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NEVIS Forum 2019

Welcome

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NEVIS Update: What happened in a year

Stephan Schweizer
CPO NEVIS

FIDO Alliance

FIDO Alliance:

- The FIDO (Fast IDentity Online) Alliance, fidoalliance.org was formed in July 2012 to address the lack of interoperability among strong authentication technologies

AdNovum Involvement

- Our Mobile Auth solution is based on FIDO
- We are sponsor member since April 2019
- FIDO certification for NEVIS is in process

KuppingerCole Leadership Compass

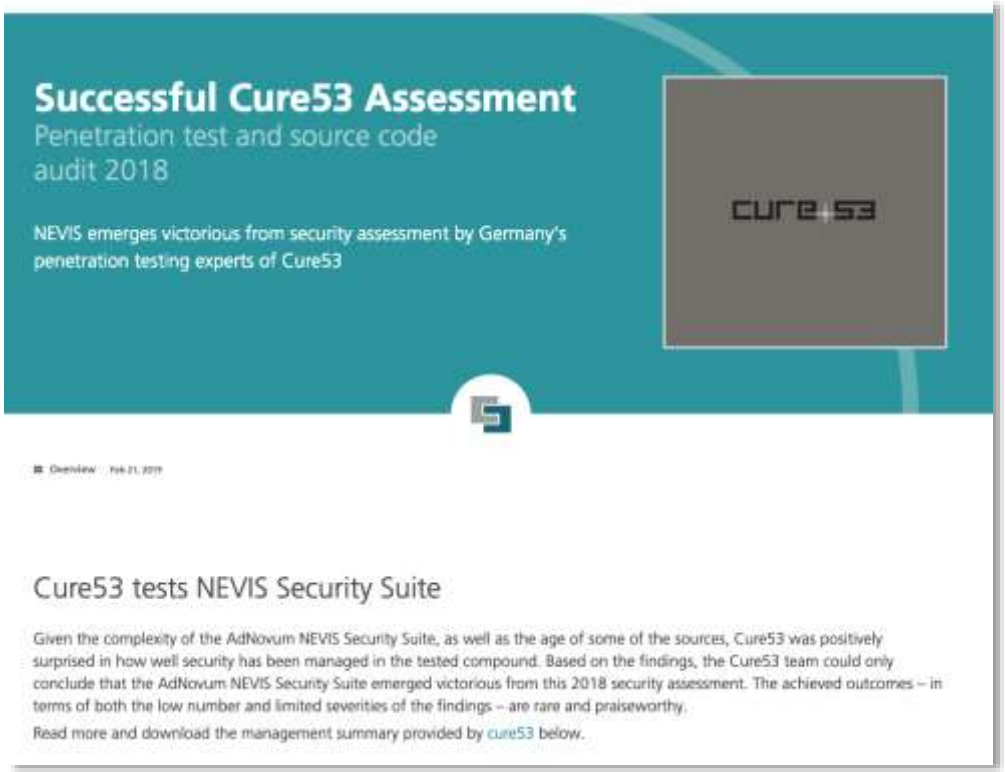
AdNovum continues to execute well on their roadmap by adding new features, such as the introduction of their FIDO UAF 1.1 support for their authentication server and mobile SDK for iOS and Android. Other improvements include deployment support with Ansible and Docker.

Security	strong positive
Functionality	strong positive
Integration	positive
Interoperability	strong positive
Usability	strong positive

Table 1: AdNovum rating

AdNovum's continued development to added new features and fill in missing gaps helps them to advance as a product leader.

Cure53 Security Assessment



[…] It was also ascertained that the **sole** vulnerability spotted on the scope carried a "*Medium*" security ranking only. In other words, **no problems** that could be deemed as triggering "*Critical*" or even just "*High*"-ranking risks could be unveiled. […]

Despite intensified efforts from the Cure53 team, **no major defects** like Remote Code Execution, privilege escalation or authentication bypasses could be found on the AdNovum scope.

