inPowered for Brands

Web Services API

# Project

The project is a pure-Java codebase using Maven as a build mechanism. It lives in Perforce at “inpowered\_for\_brands/server”.

# Architecture

## Software Stack

The inPowered for Brands Web Services API has been developed as a standard JEE servlet, with a planned deployment to a Tomcat 6 server. It utilises the standard Java OSS stack, including Spring 3.1, Hibernate 3.5, AOP, EhCache, Apache Commons, Guava, Jackson, and SLF4J. It assumes a MySQL 5.5 database implementation, although currently uses no MySQL-specific features.

## Web Services

All WS calls are standard RESTful calls, using HTTP GET, POST, and returning JSON. All String fields are UTF8.

## DateTime and Timezones

* All DateTime fields are [ISO8601](http://en.wikipedia.org/wiki/ISO_8601)
  + Generally, Dates are “2012-07-15”
  + Generally, DateTimes are in UTC: “2012-07-15T12:34:56Z”
* Currently the system assumes input calls to be in “Americas/New\_York” time zone as this is the time zone of record for DoubleClick, and hence the Analytics system.

## Important Constants

### Sentiment

Valid “Sentiment” enums are {POSITIVE, NEGATIVE, NEUTRAL, NONE}.

### Order

Value “Order” enums are {PUBLISHTIME, INFLUENCESCORE, SEARCHSIMILARITY}.

# Controllers

The base URI path for all Controllers is “${authority}/ifbrands/api/${controller}”

## Status Controller (/status)

The Status Controller provides basic information about the running system.

### Health Check

* /status/health
* This returns the current status of the server, including that of all down-stream services.
* Payload will be JSON if “Accept: application/json” header is set, HTML otherwise
* Can also force payload via suffix (health.json, health.html)
* Overall system health in “okay” field
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/status/health>
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/status/health.json>

## Entity Controller (/entity)

The Entity Controller provides access to all constant objects within the system. An object is considered to be constant if it is generally immutable and uniquely identified by an integer ID value. It interfaces with external systems-of-record whenever, specifically DpServices. Results are cached for 24 hours.

### Flush Cache

/entity/flush

* Flush the entire entity cache.
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/entity/flush>

### Brand/Site/Author/Story

/entity/{entityType}/{idSet}

* Fetch a list of entities
* The *idSet* is a comma-separated list of integer entity ID values
* The *idSet* can also be “-“ which will return all entities of that type (brand, site only)
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/entity/brand/->
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/entity/author/1,2,3,4>
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/entity/site/1>
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/entity/story/1188610>

## User Controller (/user)

The User Controller provides basic functionality related to user management. It interfaces heavily with the external user management system.

### Flush Cache (/user/flush)

/user/flush

* Flush the entire user cache.
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/flush>

### User State

/user/state/user:{userKeys}

* Fetch the UserState object for each user specified
* The *userKeySet* is a comma-separated list of user-key String values (or “-“ for all users)
* The user-key is an implicit foreign key to the user management system
* Flush the entire entity cache.
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/state/user:->

### Set User Key/Value

/user/value/user:{userKey}/{key}?value={value}

* Set a key/value pair for a given user
* Using “value=” will delete the key entirely (ie. will not just set its value to null)
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/value/user:bill/myKey?value=myValue>
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/value/user:bill/myKey?value>=

### Get User Key/Value

/user/value/user:{userKey}/{key}

* Get a key/value pair for a given userKey
* Can request key “-“ to get all key/value pairs for this user
* If the key doesn’t exist, a null value will be returned
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/value/user:bill/myKey>
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/user/value/user:bill/->

## Influence Controller (/influence)

The Influence Controller provides reports as required regarding the stories and trends for a given (brand/query) tuple. The query may be null. It also provides basic filtering and collation features. This interfaces heavily with external systems-of-records, specifically DpServices and Analytics. Results are cached for 1h.

