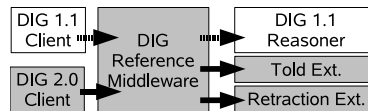# DIG 2.0 Reference Middleware

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The DIG protocol [1] – the de-facto standard for the communication between DL reasoners and their clients – is currently being updated to a new version. DIG 2.0 [2] will reflect the upcoming OWL 1.1 and add previously missing functionality such as axiom retraction and told axiom access. In addition the new standard is extensible, which allows to add new requests and responses to the protocol. As a consequence, installations might get more complex and might even face the challenge of integrating systems implementing different DIG versions.

Fig. 1. DIG 2.0 Reference Middleware Example Configuration

To solve such problems the DIG Reference Middleware (DIG RMW) was suggested in [2]. The middleware mediates between different DIG protocols and allows to route requests to the appropriate server component (cf. Figure 1).

We will demonstrate how a DIG 1.1 reasoner is accessed using an experimental DIG 2.0 client as well as a DIG 1.1 client via the DIG RMW. We will show the integration of extensions, which enable told and retraction functionality with the legacy reasoner. Furthermore we will give insights on the programming interfaces and we will be available to discuss the integration of custom DIG extensions using the DIG RMW.

Thereby our overall aim is to introduce a valuable tool to OWL system implementers which clearly eases the development and testing of DIG 2.0 components in an existing environment. The DIG Reference Middleware is available for download at http://www.informatik.uni-ulm.de/ki/dig-rmw.

References

1. Bechhofer, S., Möller, R., Crowther, P.: The DIG Description Logic Interface. In Calvanese, D.e.a., ed.: Proc. of the Int. Workshop on Description Logics (DL'03). Volume 81 of CEUR., Rome, Italy (2003)
2. Turhan, A.Y., Bechhofer, S., Kaplunova, A., Liebig, T., Luther, M., Noppens, O., Patel-Schneider, P., Suntisrivaraporn, B., Weithöner, T.: DIG 2.0 – Towards a Flexible Interface for Description Logic Reasoners. In: Proc. of the OWL Experiences and Directions Workshop (OWLED'06) at the ISWC'06, Athens, Georgia, USA (2006)