Instrumentation of Semantic Models

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Presentation Outline

• Integration Implementation Process
• Smart Grid Platform
• Interoperability Meaning Diagram
• Instrumentation of Semantic Layer
• Top vs. Bottom Up Modeling
• Conclusion
Integration Implementation Phases

• Process and Data Usage analysis
• Semantic Layer Modeling
  • Common Enterprise or Interoperability Models
  • Integration Modeling of specific end points (message payloads, staging areas, Web Services)
• Define / generate syntax of end points
• End point Implementation
  • Buy time required to develop standard strongly-typed end-points
  • Eliminate a need for strongly typed end-points where possible.
Interoperability Meaning Diagram
“The Smart Grid energy platform is seen as a high-performance, highly distributed operational data management infrastructure that encompasses hierarchically clustered gateways / agents with distributed memory resident data sources to provide very low-latency, predictable, high-throughput data sharing and event distribution. The platform is envisioned as dynamic massive server networks (dynamic grid), massive distributed and replicated memory spaces, use of event-based internal architecture for intra-systems communications (EDA and CEP inside) and use of an extensible modularity of platform technology (SOA inside).”
A Smart Grid Platform (2)
Instrumentation of Semantic Models (2)
• Make all interoperability decision at semantic layer
• Automate implementation
• Make end-point syntax design transparent
Conclusion

• An Idea / Approach for Instrumentation of Semantic Models is introduced. The approach key benefits are
  – Reduce the need for strongly typed end-points
  – Buy time required to develop standard strongly-typed end-points

• A Vision of Smart Grid Platform is presented

• Role of Common Semantic Model is briefly addressed. The underlying idea is also
  – To standardize interoperability using a Semantic Model as a logical intermediary
  – To provide platform-independent logical model for all end-points and applicable data stores

• Top down vs. Bottom Up standard adoption process is elaborated
Questions

• Contact Information

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