SUMMARY

1. Scope & User Experience
   Solutions

2. Withings API environment
   How to create your API & request access

3. Simplified Architecture
   How cellular solutions work

4. Technical Overview
   5 steps to integrate Cellular Solutions

5. Validation Process
   Milestone to launch your solution

6. Technical Overview
   Typical duration to complete integration
1. Scope and User Experience
Scope and user experience - Health Solutions options

**App to app solution**
Devices setup in the Withings app (Wi-Fi / BLE)

**SDK solution**
Devices setup in partner app via Withings SDK (Wi-Fi/BLE)

**Cellular solutions**
Virtually no device setup, no app required (Cellular network)
Withings Health Solutions + “company name” Quick Start Guide

Scope and user experience - Health Solutions options

**App to app solution**
- Devices setup in the Withings app (Wi-Fi / BLE)
  - Data in partner app
  - Withings app required for setup
  - Withings API Integration

**SDK solution**
- Devices setup in partner app via Withings SDK (Wi-Fi/BLE)
  - Data in partner app
  - Withings app not required for setup
  - Withings API & SDK Integration

**Cellular solutions**
- Devices setup less, no app required (Cellular network)
  - Data in partner app
  - No app required for setup or sync
  - Withings API Integration

**PATIENT / END USER EXPERIENCE**
Scope and user experience - Logistics and shipment options

**Option 1: BULK SHIP**
Withings bulk ships devices to your warehouse

**Option 2: DROP-SHIP API**
Withings drop-ships devices to your member via API

- Read the Logistics API doc
- Use the activate API

- Read the Logistics API doc
- Use the createuserorder API
Device unboxing and setup

Option 1: bulk-shipment

1. Partner ships devices to end users
2. Partner calls Activate API - All in one activation
3. Member unboxes cellular devices
4. Virtually no setup needed from member
5. Withings notifies partner cloud when new data is recorded
6. Partner app fetches data from Partner cloud
Device unboxing and setup

**Option 2: drop-shipment**

1. Partner calls `createuserorder API` - All in one shipment + activation
   
   ![Partner cloud](image)

2. Withings receives your order and delivers devices to end user
   
   ![Cellular devices](image)

3. Member unboxes cellular devices
   
   ![Cellular devices](image)

4. Virtually no setup needed from member
   
   ![Green checkmark](image)

5. Withings notifies partner cloud when new data is recorded
   
   ![Partner cloud](image)

6. Partner app fetches data from Partner cloud
   
   ![Partner platform Data Viz](image)
Withings Health Solutions + “company name” Quick Start Guide

Milestones to launch your solution

Before you go live with your solution, Withings will verify if your program is ready.
2. Withings API App
Withings API apps - Creation and permissions

1. Create your Withings API app by following the online documentation:
   - [here for Public API app](#)
   - [here for HIPAA API app](#)
     i. Enter a valid callback URL for each clientId you create.
     ii. Callback url must support POST and HEAD requests and reply in less than 2s. This callback url will be called by Withings server depending on the features you implement.

2. Please share your clientID with Withings to get permissions.

WELLNESS CLOUD BASE API URL
https://wbsapi.withings.net

HIPAA CLOUD BASE API URL
https://wbsapi.us.withingsmed.net
Withings API apps - Request engineering samples for your team

Withings will provide **engineering devices** with your target firmware before you start development.

Please contact your sales representative to order development samples.
3. Simplified Architecture
Simplified architecture - Cellular solution

A: Cellular sync

B: User tokens sharing

C: Fetch data

D: Fetch data

PARTNER CLOUD

WITHINGS

Partner platform
4. Technical Overview
How to activate your cellular kit

**Option 1: bulk shipment**

- **Activate API**: all in one API for cellular devices and cellular kits activation (Withings Data Hub)

  - **Activate API** must be called after you ship devices to your member using devices MAC@ and user’s basic information

  - Cellular plan billing will start as soon as the cellular product connects to the cellular network

  - Data will flow automatically to the API for the user provided in **Activate API** parameters

  - Endprogram API: disable cellular connectivity and stop billing at the end of the current period

  - For additional info, please read the Logistics API documentation available [here](#).
How to activate your cellular kit

**Option 1: bulk shipment**

Subset of parameters required for the Activate API.