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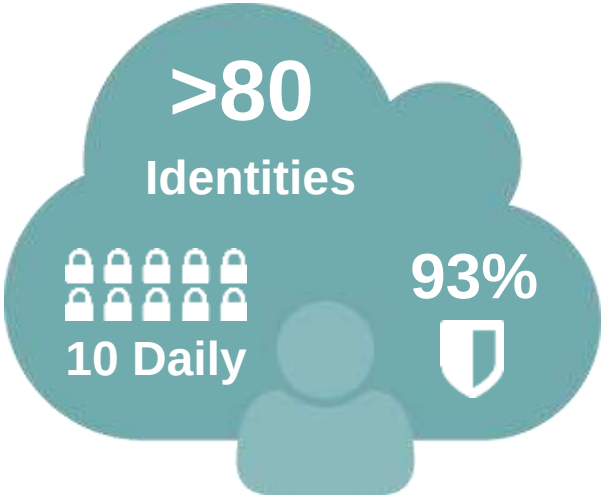
Identity 4.0:
Smart, sexy und trotzdem sicher?

Stephan Schweizer
CPO NEVIS

Challenge: Explain your IT job to an elder person…

Image Source: Ivan Chiosea / Alamy Stock Foto

User perspective: Identity Silos

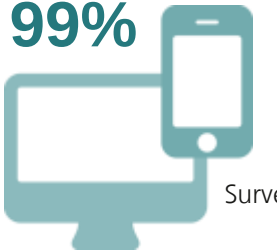


Growing user challenges

- 22% of users have > 80 identities (2016: 4%)
- 87% use up to 10 IDs on a daily basis (2016: 42%)
- 93% at least one account with 2FA (2016: 90%)

Multi-Channel is reality:

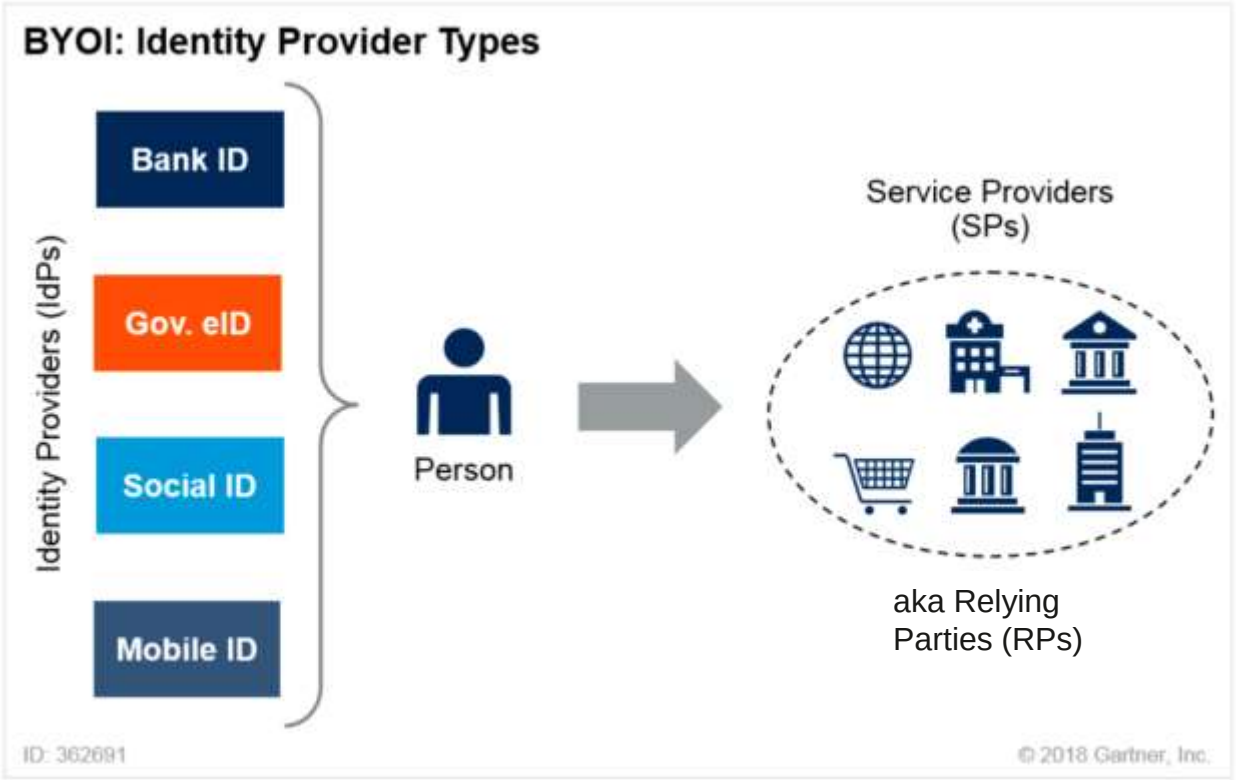
use their accounts on **both** mobile and pc **99%**



