What’s Wrong with your Password?

PRESENTED BY:

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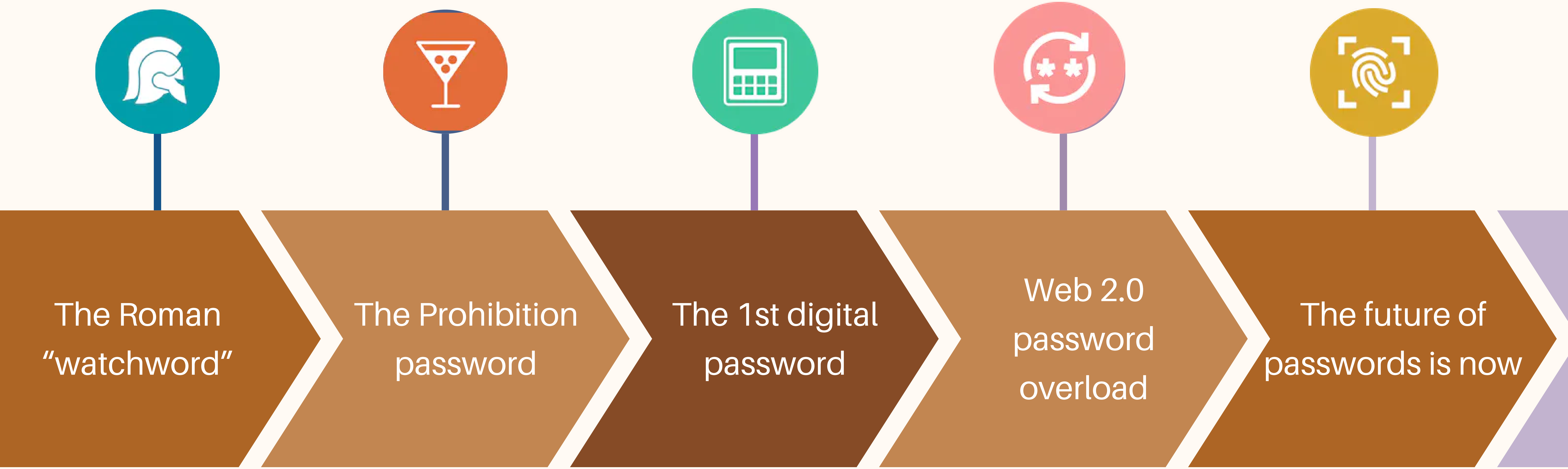
Dynamic Expert in Security Solutions.
Passionate about Unraveling the Why and How.

About me

Password and its Evolution

A password is a string of characters used to verify the identity of a user during the authentication process.

5-Step Ordering Process



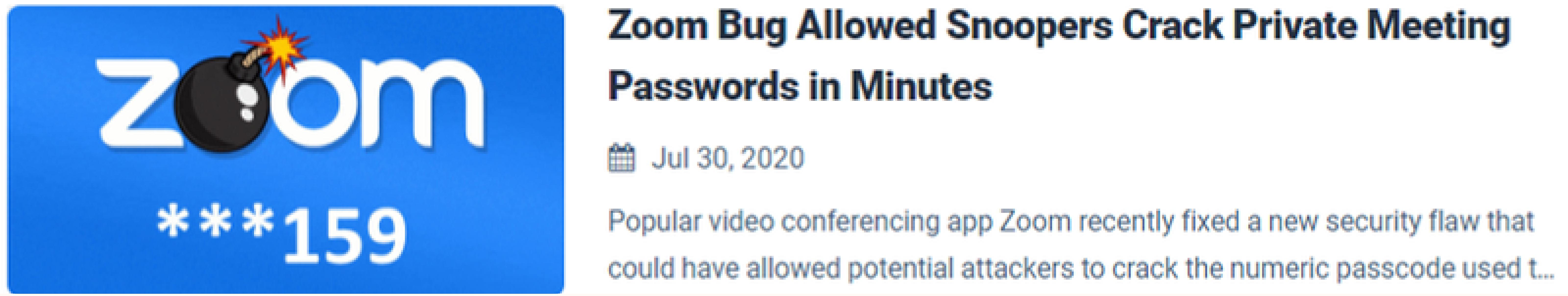
The Roman "watchword"

The Prohibition password

The 1st digital password

Web 2.0 password overload

The future of passwords is now



Zoom Bug Allowed Snoopers Crack Private Meeting Passwords in Minutes

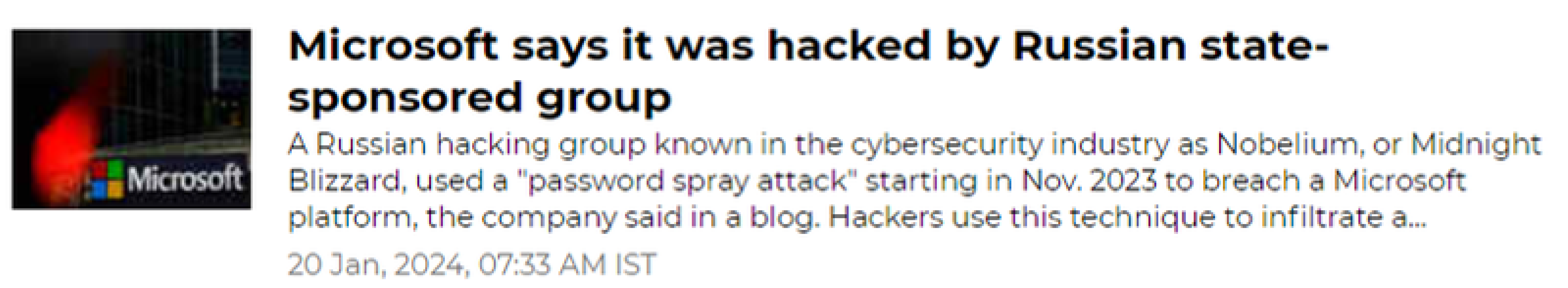
Jul 30, 2020

Popular video conferencing app Zoom recently fixed a new security flaw that could have allowed potential attackers to crack the numeric passcode used t...

