

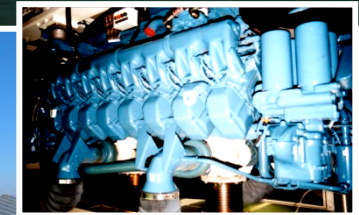


# Security concerns in ATM

## SNMC 22

# Cofely Ineo is a turnkey solution integrator

- **Airport Infrastructure** : production and backup power plants, solar power systems, secured electrical distribution, runway lighting, navigational aids (VOR, ILS, DME, NDB, DF), weather stations, equipment monitoring & maintenance...
- **Telecommunications & networks** : HF/VHF, UHF, MW, VSAT, LAN/WAN networks, remote VHF stations, secured optical fiber networks (data collection around the runway)
- **Air Traffic Control** : digital and analog voice communication switch systems (VCSS), recording systems, ITWP, integrated towers, mobile towers, AFTN/AMHS switch, AIS, time synchronization, ATIS, D-ATIS, 3D simulators...



## Cofely Ineo is an ATC/ATM product designer

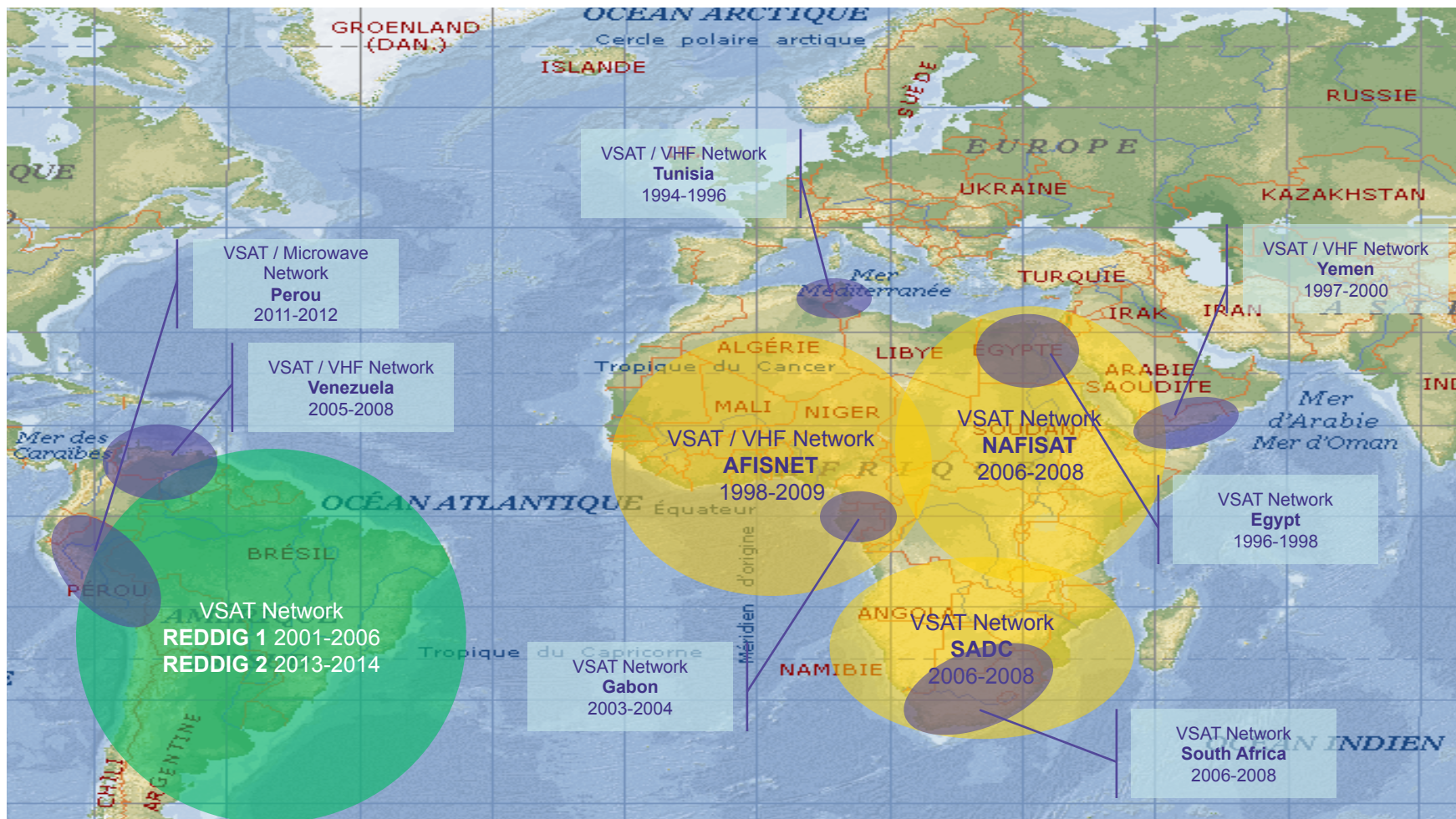
- Cofely Ineo designs, develops and commercialize a **business product range for the ATC world**
- These products are sold under a **new brand name** : be-safe.com
- Dedicated web site : **www.be-safe.com**
- AIRvoice : VCS over IP
- AIRtouch : Smart Tower Suite
- AIRview : Integrated Tower Position
- Simulation tools



