



Account Takeover in Financial Services



Bob Lyle

VP, Mobile, SpyCloud

Chair, Device Security Group, GSMA

Philip Martin

Chief Information Security Officer

Coinbase

Fraud in the Financial Sector



\$16.9B

2019 Fraud Losses
Across 13M
Instances



\$46M

AVERAGE FRAUD
LOSSES PER DAY



15%

Y/Y INCREASE IN
FRAUD LOSSES

ACCOUNT TAKEOVER LEADS BANKS' DIGITAL FRAUD LOSSES

Account Takeover:
89%



Synthetic Fraud
42%

Mobile RDC
32%

First-party Fraud
32%

CNP Fraud
21%

Source: Aite Group

A Problem That Isn't Slowing Down

#1

HACKING TECHNIQUE
OVER THE LAST 4 YEARS

300% INCREASE Y/Y IN ATO
ATTACKS

40% OF ATO FRAUD ACTIVITY
OCCURS WITHIN 1 DAY



Enabled by Breach Data

162

FINANCIAL SERVICES COMPANIES
IN THE FORTUNE 1000



3.38M

CORPORATE CREDENTIALS
Emails + Plaintext Passwords

375K

FINANCIAL ASSETS
Credit card #, bank account #,
and tax IDs

2.71M

PHONE NUMBERS

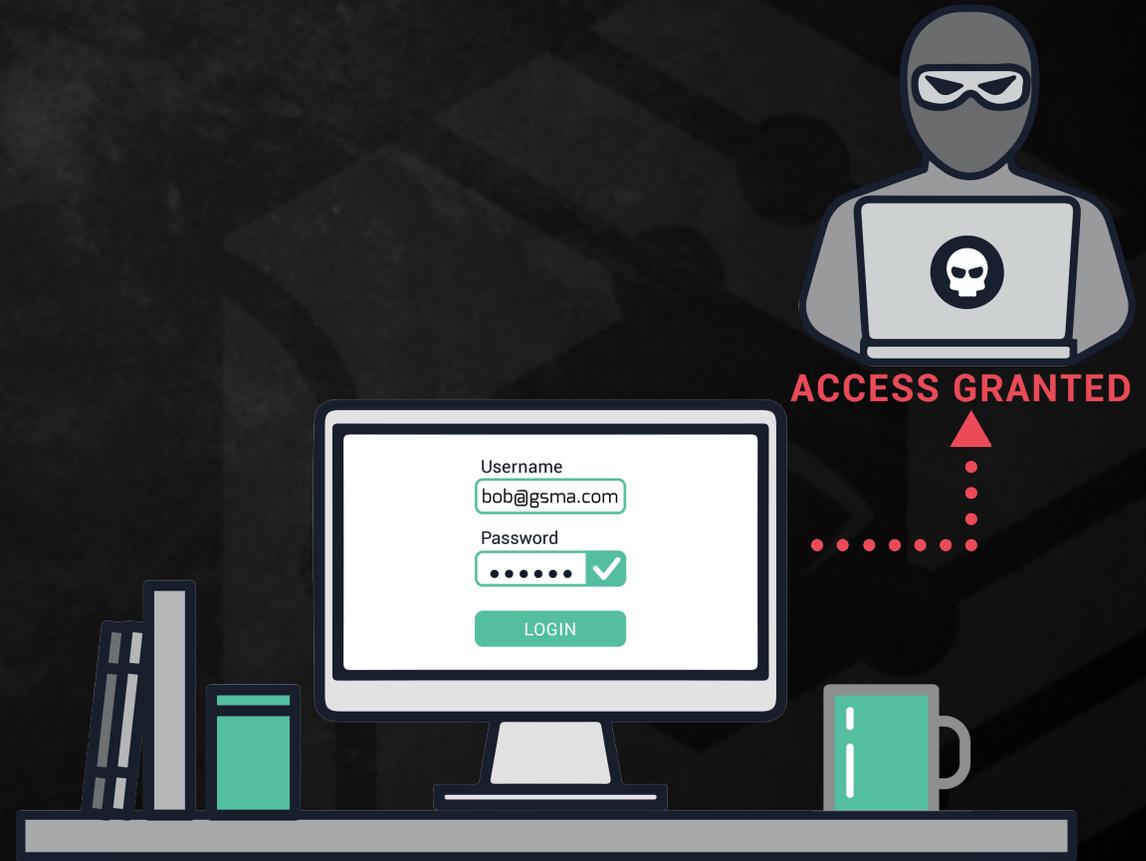
Corporate Credentials

What They Are

- Corporate email address + plaintext password pairs that have appeared in a data breach

How They Help Criminals

- Criminals can easily gain access to corporate systems, then exploit reused passwords to gain entry into personal accounts



Financial Assets

What They Are

- Credit card numbers, bank account numbers, and tax IDs

How They Help Criminals

- Make fraudulent purchases
- Drain funds from accounts
- Resell card numbers and other stolen data to other criminals
- Collect victims' tax refunds



