

# **Business Entities: Modeling Process and Information**

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## **Abstract:**

This talk introduces business entities, a unified business process and information modeling approach. A business process model describes actions taken by business (human or system) actors to achieve a strategic or operational goal. Traditionally, most of the work in this area, like workflow modeling, is activity-centric and focuses on prescribing activities and their sequences, for example, by stating "first we do A, then B, then C, and while doing C we also do D." This approach often faces challenges, particularly when the goal of process modeling is to consolidate business processes across organizations, generate IT solutions that are in close alignment with business goals, and achieve desirable features like scalability, flexibility and modularity as business processes become complex and large.

In response to these challenges, IBM Research develops a new modeling paradigm that models process activities in the context of information entities. Although a business process may involve a large number of information entities, very often we observe that only a small number of them (for example, the claim in an insurance claim process) are key drivers of the flow of activities in the process. The business process itself is the path of these "business entities" through their lifecycles, from their initial states to their final states. Therefore, a complex process can be viewed as the intersecting life cycles of such entities.

This talk introduces the concept of business entities, a method for discovering business entities from existing activity-centric process models, and business entity-centric process modeling. In addition, a demo will be given to show that SOA-based IT solutions can be automatically generated from such business entity models. Finally, a couple of case studies are selected to demonstrate how this entity-centric approach was applied to solve real customer problems successfully and achieve process scalability, flexibility and modularity.

## **About the Presenter**

Rong Liu is a researcher at IBM Thomas J. Watson Research Center. Her research interest includes entity centric business modeling, process modeling and verification, workflow systems, Petri net technologies and supply chain management. She holds Ph.D. degree from Penn State University.