Conceptual Data Model Introduction

As stated above in the standards section, a conceptual data model is a high-level data modelidentifying major entities and relationships of importance to the business. It does not resolve “many-to-many relationships, may not contain any attributes, and may not be “normalized”. It is like a roadmap to more detailed logical models and enables all users of detail models to quickly grasp the scope, terminology and concepts used in the model.

The Property and Casualty Conceptual Data Model below is an example of the above norms. It presents the major objects (entities) and their relationships and represents the major concepts of the business and of the succeeding Logical Data Model.

The Legend in the model diagram demonstrates the use of color to highlight the major entities and concepts.



. The major features of the Conceptual Data Model are:

* Party is a major entity that relates to almost all the other major entities as it defines how people, organizations, and groups are involved in the insurance and financial services business involving agreements, policies, claims, insurable objects, etc.

With the use of party, many other data requirements can be made common and managed more efficiently.

* The Communication entity permits all contact information and preferences to be established for all types of parties
  + Geographic Locations can be defined and connected to Party and to other entities.
* “Insurable Objects” can be defined with respect to their interested parties and referenced by multiple agreements
* Agreement is a focal point for the data model because it is a “supertype” for all insurance, financial, and service contracts. Examples of agreements for this initial data model are Policy and Reinsurance Agreement.
* Policy is the major feature for this release of the data model as all the remaining major objects are related to it.
  + Policy Coverage Detail is a key link among Policy, Claim, and Reinsurance
  + Claim is tied to Policy though Policy Coverage Detail
  + Policy ties to Coverage and Product
* Claim is tied to Party, Insurable Object, Policy Coverage Detail, and Reinsurance.
* Money is a common entity at the conceptual level to emphasis the importance of common management of financial amounts. In the Logical Data Model, Money s defined in Policy Amount and Claim Amount entities.
* Product, Coverage, and Location Address are examples of the “master” reference data that can improve the integrity of data and which companies can populate with their data.
* Finally, the model is bound together with time management, traceabillty, and metadata using common constructs for Event and Activity and additional Reference and Master data.

Specific definition for the Conceptual Data Model Entities is presented below

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| **Entity Name** | **Entity Definition** |
| Account | An Account is a formal business arrangement providing for regular dealings or services such as multiple policies and contracts.  Conceptually this a means of combining all business for a customer or marketplace relationship. |
| Activity | An Activity is any part of an operation or procedure that impacts the business and related data. |
| Agreement | An Agreement is language that defines the terms and conditions of a legally binding contract among the identified parties, ordinarily leading to a contract. Examples; policy, reinsurance agreement, staff agreement.   Agreement is a focal point for the data model because it is a “Supertype” for all insurance, financial, and service contracts. |
| Claim | A Claim is a request for indemnification by an insurance company.  Claim is tied to Party, Insurable Object, Policy Coverage Detail, and Reinsurance, and is the major link point for claim settlement services. |
| Communication | Communication Identity provides contact information specifications that should be utilized for communicating with a party. It specifies:  communication channel (physical address, email, phone, facebook), usage type (home, work, mobile/landline), contact value (assigned phone number, email address, site address) , communication preference (contact through email, call evenings, mail to home address) and contact information ranking (1,2, 3).  The Communication entity and its relationships permit all contact information and preferences to be established for all types of parties. |
| Coverage | Coverage is protection under an insurance policy or claim service agreement.  The Coverage Entity provides for managing the master list of coverages available from a company. |
| Event | Anything that happens, or is contemplated as happening.  From an insurance perspective, an event is a situation that may impact the risk or indemnification covered by a policy |
| Geographic Location | A Geographic Location is a bounded area defined by nature, by an external authority (such as a government) or for an internal business purpose. Used to identify a location in space that is not a structured address, for example: country, city, continent, postal area, risk area. |
| Insurable Object | An Insurable Object is an item figuring in an insurance coverage or policy, either as the object for which possible damages to the object or loss of the object is insured, or as the object for which damages caused by the object are insured.  Examples: residence, vehicle, class of employees.  In the data model, Insurable Objects are defined with respect to their interested parties and can therefore be referenced by multiple agreements. |
| Location Address | Postal Address is a Contact Point that is an address used for the delivery of letters and packages. These addresses can and should be conceived and implemented as master data. |
| Money | Money is a common entity at the conceptual level to emphasis the importance of common management of financial amounts.  In the Logical Data Model, Money s defined in Policy Amount and Claim Amount entities |
| Party | A Party is a Person, Organization, or Group playing a role in the insurance industry. In the data model, Party is a major entity that relates to almost all the other major entities as it defines how people, organizations, and groups are involved in the insurance and financial services business involving agreements, policies, claims, insurable objects, etc.  With the use of party, many other data requirements can be made common and managed more efficiently. |
| Policy | A Policy is a kind of written Agreement that puts insurance coverage into effect.    Policy is the major feature for this release of the data model as many of the remaining major objects are related to it. |
| Policy Coverage Detail | Policy Coverage Detail defines the coverages included in an insurance policy (refer to Coverage definition).  It is a key link in the data model among Policy, Claim, and Reinsurance. |
| Policy Deductible | This is the money representing the part of a loss amount that the insured is required to pay before any indemnification payment is provided by the insurance company.  It is a key feature of an insurance policy. |
| Policy Limit | This is the maximum amount or benefit afforded for a given policy and coverage.  It is a key feature of an insurance policy. |
| Product | Product is the kind of item that is for sale, and in this model, it the category of insurance of financial service agreement that can be sold.  Example for insurance:  Commercial Multi-Peril Policy, Homeowners Policy, etc.  In the data model, provision is made for a company to define its products as master reference data. |
| Product Coverage | Product Coverage defines a company's coverages available for each of its products and should be managed as master reference data. |
| Reinsurance Agreement | Reinsurance Agreement is a kind of Agreement between the Reinsurer and the Ceding Company that stipulates the manner in which the insurance liability in the writing company's policy is to be shared.  This is similar to a policy concept with very specialized provisions and concepts.  Like Policy, the reinsurance agreement connects with the claim through Coverage. |
| Reinsurance Coverage | Reinsurance Coverage identifies the specific provisions of the reinsurance agreement and is managed similar to the Policy Coverage. |

