

Don't make me think

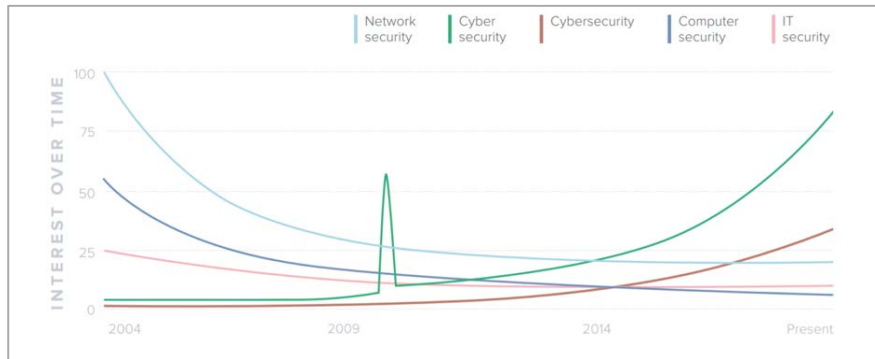
an intuitive access management approach

SisTrade[®]
Software Consulting, S.A.

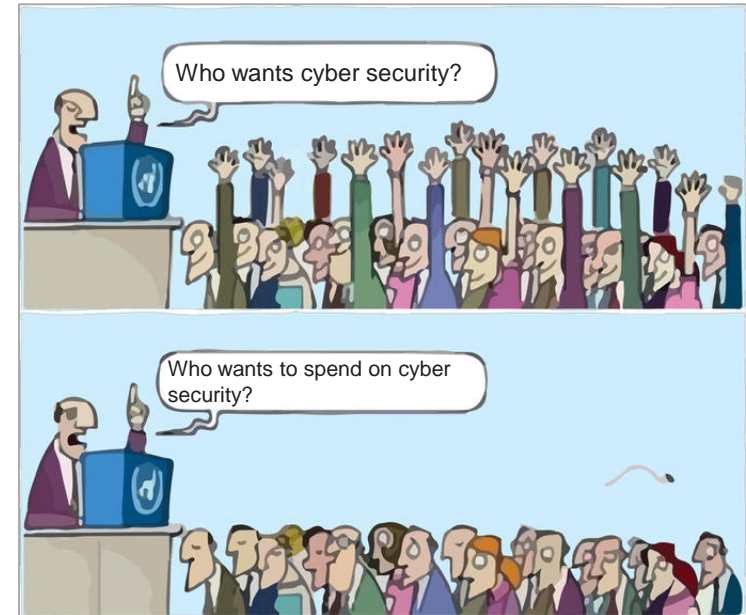
Diogo Santos
Researcher

1. Introduction
2. Intelligent Role Management System
3. See it in action!
4. Future Work

Cybersecurity is good.



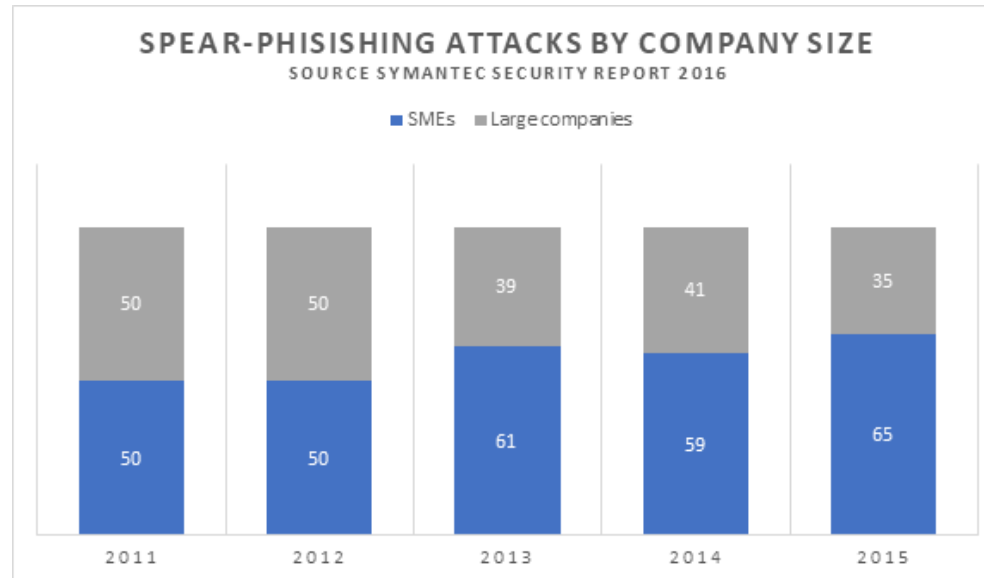
(Google Trends)



- Applying cybersecurity controls to prevent unauthorized access to sensitive information is critical

Cyberthreats still materialize.

