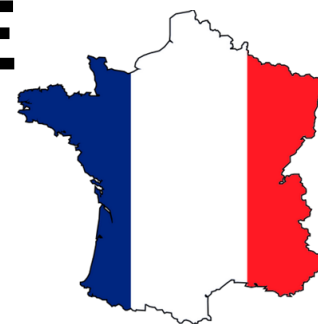


# Authentication Tales from the field



**David**  
**MARTINACHE**

Senior Manager  
Wavestone







**We want  
better  
authentication**



# Agenda

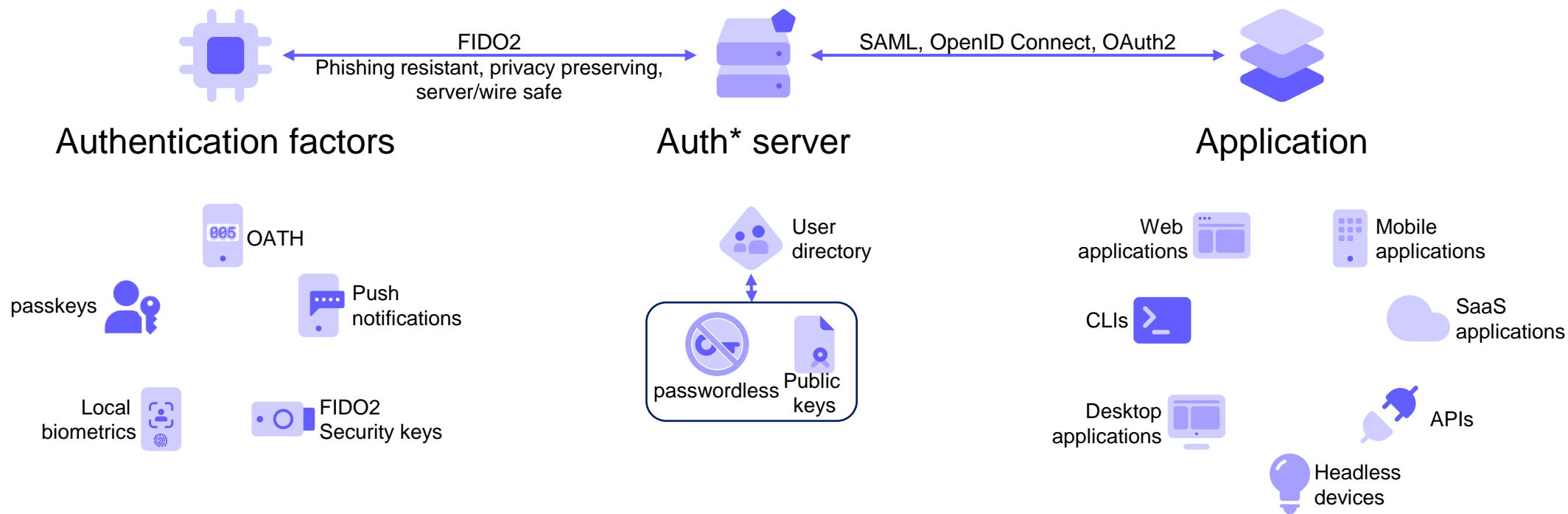


# Agenda

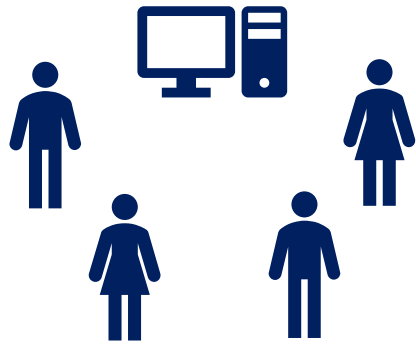
- How authentication is solved
- How authentication is... kinda solved  
*Tales from the field*
- How to (try to) solve authentication

# How Authentication is solved

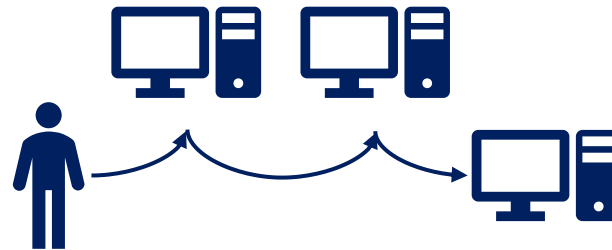
# Authentication is solved!



