

returns to its client a graph stating that the thermoregulation is active, using the **TemperatureSensor** and **TemperatureHeater** resources, while internally continuing to regularly send requests to the sensor and heater resources. This work is funded by the French National Agency for Research (ANR), under the reference <ANR-13-INFR-012>.

4 Conclusion

In this paper, we present an architecture for Semantic Resource Mashups that relies on the RDF-REST and Backbone.js frameworks to process distributed RESTful resources. It mainly relies on: i) semantic resources that exchange RDF representations of business objects and expose uniform HTTP-compliant interfaces, ii) a resource ontology that describes the domain resource types and relations and iii) an RDF-based engine for routing and aggregating data flows. We illustrate our approach with a temperature regulation example for the Web of Things.

SRMs can be used to query RESTful endpoints such as RDF stores or to build a network of collaborative nodes. They also enable adaptive resource deployment on the server or client side without changing the application-level interactions between objects. Future work includes enabling SRMs to create, update, delete locally enriched resources, while being able to propagate these changes to appropriate endpoints. Another perspective is to replace the currently static broker descriptions and aggregation rules with dynamic discovery infrastructures such as RESTdesc [4], so that mashup applications can discover new data sources at runtime.

5 References

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