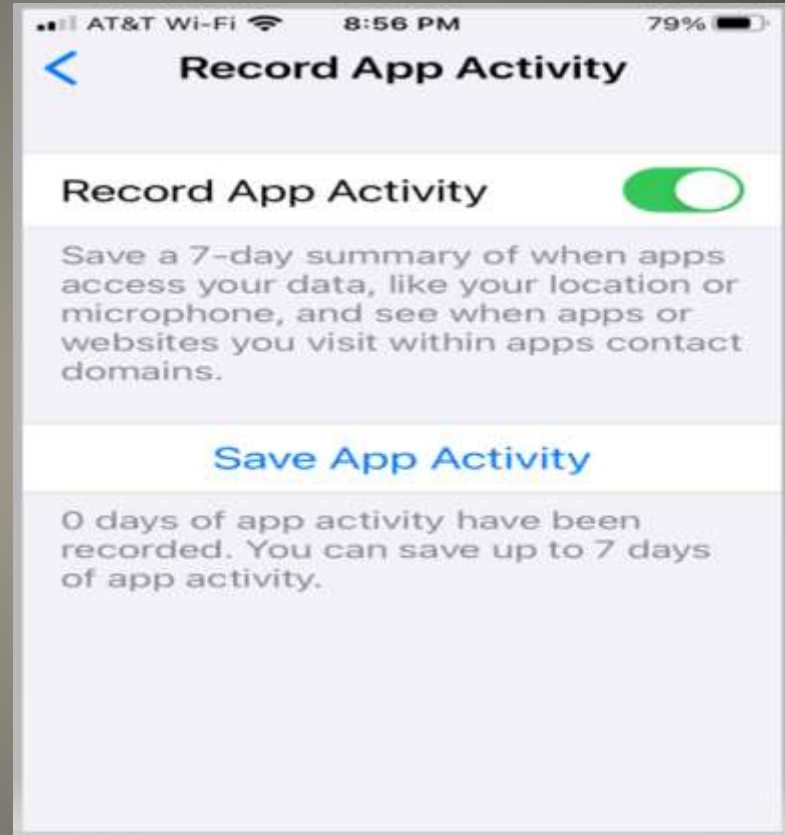
Current Issues





iOS privacy Disable Tracking

- Settings -> Privacy -> Record App Activity
scroll down

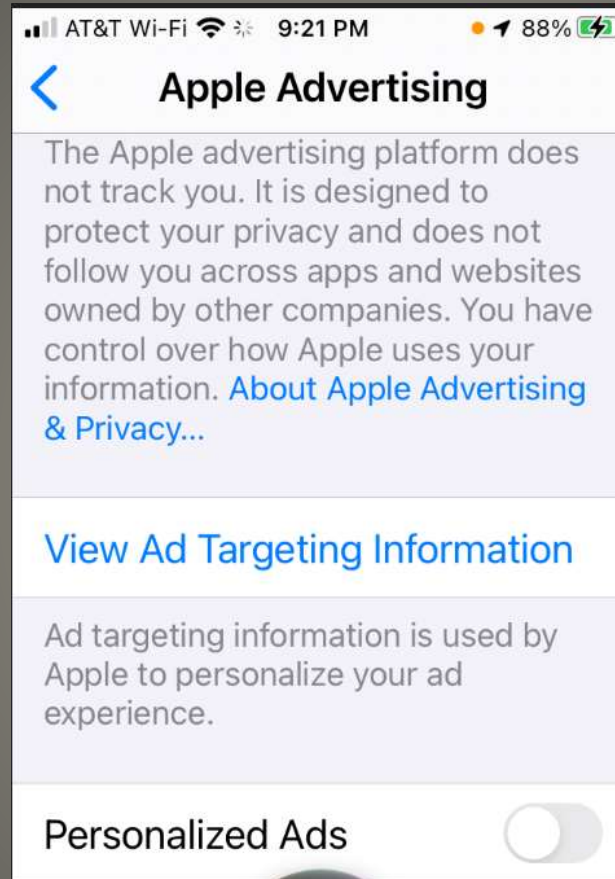


iOS Privacy record App Activity

- Pick & Choose
Never
Ask
While Using
Always



iOS Privacy Location Services



