Bluetooth® Mesh ADK 3.1.3.0
September 24, 2021

Bluetooth mesh is a new topology available for Bluetooth Low Energy (LE) devices that enables many-to-many (m:m) communication. It's optimized for creating large-scale device networks, and is ideally suited for building automation, sensor networks, and asset tracking. Our software and SDK for Bluetooth development supports Bluetooth Mesh and Bluetooth 5 functionality. Developers can add mesh networking communication to LE devices such as connected lights, home automation, and asset tracking systems. The software also supports Bluetooth beaconing, beacon scanning, and GATT connections so Bluetooth mesh can connect to smart phones, tablets, and other Bluetooth LE devices.

These release notes cover ADK version(s):

3.1.3.0 released on September 24, 2021 (underlying Bluetooth changes only)
3.1.2.0 released on September 8, 2021
3.1.1.0 released on July 21, 2021
3.1.0.0 released on June 16, 2021

KEY FEATURES

- Application min SDK version changed to Android 28 and iOS 12
- Library min SDK version changed to Android 26 (no change to iOS)
- IOP tests added
- Simultaneous provisioning of multiple devices and simultaneous proxy sessions
- Performance and stability improvements

Compatibility and Use Notices

Use the ADK version with the corresponding version of the Bluetooth Mesh SDK, for example use ADK version 3.1.0.0 with SDK version 2.1.0.0.

Contents

1   Android

1.1   New Items

Added in release 3.1.0.0

ID #	Description
3811	API: Simultaneous provisioning of multiple devices and simultaneous proxy sessions.
4786	APP: Added IOP tests.

1.2   Improvements

Changed in release 3.1.2.0

ID #	Description
5622	APP: Improved IOP tests success rate.

Changed in release 3.1.0.0

ID #	Description
3110	API: Changed stack storage to use SQL.
3965	API APP: Change required min SDK version for APP to 28 and for API 26.
4073	API: Added more convenient public API for using OOB authentication data.
4892	API: Make ProxyConnection more user-friendly, return success callback on: - connectToProxy() when the connection is already established - disconnect() when the connection is already disconnected

1.3   Fixed Issues

Fixed in release 3.1.2.0

ID #	Description
3072	API: Fixed error 12 when unbinding a net key from a node.
2592	APP: Fixed issue related to group and functionality selection.
3876	APP: Fixed wrong error message in Regulator Accuracy (Light LC Server).

Fixed in release 3.1.1.0

ID #	Description
5241	APP: Fix random crashes in IOP tests.

Fixed in release 3.1.0.0

ID #	Description
4173	APP: Fix crash when sending dot to LC Property State.
4845	APP: Fix collecting logs in the release version.
4865	API: Fixed crash when ProxyControl.allow called without any active Proxy Connection.
4933	API: Fixed a crash in ProxyControl when node identity is disabled.
4941	API: Fixed keep proxy connection if there is no configuration task.

ID #	Description
5041	APP: Remove node information from local storage (MeshNodeManager and the functionalities database) when removing a node from mesh
5081	API: Fixed a small memory leak when sending GATT data.

1.4 Known Issues in the Current Release

Issues in bold were added since the previous release.

ID #	Description	Workaround
2573	API: Missing mesh proxy service.	
3034	APP: Android App keeps the network key after force-removing.	
3171	APP: Provision button may not work when scanning.	Stop scanning.
5770	**API: Infinite loop of writing to the characteristic.**	

1.5 Deprecated Items

ID #	Description	Reason
5251	API: SubscriptionSettings (Node node) constructor.	Should not be possible according to the specification.
5251	API: SubscriptionSettings(byte[] virtualAddress) constructor.	Should not be possible according to the specification.

1.6 Removed Items

None

2 iOS

2.1 New Items

Added in release 3.1.2.0

ID #	Description
4943	API: SBMProvisionerParameters initWithAddress:attentionTimer: initializer.

Added in release 3.1.0.0

ID #	Description
4785	APP: Interoperability (IOP) tests –requires nodes with a specific setup to run.
3810	API: Simultaneous provisioning of multiple devices and simultaneous proxy sessions.

2.2 Improvements

Changed in release 3.1.0.0

ID #	Description
3901	APP: Change application target version to iOS 12. Library target version is not changed.
4763	API: Changed database to use CoreData.
4937	API: Added support for multiple active proxy sessions.
5002	API: If device is already connected, calling connect will result in immediate success. If device is already disconnected, calling disconnect will result in immediate success.

2.3 Fixed Issues

Fixed in release 3.1.2.0

ID #	Description
5695	API: Fixed memory leaks on import/export operations.

Fixed in release 3.1.1.0

ID #	Description
4805	API: Fix issue with handling of vendor model messages passed via group address.

Fixed in release 3.1.0.0

ID #	Description
5194	API: Fix group control not working after migration from ADK 2.5.4 to ADK 3.0.x.

2.4 Known Issues in the Current Release

Issues in bold were added since the previous release.

ID #	Description	Workaround
1792	API: Handle notifications sent by sensor model.	
2469	API: isSecuredNetworkBeacon in SBMNodeSecurity is not updated.	
2357	APP: Can't delete the node after factory reset.	
2635	API: Provisioning fails and affects next attempts.	
5469	APP: Rarely a node gets provisioned but it is not responsive afterwards	App reinstall

2.5   Deprecated Items

Deprecated in release 3.1.2.0

ID #	Description	Reason
4943	API: SBMProvisionerParameters elements property.	No usage.
4943	API: SBMProvisionerParameters initWithAddress:elements:attentionTimer: initializer.	SBMProvisionerParameters elements property deprecation.
5252	API: SBMSubscriptionSettings initWithNode: initializer.	Should not be possible according to the specification.
5252	API: SBMSubscriptionSettings initWithVirtualAddress: initializer.	Should not be possible according to the specification.

2.6   Removed Items

None

3 Using This Release

3.1 Installation and Use

See *AN1200.1:* Bluetooth® *Mesh 2.x for iOS and Android ADK* for information about required tools and compatible platforms.

3.2 Support

Development Kit customers are eligible for training and technical support. You can use the Silicon Labs Bluetooth LE web page to obtain information about all Silicon Labs Bluetooth products and services, and to sign up for product support.

Contact Silicon Laboratories support at http://www.silabs.com/support.

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