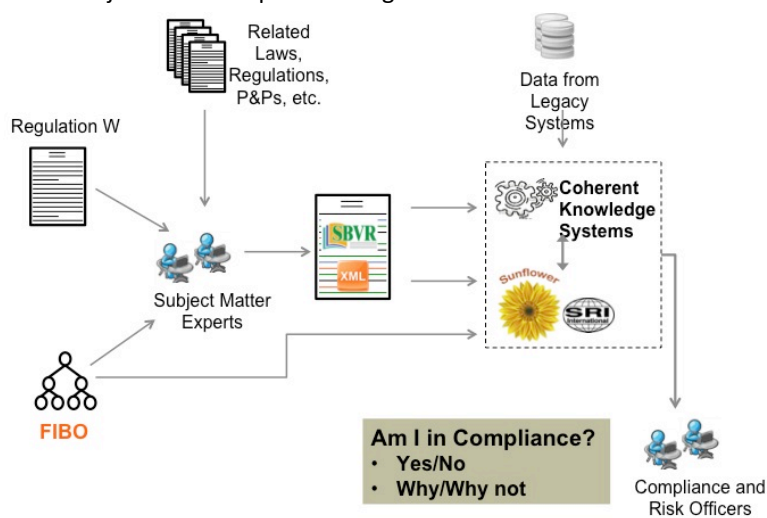


“New banking rules: More isn’t always better”¹, says Ms. Bair, the former chair of the FDIC. She goes on to say that the 71-page Volcker Rule has 900 pages of explanations and the ramification is that the cost of compliance will go up as much as 2 times for each bank.

In June of 2013, the Enterprise Data Management Council (EDMC) held a FIBO Technology Summit² during the Semantic Technology & Business Conference (SemTechBiz) in San Francisco. How to unambiguously understand and automatically comply with regulatory rules was one of the four topics addressed by the world's leading semantic technology experts. It was decided at the Summit to focus on Regulation W (Reg-W) as a test case for the use of the Financial Industry Business Ontology (FIBO) in combination with advanced semantic rules (Rulelog/Flora-2) to automatically keep a bank in compliance as transactions were being processed. “Reg-W is a Federal Reserve regulation that established terms for transactions between banks and their affiliates. Reg-W was enacted by Congress as part of the Federal Reserve Act and applies to all federally-insured depository institutions.”³ Because Reg-W is quite specific and has a medium degree of complexity (logical and mathematical) in its criteria for the amounts and types of transactions that any institution can have, it is an ideal candidate for a Proof of Concept (PoC).

Subsequently, a working group to execute this PoC was formed by the EDMC that included Wells Fargo Bank, Coherent Knowledge Systems, SRI International, and the Governance, and Risk and Compliance Technology Centre (GRCTC) of Ireland, and various other members of the council. Wells Fargo provided leadership for the PoC, subject matter experts on Reg-W and test cases. The PoC was completed and all technical objectives were met.



FIBO and Rulelog/Flora-2 were used to make Reg-W requirements explicit and applied to sample transaction data to automate compliance assessment. Detailed explanations are provided so that humans can understand the reasoning and facts that led to the conclusions. GRCTC provided expertise in controlled natural language for rule authoring via OMG's Semantics of Business Vocabulary and Business Rules language (SBVR). Coherent Technology (Episto) and SRI technology (Sunflower) provide automated reasoning capabilities with detailed explanations in English and SRI's technology provides

automatic import of OWL knowledge (FIBO) into Flora-2.

Benefits to this semantic approach include: Improved confidence about correctness of compliance checks both for bank domain experts and regulators, largely because understandable explanations are provided. This also reduces cost and risk due its ability to adapt more easily and quickly to changes in regulations because it utilizes a common financial language to ensure alignment with standards. The PoC will be demonstrated at the OMG Technical Meeting in March 2014.

1 Sheila Bair @FortuneMagazine January 16, 2014

2 http://www.edmcouncil.org/downloads/20131118_FIBO_Technology_Summit_Report.pdf

3 <http://www.investopedia.com/terms/r/regulation-w.asp>