Survey 2016: **93%**

Source: AdNovum Digital Identities Survey, September 2018

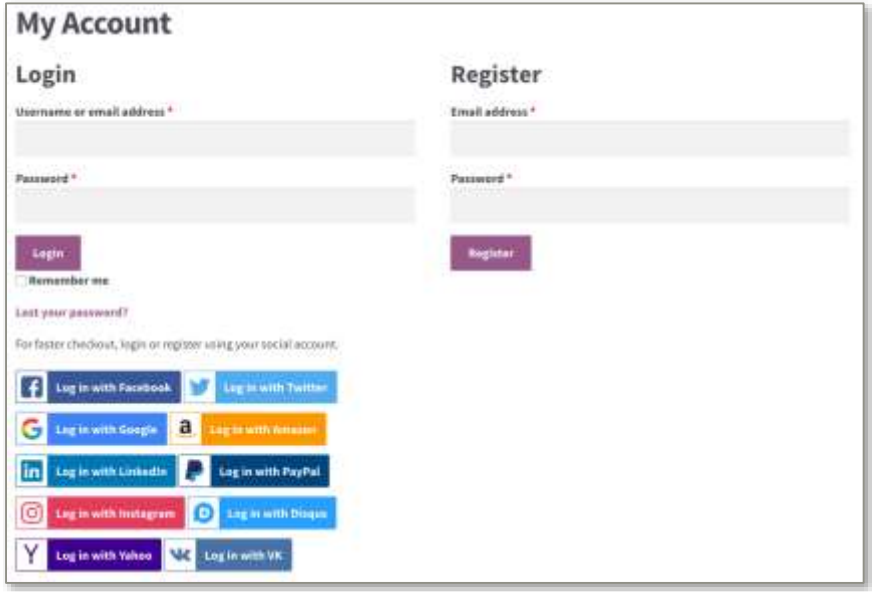
BYOI (Bring Your Own Identity) ≠ Social Login