# Except...when stars and planets don't exactly align



Shared workstations  
and shared accounts



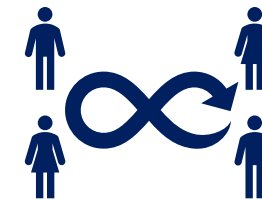
Wandering users



Constrained work situations



Aging software  
and hardware



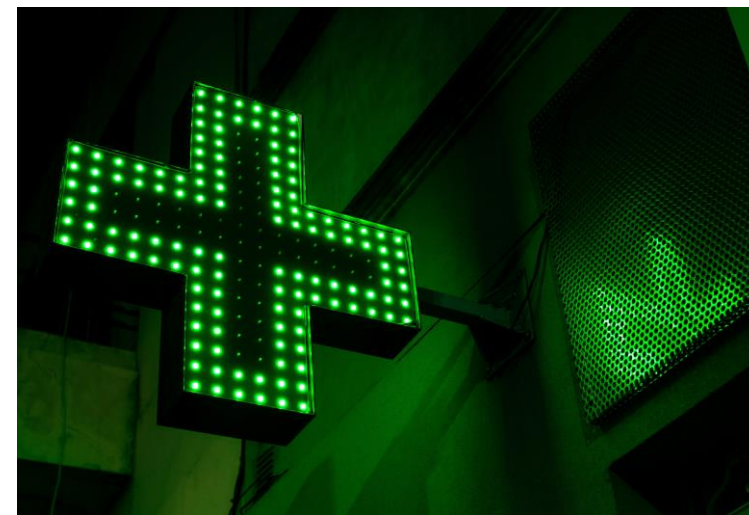
Complex user's lifecycle



# How authentication is kinda solved

*Tales from the field*

# Tales from the field



# Factories, how it started

- Shared workstations with generic sessions



- Password authentication for web applications