iOS Privacy Apple Advertising



iOS Privacy Analytics & Improvements

- Shared with developers

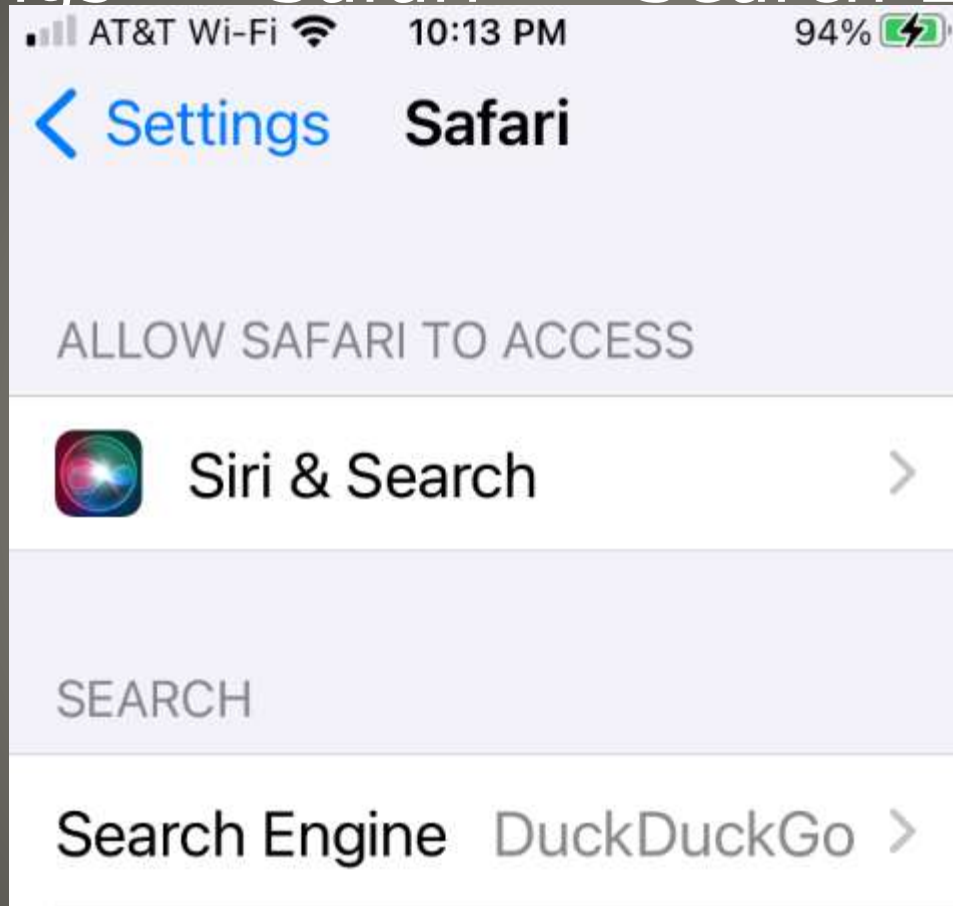


Analytics Data

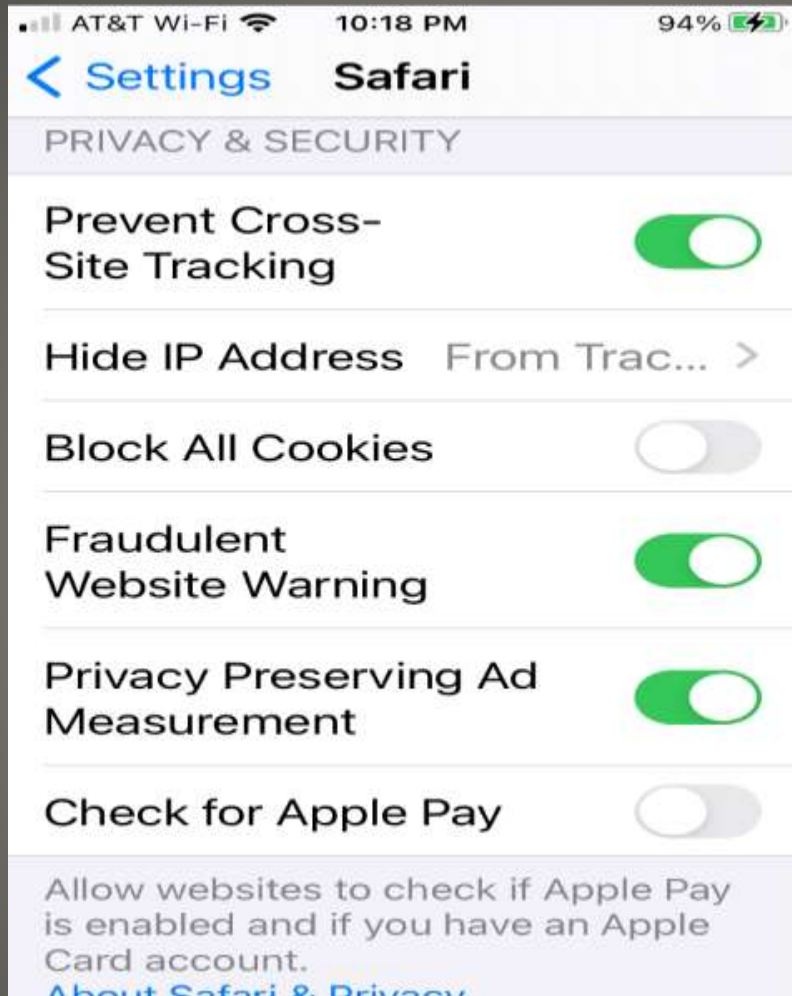
- A LOT of data
- Removal Short scrub
- Removal iTunes sync
- Major version update
- Your method?