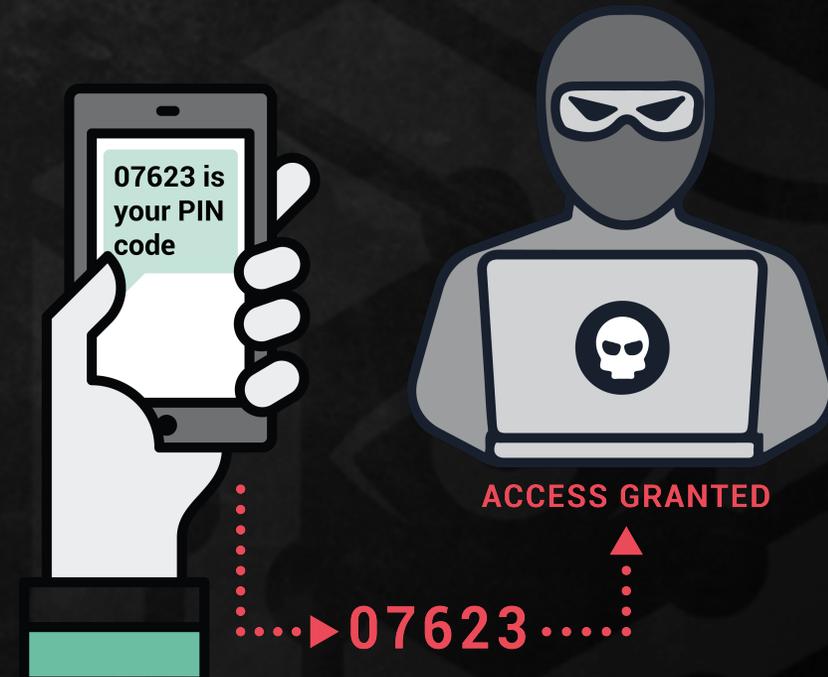
Phone Numbers

How They Help Criminals

- In combination with stolen credentials, criminals can use phone assets to bypass MFA with tactics like SIM swapping & phone porting

How They Help YOU

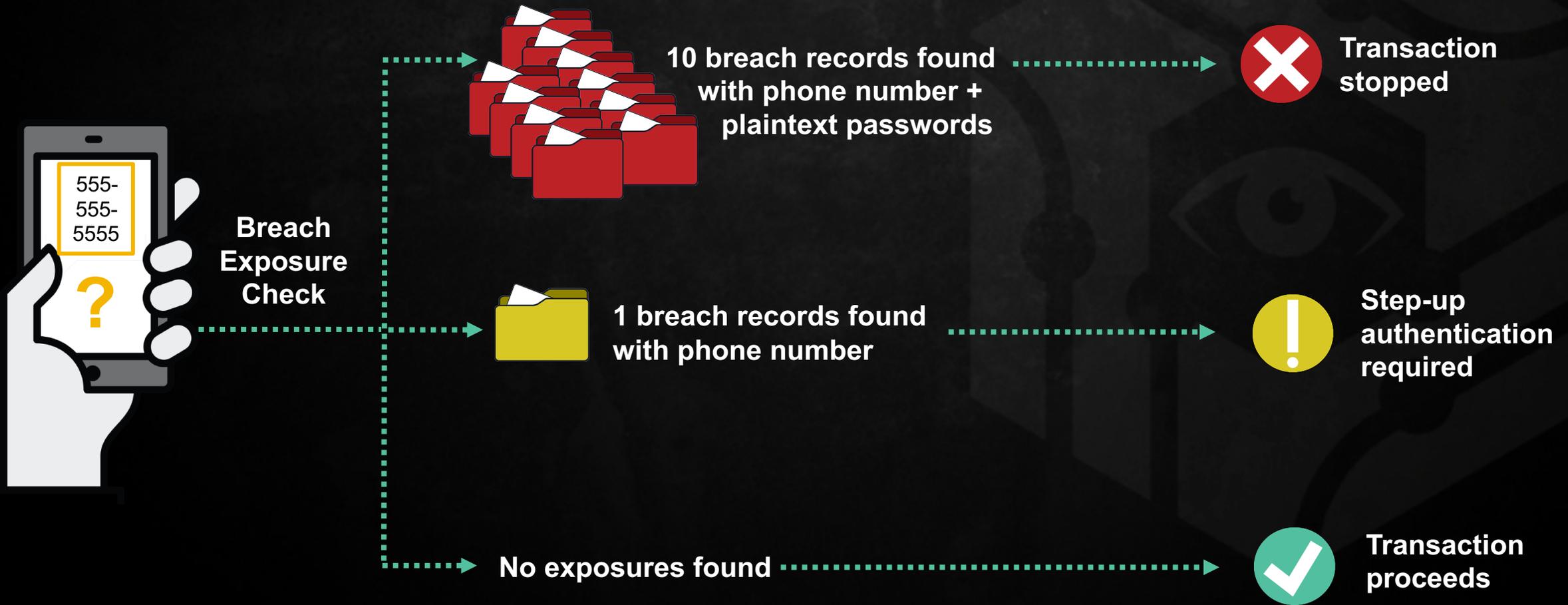
- Augment your account risk decision algorithms by using the phone number as the identity marker



2.3 BILLION PHONE NUMBERS HAVE BEEN EXPOSED IN BREACHES

Using Phone Numbers as Identifiers of Risk

Augment your account risk decision algorithms by using the phone number as the identity marker



Account Takeover & Financial Fraud

How one fintech company uses **breach data** to inform their multi-faceted approach to ATO:

- **Credential check**

Even with 2FA required for all consumers, resetting compromised credentials helps combat targeted ATO and reduce support tickets due to “partial logins”

- **Internal modeling**

Adjust internal ATO models to identify high-risk users; ex, any recent breach exposure may increase risk of SIM-swapping, even without an exposed password

- **Root cause & trend analysis**

Correlation of other potential accounts that may be affected

- **Infected user outreach**

Since users with malware-infected systems are at very high risk of ATO and financial fraud, this enterprise takes a high-touch approach with users whose details appear in botnet logs.



*Thousands of users' accounts have been protected to date, representing **tens of millions of dollars!***