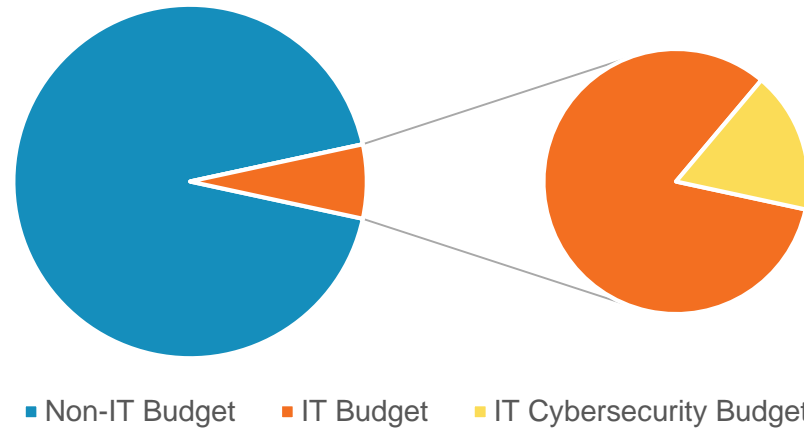
- 99% of European businesses are SMEs (EU Commission report)
- The rate of cyber-attacks against SME is considerable (65% of SMEs suffered an attack in 2020)



Why are SMEs especially vulnerable to Cyberattacks?

Minimal Management Support leading to Low Budget Priority

Overall SME's budget



■ Non-IT Budget ■ IT Budget ■ IT Cybersecurity Budget

Kabanda, Salah, Maureen Tanner, and Cameron Kent. "Exploring SME cybersecurity practices in developing countries." *Journal of Organizational Computing and Electronic Commerce* 28.3 (2018): 269-282.

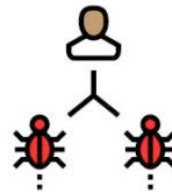
Sangani, Nilaykumar Kiran, and Balakrishnan Vijayakumar. "Cyber security scenarios and control for small and medium enterprises." *Informatica Economica* 16.2 (2012): 58.

Why are SMEs especially vulnerable to Cyberattacks?

“There are two types of companies: those that have been hacked, and those who don't know they have been hacked.”

(John T. Chambers)

- Lack of awareness
- Wrong threat perception
- Lack of internal cybersecurity policy
- Lack of internal expertise



27%

of UK SMEs believe they are secure because they are too small to be of interest to cyber attackers