- Zoom-bombing attacks refer to the act of disrupting and hijacking Zoom meetings uninvited to share obscene and racist content.

- Zoom began requiring a passcode for all meetings back in April as a preventive measure to combat this.

- An attacker to attempt all 1 million passwords in a matter of minutes and gain access to other people's private (password-protected) Zoom meetings.



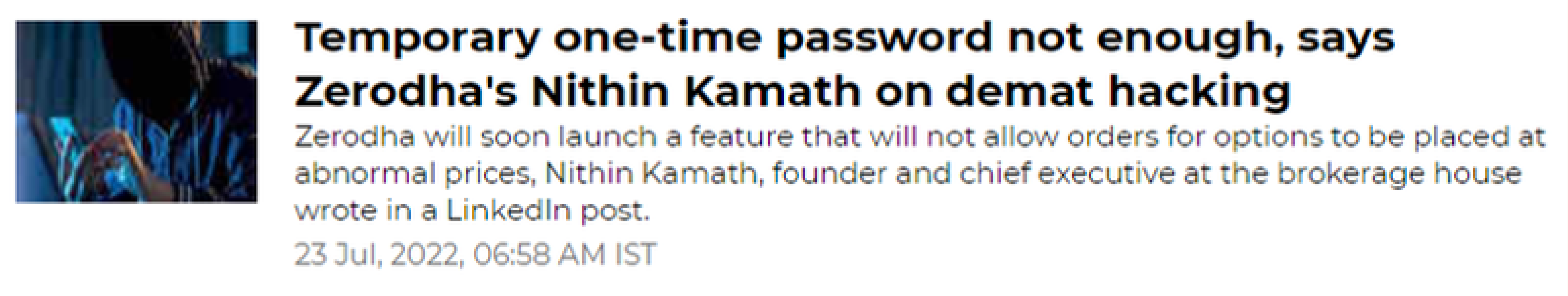
Microsoft says it was hacked by Russian state-sponsored group

A Russian hacking group known in the cybersecurity industry as Nobelium, or Midnight Blizzard, used a "password spray attack" starting in Nov. 2023 to breach a Microsoft platform, the company said in a blog. Hackers use this technique to infiltrate a...

20 Jan, 2024, 07:33 AM IST

- A Russian hacking group known in the cybersecurity industry as Nobelium, or Midnight Blizzard, used a "password spray attack" starting in Nov. 2023 to breach a Microsoft platform

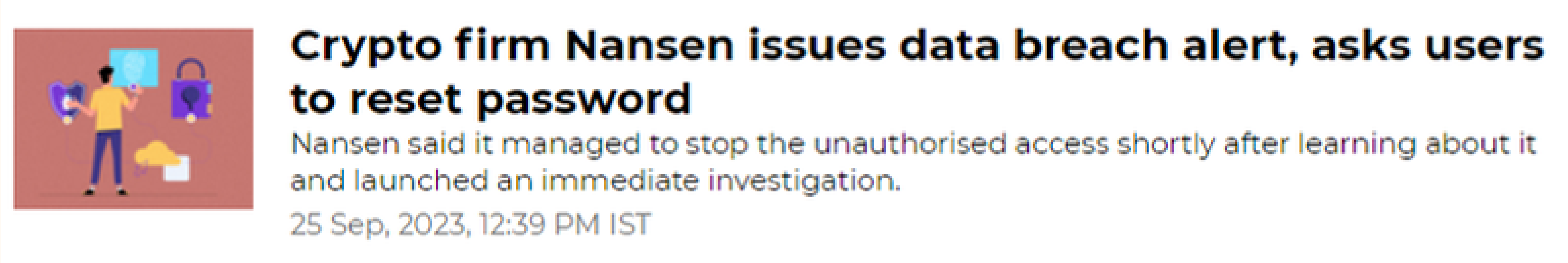
- Hackers use this technique to infiltrate a company's systems by using the same password across multiple accounts.



Temporary one-time password not enough, says Zerodha's Nithin Kamath on demat hacking

Zerodha will soon launch a feature that will not allow orders for options to be placed at abnormal prices, Nithin Kamath, founder and chief executive at the brokerage house wrote in a LinkedIn post.

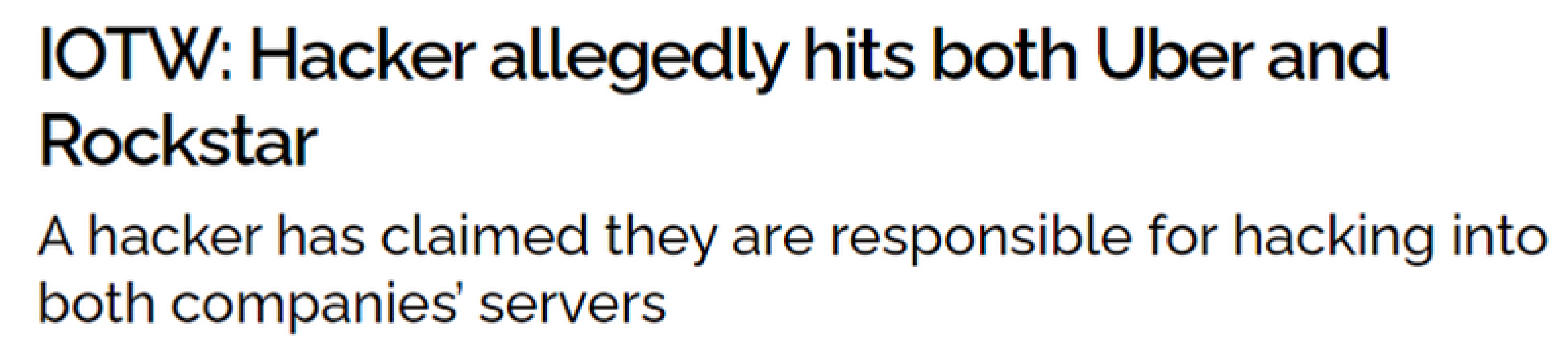
23 Jul, 2022, 06:58 AM IST



Crypto firm Nansen issues data breach alert, asks users to reset password

Nansen said it managed to stop the unauthorised access shortly after learning about it and launched an immediate investigation.

