Evaluating Packaged Financial Services Data Models

Packaged data models may provide effective alternatives for financial services providers seeking to jump-start internal shared data repository development. A careful assessment of suitability must first be made.

Vendors are offering data models for the financial services industry. These models may be tailored to operational or business intelligence environments, used as the foundational data model for data repository design, or as reference models to guide or validate in-house data model development. Financial services providers (FSPs) consider these models for a variety of reasons, including to jump-start development efforts, validate completeness and application neutrality of internal designs, or to compensate for limited in-house data model design resource availability. Examples include Teradata's Financial Services Logical Data Model (FS-LDM), Sybase's financial services models that are part of its Industry Warehouse Solution (IWS), and IBM's Information Framework (IFW) and Insurance Applications Architecture (IAA) models.

These models vary widely in purpose, scope, usability, utilization and support. To assist FSPs seeking advice on how to evaluate these models, here are our criteria:

**Subject areas covered, including financial services sector specificity.** How broad is the model? Does it cover all of the subject areas and processes you wish to support? If not, what is your assessment of the level of work that it will take to add the additional areas through in-house development or integration with other data models? Consider not just individual applications, but also lines of business. Although some models (such as Teradata's and Sybase's) promote a common industry-neutral core on which industry- and sector-specific extensions are built, others (such as IBM's) do not have a common industry-neutral core, which may create some issues if multiple industry sectors are to be supported. Do you, for example, just need to support life and property and casualty insurance, or do you need to support retail banking as well, now or in the future? If your plans do not include extension into other financial services sectors, a
model more limited in breadth will suffice — and may be preferable if the more-limited breadth is accompanied by increased depth. However, if you anticipate a broader scope, it is important to plan now to accommodate it to avoid future limitations that will potentially cause you to rework components of the model or pursue less-desirable siloed avenues.

**Application neutrality.** This relates to the subject areas covered (model breadth) and the level of granularity (depth), as well as style of the model design (see "Data Warehouse Data Model: Neutrality Is the Key"). In some cases, models have been designed for the support of particular activities, such as marketing. Because of the increasing pursuit of initiatives (such as enterprise risk management) that bridge traditionally separate islands of information, application neutrality has become more important. This does not mean that application specificity has to be lost. Instead, application specificity may be provided through specific logical views on top of the neutral physical design. Does the model contain sufficient granularity to support most of your current and future view and user requirements? Does the model employ a normalized design (a design that correlates with application neutrality) or a more-dimensional design such as a star schema (a design that correlates with application specificity)?

**Model orientation and scope.** Do you plan to use the model for operational/transactional applications, business intelligence applications or both? If you plan to use the model for business intelligence applications, does the solution support this through related operational and data warehouse models? If the requirement is for both, is there a single model that directly links the operational and business intelligence areas, or are these essentially two separate models that must be mapped to each other? Also, do your needs (current or future) extend beyond the data model itself to include process modeling? If so, does the model support these, and how closely do these process models correlate with your internal processes?

**Ease of model modification and implementation and maintenance.** Some models are provided in a data modeling tool, such as Rational Rose or a vendor-specific tool. If you plan to use a tool provided with the model, how suitable is this tool? (see "Selecting Data Modeling Tools: Points to Evaluate"). Also, to what degree does the model conform to your corporate data design standards in terms of entity and attribute naming and definition, and design style? Some data modeling tools have the ability to read the Data Definition Language (DDL), enabling these tools to be used for model maintenance. Does the tool provide this capability, or are you provided with the DDL (as
opposed to just the model diagram) for use with a tool of your choosing?

**Third-party tool support.** Have any third-party vendors incorporated this model into their metadata management or data modeling tools? For example, Unicorn (www.unicorn.com) supports IBM's IAA model.

**Third-party services support.** If you require — or suspect that at some time you may require — third-party services support for the implementation or further development related to the model, are certified third-party service providers available? If so, do they meet your criteria for service provision and do they have experience working with the model in environments similar to yours?

**Model bundling.** In some cases, such as IBM's IAA and Sybase's IWS, models can be acquired separately. In other cases, they require the purchase of other products or services. For example, Teradata's FS-LDM requires that the purchaser also have or acquire Teradata's database management system (DBMS), although the data model is priced independently and can be purchased at a later time. If the model requires other products and services, do each of these required products and services meet your organization's needs? Are these required products and services overly redundant with functionality you already have?

**Application support.** The availability of applications using the model or underlying industry standards that the model maps to may enhance the value of the model. If you plan to use packaged applications, have applications that will meet your needs been built that use these models? These applications need separate evaluation to ensure that adoption of the model does not lead to less-optimal application choices. Also, has this model already been mapped to applications you are currently using? Alternatively, can your intended applications be supported using DBMS views, and what are the performance implications, if any?

**Industry standards and regulatory compliance support.** The ability of the model to support industry standards and regulatory compliance will affect the amount of customization that the model may require, or the degree of data transformation that may be performed in communicating with external and internal stakeholders. For example, in the insurance industry, the ability to support the Association for Cooperative Operations Research and Development (ACORD) standards is important. As another example, if the data model is to be used to support enterprise risk management activities, incorporation of the data elements currently know to be required for Basel II is essential. Does the
model support the industry standards and regulatory compliance activities applicable to your enterprise?

References. Are references available whose use closely aligns with how you intend to use the model? If not, vendor guarantees of suitability should be sought because specific implementations may reveal areas in which models need to be further developed.

Bottom Line: No model will meet all of an individual financial services provider’s requirements without customization or extension. Although third-party data models may be acquired to save time and money, adequate resources must be budgeted to perform an analysis of the suitability of the model. The amount and sophistication of the work required to tailor the model to your specific requirements may significantly affect the level of return on investment in a packaged data model.