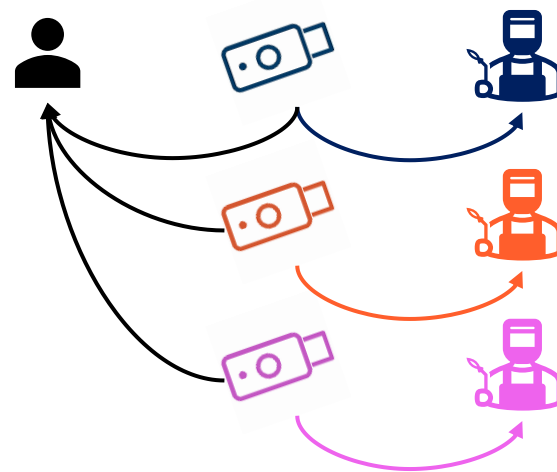


## Factories, how it's going

- FIDO2 with or without User-Verification, USB or contactless



- Twice-registered FIDO2 tokens







# Hospitals, how it started



Desktop clients



Web clients



Shared workstations



Wandering users

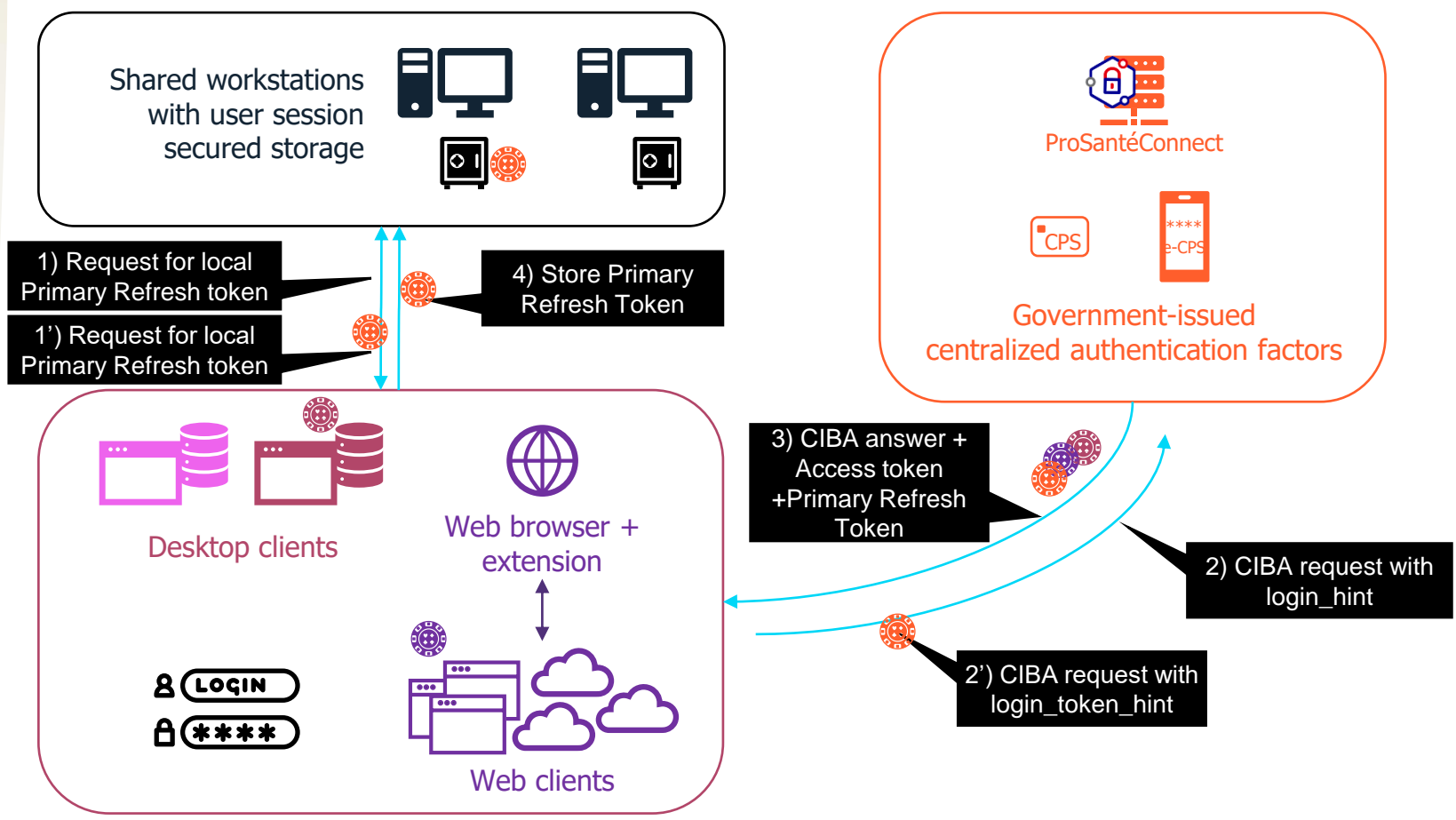


Various authentication factors

- Sometimes over 30 authentication per day
- Generic sessions with end-user unlocking and password auto-fill
- Remote-desktop to workstations

