# Usage Based Billing Project (UBP)

**Team 10**

**Business Rules:**

A Communications organization wants to upgrade their billing system from a fixed billing broadband structure to usage based billing structure where the total usage by a particular user over a period can be viewed and charge for overages. In order to accomplish this, the following data model needs to be adopted.

* A **Customer** can be uniquely identified using Customer ID. Along with Customer ID, it also has Customer Name, Customer Status, Customer Type, Customer Start Date, Language Code, Created Date, Created By, Changed Date and Changed By.
* A **Customer** may have multiple **customer statements** or may not have **Customer Statements** at all.
* A **Customer Statement** will belong to one and only one **Customer**.
* Each **Customer** may have multiple **account**s or may have no **account**s at all.
* An **Account** has Account Number, Account Billing Start Date, Next Bill Date, Account Billing Status, and Account Last Bill Date.
* An **Account** can belong to one and only **Customer**.
* An **Account** should have at least one or more **Connection**s.
* A **Connection** hasConnection ID, Connection Start Date, Connection Start Date and Connection End Date.
* A **Connection** has one and only one **Product**.
* A **Product** has Product ID, Product Name, Product Tier cap, Product Rate, Product Sales Start Date, and Product Sales End Date.
* A **Product** should belong to at least one or more **Connections**.
* A **Connection** should have at least one or more **Customer** **Equipment**.
* A **Customer** **Equipment** belongs to a single **connection**.
* A Customer Equipment has Customer Equipment ID (Same as MAC ID), Customer Equipment Description, Equipment Start Date, Equipment End Date, Rating ID and Equipment Serial Number.
* A **Connection** has at least one or more **transaction** **master** **records**.
* Each **Transaction** **Master** **Record** belongs to one and only one **Connection**.
* A **Transaction** **Master** **Record** contains Transaction ID, Transaction Cost and Transaction Date.
* A **Customer** **Equipment** generates at least one or more **Daily** **Event** **Records**.
* Each **Daily** **Event** **Record** is generated by one and only one **Customer** **Equipment**.
* A Daily Event Record contains Event Record ID, Data Consumed, Event Start Date Time and Event End Date Time.
* **Daily** **Event** **Records** are stored in one and only one **Transaction** **Master** **Record**.
* Each **Transaction** **Master** **Record** has at least one or more **Daily** **Event** **Records**.
* A **Transaction** **Master** **Record** belongs one and only one **Customer** **Statement**.
* A **Customer** **Statement** **record** has at least one or more **Transaction** **Master** **Record**.
* A Customer Statement Record contains Statement Billed Amount, Statement Due Date and Language Code.
* A **Customer** **Equipment** has one and only one **Rating** **Plan**
* A **Rating** **Plan** can be subscribed to by many **Customer** **Equipment** or no **Customer** **Equipment** at all.
* A Rating Plan has details like Rating Plan ID, Rating Plan Name, Rating Plan Value, Rating Plan Start Date and Rating Plan End Date.
* An **Account** has one and only one **Customer** **Statement**.
* A **Customer** **Statement** belongs to one and only one **Account**.