## **Overview**

Distributed “cloud” databases allow for a new level of scalability and flexibility. These new sparse, columnar databases support a practically unlimited number of columns within a single table, but managing hundreds or even thousands of column name/qualifiers within a client application can be a significant challenge.

CloudGraph™ is an object mapping and ad hoc query service for cloud databases. It provides services and infrastructure to impose the structure of your business domain model, regardless of its size or complexity, as a data-graph oriented service layer over various supported big-table style “cloud” databases, such as HBase and a growing list of others. All CloudGraph™ services are based on the Service Data Objects (SDO) 2.1 specification standard. And within the SDO standard, the basic structural unit of processing is the graph or data-graph. Under CloudGraph™ a data-graph of any size or complexity may be persisted across any number of rows or tables, and subsequently queried or “sliced” ad hoc using XPath or a generated Domain Specific Language (DSL) based on your domain model.

Application complexity is mitigated as developers and architects deal with generated higher-level typed structures with meaning within the application domain, rather than low-level row and column qualifiers and values, typically manipulated as un-typed un-interpreted Java byte arrays.