

Developer Guide

Ayla Connectivity GATT Service

Ayla Connectivity BLE GATT Service Profile



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1 Introduction

Bluetooth LE (BLE) is an application protocol to read, write, and push elements organized into a Generic Attribute Profile (GATT). The application specifies available user profiles in the form of GATT services and characteristics. The Bluetooth specification also defines widely used, popular user-service profiles to standardize those for inter-operability.

Many use cases are not covered. There are issues, such device recognition, which can expose a particular custom service.

To address these issues, Ayla defines the Ayla Connectivity GATT Service Profile. This provides a device registration process and network configuration.

1.1 About this Document

This document defines the Ayla Connectivity GATT Service Profile, its implementation and uses.

1.2 Intended Audience

This document is written for all users of the Ayla Developer Portal, involved in the development of Bluetooth Low Energy (BLE) based device and mobile applications. Specifically, this document is intended for developers implementing Wi-Fi Setup over BLE, as defined by Ayla.

1.3 Related Documentation

- Ayla Generic GATT Service Guide (AY006DGG3)
- Wi-Fi Configuration GATT Service Guide (AY006DWG3)

1.4 Abbreviations and Acronyms

- BLE – Bluetooth Low Energy
- GATT – Generic Attribute Profile
- UUID – Universally Unique Identifier
- DUID – Device Unique Identifier

2 GATT Service Summary

The Ayla Connectivity GATT Service provides the ability to exchange and manage cloud connectivity related configuration on the Ayla enabled device.

2.1 Abstract

The Ayla Connectivity GATT Service is an optional GATT service, used primarily to enable Ayla device registration over BLE. Additional capabilities may be supported in the future.

2.2 Summary

This service exposes the following information about the device:

- A setup token used for device registration

3 GATT Profile Specification

3.1 Ayla Connectivity GATT Service:

(UUID: FCE3EC41-59B6-4873-AE36-FAB25BD59ADC)

This is an optional service. If present on a device, enables the exchange of a setup-token to register the device with the Ayla Cloud.

Table 1: Ayla Connectivity GATT Service Characteristics

Overview	Properties	Security	Description
Setup Token	Write - Mandatory	Authenticated Encryption	Setup token used for device registration

3.2 Setup Token

(UUID: 7E9869ED-4DB3-4520-88EA-1C21EF1BA834)

The Setup Token is a 9B writeable characteristic to send a token required for device registration with the Ayla Cloud.

Table 2: Setup Token

Names	Field Requirements	Format	Min Value	Max Value	Additional Info.
Setup Token	Mandatory	uint8 array	N/A	N/A	Setup token for device registration



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