

Last Edited: 6 October 2015 - Tan Toi Ngee

- Revised create target api to (height, weight, and also optional fields)
- Added in delete target permissions api (not defined)
- Added in Add target permissions api (not defined)
- Added in Update Target (not defined)
- Added in Create Device api
- Added in Delete Device api (not defined)

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1. Mobile API

1.1. Sign up

1.1.1 Sign up create new user

| | |
|----------------|---|
| URL | api/v1/mobile/signup-email |
| Method | POST |
| Purpose | |
| Params | first_name: String last_name: String email: String password: String client_id: String 1234 client_secret: String secret username: String grant_type: String |
| Return | { success: true, session: false, date: Date, error_code: error code, message: information returned, access_token: access token returned by oauth } // send email for verification |
| Example | client_id: 1234 client_secret: secret username: Same as email grant_type: password |

1.2. Sign in

1.2.1. Sign in existing user

| | |
|------------|----------------------------|
| URL | api/v1/mobile/signin-email |
|------------|----------------------------|

| | |
|----------------|--|
| Method | POST |
| Purpose | |
| Params | email: string, password: string client_id: string, client_secret: string, username:string, grant_type: string |
| Return | <pre>{ success: true, session: false, date: Date, error_code: error code, message: information returned, access_token: access token returned by oauth, access_token_expires: date for access token expired, refresh_token: refresh token returned by oauth, refresh_token_expires: data for refresh token expired }</pre> // send email for verification |
| Example | |

1.2.2. Sign in refresh

| | |
|----------------|---|
| URL | api/v1/mobile/signin-refresh |
| Method | POST |
| Purpose | |
| Params | refresh_token: string, client_id: string client_secret: string, grant_type: string ('refresh_token') |
| Return | <pre>{ "success": true, "session": false,</pre> |

| | |
|----------------|--|
| | <pre> "error_code": 0, "access_token": "6822401315285d182cb1db22a437c6aa04b4efc9", "access_token_expires": "2015-08-05T03:26:51.252Z", "refresh_token": "74021f62d63979556754b1727d4c7fb870eb2989", "refresh_token_expires": "2015-08-12T03:26:51.252Z", "date": 1438140411270, "message": "Token generated successfully" } </pre> |
| Example | <pre> var postdata = {refresh_token: '210f616d13e90d047ed86dd66089dbbba9e15377', client_id: '1234' client_secret: 'secret', grant_type: 'refresh_token'} </pre> |

1.3. Sleep Data

1.3.1. Get Sleep Data by ID

| | |
|---------------|---|
| URL | api/v1/mobile/sleep/:targetid |
| Method | GET |
| Params | <pre> access_token: string, start: integer end: integer </pre> |
| Return | <pre> { "success": true, "session": false, "date": 1436352450387, "error_code": 0, "message": "Sleep data successfully returned", "data": [{ "_id": "559cffbb5500783460538279", "target_id": "559cf4e8bb4503ea5713967d", "end": "2015-07-08T18:47:24.000Z", "start": "2015-07-08T18:37:23.000Z", "state": "Light", "__v": 0 }] } </pre> |

| | |
|----------------|--|
| Example | <code>http://52.74.95.51/api/v1/mobile/sleep/559cf4e8bb4503ea5713967d?access_token=69a1573cd76836d5946aa29ba0685c2e2fe8c4c7&start=1426350193113&end=1437350293113</code> |
| | |

1.3.2. Get sleep summary by day (NEW. NOT IMPLEMENTED)

| | |
|---------------|--|
| URL | <code>api/v1/mobile/sleepsummary/:targetid</code> |
| Method | GET |
| Params | <p>access_token: string,</p> <p>start: UNIX timestamp in seconds</p> <p>end: UNIX timestamp in seconds</p> |
| Return | <pre>{ "success": true, "session": false, "date": 1436352450387, "error_code": 0, "message": "Sleep summary successfully returned", "data": [{ "_id": "559cffbb5500783460538279", "target_id": "559cf4e8bb4503ea5713967d", "date": "2015-07-08", "light": "125", "deep": "180", "rem": "100", "awake": "60", "__v": 0 }, { "_id": "559cffbb5500783460538280", "target_id": "559cf4e8bb4503ea5713967d", "date": "2015-07-09", "light": "140", "deep": "120", "rem": "110", "awake": "20", "__v": 0 }, { "_id": "559cffbb5500783460538281",</pre> |