59%

have been the victim of an attack

Source:
Juniper Research 2016

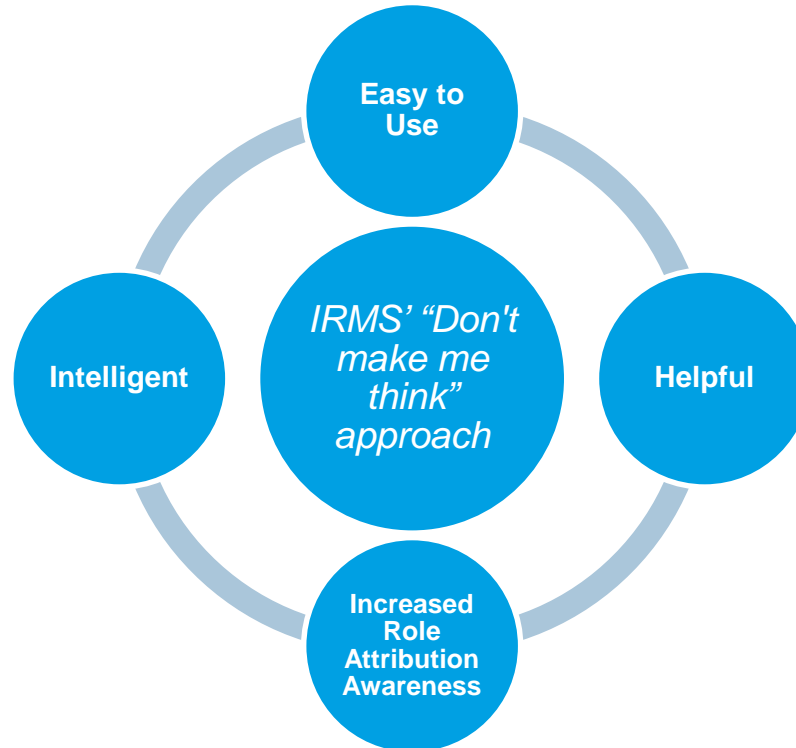
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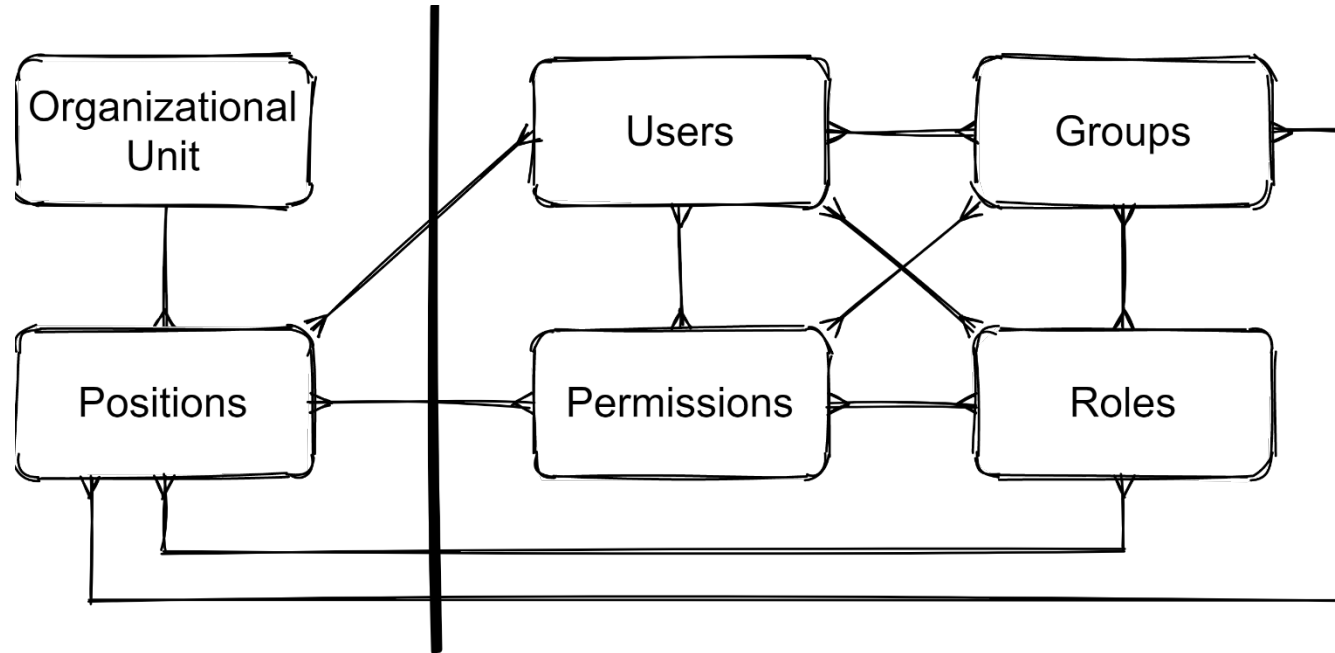
How can CF#1 help?

- Sistrade is developing an Intelligent Role Management System (IRMS) to mitigate access control errors and vulnerabilities
- Simply put: an intuitive management of Roles and Permissions that every company can use
- Highlights:
 - Enhanced Interoperability with existing systems (no need to change existing systems)
 - Improved Liability
 - Enhanced Logging for Threat and Misuse Awareness
 - Best Compromise Between Access Control Models
 - "Doesn't make me think"