25 Sep, 2023, 12:39 PM IST



IOTW: Hacker allegedly hits both Uber and Rockstar

A hacker has claimed they are responsible for hacking into both companies' servers

Rank	Password	Number of times used	Time Taken to crack
1	123456	4524867	?
2	admin	4008850	
3	12345678	1371152	
4	1234	969811	
5	password	710321	
6	123	528086	
7	Aa123456	319725	
8	1234567890	302709	

admin:password

Challenges with Web 2.0 Passwords

01

Reuse Passwords

A user has account across 100 different application and it is difficult for them to create 100 unique, difficult to guess passwords

02

Use of common passwords

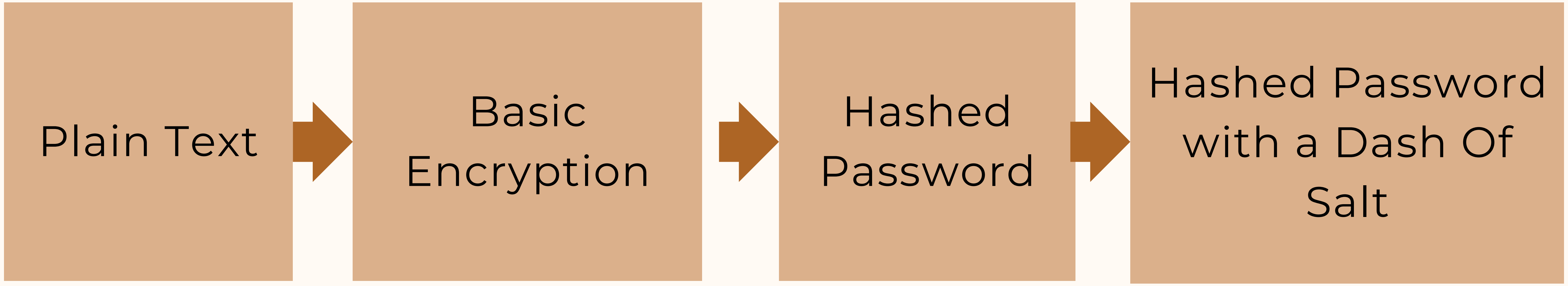
Most users tend to utilize commonly used passwords including their personal information.

03

Frustrating password policies

It is sometimes frustrating to meet the requirements of complex password olicies

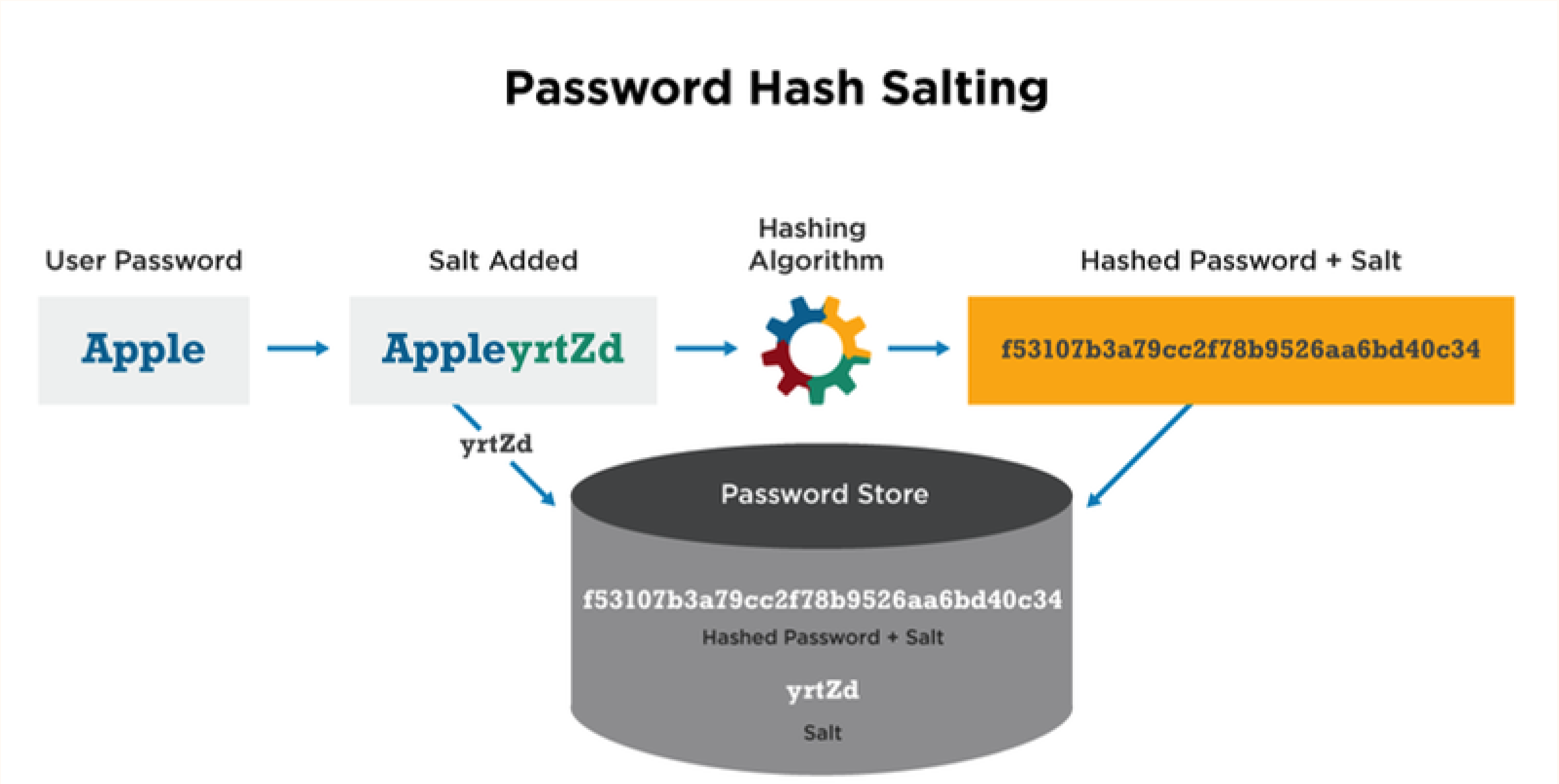
How Passwords are Stored?


