**Video Bill**

Software Design Document v1.2

# Introduction

We receive our monthly utility bills for the services that we have subscribed. These services facilitate us to do voice communication, data transfer, electricity usage, water, gas, television, etc.

These service providers generate bills periodically for these subscription and usages and it is sent to the end customer for the payment. These bills are generally sent as a hardcopy to the customer address, otherwise as a softcopy to the prescribed email address. Some service providers are even archive these bills and made it accessible by the customer through the online web portal.

Generally, these bills have the detail of the monthly charges, adjustments, one time charges, usage charges, discounts, etc. And some operators have the billing system equipped with billing data analysis which provides day wise or monthly usage details are shown.

This idea is all about the presenting the generated bill in new way, such as a flash based, Video Bill. In which, each element of the billed information will be briefly explained with audio/video method. In addition to that, IBM Watson Trade Off Analytics will be engaged to analyze the available bill plans and customer consumption demand and then eventually recommend the appropriate bill plan for the customer.

# Design Overview

**Bluemix**

Business and Customer data

Video Bill  
Flash application

Watson Trade-off service

*Watson Text to Speech service*

This Video Bill generator will be developed with the following technologies.

* **Bluemix = OpenShift**

The environment where the video bill generation application will be parked and executed for the customer

* **Web application technologies = Same**

Apache, PHP, MySQL and Flash will be used for the application development and execution

* **Watson Trade-off analytics = Depends upon availability [bill plan recommendation]**

This service will be engaged to analyze the available various bill plans for the subscribed service and suggest the customer the appropriate bill plan that can reduce cost/yield better feature

* **Watson Text to Speech = Depends upon availability**

This service enables our application to present the audible bill information while traversing through each part of the bill

# Flow Chart

Customer visit Video Bill

DBMS

Fetch Bill Data

Watson  
Trade-Off Analysis

Analyze Bill Plan

Generate audio

Generate transcript

Generate video

Watson   
Text-to-Speech

Present Video Bill

# Wireframe

**Hello Mr. X**

*Hello Mr. X, Welcome to Video Bill*

**Total amount: 50,0000 €**

**Mobile 37843743 : 25,0000 €**

**Mobile 48394539 : 15,0000 €**

**TV 274858393488 : 15,0000 €**

**Discount : 5,0000 €**

**Bill Overview**

Service - 37843743

Service - 48394539

Service – 274858393488  
Pending payments

Recommendations

*The total bill amount for the previous month is 50,000 €. The summary of the total amount at service level are… For Mobile 37843743 - 24,0000 €, for Mobile 48394549 – 15,0000 € and for TV 274858393488 – 15,0000 €. Finally, at account level the discount of 5,0000 € applied on the total amount of all the services.*

**Mobile 37843743: 25,0000 €**

Recurring : 25,0000 €

Non-recurring : 5,0000 €

Discount : -5,0000 €

**PLAN A**

Bill Overview

5,0000 € instalation charge

3,0000 € technicial visit

Service - **37843743**

Service - 48394539

Service – 274858393488  
Pending payments

Recommendations

*For the Mobile service 37843743 with Plan A, there is monthly recurring charge of 25,0000 €, non-recurring charge of 5,0000 which is a total of 2,0000 € installation charge and 3,0000 € technician visit and a flat discount of -5,0000 €. By totaling all, the service is charged 25,0000 €.*

**Mobile 48394539: 15,0000 €**

Recurring : 12,9600 €

Non-recurring : 1,0000 €

Usage : 2,0000 €

Discount : -8 %

**PLAN B**

Bill Overview

Service - 37843743

Service - **48394539**

Service – 274858393488  
Pending payments

Recommendations

*For the Mobile service 48394539 with Plan B, there is monthly recurring charge of 12,9600 €, non-recurring charge of 1,0000 for the paid customer support, mobile/data usage of 2,0000 € and 8% discount on the recurring charge is 0,96000 €. By totaling all, the service is charged 15,0000 €.*

**Television 274858393488: 15,0000 €**

Recurring : 10,0000 €

Non-recurring : 5,0000 €

**PLAN C**

Bill Overview

Service - 37843743

Service - 48394539

Service – **274858393488**  
Pending payments

Recommendations

*For the Television service 274858393488 with Plan C, there is monthly recurring charge of 10,0000 €, non-recurring charge of 5,0000 for one time subscription of special channel. By totaling all, the service is charged 15,0000 €.*

|  |  |  |
| --- | --- | --- |
| **Old bill**  **number** | **Statement date** | **Amount to be paid** |
| 2398428 | 15/10/2016 | 42,0000 € |
| 4387288 | 15/09/2016 | 35,0000 € |

Bill Overview

Service - 37843743

Service - 48394539

Service – 274858393488  
 **Pending payments**

Recommendations

*There are some old bill amounts to be paid yet as for bill 2398428 generated on 15/10/2016 the amount is 42,0000 € and 4387288 generated on 15/09/2016 the amount is 35,0000 €. You are advised to pay these pending bill amounts as soon as possible. For any queries, please contact us and we would be happy to help you.*

Recommended Bill Plan

Mobile 37843743 with

Bill Plan XYZ

Saves 12,0000 €

Bill Overview

Service - 37843743

Service - 48394539

Service – 274858393488  
Pending payments

**Recommendations**

*Based on your usage pattern of the mobile 37843743 and the current associated bill plan analyzed with our existing available bill plan, we recommend the bill plan* ***XYZ*** *and that can save* ***12,0000 €****.*

# Database

The MySQL database will be used for this application. And the table structures are going to be as per the following attachment.