PHI/PIIs are required for:

- user account creation,
- association between account and devices
- and some devices algorithm

<table>
<thead>
<tr>
<th>Parameter</th>
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<tr>
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| unit_pref         | required | string
Unit pref (cf. Unit preferences model). |
| email             | required | string
User's email address |
| timezone          | required | string
User's timezone. Examples: "Europe/Paris" / "US/Eastern" |
| firstname         | required | string
User's firstname (if not set, will take the same value as shortname) |
| lastname          | required | string
User's lastname (if not set, will take the same value as shortname) |
How to activate your cellular kit (Activate API)

Option 1: bulk-shipment

1. Generate a signature
   Follow the signature generation documentation.

2. Call the Activate API
   Call the Activate API using the signature build in step 1 + other required params like basic user PII/PHI and language pref.

3. Call the requestoken API
   Call the requestoken API and access/refresh token for member using authorization code from step 2.

4. Maintain the set of tokens
   Record and maintain access/refresh tokens server-side.
How to activate your cellular kit

**Option 2: drop-shipment**

- **Createuserorder API**: all in one API for device drop-shipment and cellular device activation

- **Createuserorder API** when you want Withings to ship pre-activated cellular devices to your members

- Cellular plan billing will start as soon as the cellular product connects to the cellular network

- Data will flow automatically to the API for the user provided in **createuserorder API** parameters

- Endprogram API: disable cellular connectivity and stop billing at the end of the current period

For additional info, please read the Logistics API documentation available [here](#).
Subset of the parameters required for the createuserorder API

PHI/PIIs are required for:

- device delivery to the end user,
- user account creation,
- association between account and devices
- and devices algorithms.

Withings recommends providing the phone number in the « order model » in order to improve the delivery experience and delivery rate.

-
How to activate your cellular kit (**Createuserorder API**)

**Option 2: drop-shipment**

1. **Generate a signature**
   
   Follow the [signature generation documentation](#).

2. **Call the Createuserorder API**
   
   Call the **Createuserorder API** using the signature build in step 1 + other required params like basic user PII/PHI and language pref.

3. **Call the requestoken API**
   
   Call the **requesttoken API** and get access/refresh token for member using authorization code from step 2.

4. **Maintain the set of token**
   
   Record and maintain access/refresh tokens server-side.
How to handle your drop-shipment order

Drop-shipment options

**TEST MODE**
Set the `testmode` parameter in Createuserorder API to create fake orders, and simulate the evolution of the order status.

**NOTIF. SYSTEM**
Withings API provides notifications system to keep you informed of any order updates.

**ORDER STATUS**
Getorderstatus API
Get information regarding your drop-shipment order.

**UPDATE ORDER**
Updateuserorder API
Modify information of a drop-shipment order.

**DELETE ORDER**
Deleteuserorder API
Delete drop-shipment order when you are testing the drop-shipment API.

For additional info, please read the Logistics API documentation available [here](#).
Data / Measure API - Implementation recommendations

1. Read the online documentation available [here](#).

2. Implement the [Data Update Notification service](#) between Withings Cloud and partner cloud.

3. Based on the data you are fetching, implement the right [Data API](#) (arrow B.). Fetch only new data.

4. Partner app polls only new data from partner cloud by maintaining a local anchor / timestamp (arrow C).

5. Recommended: associate [APNS](#) or GCP to trigger background data sync through silent push notification (arrow D).

### TIPS

Avoid using cron to poll data from the Withings cloud. Instead, implement the Data Update Notification Service.
Data / Measure API - Implementation recommendations

1. Subscribe to data update notif. *(See doc)*
   - Subscription must be performed once for each program member.
   - Callback url must be listed in withings api portal.
   - Callback url must support HEAD and POST request and reply in less than 4s.