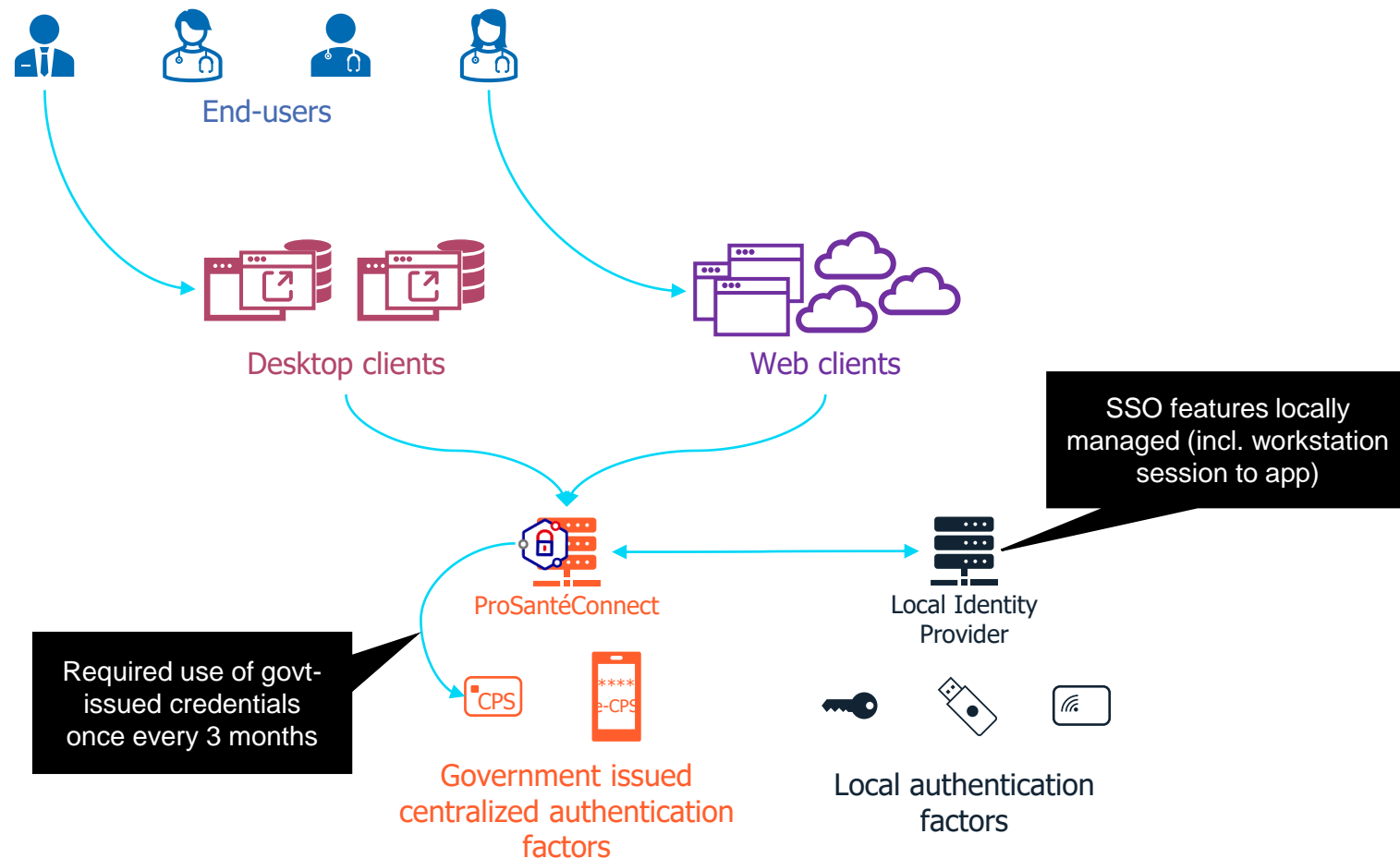


# Hospitals, how it could have gone



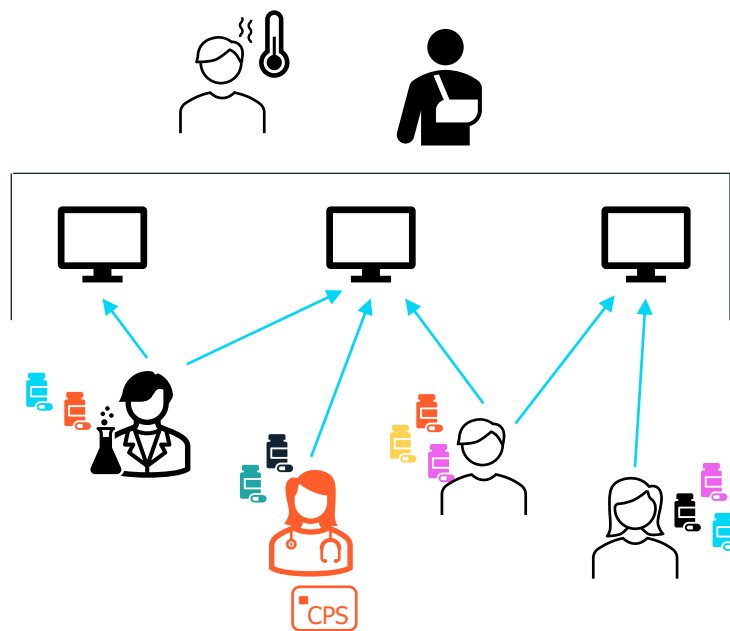


# Hospitals, where it's going



#identiverse

# Pharmacies, how it started



- Shared, unassigned retail workstations among employees
- Busy hands with prescriptions and medications

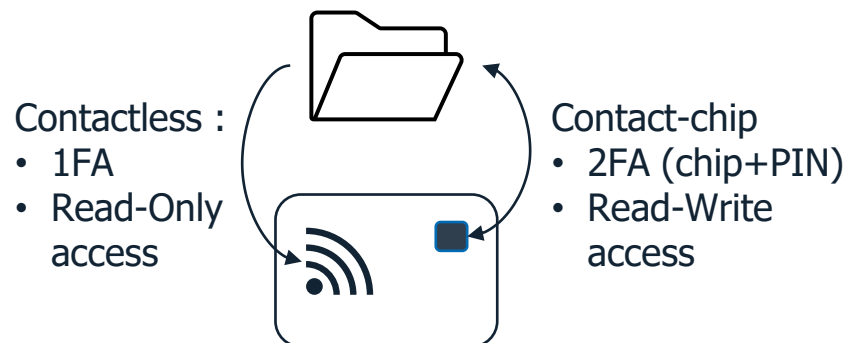


- One healthcare professional for several undergraduates
- Healthcare professional identity required for some software applications

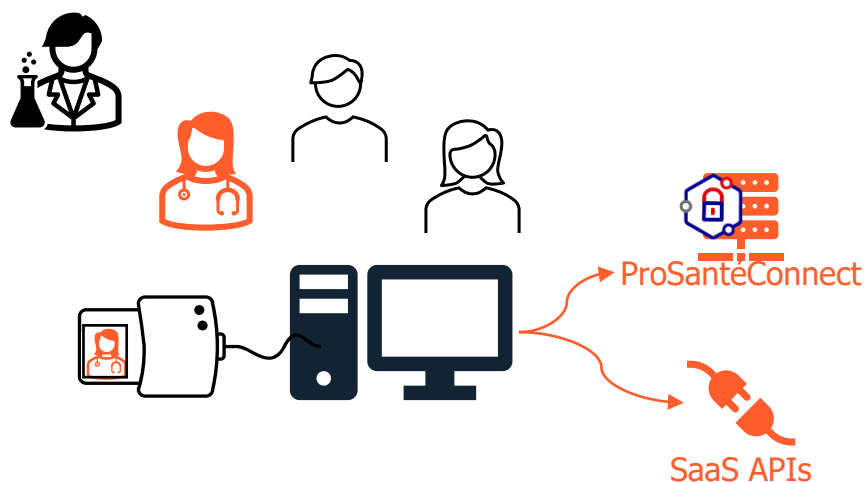
#identiverse



# Pharmacies, how it went



1. Authenticate once with 2FA (chip+PIN)
2. Store 4-hour session token
3. Use contactless to authenticate during a 4-hour window



- A single smartcard shared on a backoffice workstation
- Work in progress to allow additional identities on the central healthcare identity provider

# How to (try to) solve authentication?

# Every situation is its own snowflake

- There always are edge cases and specific business requirements that every engineer wants to solve
- Available standards provides a very rich toolbox that may lack one or two puzzle pieces from time to time
- It is very tempting to design an end-to-end solution and often reinventing the wheel is part of the design process

# A very delicate balance between

- **Tech** and all the magic standards you want to throw at it
- **People** and how they must accomplish their tasks without being bothered
- **Processes** to deploy, educate, support the running activities, while answering security and regulatory requirements





# THANK YOU!