

# New solutions for the management of classified data exchanges

- (Abstract) Short presentation of my PhD -

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## PhD Abstract

As my thesis title indicates, my PhD deals with several domains of research. The modeling of relevant and innovative data management models [1] is the first of them. However, it is not the only one. Indeed, the notion of “classified data” implies the study of the security issues associated to such models. Thus, another domain of research is the modeling of security policies and security properties [2, 1]. In order to define coherent and interesting models, I rely on the first order logic with the set theory, as the B method does. The validation of my models and properties was also one of my aims. Therefore, based on the first order logic and the B method, I formally proved my proposals [1]. Finally, because the proposal of concrete scenarios was one of the objectives, I also investigated several usage control platforms. In addition, I consider the specification of a secure data management platform which relies on my others contributions.

## References

- [1] Thomas, J., Cuppens-Bouahia, N., Cuppens, F.: Modeling and Controlling Downgrading Operations in Information Systems. 5th International Conference on Signal-Image Technology & Internet-based Systems (SITIS'09) (december 2009)
- [2] Thomas, J., Cuppens, F., Cuppens-Bouahia, N.: Environmental constraints management in digital right licences. In: SARSSI 2008 : 3ème Conférence sur la Sécurité des Architectures Réseaux et des Systèmes d'Information, 13-17 octobre, Loctudy, France, RSM - Dépt. Réseaux, Sécurité et Multimédia (Institut TELECOM ; TELECOM Bretagne) (2008) 85 – 99