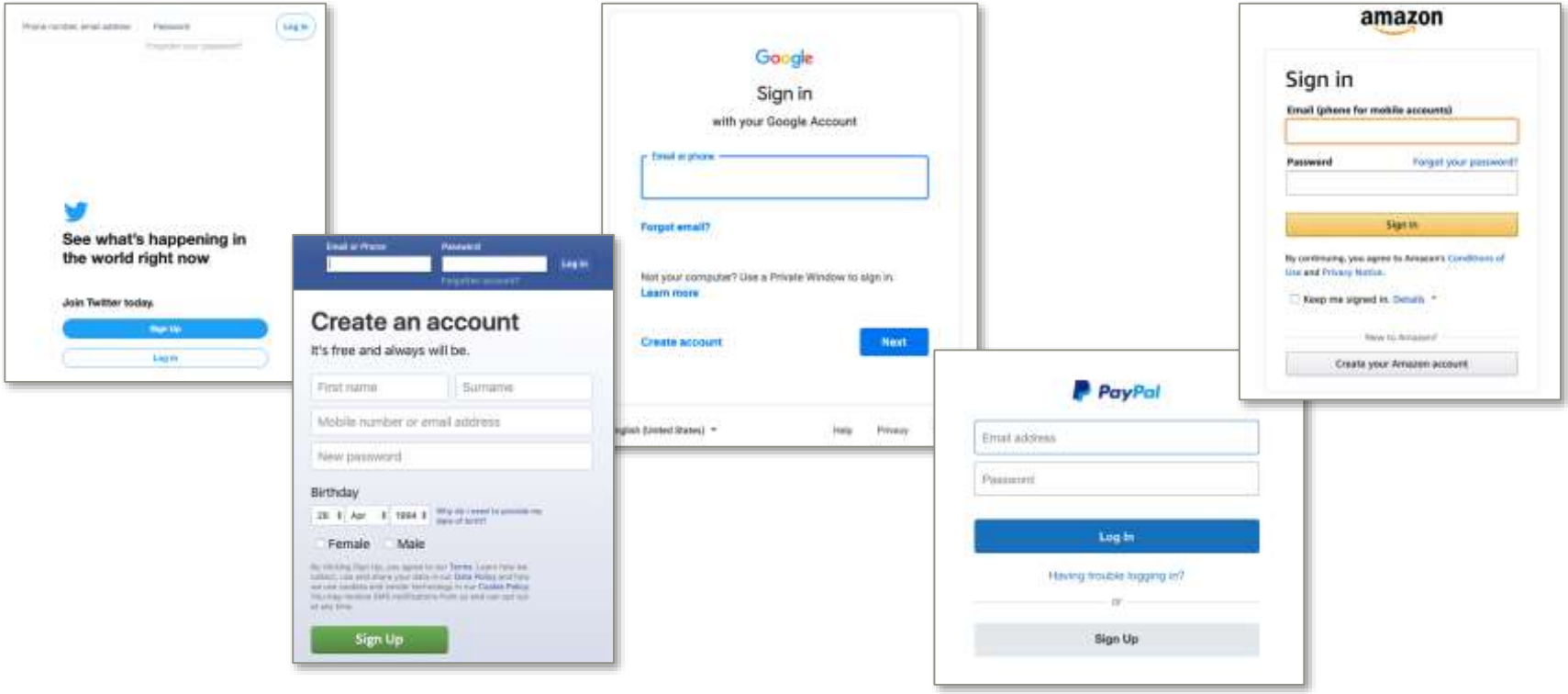
Pitfall: The NASCAR Problem

Paradox of Choice:

Negative Impact on User Experience



What are the big ones doing?



Good reasons to become an Identity Provider

Business Model

Monetizing of identity data is part of the business model

Brand Loyalty

Strong brand, standing for trust is an ideal prerequisite to become an IDP

Security and Privacy Concerns

Available Identity Providers are not fulfilling the requirements

User Demographics

A part of your user base is not covered by an appropriate IDP

The challenge of every IDP: What about passwords?

The Man Who Wrote Those Password Rules Has a New Tip: N3v$r M1-d!

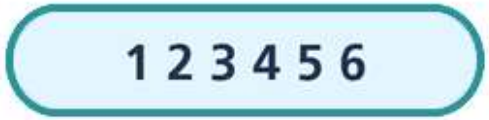
Bill Burr's 2003 report recommended using numbers, obscure characters and capital letters and updating regularly—he regrets the error

Advice on passwords is changing. **PHOTO:** MOMENT EDITORIAL/GETTY IMAGES

- **Bad user habits**
- **For machines, these Passwords are easy to guess**

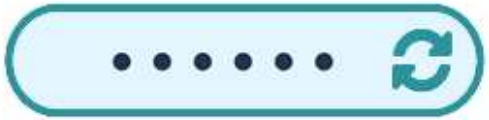
Source: https://www.wsj.com/articles/the-man-who-wrote-those-password-rules-has-a-new-tip-n3v-r-m1-d-1502124118

Bad password habits



85%

Are too lazy to change password often



33%

Re-use password for most accounts

40%

Cannot login because of missing token or card reader

Source: AdNovum Digital Identities Survey, September 2018

User habits are even worse on Mobile

- **Passwords created on smartphones are significantly shorter than on PCs**
- Significantly fewer upper case letters
- No use of symbols by **25.1% of users on PCs**
- No use of symbols by **43.8% of users on Mobile**

Source: Emanuel von Zezschwitz, Alexander De Luca, and Heinrich Hussmann. 2014. Honey, I shrunk the keys …

Identity theft: Still big business

Account Type	Price Range
Retail: Major retailers, fashion, entertainment, home goods, auto	$0.20 - $6.00
Social: Social media, emails, dating sites, instant messaging	$1.00 - $10.00
Hospitality: Airlines, hotels, and travel	$0.70 - $10.50
Financial: Bank accounts, money transfer services, credit cards	$0.50 - $15.50
Technology: Telecommunications, mobile devices and electronics, business services	$0.40 - $4.50

