Title: An XML-based architecture for sharing heterogeneous models in Web and Distributed Computing Environments

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3 Likely significance and potential contribution to the field (1=low; 7=High)
5 Strength of theoretical foundations (1=low; 7=High)
2 Significance for practice (1=low; 7=High)
5 Quality of the methodology and/or analytical techniques (1=low; 7=High)
5 Clarity of organization and/or writing (1=low; 7=High)
4 Likelihood of drawing and keeping an audience (1=low; 7=High)
4 Overall rating (1=low; 7=High)

MANUSCRIPT STRENGTHS
This paper is well researched and well written. There are also good illustrations in the paper. The references are relevant.

MANUSCRIPT WEAKNESSES
There are however, some significant weaknesses as well. The title of the paper stated “heterogeneous models” but this paper is based on and discusses only one type - a Lingo model. It is unlikely to be scalable to “heterogeneous models”, here is why:
1. The SMML that was developed transferred only the DESCRIPTION (representation) of a model, not the model & its “engine.” This means that it only transferred the interface to a model. The author stated “easily convert them to a Lingo model” p9, the question is how? This was not specified.
2. An “application” is used to translate/parse a model's interface into SMML to be transferred and on the other end another “application” is needed for the reverse process. Note that this only translates a representation/interface of the model not its "engine."
3. Without its "engine," a model will not run. The paper used a single "solver" Lingo and it might be possible to do the translation by building an "application" to translate the model structure to SMML for the server and from SMML to a model structure back for the client. But to be able to "run" the model the "application" will also need to build the "engine." Even though it is possible to do this for a single or a few "solvers" but is not possible to do this for many heterogeneous "solvers." Vendors will also not make the internal "engine" available for obvious reasons.

The paper just showed that models can be transferred using SMML for the Lingo "solver" only - not heterogeneous models.

COMMENTS AND ACTIONABLE ADVICE TO AUTHORS
Consider comments in the previous sections.

Maybe it might be of some consolation to know that Prof Chandrasekaran(?) from the CS dept, OhioSU had been researching problem solving methods for many years but the killer application has still not been found. It is not an easy proposition.

If the author is researching this area, it would be better to consider standardizing heterogeneous data type using XML format and use a wrapper to feed the XML data to the model in the "solver" without uploading or downloading the models/solvers themselves.

The CORBA architecture has brought the model research community closer towards collaboration between heterogeneous solvers/models. Kausal Chari (UCF) has used it as well in his model management projects.
The author should also investigate the Model Driven Architecture (MDA) proposed by the OMG and not re-invent the wheel. The ideas in this paper appear to be similar to the MDA! Heterogeneity is an issue that has to be solved through the use of standards via a community of adopters.

The author should also look at DecisionNet developed by Ramayya Krishnan(CMU) and Hermant Bhargava (PSU). It did not take off as expected due to some important reasons that I believe is important for the author know. This is also discussed in literature. It is too long to write here.

I suggest that the title of the paper be changed to, for example, "An XML-based Architecture for sharing Lingo models."

RECOMMENDATION : Accept with major revisions.