**COFELY INEO**  
GDF SVEZ



# Cofely Ineo : a world leader in VSAT/VHF networks



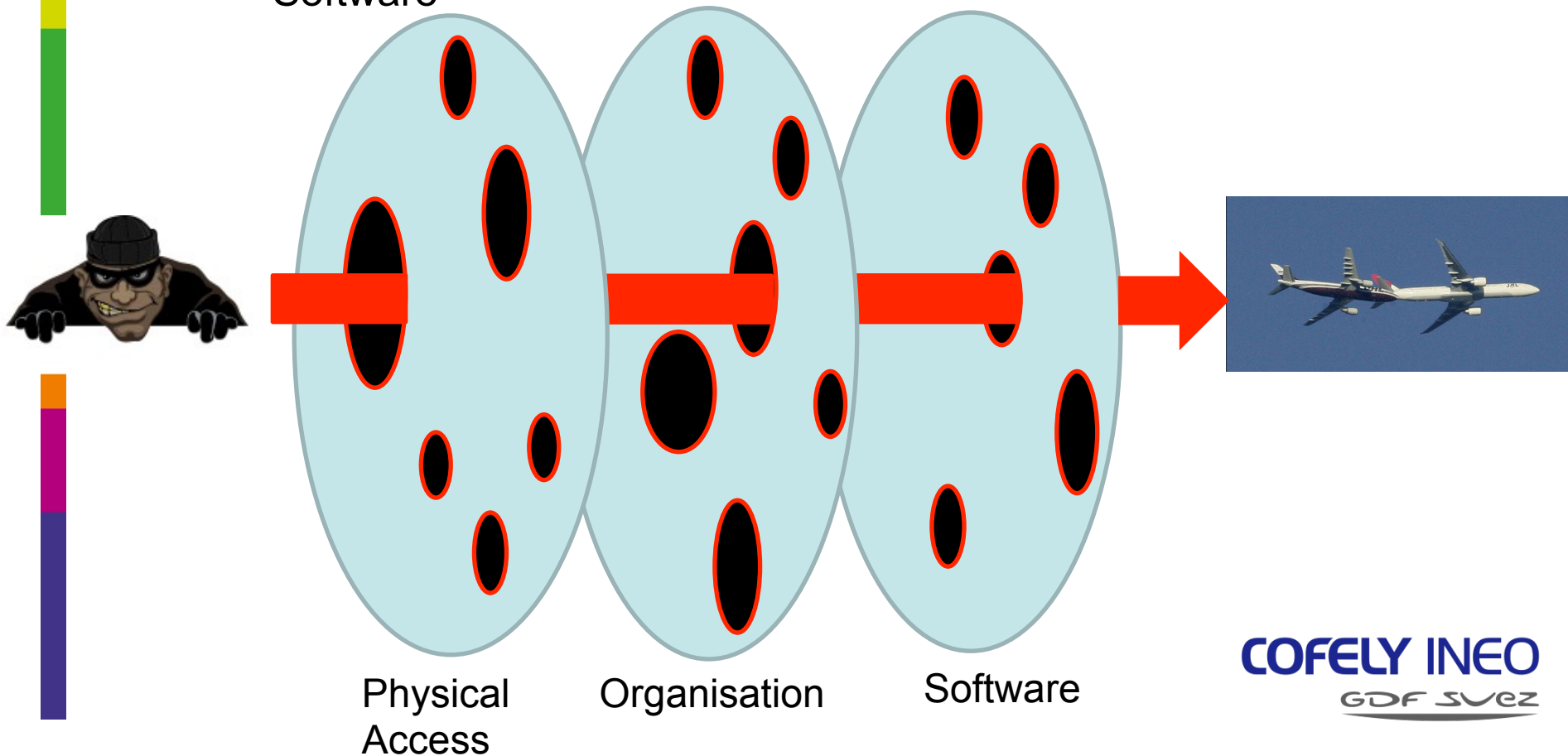


## History

- PIRACY, CRACKING, HACKING have been going on for centuries
- **WHY ?**
  - Due to the need by people to exchange informations
  - There is always somebody somewhere who wants your information
- Now, Internet, by extension all the networks and the diversity of the network (satcom, satellite network, ADS-B network, interconnection, office network, etc.), increase the risk of attack