| | |
|----------------|---|
| | <pre> "target_id": "559cf4e8bb4503ea5713967d", "date": "2015-07-10", "light": "145", "deep": "121", "rem": "115", "awake": "15", "__v": 0 }] } </pre> |
| Example | http://52.74.95.51/api/v1/mobile/sleepsummary/559cf4e8bb4503ea5713967d?access_token=69a1573cd76836d5946aa29ba0685c2e2fe8c4c7&start=1426350193113&end=1437350293113 |
| | returns in minutes each day's sleep duration from the local date in the start time and to the local date in the end time, |

1.4. Target Data

1.4.1. Get target data by ID

| | |
|---------------|--|
| URL | api/v1/mobile/target/:targetid |
| Method | GET |
| Params | access_token: string |
| Return | <pre> { "success": boolean indicator to request successful status, "session": boolean indicator to indicate session status, "date": date in unix time format, "error_code": error code please check section 4 for more details, "message": feedback message, "data": [-- List of target information { "_id": -- unique target id, "isAccountOwner": boolean indicator whether target is owner, "gender": target's gender, "birthday": target's birthday, </pre> |

| | |
|----------------|--|
| | <pre> "setting": target's unique setting id, "family_group": target's unique family group id, "account": target's account owner id, "device": target's unique device id, "name": target's name in string, "__v": db version number }] }</pre> |
| Example | http://52.74.95.51/api/v1/mobile/target/all?access_token=468c58502bb15a719a24551a090237474d6a19f7 |
| | |

1.4.2. Create Target (revised, adding in gender, height, weight, and optional tags)

| | |
|----------------|---|
| URL | api/v1/mobile/target/create |
| Purpose | <p>To create a target:</p> <p>To validate:</p> <ul style="list-style-type: none"> - MAC address has been registered as a device - Device owner is same as the person account making the request |
| Method | PUT |
| Params | <pre> access_token: string name: string birthday: date (optional) profile_image: file (optional) gender: string (optional) height: string (optional) weight: string (optional) family_group: string (family group id, optional) device: string(attached nana mat device id, optional) isAccountOwner: boolean (is target account owner ?)</pre> |
| Return | <pre> { "success": boolean indicator to request successful status, "session": boolean indicator to indicate session status, "date": date in unix time format,</pre> |

| | |
|--------------------------|---|
| | <pre> "error_code": error code please check section 4 for more details, "message": feedback message, "target_id" : newly created target id } </pre> |
| Example | device: MAC Address height: up to 3integers + 1 decimal point in cm. e.g. "174.2" or "69.0" weight: up to 3integers + 1 decimal point in kg e.g. "74.0" or "35.2" birthday: YYYYMMDD |
| To be implemented | |

1.5. Device Data

1.5.1. Create Device (NEW. NOT IMPLEMENTED)

| | |
|----------------|---|
| URL | api/v1/mobile/device/create |
| Purpose | Create Device, return device ID Backend to validate <ul style="list-style-type: none"> - MAC address - Either device not already assigned, or user is admin tied to the target tied to the device - Time zone - Owner account ID |
| Method | PUT |
| Params | access_token: string device_mac: string time_zone: string owner_id: owner's unique account id type: device type (currently only "Adult001" is allowed) |
| Return | <pre> { "success": boolean indicator to request successful status, "session": boolean indicator to indicate session status, "date": date in unix time format, </pre> |

| | |
|----------------|---|
| | "error_code": error code please check section 4 for more details, "message": feedback message, "device_id" : device id "device_token" : device access token } |
| Example | Time zone identifier: https://en.wikipedia.org/wiki/List_of_tz_database_time_zones |

