

CMS

The CMS will be based on CodeIgniter using PHP and MySQL on Linux.

There will be a single type of user who will be able to log into the system and see a list of companies where they can add, delete or access the companies details.

Within a company there will be a settings page where the user can set the following items

- Push Notification Settings for Apple and iOS
- The email address to send automated reports
- The URL of the audio feed
- The URL of the embedded web link (optional)
- The URL of the advertising feed (optional)

There will also be a questions section. This will have two lists, scheduled questions and completed questions. It will be possible to add a questions, edit or delete a scheduled question and open a completed question to view the results. When a question is added the user will be able to specify an image, question text (must require a Yes/No answer), start time/date and end time/date. When viewing the answers received for a question the user will be shown a graphical representation of the result (% Yes vs % No) and a table with the number and percentage of answers for each option. When a question becomes active a push notification should be sent to all app users registered with the company. Once the question is finished the results report should be emailed to the company.

Within each company there will be a screen where the user can send a push notification to all devices registered for that company, including the identifier of the message in a custom payload called "identifier". The app will store these message and allow the user to see and delete previously sent messages.

There will also be a reporting section where the user can see the following statistics for a selectable period about the apps registered to the company:

- Total registered users
- Active users (users that have been active within the last 28 days)
- The average length of time the audio player is active in a session
- The average number of times each user has voted

Each month the report for the previous month will be automatically emailed to the company.

iOS/Android App

The apps will be designed to be easily re-skinned with new graphics and a changed colour scheme using the same layout.

There will be a tab bar at the bottom of the screen with icons to select between five screens (or four if there is no web link provided). The pages are as follows:

- Home - a static image
- Player - an audio player streaming the HTTP audio feed. This should have the ability to pause, rewind and fast forward the stream (within the limits of the buffer)
- Question - if there is a currently active question that has not been answered it will be shown here along with its image and buttons to vote yes or no. If there is no question available a message will be shown asking the user to come back later.
- Web - if there is no web url available this will be hidden. Otherwise this view will show the page along with buttons to navigate back or return to the base URL.
- Messages - this will list up to 40 recent messages received from the CMS and show the start of the message along with an indicator to show if it has been read or not. When a message is selected a form should be displayed with the full message and it should be marked as read. When there are unread messages the icon in the tab bar will change.

If the app is launched from a push notification the body of the message should be shown in the same style window as when they are opened and it should be marked as read in the local store.

When the XML feed is downloaded it should update the settings, replace the question database (retaining the information to indicate a question has been answered) and update the message database to add new message and remove items that are no longer included in the feed.

On the player screen there will be a hidden web view, if there is an advertising url provided it will be loaded in this window. Once it has successfully loaded then the web view will be made visible.

Data Communications Formats

The XML feed will be requested via HTTP with the following parameters:

- company_id - the identifier for the required company

- user - a device assigned unique identifier for the user
- device - the unique identifier for sending push notifications to the device
- type- the type of device (ios or android)
- session_length - the average length of time the audio player is active in a session

The XML will have the following structure:

- company
 - feeds
 - audio - The URL of the audio feed
 - web - The URL of the embedded web page
 - advert - The URL of the advertising feed
 - questions
 - question - One entry for each question that has not completed yet.
 - question_id - The unique identifier of the question
 - image - The URL of the image
 - text - The question text
 - start - The start time as a UNIX timestamp
 - end - The end time as a UNIX timestamp
 - messages
 - message - One entry for (up to) the last 40 message
 - message_id - The unique identifier for the message
 - message - The text of the message

When the user submits the answer to a question the app will can a URL with the following parameters:

- company_id - the identifier for the required company
- user - a device assigned unique identifier for the user
- question_id - The unique identifier of the question
- answer - The answer to the question (yes or no)