Plain Text

Basic Encryption

Hashed Password

Hashed Password with a Dash Of Salt



Password Hashing Algorithms!

MD5	SHA1	SHA256	Argon2id
Weakest			
	Weak		
		Strong	
			Strongest

RAINBOW TABLES

BRUTE FORCE ATTACK

DICTIONARY ATTACK

HYBRID ATTACK

CREDENTIAL STUFFING ATTACK

5-Step Ordering Process

Common Password Cracking Techniques

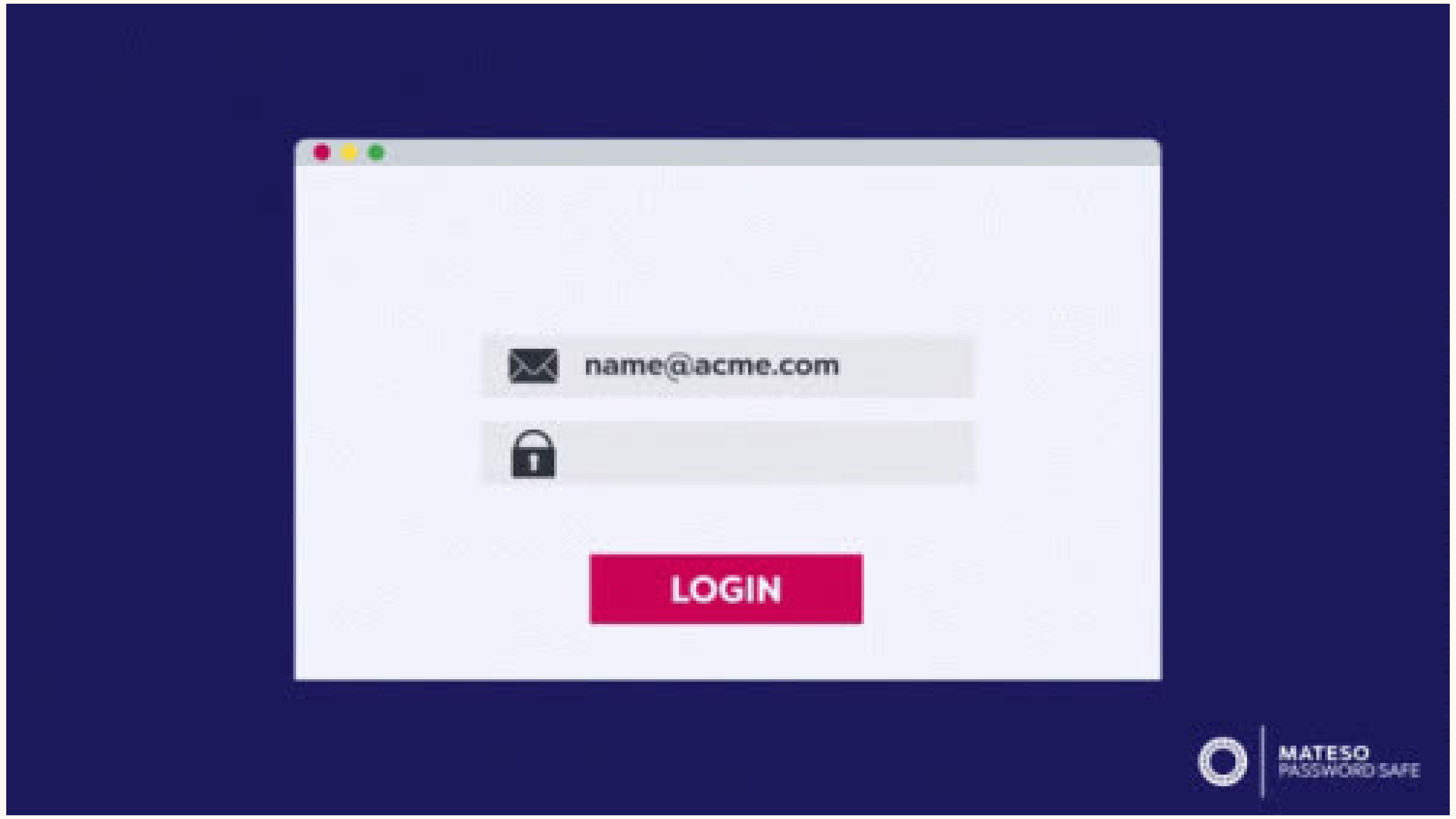
Open Source Password Cracker Tools

- John the Ripper
- Statsprocessor
- Hashcat
- THC-Hydra
- CeWL

What’s wrong with your password

- Using the same password everywhere
- Sharing passwords too freely
- Using Personal Information
- Having too short passwords
- Never updating passwords
- Lack of AWARENESS