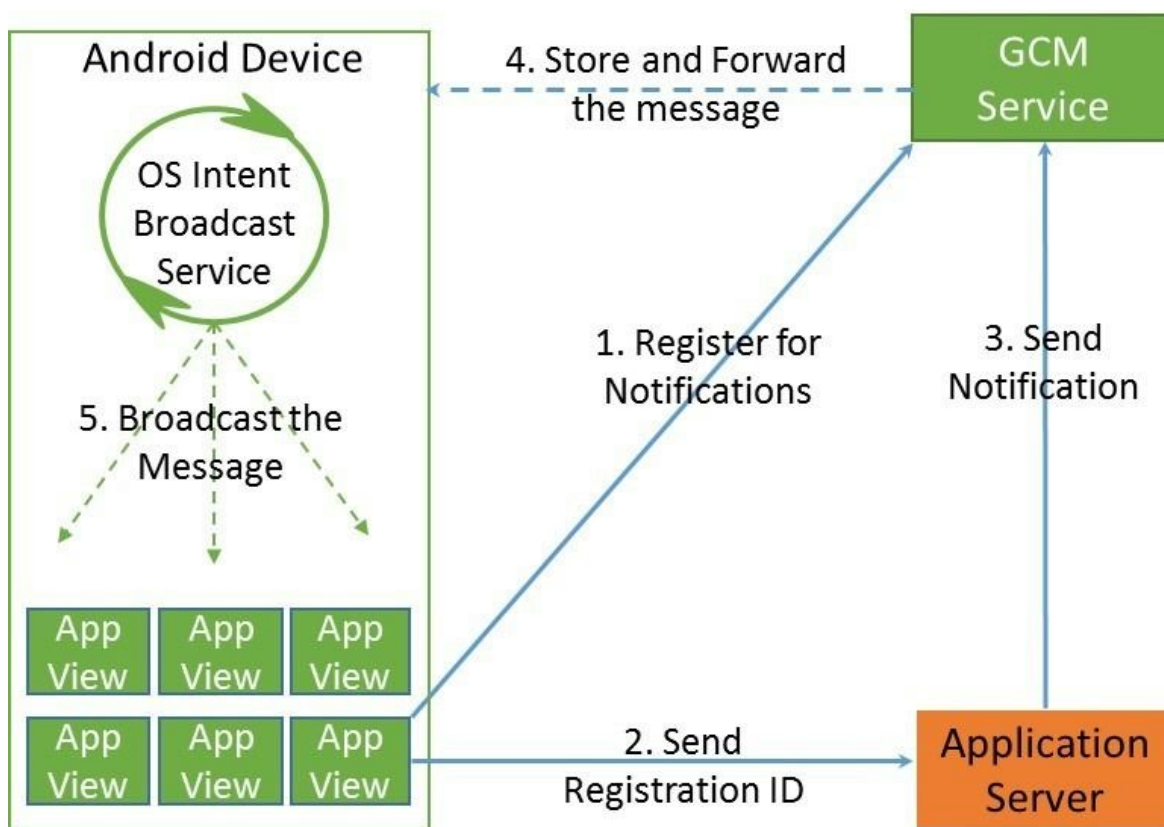
1.6. Vital Data

1.6.1. Get Vital Data by ID

| | |
|---------------|--|
| URL | api/v1/mobile/vitals/:targetid |
| Method | GET |
| Params | access_token: string start: unix time - start time end: unix time - end time |
| Return | <pre>{ "success": boolean indicator to request successful status, "session": boolean indicator to indicate session status, "date": date in unix time format, "error_code": error code please check section 4 for more details, "message": feedback message, "data": [-- List of vital data about the target { "_id": -- unique id for this vital data "id": hashed id using mac_address and timestamp , it is the mapreduce key using in the future, "key":same as id, "macid": device's mac address, "timestamp": timestamp when creating the first vital data in the list, "movement":movement data list, "respiration": respiration data list, "heartbeat": heartbeat data list, }] }</pre> |

| | |
|----------------|---|
| Example | http://52.74.95.51/api/v1/mobile/vitals/559cf4e8bb4503ea5713967d?access_token=468c58502bb15a719a24551a090237474d6a19f7&start=1416431806433&end=1436431806433 |
| | |

2. Web API
3. Notification Data Format
 - 3.1. Mobile notification flow



- 3.2. Message format

| | |
|----------------------|--|
| Status Change | <pre>{ type: status status: detecting, awake, sleeping, no-detection (string) sensor_data: { avg_heart_beat: 55, avg_breathing: 18, avg_movement: 3,</pre> |
|----------------------|--|

| | |
|-------------------|--|
| | <pre> avg_temperature: 26, avg_audio_level: 0 } </pre> |
| IOT Action | <pre> { type:iot device: light, thermostat, speaker action: { <dependent on device> } } </pre> <p>Light:</p> <pre> identifier: number power: on, off, color: #RRGGBB transition: double (in seconds) </pre> <p>Speaker:</p> <pre> identifier: number power: on,off volume: number transition: double (in seconds) </pre> <p>Thermostat:</p> <pre> identifier: number power: on,off home: home,away temp_high: number temp_low: number </pre> |
| | |