iOS Privacy Analytics Data

- Settings -> Safari -> Search Engine



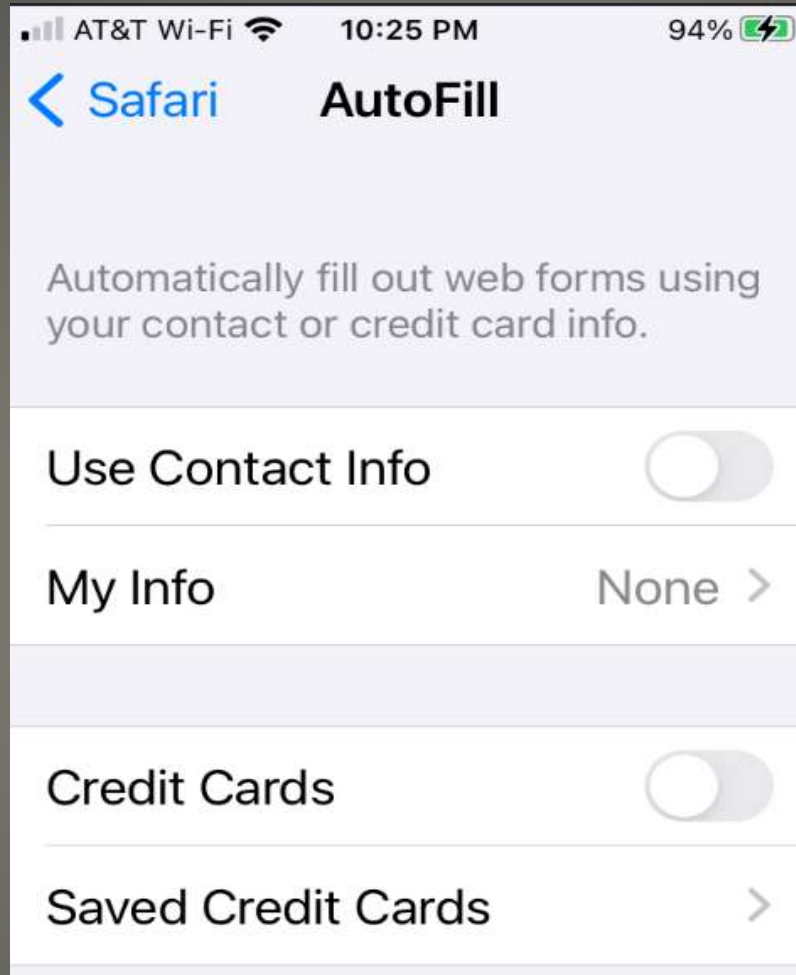
iOS Privacy Safari



iOS Privacy Safari

- Prevent Cross-Site Tracking
- Hide IP Address from Trackers
- Block All Cookies - CAUTION
- Fraudulent Website Warning
- Privacy Preserving Ad Measurement