Password Managers

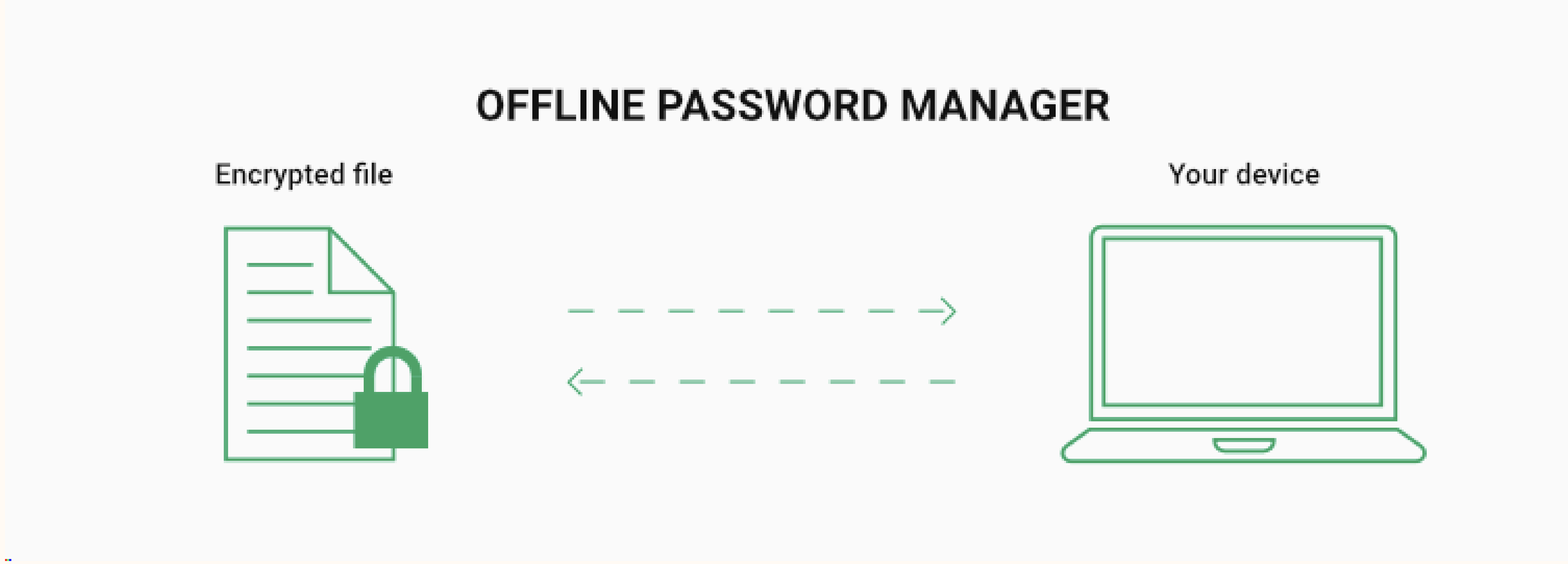


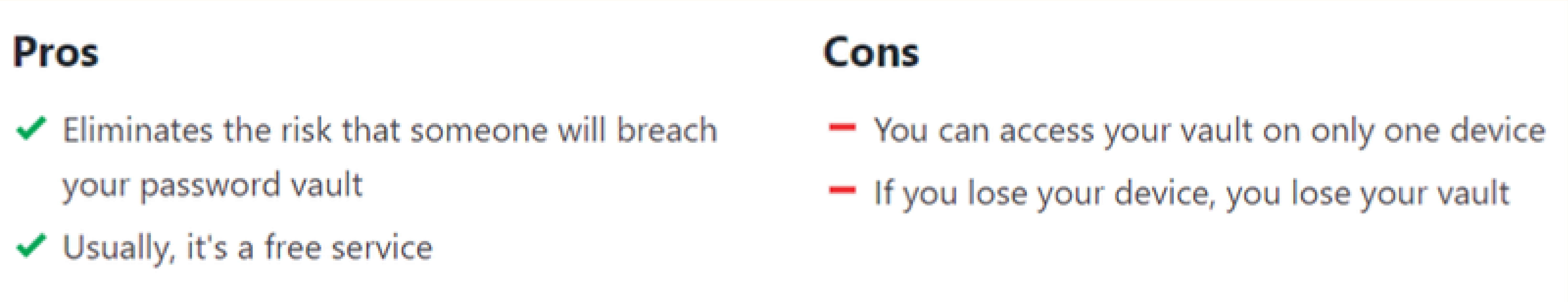
Password Managers will do anything and everything for your security

Create STRONG, UNIQUE passwords
for 100 sites and
remember all of them.

Types of Password Managers - Pros and Cons

- Locally installed or offline password managers
- Web-based or online password managers



