

Mobile Application Store Product API Requirements

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Introduction

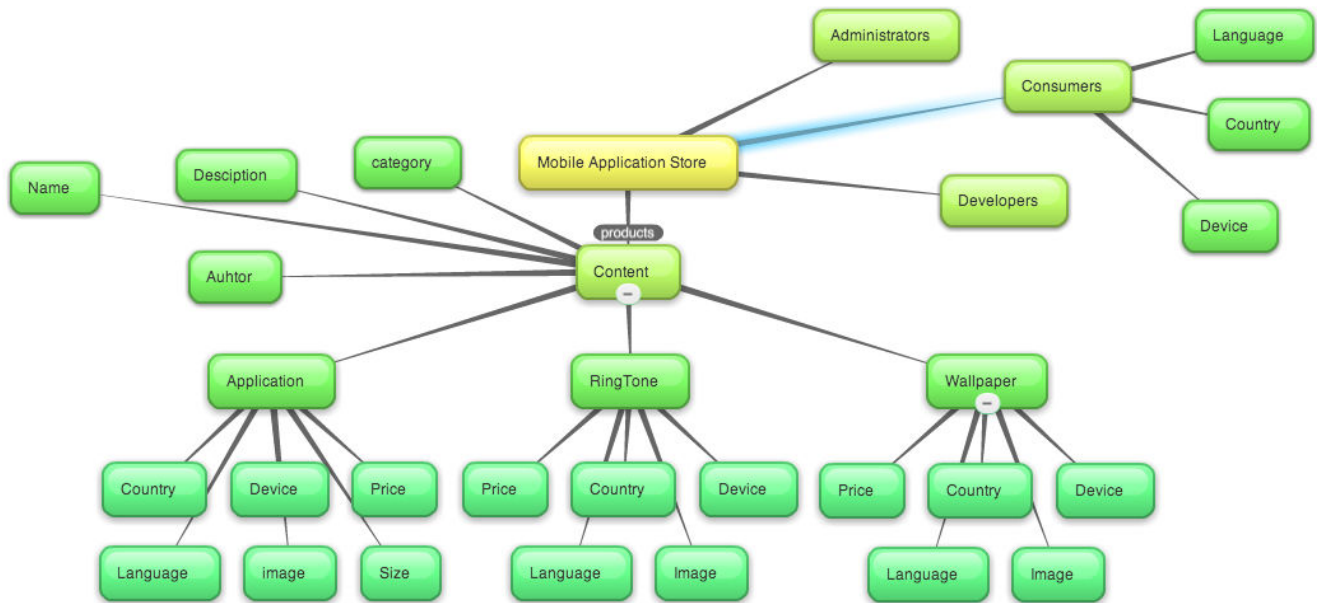
This document provides the requirements for the Mobile Application Store Product API.

Overview

Mobile Application stores provide a source of applications, ringtones, and wallpapers for mobile consumers to download to and access from their mobile devices. A wide variety of applications are available, including games, office applications, and social applications. Ringtones and wallpapers allow users to customize their mobile experience. Both free and premium (e.g. paid) content is available for download.

Mobile application stores are an important source of revenue for independent and corporate mobile content developers. Application developers provision meta data about their content to the store's product catalogue, along with the actual binary for download. Meta data includes the name of the application, a description of the application, a thumbnail image, what countries it can be distributed to, what languages are supported, what devices are supported, price (free or some amount). Meta data also includes the author of the application.

The following diagram provides a mind map that captures the various aspects of the Mobile Application Store.



Product API Requirements

This section defines the requirements for the Product API System Component.

The Product API should support the following functions:

1. Support a method for adding Countries.
 - a. Countries have the following required properties:
 - i. 2 letter country code
 - ii. country name
 - iii. export status, either open or closed
 - b. Adding countries is a restricted interface. See protecting restricted interface below.
2. Support a method for adding Devices.
 - a. Devices have the following required properties:
 - i. device id (string)
 - ii. device name
 - iii. manufacturer name
 - b. Adding devices is a restricted interface. See protecting restricted interface below.
3. Support a method to add content to the Product Catalog.
 - a. When content is created perform content validation. Validate that required fields are populated, including collections requiring 1 or more elements.