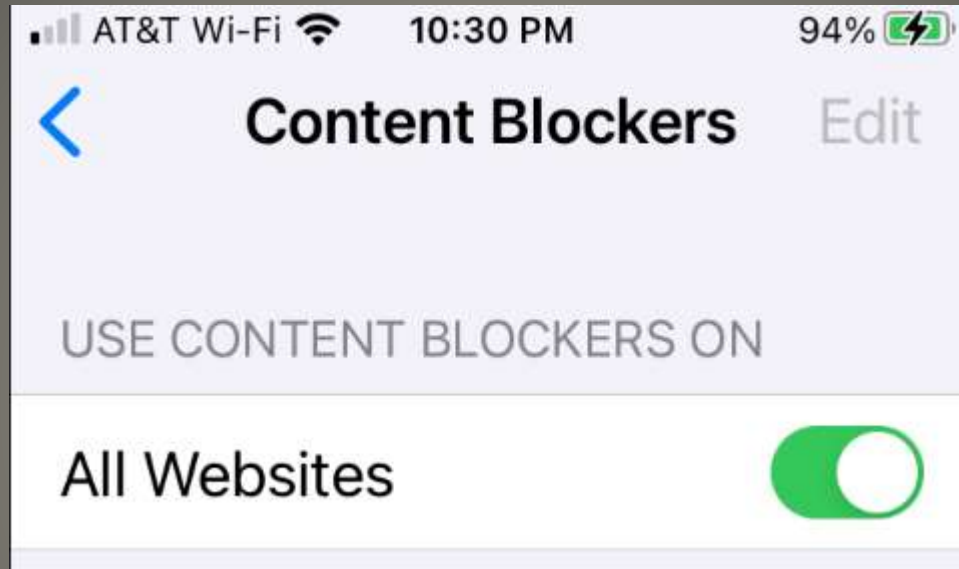
iOS Privacy Safari Privacy & Security



iOS Privacy Safari Autofill

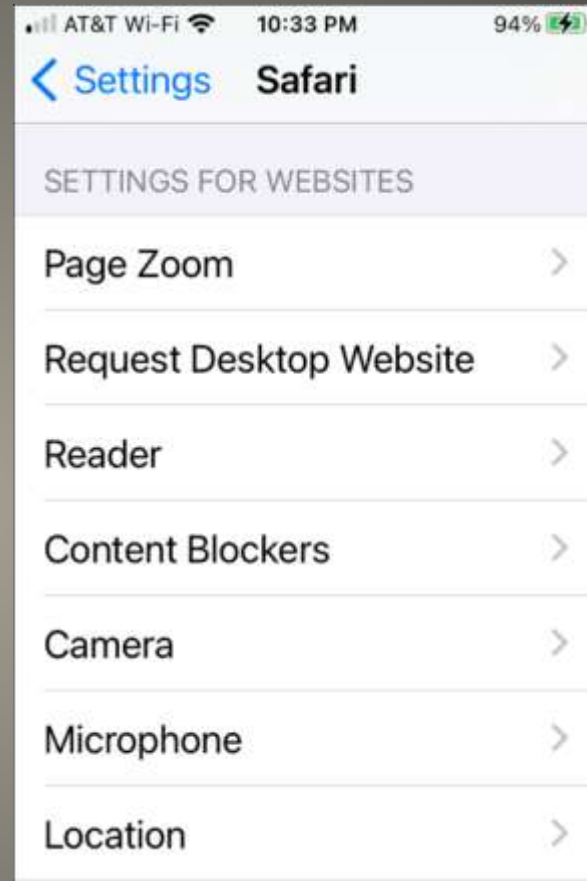
- Safari extensions Apple App Store

iOS Privacy Safari Extensions



iOS Privacy Content Blockers