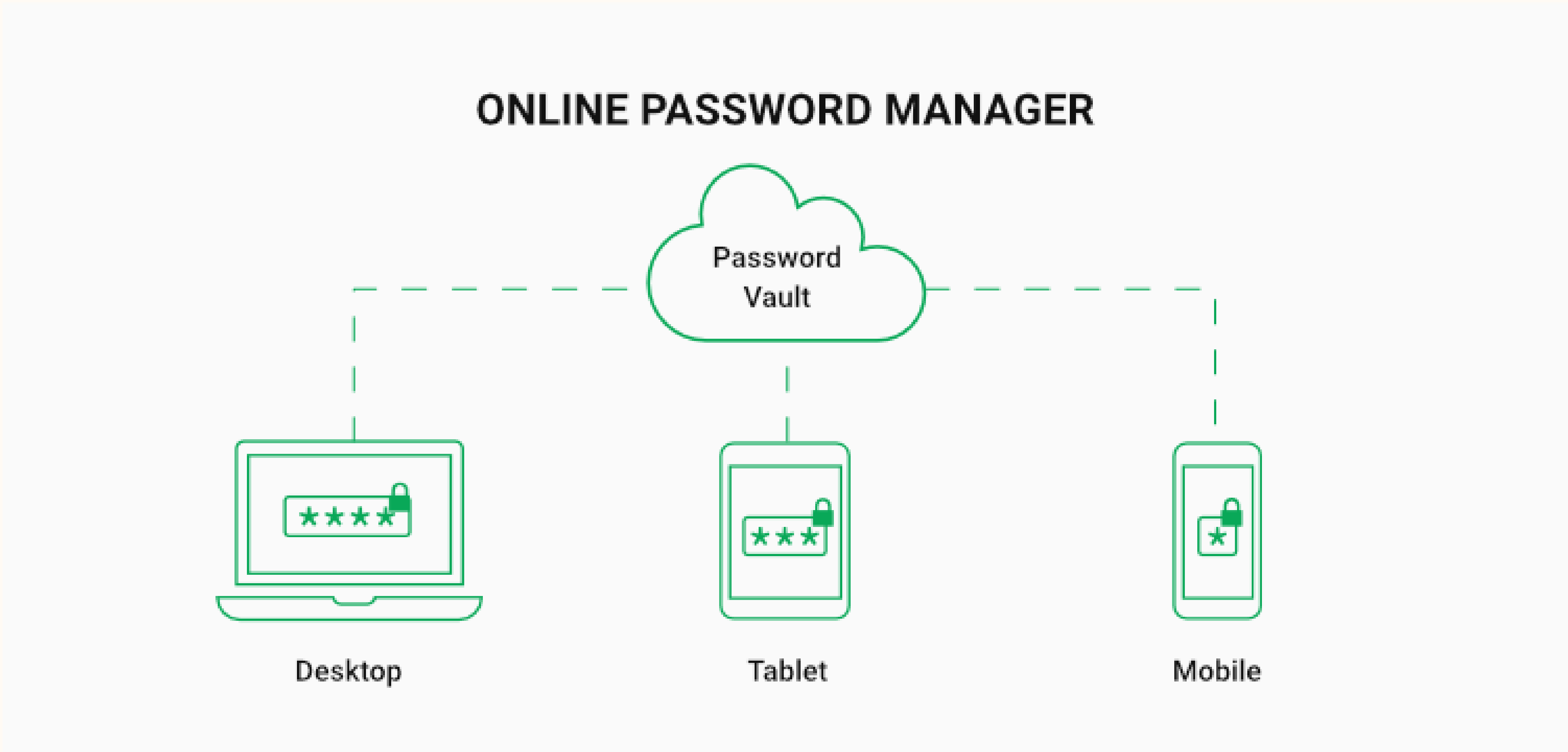


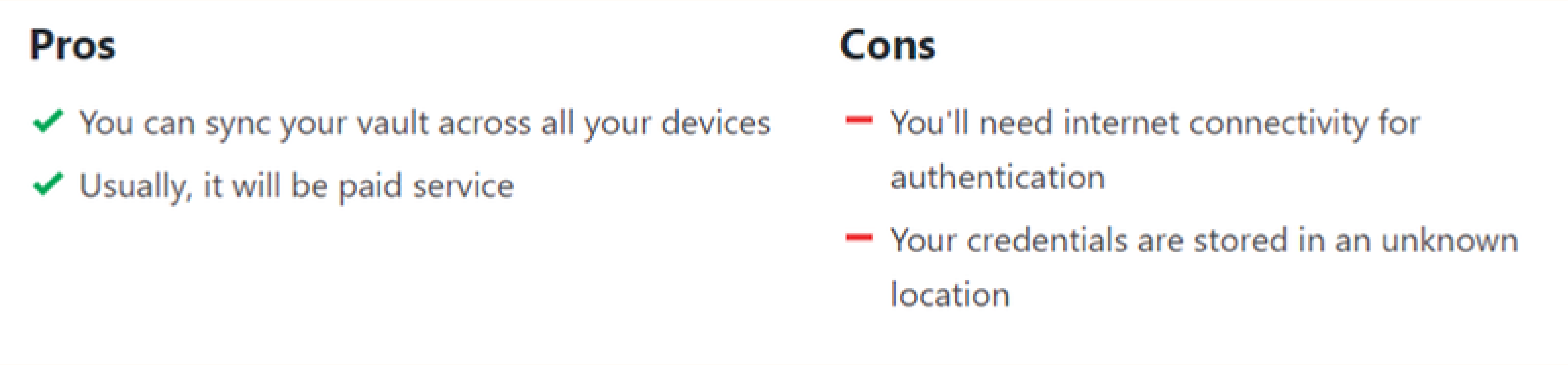
Pros

- ✓ Eliminates the risk that someone will breach your password vault
- ✓ Usually, it's a free service

Cons

- − You can access your vault on only one device
- − If you lose your device, you lose your vault





Pros

- ✓ You can sync your vault across all your devices
- ✓ Usually, it will be paid service

Cons

- − You'll need internet connectivity for authentication
- − Your credentials are stored in an unknown location

