**BuzzerandBell**

**Functional Specification**

**March 21, 2012**

**BuzzerandBell Web-based Video Rating Widget**

BuzzerandBell (BnB) wants to build a voting widget that can be embedded on a customer’s website in order to enable BnB second-by-second voting with the YouTube player widget already running on customer’s sites.

1. The widget should use the YouTube JavaScript API to seamlessly integrate the BnB voting bar (show below) with a chrome-less YouTube player. The graphic below can be resized to match the YouTube player.



2. The widget needs to stay in sync with the state of the video player. Specifically, user interactions such as pause, rewind and fast forward must be handled so the voting offset matches the location in the video. It is acceptable to disable rewind and fast-forward controls if that is possible but pause and play must be handled.

3. The widget needs a mechanism for the website to pass a **user identifier** and **video identifier** to it.

4. The widget needs to collect all the votes the user makes in response to the video, with a timestamp and offset relative to the start of the video, and send those records to an Amazon SimpleDB domain. All values on SimpleDB are stored as strings. The table description for the domain is as follows:

**Reactions Domain**

|  |  |  |
| --- | --- | --- |
| Field Name (aka Attribute) | Description | Sample Values |
| itemName() | Primary Key made up of username and unique incremental identifier | BnbTester:100, BnBTester:102, etc |
| timestamp | The time the user pressed to vote button in GMT using this format: YYYY-MM-DD”T”HH:mm:SS”Z” | 2011-12-20T01:41:14Z |
| offset | Value in seconds that represents the offset from the start of the video. Can never be higher than the duration of the video. | 32 |
| event (FK) | The unique event identifier (aka video identifier) that this vote is associated with. | JeffLaughlin674, 123456789, etc |
| user | The unique user identifier of the user who registered this vote | JeffLaughlin, mattlaughlin, etc |
| type | The vote type. Currently limited to “buzzer” or “bell” | Buzzer, bell |
| value | A signed integer value (converted to a string for storage) representing the count of buzzers or bells pressed by the user within a given second. Typically this value is -1 for buzzers or 1 for bells | 1, -1 |
| age | Optional demographics – Won’t have this available for the initial implementation of the widget. |  |
| gender | Optional demographics – Won’t have this available for the initial implementation of the widget. |  |
| zip | Optional demographics – Won’t have this available for the initial implementation of the widget. |  |
| usercontext | Optional demographics – Won’t have this available for the initial implementation of the widget. |  |

5. AWS has SDK implementations and reference code for Java, .NET, PHP and Ruby in addition to its mobile SDKs. Assuming there is a server component to this solution to facilitate communication between the JavaScript and SimpleDB, that server component must be deployable on AWS infrastructure.