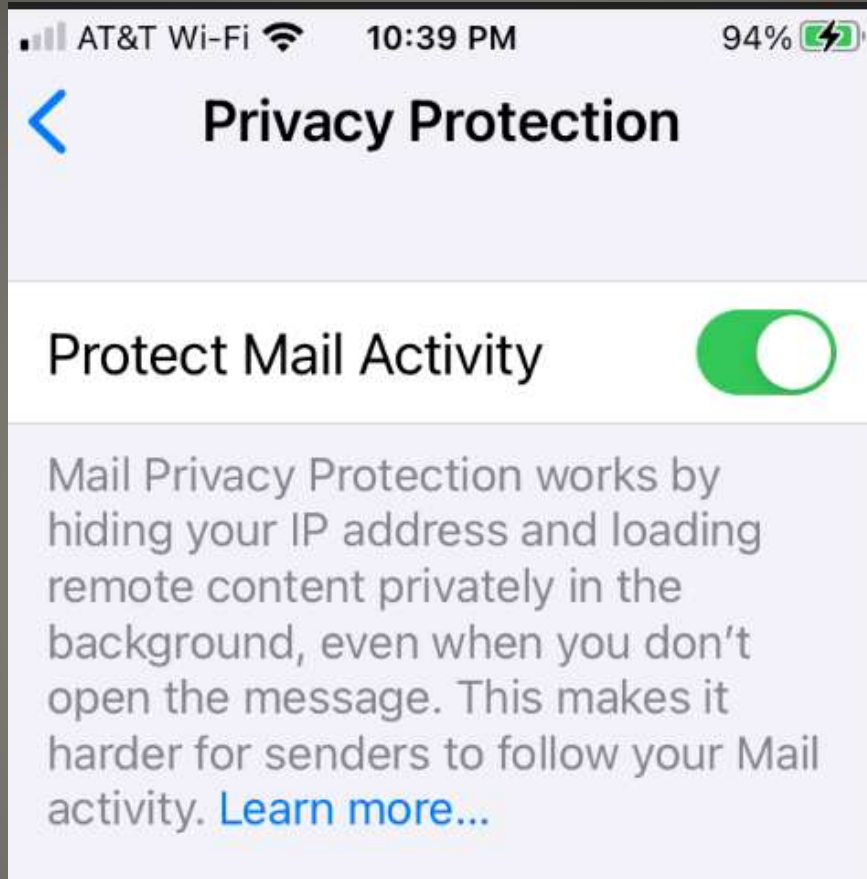
- Camera – Ask
- Microphone – Ask
- Location – Ask



iOS Privacy Safari

- Search History ONLY

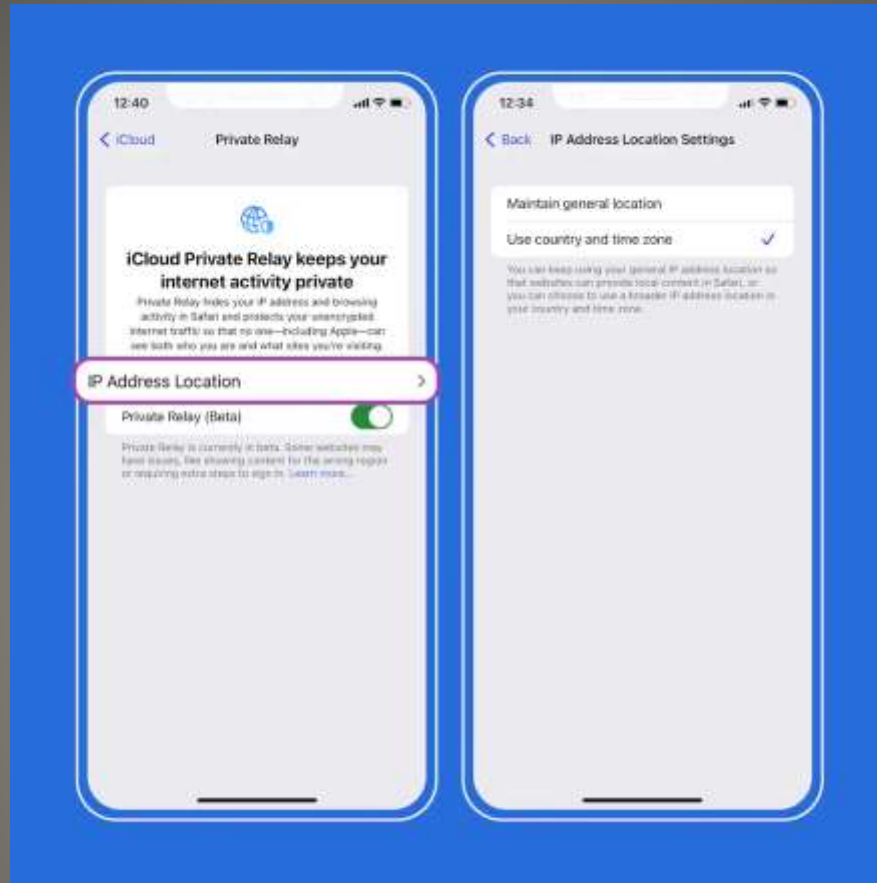
iOS Privacy Safari Private Browsing Mode