Popular Password Managers

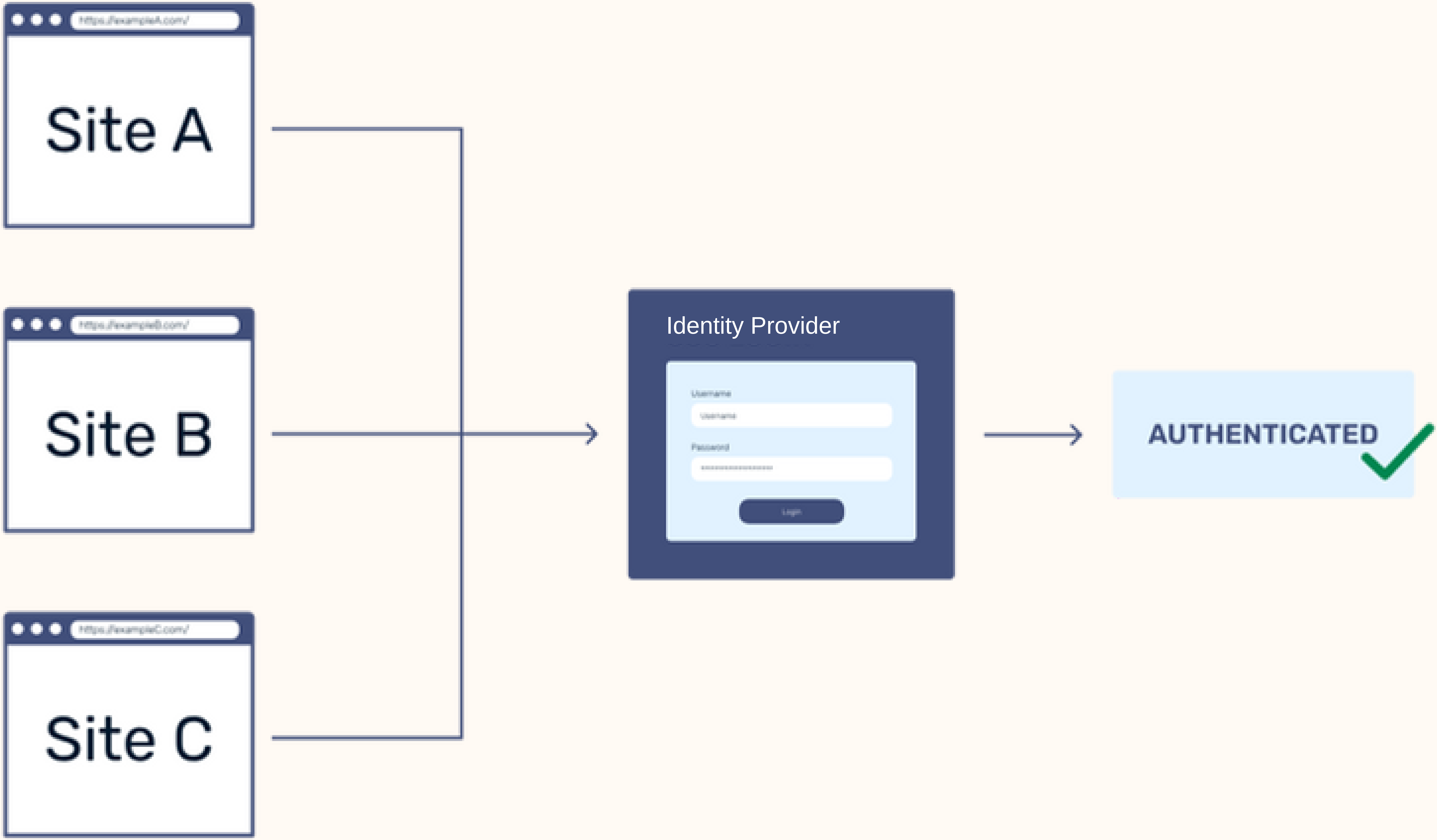
5-Step Ordering Process

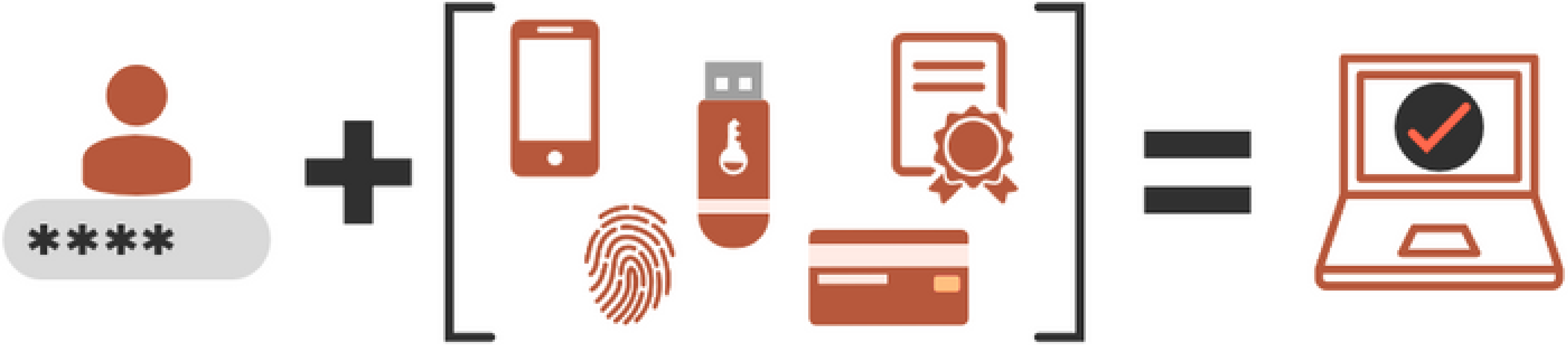
- LASTPASS
- NORDPASS
- BITWARDEN
- MINIORANGE
- DASHLANE

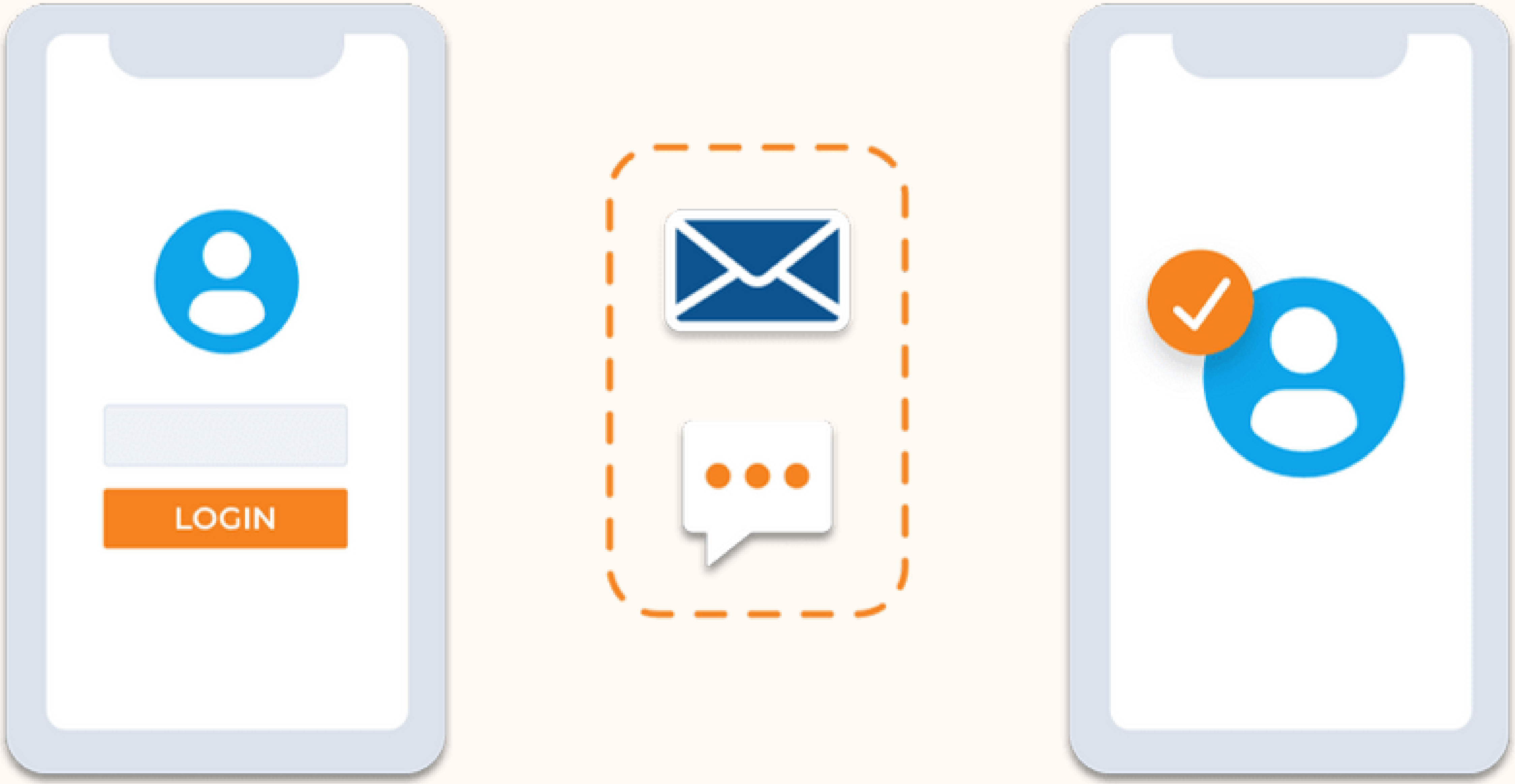
Not Using Password Managers yet?