### Flush Cache

/influence/flush

* Flush the entire user cache.
* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/influence/flush>

### Total Trend

/influence/trend/brand:{brandSet}?[start,stop,q,authors,sentiments]

* Return a total influence report for a given (brand,query)
* The *brandSet* is a comma-separated list of BrandID values.
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| start | Start Date for analysis | N |
| stop | Stop Date for analysis | N |
| q | Query string for analysis | Y |
| authors | Set of AuthorIDs for filter | Y |
| sentiments | Set of Sentiment enums for filter | Y |

* <http://ifbbe.prd.netshelter.com:8080/ifbrands/api/influence/trend/brand:714?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL>

### Breakdown Trend/Summary

/influence/trend/brand:{brandSet}/campaign:{campaignSet}?[start,stop,q,authors,sentiments]  
/influence/summary/brand:{brandSet}/campaign:{campaignSet}?[start,stop,q,authors,sentiments]

* Return a breakdown influence report for a given (brand,campaign,query)
* A breakdown report offers influence as (paid,organic,total)
* The *brandSet* is a comma-separated list of BrandID values
* The *campaignSet* is a comma-separated list of CampaignID values from IFBrands
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| start | Start Date for analysis | N |
| stop | Stop Date for analysis | N |
| q | Query string for analysis | Y |
| authors | Set of AuthorIDs for filter | Y |
| sentiments | Set of Sentiment enums for filter | Y |

* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/trend/brand:714/campaign:67?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/summary/brand:714/campaign:67?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL>

### Compare Trend/Summary

/influence/trend/compare?[start,stop,q,authors,sentiments,series,series,…]  
/influence/summary/compare?[start,stop,q,authors,sentimentsseries,series,…]

* Return a comparison report for a given set of (brand,query) tuples
* A comparison report shows trend/summary data for multiple (brand,query) tuples
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| start | Start Date for analysis | N |
| stop | Stop Date for analysis | N |
| authors | Set of AuthorIDs for filter | Y |
| sentiments | Set of Sentiment enums for filter | Y |
| series | string of form “{brandId}:{query}” | Y |

* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/trend/compare?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL>&series=714:phone&series=624:tablet
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/summary/compare?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL>&series=714:phone&series=624:tablet

### Paid Analytics

/influence/paid/campaign:{campaignSet}?[start,stop]   
/influence/paid/campaign:{campaignId}/ad:{adSet}?[start,stop]   
/influence/paid/campaign:{campaignId}/ad:{adId}/story?[start,stop]

* Return a comparison report for a given set of (brand,query) tuples
* A comparison report shows trend/summary data for multiple (brand,query) tuples
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| start | Start Date for analysis | N |
| stop | Stop Date for analysis | N |
| authors | Set of AuthorIDs for filter | Y |
| sentiments | Set of Sentiment enums for filter | Y |
| series | string of form “{brandId}:{query}” | Y |

* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/paid/campaign1000,1001:-?start=2012-08-01&stop=2012-08-31>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/paid/campaign:1000/ad:-?start=2012-08-01&stop=2012-08-31>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/paid/campaign:1000/ad:100001/story?start=2012-08-01&stop=2012-08-31>

### Story List (/influence/stories/brand:{brandSet}/order)

/influence/stories/brand:{brandSet}/{order}?[start,stop,q,authors,sentments,limit]

* Return a list of story synopses with sentiment info for a given (brand,query) tuple
* Payload also contains Sentiment and Author summary info
* The *brandSet* is a comma-separated list of BrandID values
* The *order* is an ordering enum which determines payload ordering
* All dates are considered to be in the default TimeZone
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| start | Start Date for analysis | N |
| stop | Stop Date for analysis | N |
| q | Query string for analysis | Y |
| authors | Set of AuthorIDs for filter | Y |
| sentiments | Set of Sentiment enums for filter | Y |
| limit | Max number of stories in result | Y |

* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/influence/stories/brand:714/influenceScore?start=2012-08-10&stop=2012-08-17&q=samsung&sentiment=POSITIVE,NEUTRAL&limit=50>

## Share Controller (/share)

### Amplify

/share/amplify/brand:{brandId}/story:{storyId}/user:{userKey}/type:{typeId}  
/share/amplify/brand:{brandId}/story:{storyId}/user:{userKey}/type:{typeId}/campaign:{campaignId}

* Amplify a story for a given brand, user, share service type, and campaign
* A successful amplification will send a 301 to the user agent and redirect it to the requested share service type with the story title pre-filled
* URI parameters:

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| brand | Data platform brand id | N |
| story | Data platform story id | N |
| user | User management user key | N |
| type | Share service (facebook or twitter) | N |
| campaign | IFB campaign id to associate with | Y |

Note: The ad parameter not being set is allowed for backwards compatibility but should always be set after IFBv2 is in production

* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/amplify/brand:690/story:2662911/user:125/type:facebook>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/amplify/brand:690/story:2662911/user:125/type:facebook/campaign:1>