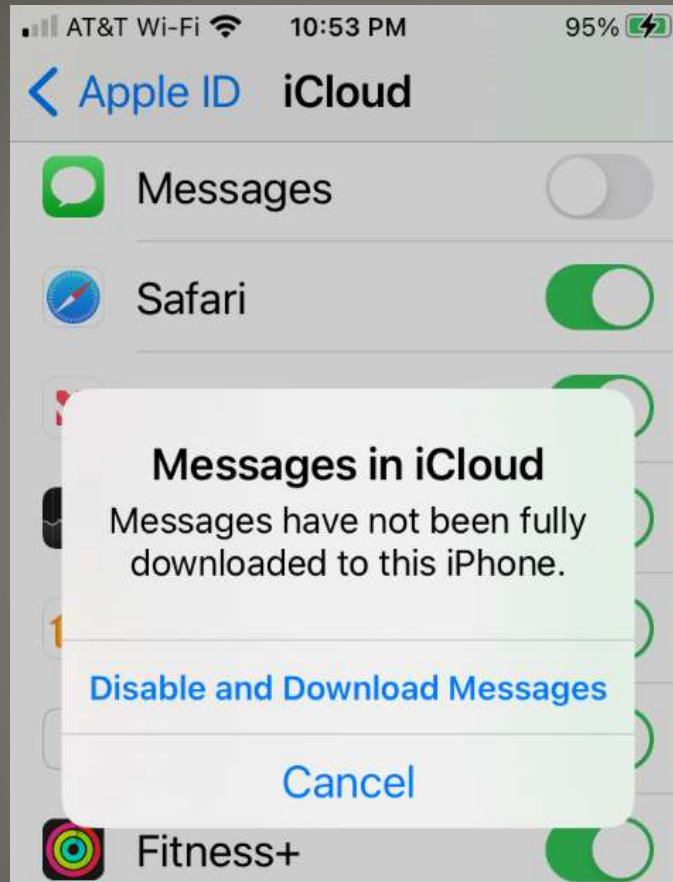
iOS Privacy Mail Privacy Protections



iOS Privacy Siri



iOS Privacy iCloud Private Relay



iOS Privacy iMessage Backups

- End-to-End encryption
- BUT Subpoena

- Remember this from last presentation?

Yesterday 12:17 PM

Free Msg-J.P. Morgan Chase
Bank Alert-Did You Attempt A
Zelle Payment For The Amount
of \$5000.00?
Reply YES or NO Or 1 To Decline
Fraud Alerts

NO

Zelle Fraud

- Financial institutions offer self-serving options
- Regulation E protections
- If victim:
 - Contact Consumer Financial Protection Bureau
 - Subject: Docket No. CFPB-2021-0017

Hang up, Lookup, Call Back

Call back on different line Call back on looked up number
NOT redial

Zelle Fraud

- Few people know Zelle
- Fraudsters never learn victim's password
- Scheme script is well known/played
- "I need to verify you are not a scammer"
- "Your username?"
- "Read me the two-factor code"
- Code completes password reset
- Recent change to use out-of-band authentication with transaction details
- "That's just the system recovering the money"

"Send \$200 Zelle payment to Boris Badenov? Reply YES to send, NO to cancel. ABC Credit Union .
STOP to end all messages."

Zelle Fraud

- Hacked / Locked iOS device? Apple ID?
BEFORE - choose trusted contact
Contact with iOS 15 (like your iOS level)
Contact must be over 13 years AND
be using two-factor authentication
Settings -> Apple ID -> Password & recovery
Add recovery contact

[< Back](#)

Account Recovery

iCloud secures your data by storing it in an encrypted format. If you forget your password or device passcode, iCloud Data Recovery Service can help you get your data back. For your privacy, there is some information the service can't recover. To make sure you can get all your data back, add someone you trust as a recovery contact or set up a recovery key. [Learn More...](#)

RECOVERY ASSISTANCE



iCloud Data Recovery Service



[Add Recovery Contact](#)

iCloud Data Recovery Service requires Apple to maintain access to your data to help you recover it. Recovery contacts can't access your data, but can help you get it back. [Learn More...](#)

Recovery Key

Off

Using a recovery key can help you restore all your data. When you create one, the only way to reset your password is by using another device already signed in with your Apple ID or by entering your recovery key.