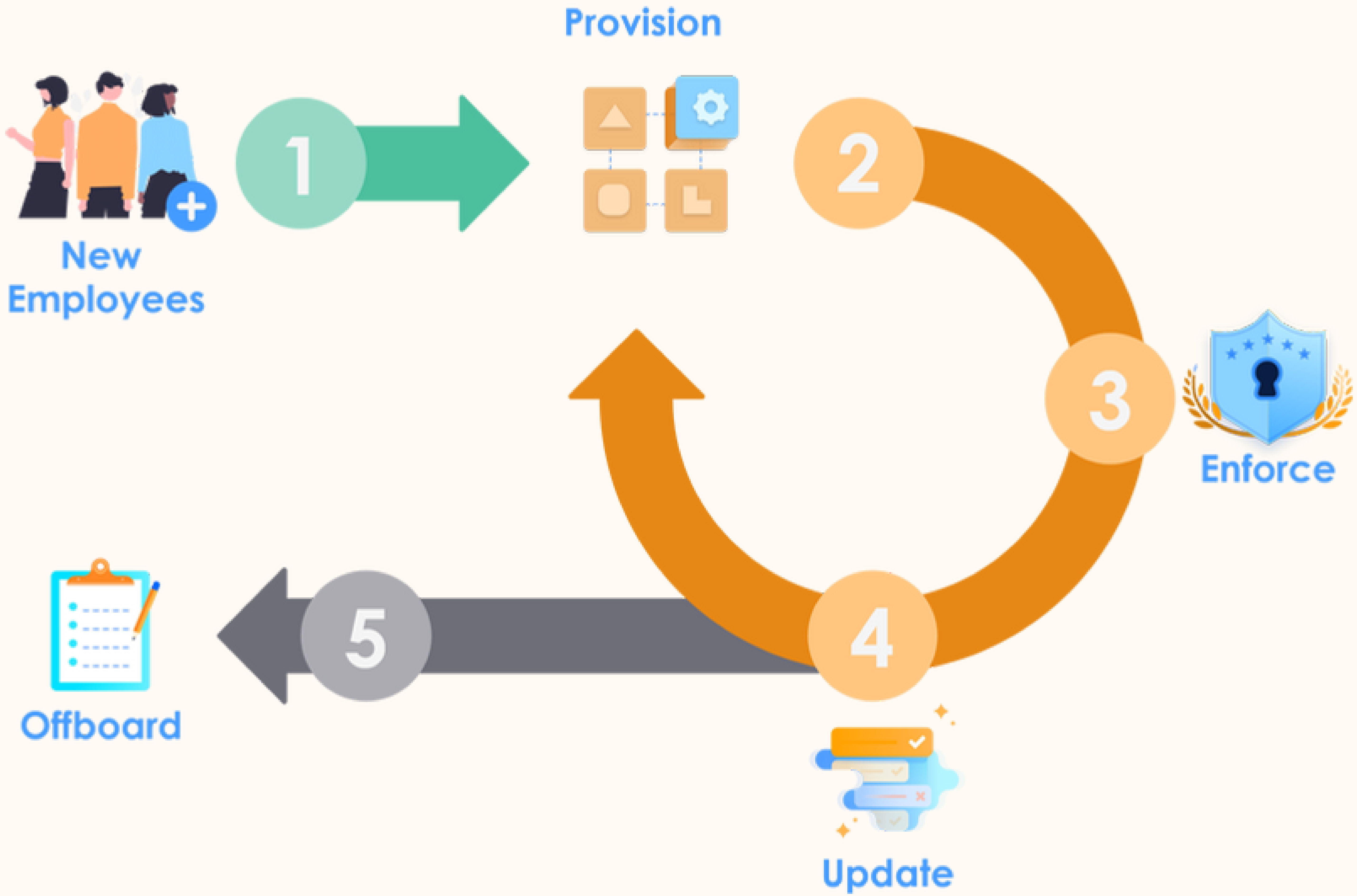
You can start by checking the strength of your passwords.

You made it to the last session!


https://exampleA.com/
Site A
https://exampleB.com/
Site B
https://exampleC.com/
Site C
Identity Provider
Username
Username
Password
****
Login
AUTHENTICATED




LOGIN


Provision
New Employees
1
2
3
Enforce
4
Update
5
Offboard

Feedback!