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# In The News

**NEWS**

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## Fraud epidemic 'is now national security threat'

By Gordon Corera  
Security correspondent

25 January

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## TEN HACKERS ARRESTED FOR STRING OF SIM-SWAPPING ATTACKS AGAINST CELEBRITIES

10 February 2021  
Press Release

CULTURE

## Hackers keep stealing highly coveted Instagram usernames

At the core of this issue is economic misery, and Instagram is part of the problem.

f t l e

### Mobile Firm Employee Charged With Aiding Crypto SIM-Swap Attacks Targeting 19

Stephen Defiore was allegedly paid to transfer cellphone accounts to ones owned by a co-conspirator.



# The Dilemma

SMS / USSD is ....

- Ubiquitous – available in all markets
- Simple to engineer for – well understood and many ways to use
- Inexpensive - Low overhead
- Well adopted

But ...

- Was engineering of its age and not designed with high security in mind
- Can be compromised through signaling attacks etc.
- Does not contain sender verification
- Well adopted



# SMS / USSD – OTP – Challenges



## Procedural

- Account Takeover (ATO)
- Fraudulent Sim Swap
- Social Engineering



## Regulatory / Advisory



- Draft NIST Deprecation
- EU Payment Services Directive 2



## Technology

- Interception / Re-route
- Older Signaling (SS7)
- Complex phishing

- Consumer Confidence
- Feature rich apps
- Security experts warning
- User Experience

## Market



# SMS / USSD – OTP – Challenges

## Procedural



- Sim Swap Process Improvements
- Social hardening
- Consumer education

## Technical



- Sim Swap API's
- MSISDN Verify
- RCS
- SS7 Firewalling / Fraud Detection



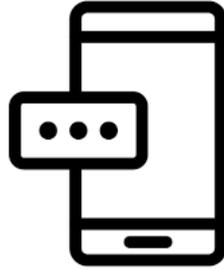
## Market



## Regulatory / Advisory



# Key Messages



Any second factor is better than no second factor

The majority of compromises are NOT due to technology means but are procedural / social in nature – focus on fixing these

Procedural



Technical



Look at confidence factors – multi signal intelligence  
Build defense in depth.