4. Device API

4.1. Vitals Data Push API

| | |
|---------------|---------------------------|
| URL | /v1/device/sensordata/get |
| Method | GET |
| Params | token: string |

| | |
|----------------|--|
| | data: json_array |
| Return | { "status_code": 200, "info": "success" } |
| Example | 52.74.93.171/api/v1/device/sensordata/get?token=123213&data={"macid":" "abcdefg","respiration":[18,19,10,21,25,24],"heartbeat":[58,59,50,61,62,63],"t imestamp":1433302850903} |
| | |

4.2. Status post

| | |
|----------------|--|
| URL | /v1/device/status/get |
| Method | GET |
| Params | token: string data: json_array |
| Return | { "status_code": 200, "info": "success" } |
| Example | |
| | |

4.3. device status get

| | |
|---------------|--|
| URL | /v1/device/devicestatus/get |
| Method | GET |
| Params | token: string data: json_array |
| Return | { "status_code": 200, "info": "success" } |

| | |
|----------------|--|
| Example | |
| | |

4.4. rawfile create

| | |
|---------------|---|
| URL | api/v1/device/rawfile/create |
| Method | POST |
| Params | <p>access_token: authenticated token</p> <p>mac_address: device wifi module mac address</p> <p>start_time: timestamp when starting to record data into this file</p> <p>file_type: one of three options (RawDataBIN, RawDataCSV, SleepData)</p> |
| Return | <pre>{ "success": true, "session": false, "date": 1440492157760, "error_code": 0, "file": "55dc2a7d77facbbc3356e754", "message": "New rawfile is successfully created" }</pre> |

Example

e

52.74.222.128/api/...

No environment

+

POST

52.74.222.128/api/v1/device/rawfile/create

Params

Send

Authorization

Headers (0)

Body

Pre-request script

Tests

form-data

x-www-form-urlencoded

raw

binary

access_token

eef4c1bff2af516bc58d85547319b1ccc7d3b3b2

Text

file_type

RawDataCSV

Text

start_time

1436448315829

Text

mac_address

abcdefghijklmn

Text

file_upload

Choose Files

DAT000.CSV

File

Key

Value

Text

Body

Cookies

Headers (9)

Tests

Status 200 OK

Time 2704 ms

Pretty

Raw

Preview

JSON

```

1 {
2   "success": true,
3   "session": false,
4   "date": 1440483931912,
5   "error_code": 0,
6   "file": "55dc0a5b2fee2e5521e2e5ef",
7   "message": "New target is successfully created"
8 }

```

5. Error Code

- 5.1. 1001 - Sign up Error , Email exists
- 5.2. 1002 - Sign up first_name, last_name , email or password is missing
- 5.3. 2001 - Sign in No existing user detected.
- 5.4. 2002 - Sign in Error finding existing user via email
- 5.5. 2003 - Sign in authentication failed.
- 5.6. 2004 - Refresh token is invalid
- 5.7. 2005 - Email, username, password , client_id, client_secret or grant_type is missing or grant_type is not password
- 5.8. 2006 - refresh_token , client_id, client_secret or grant_type is missing or grant_type is not refresh_token
- 5.9. 3001 - access_token is missing from parameters
- 5.10. 3002 - access_token is invalid
- 5.11. 3003 - errors when authentication happens
- 5.12. 3004 - Permission denied for access the specific data
- 5.13. 4001 - Permission denied to access specific target's sleep data

- 5.14. 4002 - Sleep data are not found
- 5.15. 5001 - target id is missing when getting target data
- 5.16. 5002 - create target url is wrong
- 5.17. 6001 - targetid, start or end is missing
- 5.18. 6002 - Vitas data are not found
- 5.19. 6003 - Name, birthday or gender is missing from parameters
- 5.20. 7001 - Url is wrong for creating new rawfile
- 5.21. 7002 - Mac address, start_time, file_type or file content is missing
- 5.22. 7003 - No matching mac_address provided is not found
- 5.23. 7004 - Device is not associated with any target