# School for advanced sciences of Luchon: Performance and privacy of distributed systems on the cloud

**Guthemberg SILVESTRE**, Sebastien Monnet, Pierre Sens, David Buffoni, Mohamed Kaaniche, ...

CNRS/LAAS/University of Toulouse

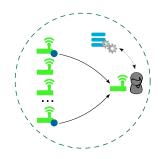
Bagnères-de-Luchon, 6 July 2015.

#### Context

• Cloud computing, performance, privacy....

### Boosting content distribution with adaptive replication.

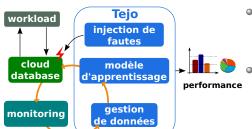
• Goal: replicate content by instrumenting a collaborative caching.



- Bandwidth reservation and thresholds
- Content popularity predictions based on content activity monitoring

Silvestre et al. AREN: a popularity-aware replication scheme for cloud storage. (2012) Silvestre et al. Predicting popularity and adapting replication of Internet videos for high-quality delivery. (2013)

### Project (Investissement d'avenir): Secured Virtual Cloud.



- Performance evaluation of distributed databases (MongoDB, VoltDB, . . . ).
- Automatically overcome anomalies and control load balancer.

#### Postdoc at LAAS-CNRS.

- Experiments on Microsoft Azure and PlanetLab Europe.
- Evaluating geo-distributed databases (NuoDB, MongoDB, ...).
- Load balancing and membership.



Interactions (on going): privacy issues (social/complex network, predictions, game theory, ...).

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