Amazon IoT Button (2nd Generation)

Amazon AWS IoT Button (2nd Generation) User Manual
Model: IoT Button (2nd Generation)

1. INTRODUCTION

The Amazon AWS IoT Button (2nd Generation) is a programmable Wi-Fi device designed for developers to explore and utilize Amazon Web Services (AWS) for Internet of Things (IoT) applications. This device serves as a developer kit, enabling users to learn about and interact with services such as AWS IoT, AWS Lambda, Amazon DynamoDB, and Amazon Simple Notification Service (SNS).

Based on the Amazon Dash button hardware, this IoT button simplifies the process of connecting physical actions to cloud-based services. It eliminates the need for complex device-specific coding by allowing configuration and programming of its single, double, and long click functionalities directly within the AWS cloud environment. The 2nd Generation model features an extended battery life, supporting over 2,000 clicks, and is complemented by mobile applications designed to facilitate quick setup and configuration.

Figure 1: The AWS IoT Button (2nd Generation). This image displays the oval-shaped button with a blue top surface featuring the AWS IoT logo and text, and a large white circular button on the right side. A small green LED indicator is visible near the white button.

2. SETUP AND CONFIGURATION

To begin using your AWS IoT Button, follow these steps to connect it to your AWS account and configure its actions:

1. **Prepare Your AWS Account:** Ensure you have an active AWS account. Familiarize yourself with AWS IoT, AWS Lambda, and other services you intend to integrate.

2. **Download the Companion Mobile Application:** Search for the "AWS IoT Button" application in your device's app store (iOS or Android). This application assists with initial device registration and Wi-Fi configuration.

3. **Register Your Button:** Open the companion app and follow the on-screen instructions to register your AWS IoT Button. This typically involves scanning a barcode on the device or its packaging.

4. **Connect to Wi-Fi:** The app will guide you through connecting your button to your local Wi-Fi network. The button requires a stable internet connection to communicate with AWS.

5. **Configure Button Actions in AWS:**

   - Navigate to the AWS IoT console in your web browser.
   - Locate your registered button under "Things" or "Devices."
   - Define the actions for single click, double click, and long press events. These actions are typically configured using AWS Lambda functions, which can then trigger other AWS services (e.g., sending an SNS notification, updating a DynamoDB table, or interacting with other IoT devices).
   - Ensure appropriate IAM roles and permissions are set up for your Lambda functions to interact with the desired AWS services.

6. **Test Your Configuration:** After configuring, press the button to verify that the defined actions are executed as expected. Monitor AWS CloudWatch logs for your Lambda functions to troubleshoot any issues.

3. OPERATING INSTRUCTIONS

Once configured, operating the AWS IoT Button is straightforward. The button supports three distinct click types, each capable of triggering a different action defined in your AWS configuration:

- **Single Click:** Press and release the button once. This action is typically used for immediate, simple tasks.
- **Double Click:** Press and release the button twice in quick succession. This can be used for a secondary, related action.
- **Long Press:** Press and hold the button for approximately 1.5 seconds or longer. This action is suitable for tasks that require a more deliberate input or for actions that might have a higher impact.

LED Indicator: The small LED light on the button provides visual feedback:

- **Green Flash:** Indicates successful connection to Wi-Fi and communication with AWS.
- **Red Flash:** Indicates an error during connection or communication.
- **No Light:** The button is either off, out of battery, or not attempting to connect.

4. MAINTENANCE

The AWS IoT Button is designed for low maintenance. Consider the following points:

- **Battery Life:** The 2nd Generation button offers an extended battery life of over 2,000 clicks. Battery status can often be monitored through the AWS IoT console or by configuring an AWS Lambda function to notify you when the battery level is low.

- **Battery Replacement:** The battery in the AWS IoT Button is generally not user-replaceable. When the battery is depleted, the device typically needs to be replaced.

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the button. Avoid using abrasive cleaners or submerging the device in liquids.

- **Storage:** Store the button in a cool, dry place away from direct sunlight and extreme temperatures.

5. TROUBLESHOOTING

If you encounter issues with your AWS IoT Button, consider the following troubleshooting steps:

- **Button Not Responding:**

  - Check the LED indicator. If it's not lighting up, the battery may be depleted.
  - Ensure the button is within range of your Wi-Fi network.
  - Verify that your Wi-Fi network is active and has internet access.

- **Red LED Flash:**

  - Indicates a connection or communication error.
  - Re-run the setup process using the companion mobile application to reconfigure Wi-Fi settings.
  - Check your AWS IoT console for device status and connectivity logs.

- **Action Not Triggering:**

  - Review your AWS Lambda function code and configuration in the AWS console.
  - Check AWS CloudWatch logs for your Lambda function for execution errors or issues.
  - Verify that the IAM roles and permissions associated with your Lambda function allow it to interact with the intended AWS services.
  - Ensure the correct click type (single, double, long) is being used to trigger the desired action.

- **Wi-Fi Connectivity Issues:**

  - Confirm your Wi-Fi network name (SSID) and password are correct.
  - The button supports 2.4 GHz Wi-Fi networks. Ensure your router is configured accordingly.
  - Temporarily disable any MAC address filtering on your router if enabled.

For more detailed troubleshooting and advanced configurations, refer to the official AWS IoT Button documentation available on the AWS website.

6. SPECIFICATIONS

- **Model:** AWS IoT Button (2nd Generation)

- **Connectivity:** Wi-Fi (2.4 GHz)

- **Power Source:** Non-rechargeable battery

- **Battery Life:** Over 2,000 clicks (approximate)

- **Input:** Single, Double, and Long Press actions

- **Integration:** AWS IoT, AWS Lambda, Amazon DynamoDB, Amazon SNS, and other AWS services.

- **Indicators:** Multi-color LED

7. WARRANTY INFORMATION

This Amazon product is covered by a limited warranty. For specific details regarding the warranty period, coverage, and terms, please refer to the warranty information provided with your purchase or visit the official Amazon Devices support page on the Amazon website. Keep your proof of purchase for warranty claims.

8. CUSTOMER SUPPORT

For technical assistance, troubleshooting, or further information regarding your AWS IoT Button, please visit the AWS IoT Button support pages on the Amazon Web Services (AWS) website. You can also access support resources through your AWS Management Console. For general Amazon device support, visit the Amazon Customer Service portal.