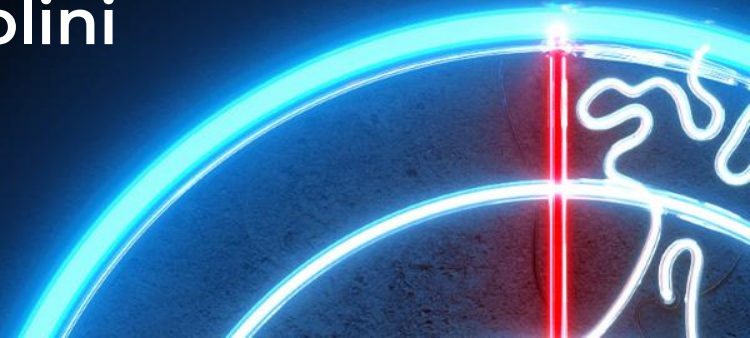


The enemy in your pocket: large-scale SIM swap fraud



Andre Tenreiro and Fabio Assolini

CERT Mozambique and Kaspersky Lab

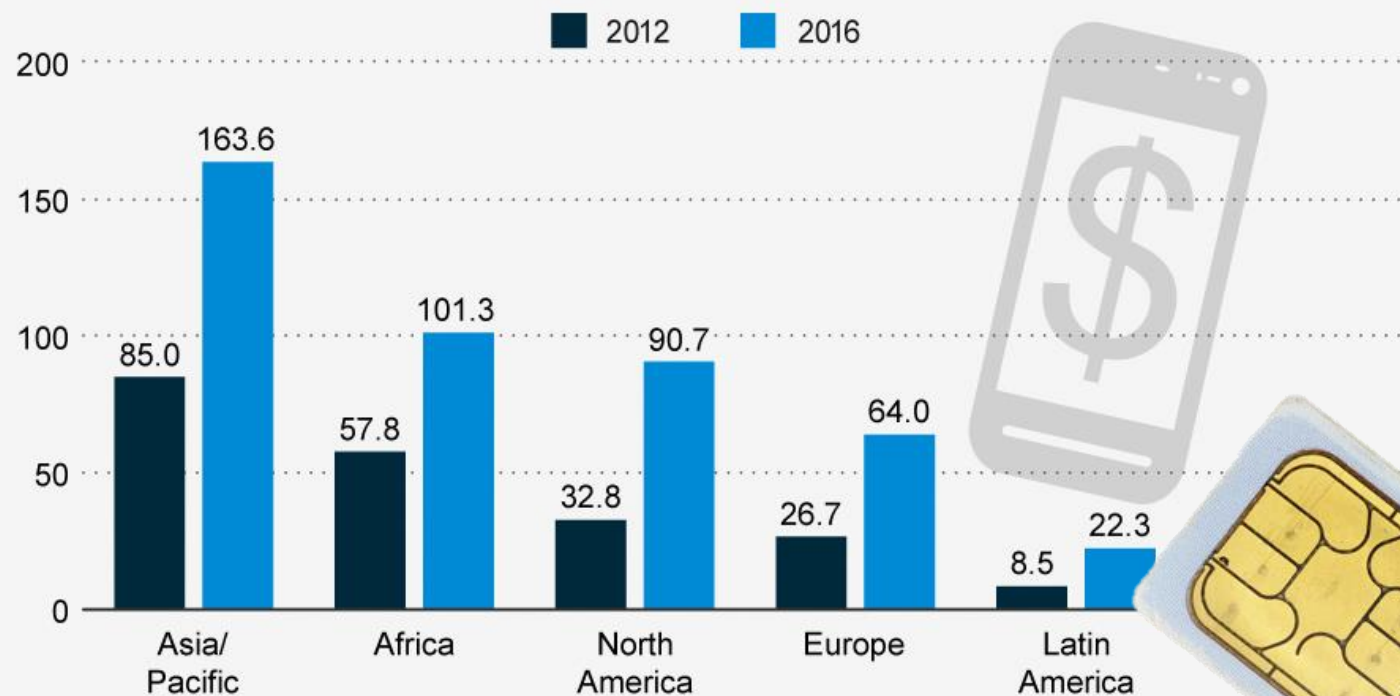


Mobile Payments: huge in Africa



Africa and Asia Are Embracing Mobile Payments

Forecast: mobile payment users (in millions)



How?



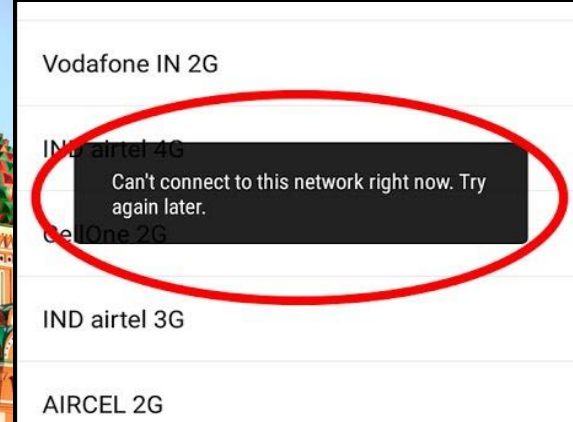
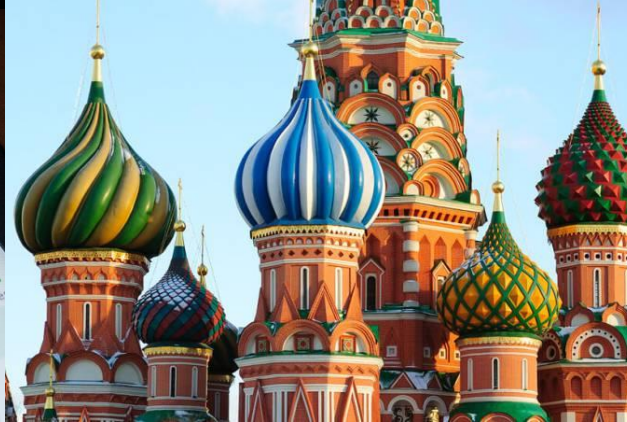
Social engineering, bribery, corruption, insiders, phishing, malware, RATs, etc...