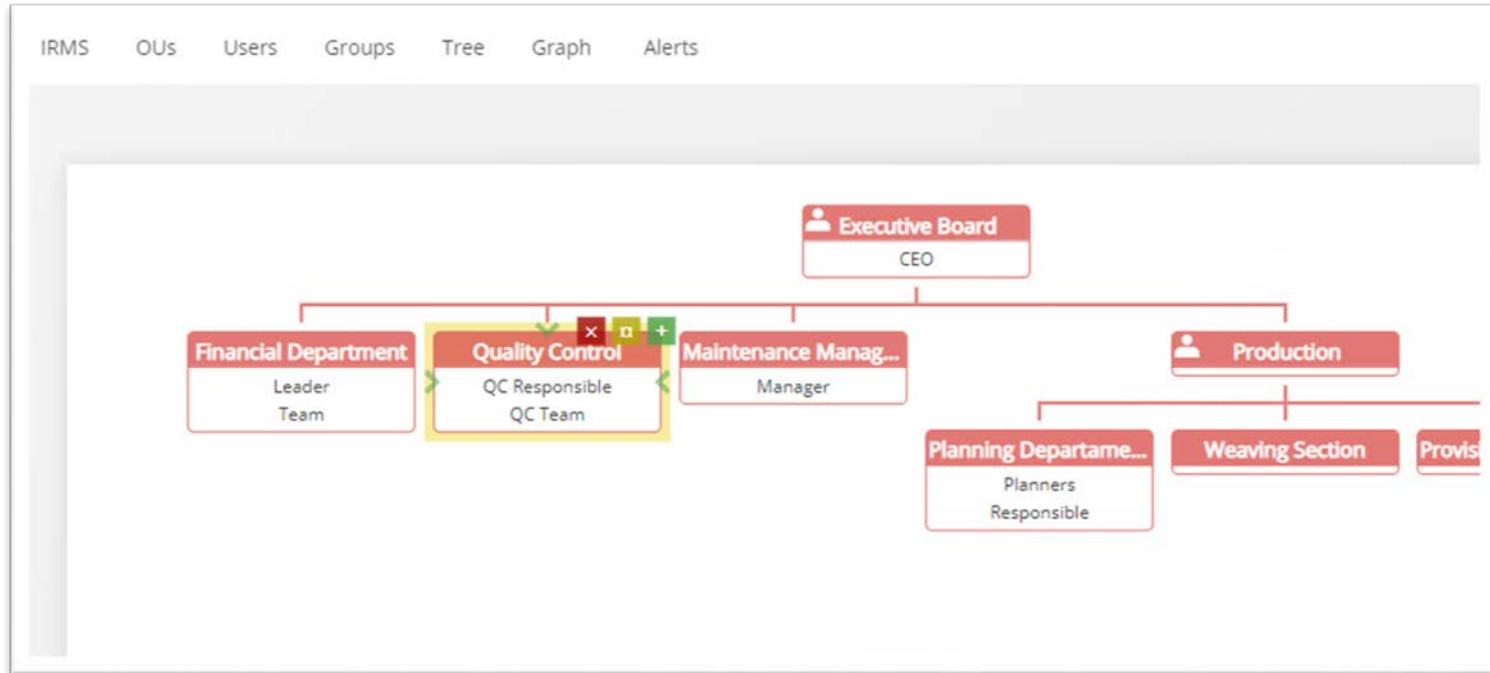
What do I mean with “Don’t Make me Think”?



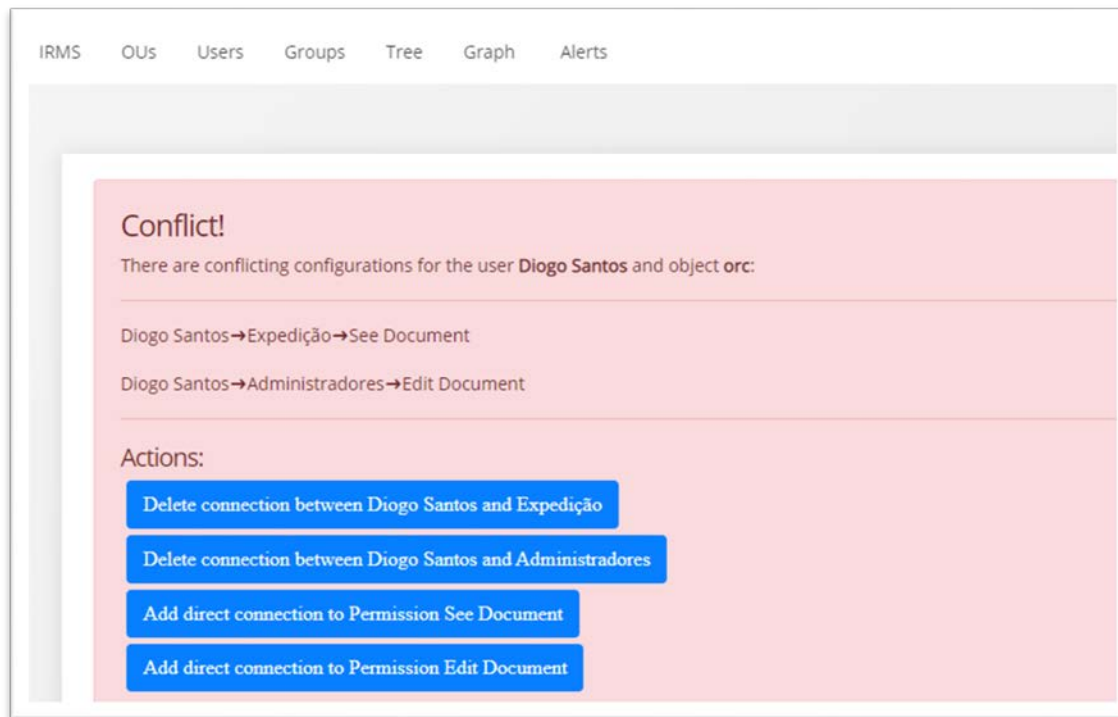
- IRMS Model and its Flexibility:



- Organizational (Organogram) mapping and Position Definitions



- Conflict Detection and Resolution



The screenshot shows a web interface with a navigation bar at the top containing the following items: IRMS, OUs, Users, Groups, Tree, Graph, and Alerts. The main content area is a light pink box with the following text:

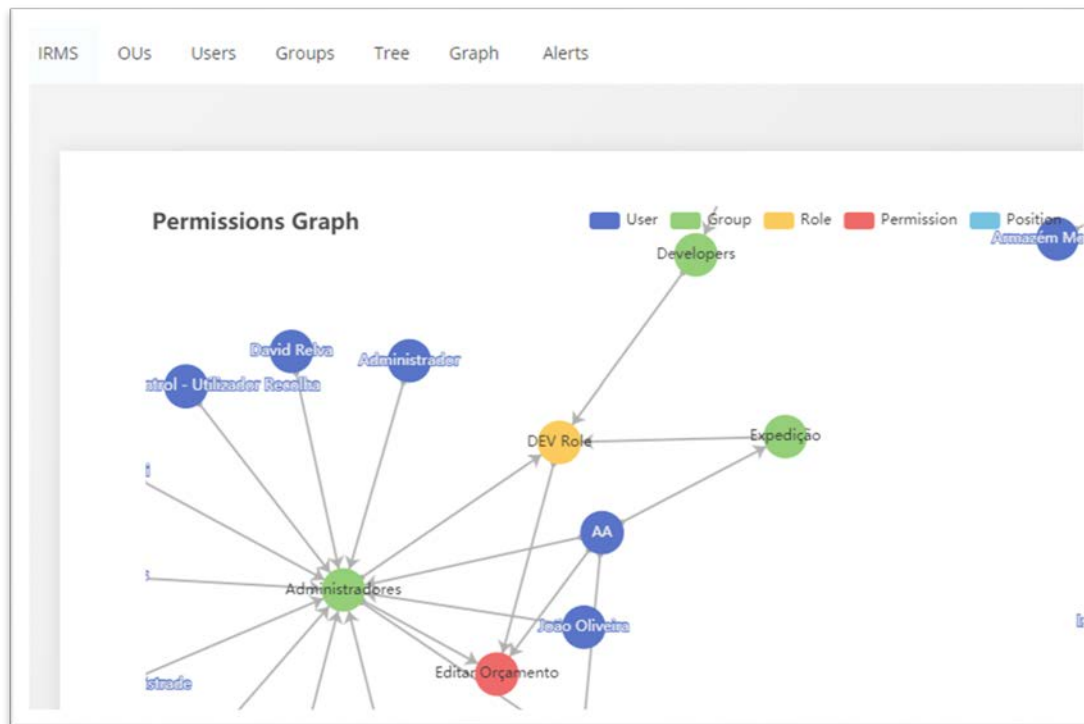
Conflict!
There are conflicting configurations for the user **Diogo Santos** and object **orc**:

Diogo Santos → Expedição → See Document
Diogo Santos → Administradores → Edit Document

Actions:

- Delete connection between Diogo Santos and Expedição
- Delete connection between Diogo Santos and Administradores
- Add direct connection to Permission See Document
- Add direct connection to Permission Edit Document

- Permissions Graph



- IRMS is still at early stage of development being an ongoing work

- Coming soon...
 - GxP Assistant
 - Liability Compliance Meter
 - Log Data CSV Exporting

- We hope we can incorporate your suggestions!

Thank you!



Diogo Santos

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