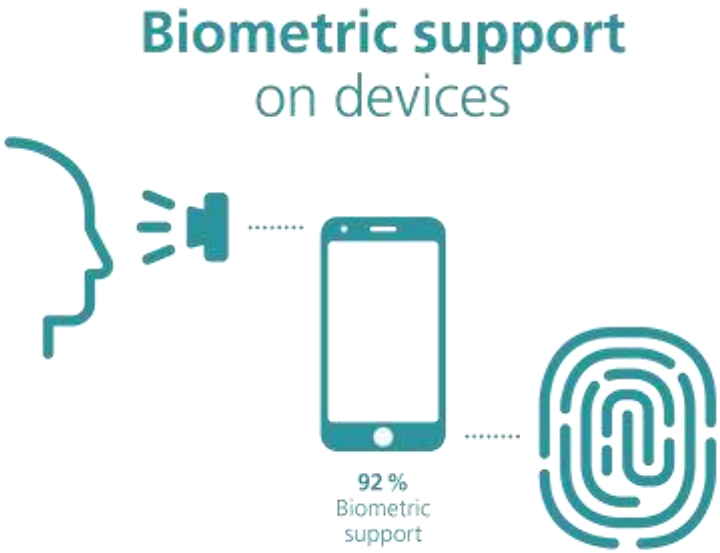
Source: RSA Quarterly Fraud Report, Q4 2018

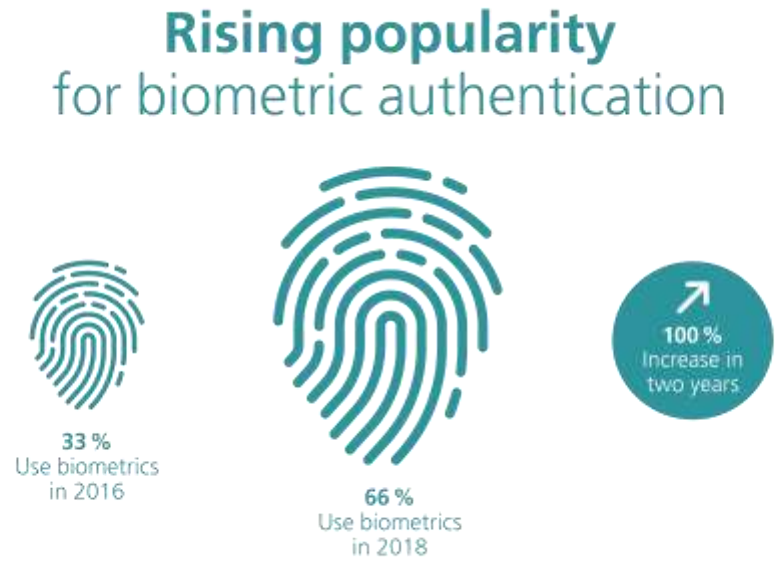
Identity theft market:

- Globally, approx. **4.5 billion accounts** compromised in 1st half year 2018
- Prices depend on "freshness" of stolen identity data
- **Highly automated trading** by using "Telegram" messaging service

Time to change: Our vision on passwords….

The good news: There is a way out!





Source: AdNovum Digital Identities Survey, September 2018

Demo: Passwordless Login

What about compliance? (PSD2 = Payment Service Directive v2, EU legislation)

PSD2 Strong Customer Authentication (SCA, Chapter II)

- At least two of three elements:
  - Something you know (e.g. password)
  - Something you have (e.g. device)
  - Something you are (e.g. biometrics)
- The authentication of a user must result in a cryptographic signature
- The user's cryptographic material must be well protected

Transaction Confirmation / Dynamic Linking

- Cryptographic Authentication Code needs to be linked to Transaction

Perfectly fulfilled by passwordless login

And the user feedback?

Image Source: Ivan Chiosea / Alamy Stock Foto

Conclusion

BYOID mitigates the ID explosion

However, there will most probably never be a “magic single Identity Provider”

Keep Users in Mind

Surprisingly, millennials and elderly people have very similar expectations!

It’s time to retire passwords

The technology and standards are available now!

... since without user convenience there will be nothing left to be protected!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Thank you! Questions?