Specific definition for the Conceptual Data Model Entity Relationships is presented below.

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| **Parent Entity Name** | **Parent to Child Phrase** | **Relationship Cardinality** | **Child Entity Name** | **Parent to Child Rule** |
| Account |  | Zero-or-One-to-Zero-One-or-More | Agreement | An Account is associated with zero, one or more Agreements. |
| Agreement | Is a | Zero or One | Policy | An Agreement is a zero or one Policy |
| Agreement | Is a | Zero or One | Reinsurance Agreement | An Agreement is a zero or one Reinsurance Agreement |
| Claim | amounts defined in | Zero-or-One-to-Zero-One-or-More | Money | A Claim amounts defined in zero, one or more Moneys. |
| Communication | represents | Zero-or-One-to-Zero-or-One (Z) | Location Address | A Communication represents zero or one Location Address. |
| Coverage | provided for | One-to-Zero-One-or-More | Product Coverage | A Coverage provided for zero, one or more Product Coverages. |
| Coverage | defined for reinsurance in | One-to-Zero-One-or-More | Reinsurance Coverage | A Coverage defined for reinsurance in zero, one or more Reinsurance Coverages. |
| Coverage | defined for policy in | One-to-Zero-One-or-More | Policy Coverage Detail | A Coverage defined for policy in zero, one or more Policy Coverage Details. |
| Event |  | Zero-or-One-to-Zero-One-or-More | Activity | An Event is associated with zero, one or more Activitys. |
| Geographic Location | site of | Zero-or-One-to-Zero-One-or-More | Insurable Object | A Geographic Location site of zero, one or more Insurable Objects. |
| Geographic Location | occurs or is centered at | Zero-or-One-to-Zero-One-or-More | Claim | A Geographic Location occurs or is centered at zero, one or more Claims. |
| Insurable Object | indemnification specified | Many-to-Many | Policy Coverage Detail | An Insurable Object indemnification specified zero, one or more Policy Coverage Details. |
| Insurable Object | involvement | Many-to-Many | Claim | An Insurable Object involvement zero, one or more Claims. |
| Location Address | is specific physical location for | Zero-or-One-to-Zero-One-or-More | Geographic Location | A Location Address is specific physical location for zero, one or more Geographic Locations. |
| Party | interests identified | Many-to-Many | Insurable Object | A Party interests identified zero, one or more Insurable Objects. |
| Party | roles defined | Many-to-Many | Claim | A Party roles defined zero, one or more Claims. |
| Party | interests identified | Many-to-Many | Account | A Party interests identified zero, one or more Accounts. |
| Party | legal entities covered | Many-to-Many | Agreement | A Party legal entities covered zero, one or more Agreements. |
| Party | methods and preference specified | Many-to-Many | Communication | A Party methods and preference specified zero, one or more Communications. |
| Policy | provisions specified in | One-to-Zero-One-or-More | Policy Coverage Detail | A Policy provisions specified in zero, one or more Policy Coverage Details. |
| Policy | attachment initially identified | Zero-or-One-to-Zero-One-or-More | Claim | A Policy attachment initially identified zero, one or more Claims. |
| Policy Coverage Detail | indemnification limit is | Zero-or-One-to-Zero-One-or-More | Policy Limit | A Policy Coverage Detail indemnification limit is zero, one or more Policy Limits. |
| Policy Coverage Detail | indemnification exclusion is | Zero-or-One-to-Zero-One-or-More | Policy Deductible | A Policy Coverage Detail indemnification exclusion is zero, one or more Policy Deductibles. |
| Policy Coverage Detail | amounts defined in | Zero-or-One-to-Zero-One-or-More | Money | A Policy Coverage Detail amounts defined in zero, one or more Moneys. |
| Policy Coverage Detail | defines potential settlement provisions | Many-to-Many | Claim | A Policy Coverage Detail defines potential settlement provisions zero, one or more Claims. |
| Product | identifies market offering in | Zero-or-One-to-Zero-One-or-More | Agreement | A Product identifies market offering in zero, one or more Agreements. |
| Product | provides | One-to-Zero-One-or-More | Product Coverage | A Product provides zero, one or more Product Coverages. |
| Reinsurance Agreement | relationships established | Many-to-Many | Policy | A Reinsurance Agreement relationships established zero, one or more Policies. |
| Reinsurance Agreement | provisions specified in | One-to-Zero-One-or-More | Reinsurance Coverage | A Reinsurance Agreement provisions specified in zero, one or more Reinsurance Coverages. |
| Reinsurance Coverage | amounts defined in | Zero-or-One-to-Zero-One-or-More | Money | A Reinsurance Coverage amounts defined in zero, one or more Moneys. |