Towards Standardization of Deregulated Electricity Market Communications in Nigeria

Abstract

The separation of vertically integrated electric power utility in Nigeria into independent entities has opened up the requirement for information and data exchange among the new entities not only to guarantee the security and reliability of the power network, but also for accounting purposes. However, information exchange in highly heterogeneous computing environment poses a major difficulty due to different applications, databases and data models of these entities. This work presents a Unified Nigerian Electricity Market Information Model called UNEMIM to overcome this difficulty. UNEMIM specifies a uniform way for describing and communicating electricity market data. The UNEMIM object model and XML Schema generated from the model are presented along with application examples. A unified information model will provide a common language for describing information and data in Nigeria deregulated electricity market. This will eliminate the requirement for data mapping from multiple sources thereby overcoming the challenge of an in depth understanding of several data sources from the different stakeholders in the electricity market in Nigeria.
References

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Index Terms

Computer Science

Applied Sciences

Keywords

Data Communications, Unified Information Model, Object-oriented Method, Message Syntax, XML