## Tendances

- Different types of attack use different ways through the vulnerabilities of
  - Organisation
  - Physical access
  - Software



## Tendances

- And can concerns all ATM area :
  - VoIP
  - Flight plan (AMHS)
  - Monitoring network (SNMP)
  - Network interconnection (AIDC)
  - Surveillance sensors (ADS-B, Radar, MLAT)





# Threats and Vulnerabilities

- **Laptop**
  - First and main is that the laptop is « mobile »
- **Satcom network**
  - Signals are accessible by whoever and wherever in the coverage area
  - Satcom provider use more and more open source software
- **Network services**
  - Not update the security patch
  - Office network and production network on the same level
  - Interconnection



## Example: Iphone



Theft of the smartphone: 30 s

Extract SIM card by thief: 30 s

Within 1 minute, the smartphone is isolated

### Broken the password:

4-digit password: broken within 636s

6-digit password: broken in 50 hours

8-digit password: broken in 165 hours

### Keychains violation:

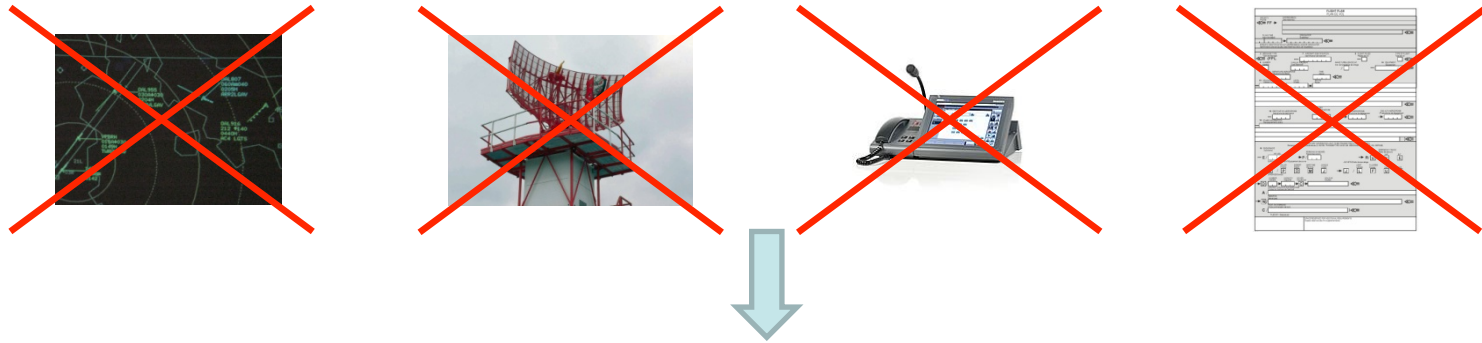
40 minutes

All password are available (bank app, wifi code, photos with geolocalisation)

Within 1 hour, all your life in the hands of a hacker

## Example: ATM Satcom network

Unavailability of satcom services



Catastrophic, in terms of safety, brand image, economy

A lots of possible threats:

Terrorists

State

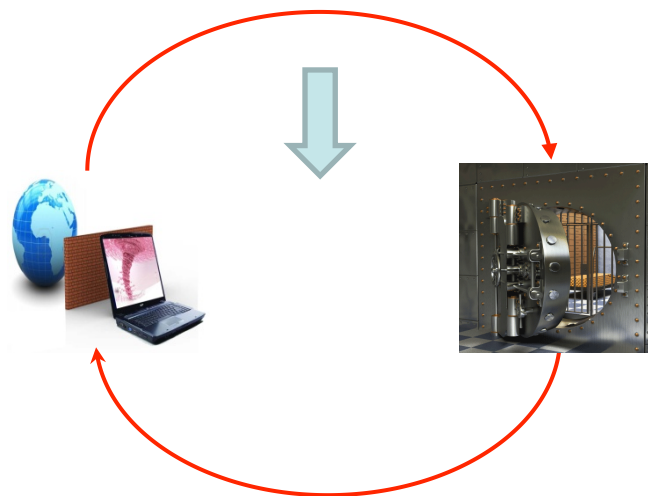
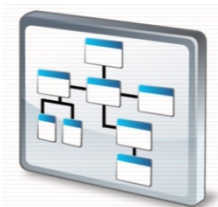
Competitor

ATM services are a target as banks, intelligence services, websites or any companies

## Implement Security Process

# HOW

- **ORGANISATION**
- **PHYSICAL PROTECTION**
- **TECHNICAL DEVICE**



- Security is a process, not a product
- We can help you to implement a security process on these 3 major domains



PASSION FOR SUCCESS

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