FOUNDATION

Models for Privacy Engineering Interest Group

26 October 2023 Michelle.Chibba <michelle.chibba@torontomu.ca> Antonio Kung <antonio.kung@trialog.com>

Participants

> Members

- ECLIPSE: Michael Plagge, Sharon Corbett
- Trialog: Antonio Kung, Diana Jimenez, Justine Privat
- GPS by design centre: Michelle Chibba, Ann Cavoukian
- Data in motion: Mark Hoffmann
- Stephan Bischof
- > Invited guest
 - KUL: Dimitri Vanlanduyt
 - UPM: Samuel Martin



Agenda

- Welcome/introduction [Michelle Chibba, GPSbyDesign Centre Research Associate/Toronto Metropolitan University] – 5 min.
- Round table of members 10 min
- Presentation of interest group [Sharon Corbett Program Director, Working Group Operations, Eclipse Foundation; Antonio Kung, CEO/co-founder Trialog] – 10 min.
- Presentation of work related to LINDDUN [Dimitri Vanlanduyt KU Leuven – Invited guest] – 10 min.
- Discussion on the preparation of a public presentation webinar – 10 min
- > Next steps 10 min.
- > Close 5 min.



Overview https://www.eclipse.org



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Eclipse Foundation Interest Group Process

Version 1.0

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Overview (cont'd)

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About Interest Groups

ECLIPSE[®]

About Interest Groups

Interest groups are a light-weight, low-cost way for Eclipse Foundation members to collaborate on a common interest or domain in a vendor neutral manner based on the Eclipse Foundation's governance structure, including its antitrust policy.

Projects Supporters Collaborations Resources The Foundation

Find out more about interest groups, with these frequently asked questions:

- 1. What are Eclipse Foundation Interest Groups?
- 2. Does Eclipse now offer two options for industry collaborations?
- 3. What are the major differences between these collaborations and which one is right for my initiative?
- 4. How do I propose a new Interest Group?
- 5. How many members are required to create an Eclipse Interest Group?
- 6. Are there any fees associated with Interest Groups?
- 7. How to join an existing Interest Group?
- 8. What is the governance structure of Interest Groups?
- 9. How do Interest Groups make decisions?
- 10. Is there a relationship between Interest Groups and Eclipse Projects?

About Interest Groups

Interest Group Process

Explore our Interest Groups

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ECLIPSE

ECLIPSE interest group on privacy

https://projects.eclipse.org/interest-groups/models-privacy-engineering

Models for privacy engineering

Wednesday, December 21, 2022 - 02:02

Sharing practices for privacy engineering based on models

This interest group focuses on the sharing of practices for privacy engineering based on the use of models:

- To foster exchange of ideas and explanation. This is a universal practice, as pointed out by the national science teaching association, which has developed a practice program which leverages models as helpful tools for representing ideas and explanations. These tools include diagrams, drawings, physical replicas, mathematical representations, analogies, and computer simulations (https://ngss.nsta.org/Practices.aspx?id=2).
- To support engineering, INCOSE defines model-based systems engineering (MBSE) as the formalized application of modeling to support system requirements, design, analysis, verification and validation activities beginning in the conceptual design phase and continuing throughout development and later life cycle phases (https://www.omgwiki.org/MBSE/doku.php).

Models can be used

- · as a common language for descriptive capabilities, so that system models include any information about the system and its context that may be necessary to address privacy concerns from different viewpoints (e.g. requirements specification, logical data structure, processing functions, architectural deployment, development process, assurance evidence, external threats, etc.).
- · as an information sharing tool for prescriptive capabilities, so that the capabilities of available leading solutions are described in shared terms that allow documenting them, comparing them, choosing those most appropriate for a given situation.

Creating synergies to foster the development of an ecosystem of privacy models

Michelle Chibba %



Antonio Kung %

Participants



Mark Hoffmann % CTO at Data In Motion Consulting GmbH



Levent Gurgen % CEO at Kentyou



Tom Ritter %

Deputy Institute Director Fraunhofer FOKUS at Fraunhofer Gesellschaft





Karim El Assal %



Objective: Community of Privacy Models

- > Leverages results
 - PDP4E Horizon 2020 Project on privacy models
 - https://www.pdp4e-project.eu/
 - Privacy standards
- Engineering community sharing knowledge on privacy models







Why Models?



Model engineering

constructing proportionallyscaled miniature **working** representations Source wikipedia machines





Model-based engineering

expressing specifications through **processable** models. Diagram orientation (e.g. UML diagrams)



PDP4E Privacy and Data Protection for Engineers - A breadth of Models



Requirements Models:

- Privacy goals and properties
- Regulations (GDPR): principles, rights, obligations, measures
- Standards (ISO29100) •
- ... in the context of functional regs.

Assets model:

• What do we need to protect? (personal information, human rights, biz. reputation...)

Threats model:

• What from?

Controls model:

- How do we protect them?
- ٠ How do we know others protect them as well?

- Reference framework model:
- What activities are mandated?

Risk

- Who shall carry them out?
- What artifacts shall be produced?



LINDDUN



🕆 LINDDUN 🗸

IDENTIFY PRIVACY THREATS IN SOFTWARE SYSTEMS

LINDDUN

PRIVACY THREAT MODELING







Member discussion/direction

- > Agreement to prepare a public presentation webinar
 - Date not decided yet
- Communication on interest group
 - Justine Privat (Trialog) will be the communication manager of the interest group
 - Diana Jimenez (Trialog) will provide technical support on web site
- > Next step
 - Samuel Martin (UPM) will be invited to make a presentation on privacy engineering



Meetings and close

- > Agreement to have one meeting every month
 - Next meeting Nov 23rd, 2023, 15.00 UTC
 - Samuel Martin (UPM) to be invited

