

Why we should use multifactor authentication

EVERYWHERE.

What is multifactor authentication (MFA)?

Something you know.

Something you have.

Something you are.

Something you know

- ▶ Pin or Password
- ▶ Pushed numbers
- ▶ Knowledge check

Something you have

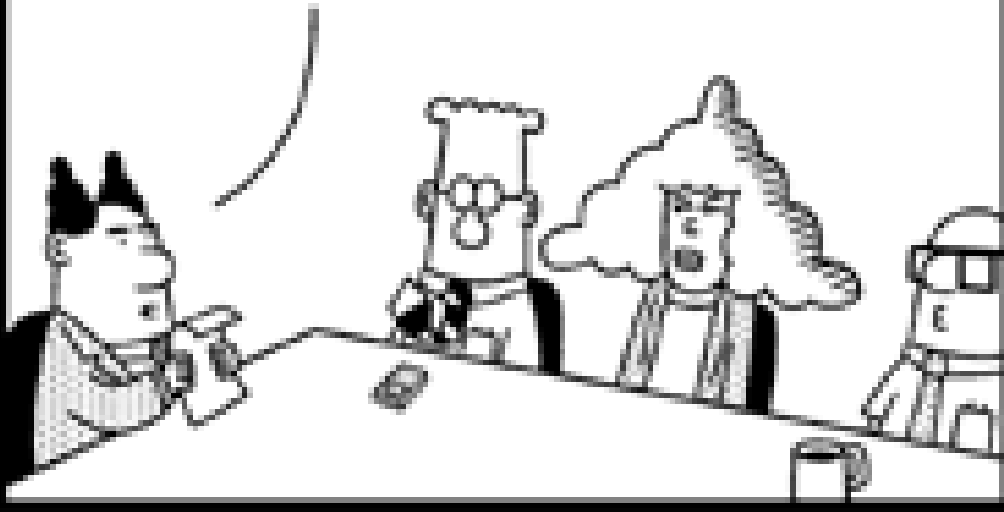
- ▶ Specific Device (certificate)
- ▶ Token or Card
- ▶ Digital Token/Application

Something you are

- ▶ Facial Recognition
- ▶ Fingerprint
- ▶ Eye scan

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STARTING TODAY,
ALL PASSWORDS MUST
CONTAIN LETTERS,
NUMBERS, DOODLES,
SIGN LANGUAGE AND
SQUIRREL NOISES.



That time
Dilbert saw
the future.

Why should we use MFA?



Computing power is cheap
and passwords are dumb.



Humans have awful
memories.



Password and data
breaches.



TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2022

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	2 secs	7 secs	31 secs
8	Instantly	Instantly	2 mins	7 mins	39 mins
9	Instantly	10 secs	1 hour	7 hours	2 days
10	Instantly	4 mins	3 days	3 weeks	5 months
11	Instantly	2 hours	5 months	3 years	34 years
12	2 secs	2 days	24 years	200 years	3k years
13	19 secs	2 months	1k years	12k years	202k years
14	3 mins	4 years	64k years	750k years	16m years
15	32 mins	100 years	3m years	46m years	1bn years
16	5 hours	3k years	173m years	3bn years	92bn years
17	2 days	69k years	9bn years	179bn years	7tn years
18	3 weeks	2m years	467bn years	11tn years	438tn years

Where do we see MFA in the world today?

- ▶ Banking\Medical\Sensitive sites and applications.
- ▶ Video Games.
- ▶ Sign in with...

Least good to most goodest



SMS/EMAIL ONE-
TIME CODES



AUTHENTICATOR
APP




PUSH
NOTIFICATIONS



FIDO
AUTHENTICATION

Account Sign in

 Continue with Facebook

 Continue with Apple

or

Email or Username

Password

[Forgot?](#)

Sign In

Need an account? Press the Google, Facebook, or Apple buttons.

