Session SyLA: Systèmes Logiciels Adaptables

Journées d'équipe LMV

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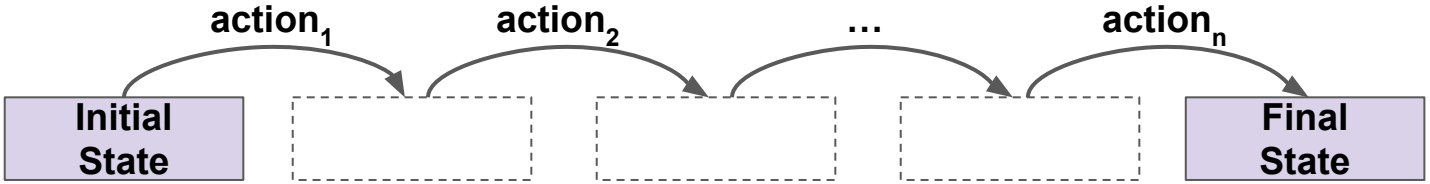
https://jolanphilippe.github.io/docs/talks/2025_07_17_lmv-syla.pdf

Systèmes Logiciels Adaptables & Reconfiguration

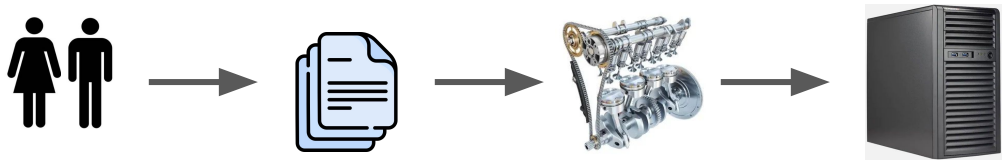


Including :

- Languages
- Engines
- Systems

Challenges :

- Efficiency
- Decentralization
- Safety



Contexte : SyLA au GDR GPL

cnrs GDR Groupement de recherche
GPL Génie de la programmation et du logiciel

GT YODA

trustworthY and Optimal Dynamic Adaptation

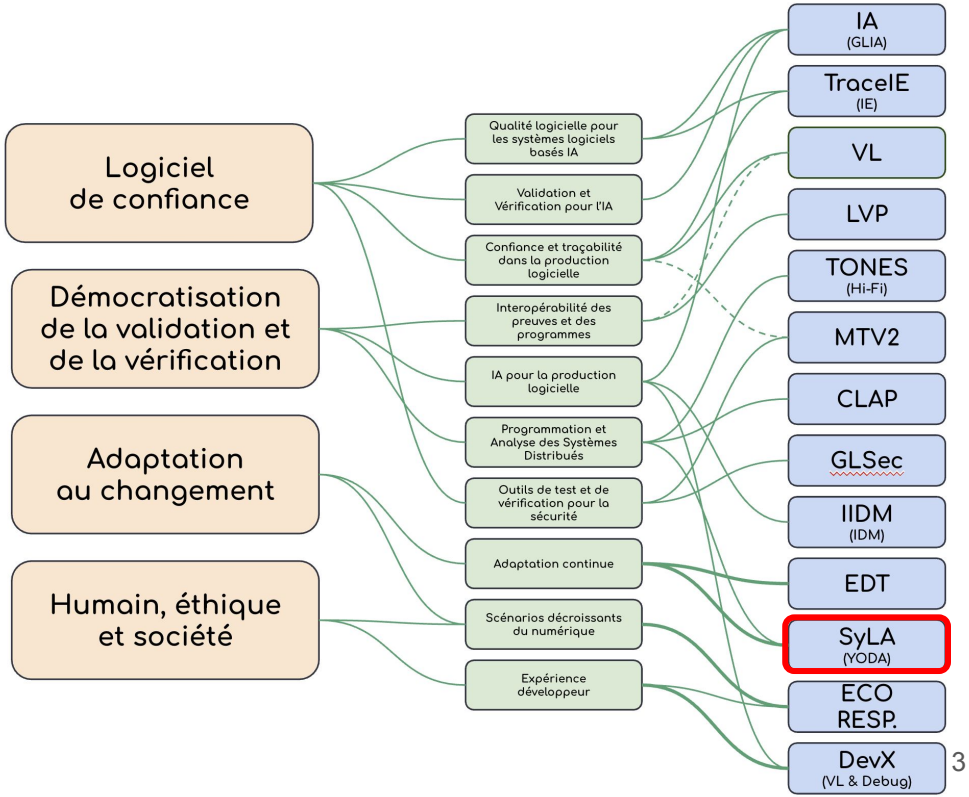
Donner des garanties de reconfiguration

GT SyLA

Systèmes Logiciels Adaptatifs

Notamment sur des systèmes autonomes

Renouvellement du GDR pour 2026-2030



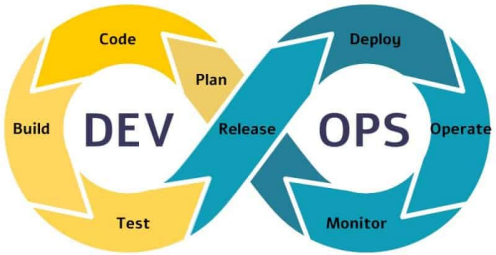
Infrastructure-as-code

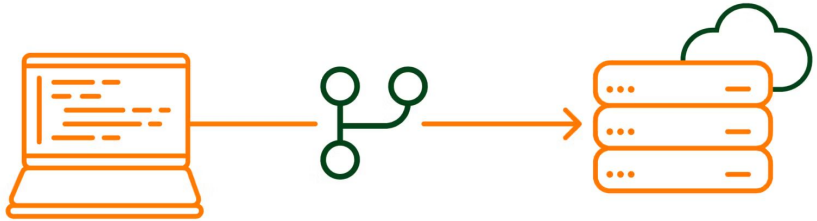
Infrastructure

- Infrastructure refers to the software, platform, or hardware that delivers or deploys applications

Infrastructure-as-code

- Infrastructure deployment and management as programs or codes





Infrastructure-as-code

Infrastructure Provisioning

- Network infrastructure
- Physical nodes
- Virtual Machines
- Credentials and Security

App installation & Configuration management

- Node and machine setup
- Install apps and deps
- Configure apps
- Integrate apps

Orchestration & Lifecycle management

- Upgrades
- Backup and recovery
- Monitoring and observing
- Scaling

Dans un restaurant

Infrastructure Provisioning

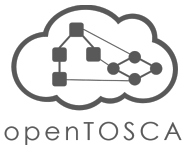
App installation & Configuration management

Orchestration & Lifecycle management

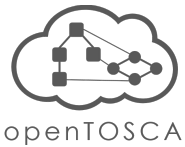
Exemple d'outils

Infrastructure Provisioning

App installation & Configuration management



Orchestration & Lifecycle management



Exemple d'outils

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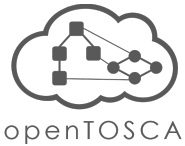
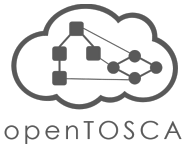
App installation & Configuration management



Orchestration & Lifecycle management



Programme de la session

- Présentation session et contexte sur la reconfiguration et les systèmes adaptables;
- Formalization a Subset of the Configuration Language Puppet - **Mohamed Haady Tiemtore**
- Verifying reconfiguration: ongoing and future work - **Jolan Philippe**
- ANR ForCoala - **Frédéric Loulergue**
- Présentation - **Olivia Proust**
- Discussion