2. Withings notifies partner cloud
   - Withings notifies your callback url at each new measurement with userid.
   - Withings also includes time range where new measurements are recorded.

3. Partner cloud calls the Data API
   - Partner cloud calls *Data API* using timestamps returned in the notification from step 2.

4. Partner cloud maintain the set of tokens
   - Partner cloud records new measures.
   - An APNS / GCP silent notification might also be triggered for mobile background sync.
Please have a look at our Sample code section to help you implement our APIs.
5. Validation Process
Milestones to launch your solution

Before you go live with your solution, Withings will verify if your program is ready.

Please complete your go-live checklist prior your go-live meeting.

Go-live checklist
https://withings.typeform.com/to/VxrnLitw
6. Timeline Overview
## Timeline overview - typical duration 5-6 weeks

<table>
<thead>
<tr>
<th>Project</th>
<th>API</th>
<th>Optional</th>
</tr>
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<tbody>
<tr>
<td>Scope alignment</td>
<td>API apps creation</td>
<td>Design member journey to sdk webview</td>
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<td>2 week tech prototyping</td>
<td>Measure API</td>
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<td>End to end testing</td>
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<td></td>
<td>Progressive roll out</td>
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</tbody>
</table>

### API

- **API apps creation**
- **Measure API**
- **Dropship API**
- **Signature management**

### Optional

- **SDK fallback**
  - Design member journey to sdk webview

### SDK

- **Init Webview**
  - Handle Withings Server Callback (store access/refresh tokens)
  - Handle native setup Success/Failure Callbacks
  - Background sync function

- **Device Settings Webview**
  - Display Settings URL
  - Handle Logout / Login
  - Handle expired tokens
  - Handle no network
7. Handle Cellular Dead Zone Using Withings SDK as Fallback
Handle cellular dead zone using the Withings iOS/Android SDK

1. Member unboxes devices and reads instructions

2. OPTION 2: Cellular Setup with Withings SDK as a fallback in case of cellular dead zones

3. Withings cloud notifies partner cloud when new data is recorded

4. Partner app fetches data from partner cloud
Handle cellular dead zone using the Withings iOS/Android SDK

Documentation
Handle cellular dead zone using the Withings iOS/Android SDK

**Documentation**

**SETUP FLOW FROM YOUR NATIVE APP (2/2)**

1. **Body+ scale connected**
   - Let's connect it to Wi-Fi so you can use it without your phone.

2. **Nearby Wi-Fi networks**
   - Bbox-18D25982
   - Livebox-E076
   - SFR-fla8
   - Livebox-941E
   - Choose a different network
   - Refresh the list
   - Manual configuration

3. **Connect to “Livebox-941E”**?
   - Choose the Wi-Fi network you want to use for your device and enter the password.

4. **Configuring your Body+ scale...**
   - Your scale is now ready to use. It's time to step on it.

5. **Bluetooth LE Sync**
   - Bluetooth LE Sync connectivity mode (without Wi-Fi) can be achieved by tapping on « I don't have Wi-Fi » button at the bottom of the first screen »

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Handle cellular dead zone using the Withings iOS/Android SDK

Direct Wi-Fi synchronization to the Withings Cloud

Bluetooth LE synchronization*

*Bluetooth LE Data synchronization goes silently through the Withings SDK to the Withings cloud. No additional code required.
Handle cellular dead zone - Simplified architecture

*Bluetooth LE Data sync is silently bridged through the Withings SDK to the Withings cloud. No code required.

A: Wi-Fi Sync

B: BLE Sync*

C: User tokens sharing

D: Fetch data

E: Fetch data
# TAB REVIEW

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