### Delete

/share/delete/brand:{brandId}/story:{storyId}

* Delete a given amplification from the IFB store
* Amplification identified by (brandId or campaignId or adId) & storyId
* Status message returned, identifying success/failure
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/delete/brand:690/story:2662911>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/delete/campaign:1191/story:2662911>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/delete/ad:1191/story:2662911>

### Stats

/share/stats/brand:{brandId}?start=2012-08-10&stop=2012-10-10  
/share/stats/ad:{adId}start=2012-08-10&stop=2012-10-10  
/share/stats/campaign:{campaignId}start=2012-08-10&stop=2012-10-10

* Get amplification stats (shortUrl clicks), as recorded by ShareAPI over given date range for given brand, ad, or campaign
* Story amplification nodes are returned with filled in twitterAmplification, facebookAmplification, or both nodes
* If given share service node is *null*, no amplification was made for the story/brand/ad combination
* Actual shareAPI “consumptions” metric contained within share service (twitterAmplification, facebookAmplification) nodes.
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/stats/brand:690?start=2012-08-10&stop=2012-10-10>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/stats/ad:1?start=2012-08-10&stop=2012-10-10>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/stats/campaign:1?start=2012-08-10&stop=2012-10-10>

### List

/share/list/story:{storySet}  
/share/list/story:{storySet}/brand:{brandId}

* Get amplification stats (shortUrl clicks), as recorded by ShareAPI for given *storySet* and optional *brandId* (not limited by date range)
* The *storySet* is a comma-separated list of StoryID values.
* Story amplification nodes are returned with filled in twitterAmplification, facebookAmplification, or both nodes
* If given share service node is null, no amplification was made for the story/brand/ad combination
* Actual shareAPI “consumptions” metric contained within share service (twitterAmplification, facebookAmplification) nodes.
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/list/story:2662911,2662912>
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/share/list/story:2662911,2662912/brand:690>

## Campaign Controller (/campaign)

/campaign/create?[campaignname,userkey,brandid,start,stop,keywords,enabled,statusid,typeid]  
/campaign/update?[campaignId,campaignname,userkey,brandid,start,stop,keywords,enabled,statusid,typeid]  
/campaign/delete/{campaignId}  
/campaign/{campaignId} (“-“ for all campaigns)  
/campaign?[brandid,enabled,statusid]

* URI parameters. All are required for CREATE. All are optional for GET and UPDATE.
* Create: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/create?campaignname=TestCampaign84&userkey=125&brandid=690&start=2012-08-15&stop=2012-09-15&keywords=Foo,Bar&enabled=true&statusid=1&typeid=1>
* Update: [http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/update?campaignname=TestCampaign99&stop=2012-09-25&keywords=Foo,Bar](http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/update?campaignname=TestCampaign99&stop=2012-09-25&keywords=Foo,Bar&enabled=true&statusid=1&typeid=1)
* Delete: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/delete/4>
* Get All Campaigns: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/->
* Get Single Campaign: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/7>
* Get Campaigns filtered by brandId: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign?brandid=690>

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Meaning** | **Optional** |
| campaignname | The user facing campaign name | N |
| userkey | User management user key | N |
| brandid | The brand to associate the campaign to | N |
| start | The campaign start date | N |
| stop | The campaign stop date | N |
| keywords | The search keywords the campaign is built on | N |
| enabled | Is the campaign enabled? | N |
| statusid | The FK id of CampaignStatus lookup table | N |
| typeid | The FK id of CampaignType lookup table | N |

### Campaign Status

/campaign/status/create?name={statusName}

* Create campaign status with a given name (*statusName*)
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/status/create?name=TestStatus>

/campaign/status/delete/{statusId}

* Delete campaign status with a given id (statusId)
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/status/delete/7>

/campaign/status/{statusId} (“-“ for all statuses)

* Get campaign statuses
* Single: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/status/7>
* All: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/status/->

### Campaign Type

/campaign/type/create?name={typeName}

* Create campaign type with a given name (*typeName*)
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/type/create?name=TestType>

/campaign/type/delete/{typeId}

* Delete campaign type with a given id (typeId)
* <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/type/delete/7>

/campaign/type/{typeId} (“-“ for all types)

* Get campaign types
* Single: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/type/7>
* All: <http://ifbbe.dev.netshelter.com:8080/ifbrands/api/campaign/type/->