“SIM Swap as a Service”



Each SIM card \$10 to \$40

Falling victim #metoo



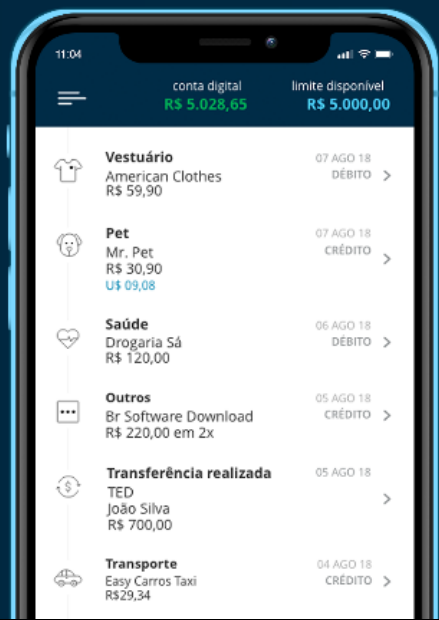
Your number: TrueCaller, in a data leakage (sometimes from carriers) e-mail signature, your LinkedIn, your wife's phone, etc...

Brazil: extortion, WhatsApp, fintechs

pag!

[Quem somos](#) [Benefícios](#) [Tarifas](#) [Dúvidas?](#)

[f](#) [in](#) [@](#) [Q](#)



A melhor
experiência
em serviços financeiros!

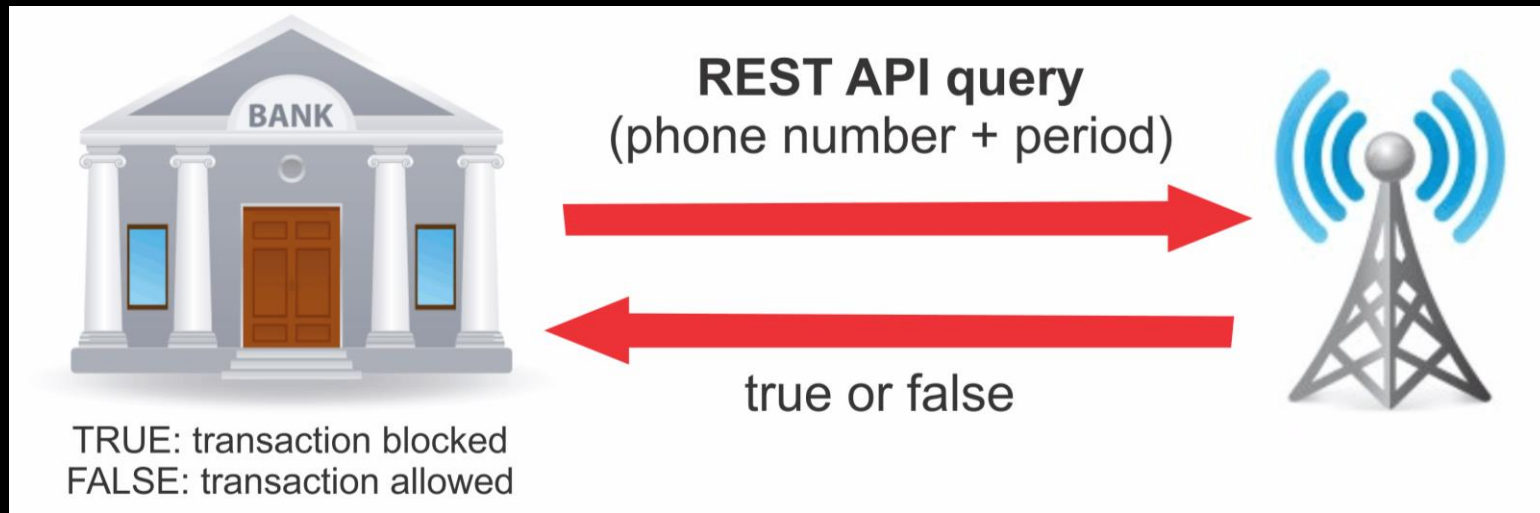
Cartão de crédito e débito sem anuidade +
conta digital!

Mozambique: bribery, banks and a solution



One case: \$50,000

Mozambique: platform workflow



1. The banks are connected to different mobile operators through a VPN connection so that all traffic is secure.
2. The online banking system conducts a REST API query to the respective mobile operator giving the mobile number (MSISDN) and the period (24-72 hours) as arguments.
3. The mobile operator simply returns in real time: True or False.
4. If the query is False, the bank allows the transaction as normal. If True, the bank blocks the transaction and may request additional steps to verify the transaction.

Conclusion: don't be a victim

Carriers: Strength the processes

Banks: let OTPs via SMS die, please! In app based OTPs are welcome!

Internet: voice password recovery? No, please!

You: 2FAs everywhere, including WhatsApp

Today: SS7? Hello spy agencies!

Future: hello e-sim and biometrics!

More details on [Securelist.com](https://www.securelist.com) tomorrow



#TheSAS2019

Obrigado!
Thank You!
谢谢

André Tenreiro and Fabio Assolini
CERT-MZ and Kaspersky Lab