Accounts



Microsoft 

kaygo1988@outlook.com



Contoso Corporation 

kayg@contoso.com

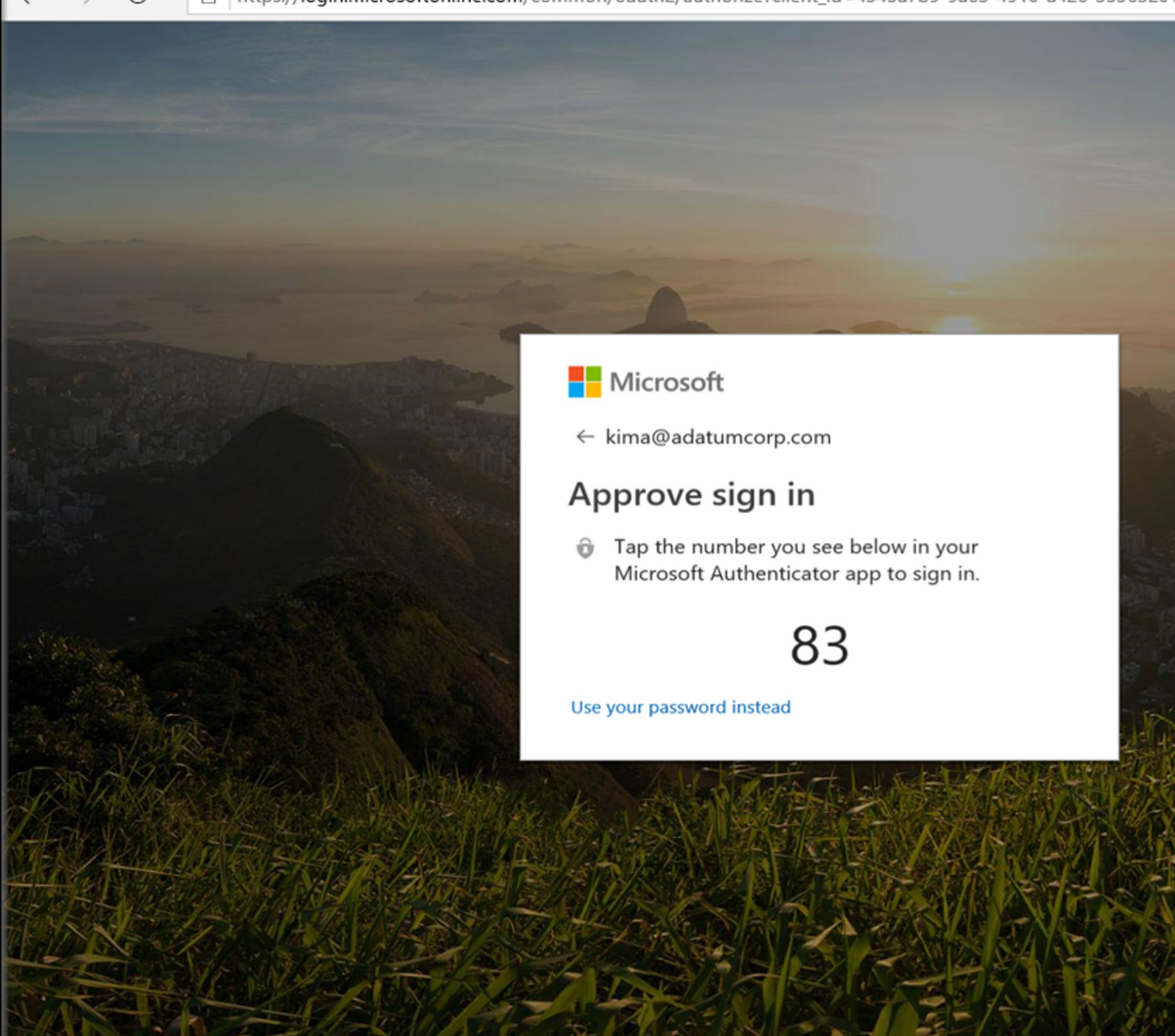


Facebook

kaygo1988@outlook.com



339 813 



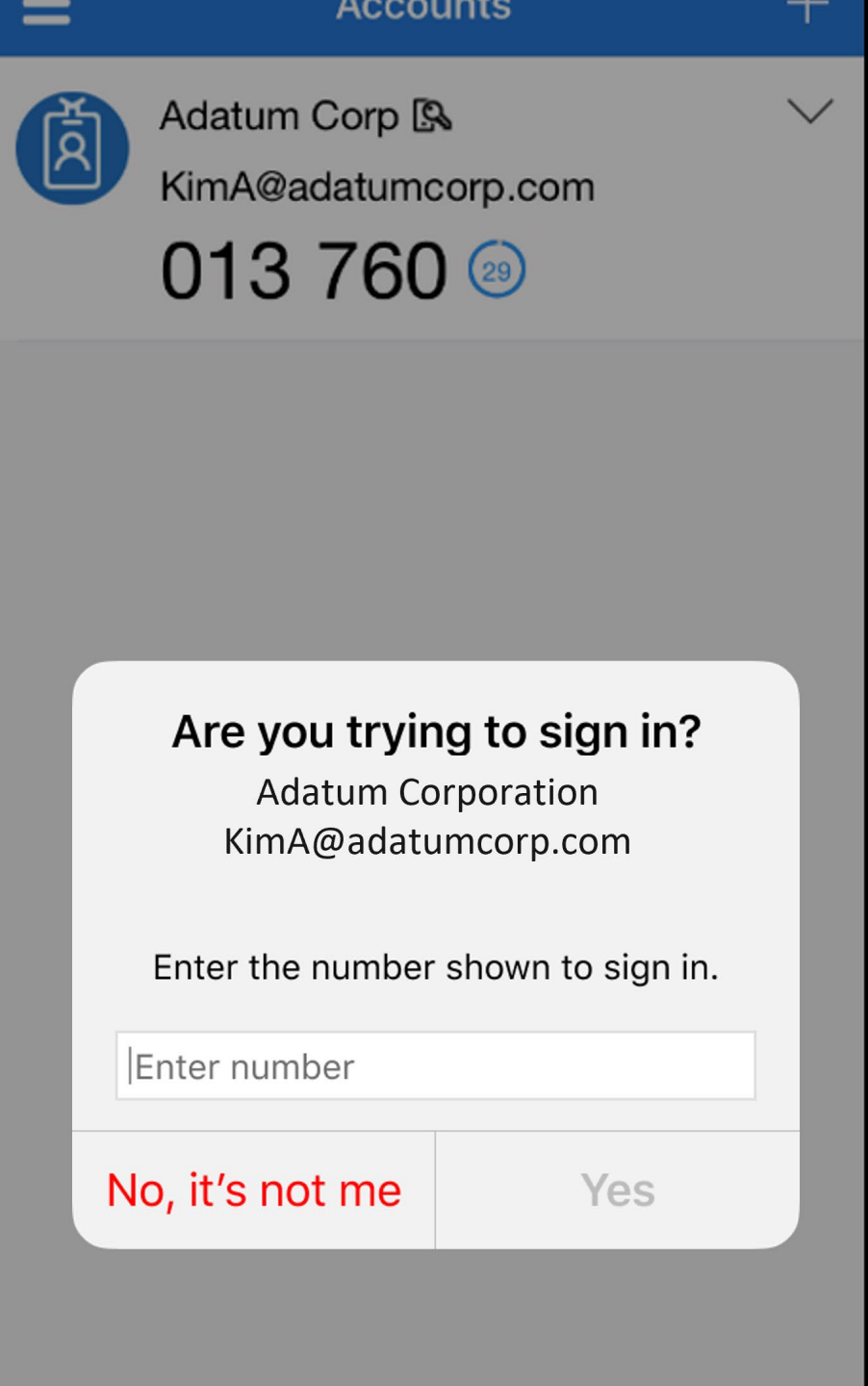
← kima@adatumcorp.com

Approve sign in

🔒 Tap the number you see below in your Microsoft Authenticator app to sign in.

83

[Use your password instead](#)



Adatum Corp

KimA@adatumcorp.com

013 760 29

Are you trying to sign in?

Adatum Corporation
KimA@adatumcorp.com

Enter the number shown to sign in.

No, it's not me

Yes

Not quite flawless victory



Notification Fatigue



Impersonation/Cold Calls