- b. Content has the following features:
 - i. content name of type String, required
 - ii. content description of type String, required
 - iii. author's name, of type String, required.
 - iv. content rating (0 to 5 where 5 is the best)
 - v. 0 or more categories of type String
 - vi. 1 or more countries of type Country, where the content can be downloaded to
 - vii. 1 or more devices of type Device that the content is compatible with
 - viii. a price of content, of type float in units of BitCoin.
 - ix. 1 or more supported language codes (5 letter language codes)
 - x. 1 image URL
 - c. Content is an abstract concept with the following concrete specializations
 - i. Application
 - ii. RingTone
 - iii. Wallpaper
 - d. An Application has an additional feature:
 - i. a size in bytes, that indicates the size of the application.
 - e. Content creation is a restricted interface.
4. Restricted interfaces require an additional access token (GUID) parameter. The validation of the access token and permission check will be deferred to a future sprint, but all restricted methods should support accepting the access token as an additional String parameter.
5. Allow consumers to search for and obtain content details.
- a. This is a non restricted interface.
 - b. Only content compatible with the user supplied criteria should be returned.
 - c. Search criteria should include:
 - i. optional list of content categories,
 - ii. optional text search (to match name and description),
 - iii. optional minimum rating,
 - iv. optional maximum price in BitCoins, where 0 is free,
 - v. optional list of language codes,
 - vi. optional country code
 - vii. optional device id
 - viii. optional list of content types (i.e. Application, RingTone, WallPaper).
 - d. Results should return a list of Content objects.

Sample Country Data in CSV format:

```
# country_code, country_name, export_status
AE, United Arab Emirates, open
AF, Afghanistan, open
AG, Antigua and Barbuda, open
AI, Anguilla, open
AL, Albania, open
AM, Armenia, open
US, United States, open
CA, Canada, open
MX, Mexico, open
IR, Iran, closed
```

Sample Device Data in CSV format:

```
# device_id, device_name, manufacturer
iphone_5, iPhone 5, Apple
iphone_6, iPhone 6, Apple
lumina, Lumina, Nokia
galaxy_s3, Galaxy S3, Samsung
galaxy_s4, Galaxy S4, Samsung
glass, Google Glass, Google
nexus, Google Nexus, Google
htc_one, HTC One, HTC
```

Sample Content Data

Format: CSV, with pipe delimited collections.

```
#content_type, content_name,
content_description, author, rating, categories,
export_countries,supported_devices,price,
supported_languages, image_url,
application_size
```

```
application, Angry Birds Seasons, Angry Birds
```

Seasons, Rovio, 5,
game|kids,US|CA|MX,iphone_5|iphone_6|lumina,
.5,en_us|en_ca|en_gb,
http://web-assets.angrybirds.com/abcom/img/ga
mes/223/icon_download_seasons_223x223.png,
564

ringtone,Ferrari 575M Maranello - 2002,This
ringtone is a unique and exclusive recording of the
2002 Ferrari 575M Maranello being driven to its
limits!,Nutbags,4,car|racing,US|CA|MX|AF|AL,lumi
a,0.0,en_us|en_ca|en_gb,http://p.d.oivi.com/p/g/sto
re/1492679/_02_Ferrari_575M_Maranello-192x192
png

Sample Query Data

Format: CSV, with pipe delimited collections.

catgory list, text search, minimum rating, max price,
language list, country code, device id, content type list

search for "Ferrari" in name or description

, Ferrari, , , , , ,

search for all content with a minimum rating of 4 and
a price of 0 or less (i.e. free)

, , 4, 0, , , ,