1. Scope & User Experience
   What are we talking about?

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

3. Withings Device Setup Flow
   How the device setup flow looks like from your native app

4. Simplified Architecture
   How SDK integration works

5. Technical Overview
   5 steps to handle SDK integration

6. Validation process
   Milestone to launch your solution

7. Timeline 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)

PATIENT / END USER EXPERIENCE
Withings Health Solutions + << company >> Quick Start Guide

Scope and user experience - Health Solutions options

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

- **SDK solution**
  - Device 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**
  - Virtually no device setup, no app required (Cellular network)
  - ✅ Data in partner app
  - ✅ No app required for setup or sync
  - ⚙️ Withings API Integration

PATIENT / END USER EXPERIENCE
Device unboxing and setup

Option 1: bulk-shipment

1. Partner ships devices to end users
2. Member unboxes devices, downloads partner app, and follows partner’s instructions
3. Member sets up the devices through mobile SDK setup interface in partner app
4. Withings notifies partner cloud when new data is recorded
5. Partner app fetches data from partner cloud
6. Member modifies device settings (like Wi-Fi) from SDK device setting Webview in partner app
Device unboxing and setup

Option 2: drop-shipment

1. Partner calls Createorder API - All in one shipment + activation

2. Withings receives your order and delivers devices to end user

3. Member unboxes and sets up the devices through mobile SDK setup interface in partner app

4. Withings notifies partner cloud when new data is recorded

5. Partner app fetches data from partner cloud

6. Member modifies device settings (like Wi-Fi) from SDK device setting Webview in partner app
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Milestones to implement Withings Health Solutions

Before you go-live with your solution, Withings will verify that 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 your development samples.
3. Withings Device Setup Flow
The Installation Webviews are hosted by Withings, minimizing integration and maintenance workload. Once webview is opened by SDK in your native iOS/Android app, most of the technical work is done.
The Installation Webviews are hosted by Withings, minimizing integration and maintenance workload. Once webview is opened by SDK in your native iOS/Android app, most of the technical work is done.
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Withings device setup flow - Data sync options in Withings SDK

*Bluetooth LE Data synchronisation goes silently through the Withings SDK to the Withings cloud. No additional code required.*
4. Simplified Architecture
**How SDK integration works**

*Bluetooth LE Data sync is silently bridged through the Withings SDK to the Withings cloud. No code required.*
5. Technical Overview
How to use the SDK device setup webview

1. Partner app starts device setup process
2. Partner cloud calls UserCreation API
3. Withings cloud creates a user account and provides authorization code
4. Partner cloud calls Token API with authorization code
5. Withings cloud shares user tokens with partner cloud
6. Partner app builds and opens installation webviews with API tokens
7. Choose device model UI*
8. Device setup
9. Partner app closes webview
10. Partner app starts background sync services of the SDK

*Only if device model not provided as param in URL

See iOS documentation here
See Android documentation here
How to enable Bluetooth LE background sync service

This function must be called to support Bluetooth synchronization (for end users who don’t have Wi-Fi or use a Withings tracker).

After a successful device setup, the Withings SDK will return a notification. Please refer to the [iOS](#) or [Android](#) background sync documentation to see how to use this notification to enable background Bluetooth sync.

**Device installation**

7. Choose device model*

8. Device Setup

*Only if device model not provided as param in URL

Local native notification (success/failure)

9. Partner app closes webview

Returns Bluetooth advertise_key

10. Partner app starts background sync services of the SDK

**IMPORTANT**

Your app needs to be running in the background or foreground for background Bluetooth sync to work. Synchronisation might not work properly if the app is force-ended by the user.
How to use the SDK device settings webview

1. Partner app builds and opens device settings webviews with API tokens (access and csrf tokens)

2. Choose device*

3. Device Settings

*Only if device model not provided as param in URL

4. Partner app closes webview

Returns Bluetooth advertise_key

Local native notification (success/failure)
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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.

**TIPS**
For data synchronization, avoid to poll data from the Withings Cloud directly to your app. Instead, poll data from the Withings Cloud to your Cloud and implement the APNS / GCP silent notif.
Scope and user experience - Logistics and shipment options

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

**Option 2: DROPSHIP API**
Withings drop-ships devices to your member via API.

**Option 3: DROPSHIP LIST**
Withings drop-ships devices to your members via user list.

**Contact sales team**

**Read the Logistics API doc**
Use the createuserorder API

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Please have a look at the SDK sample app:

iOS

Android
6. 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
7. Timeline Overview
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Timeline overview - typical duration 6-8 weeks

Project

- Scope alignment
- 2 week tech prototyping
- Environment setup
  API apps permissions granted

API

- API apps creation
- HIPAA API apps creation
- Measure API
- Data Update Notif. API
- Member token renewal
  Authentication & signature management
- Dropship API

SDK

- Design member journey to sdk webview
- SDK Init Webview
  - Display Installation URL
  - Handle Withings Server Callback (store access/refresh tokens)
  - Handle native setup
  - Success/Failure Callbacks
  - Background sync function
- SDK Device Settings Webview
  - Display Settings URL
  - Handle Logout / Login
  - Handle expired tokens
  - Handle no network
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