- An Android Advantage – Customizability
- Apps
- Settings -> Privacy -> Permissions Manager
 - Location Uber probably Calculator Probably not
 - App Audit Permissions Usage
- Unlock Form & Function
 - Settings -> Security -> Screen Lock
- Notifications on Lock Screen
 - Settings -> Apps & Notifications
 - Sensitive Notifications Off

Android Privacy

- Encrypted device

Settings -> Security -> Advanced -> Encryption and Credentials

Encrypt Phone - Can take some time to complete

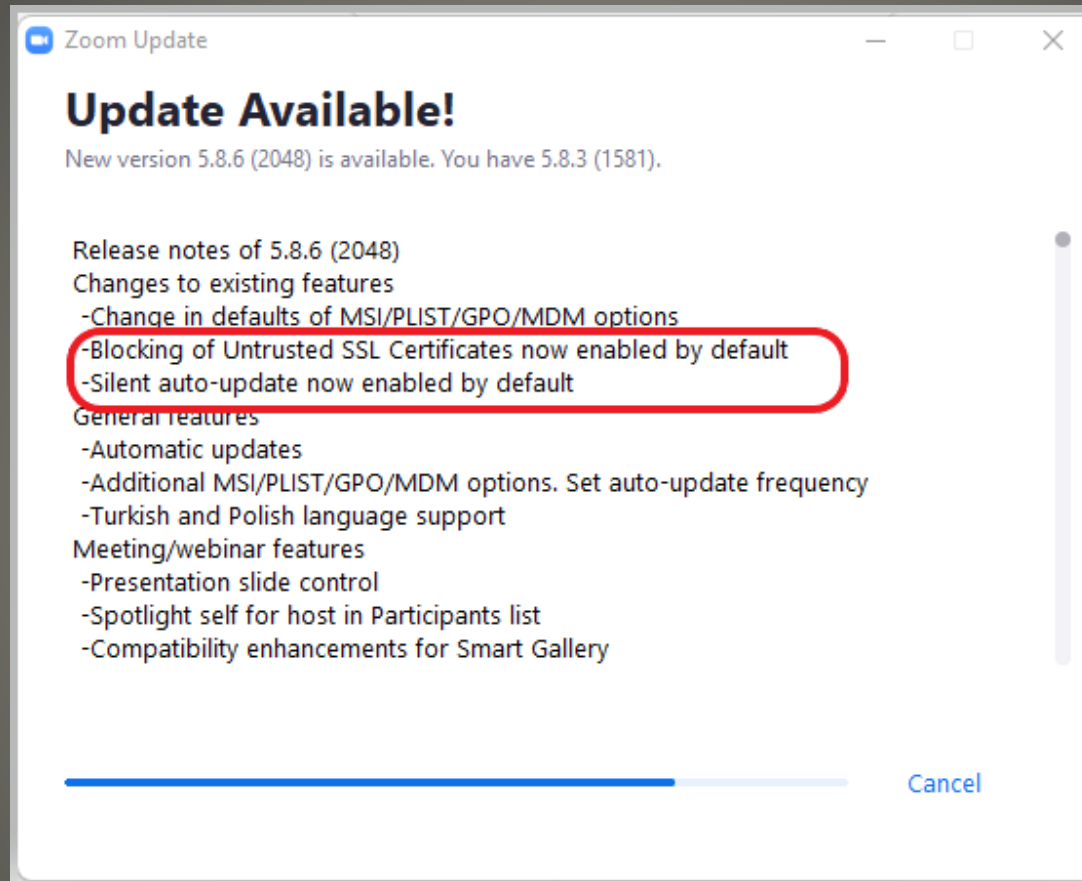
- Browser Options Fit for Purpose

- Banking Trojan Risks

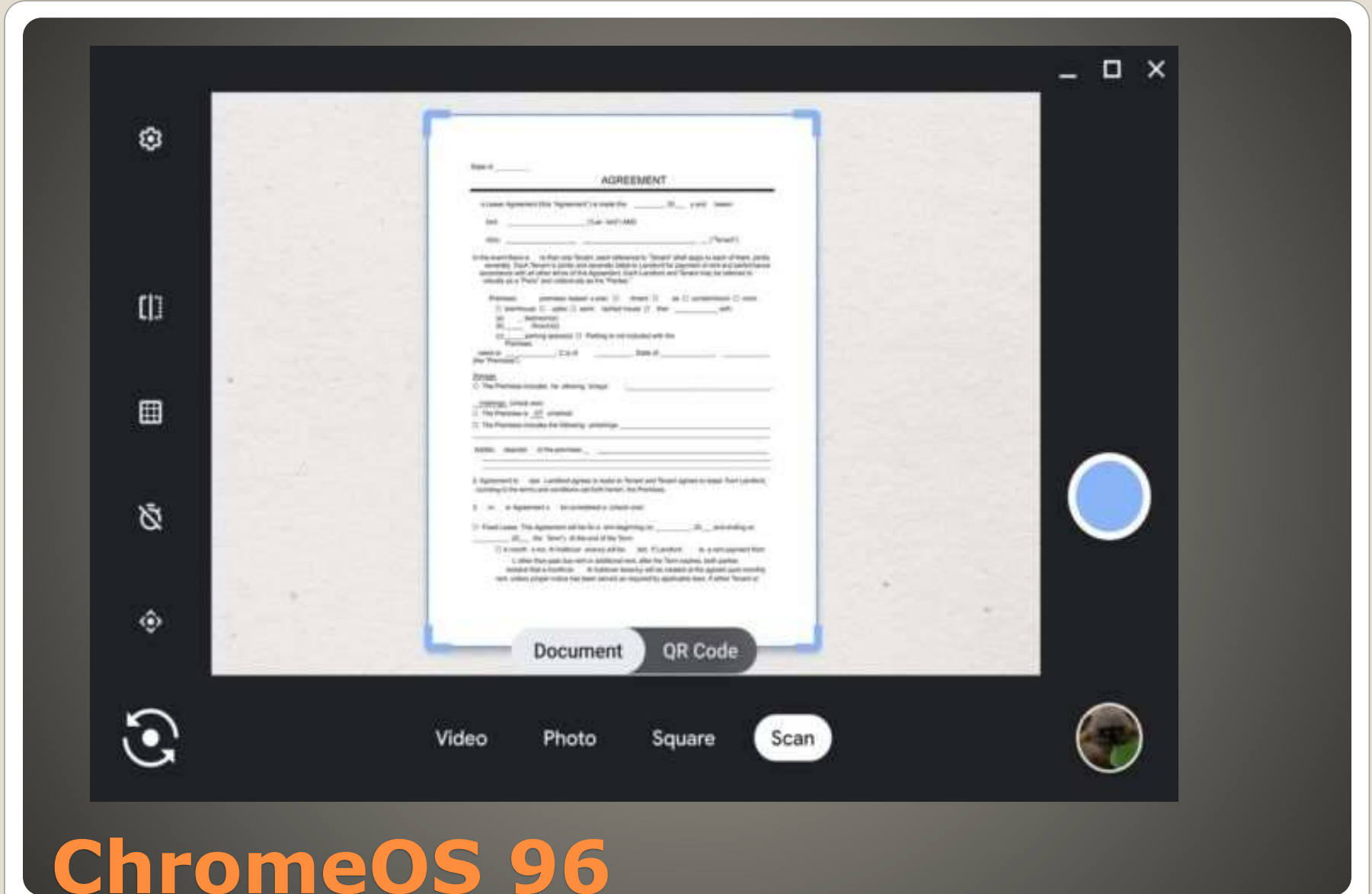
Android Privacy

- Windows installer flaw
Privilege escalation
- UK Ministry of Justice disabled poorly patched Wi-Fi access points
- Windows 11 Windows 10 21H2
Microsoft Store many updates
- VoiceMail “electric service to be cut off”

Current Issues



Zoom update



ChromeOS 96

- External camera Pan-Tilt-Zoom

ChromeOS 96

- Helpful < - > Harmful
- Awareness, Preparedness, Understanding

Computer Club, Help Center, SIGs,
Presentations, FirstTime, classes
Cyber Security SIG meetings, NEWSBLOG
Internet

- Questions, suggestions, comments?

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