

# ***Bluetooth* Mesh Software 1.4.2**

<b>Software Version</b>	1.4.2
<b>Software Status</b>	GA
<b>Release Date</b>	29th of March, 2019
<b>Affected Products</b>	EFR32BG12/MG12 EFR32BG13/MG13 EFR32BG21/MG21 xGM13x Bluetooth and mesh modules

## **Changes: 1.4.2 compared to 1.4.1**

### **New Features**

<b>Feature</b>	<b>Explanation</b>
EFR32BG21/MG21 support	Support for new chipsets added

### **Quality Improvements**

Light Lightness Setup server added to the light example application  
Light Lightness message remaining time issue corrected  
Initialization checks for model configuration issues improved  
BGAPI command parameter and return code corrections  
Test command for modifying IV index locally added

### **Known Issues in this Release**

<b>ID</b>	<b>Issue</b>	<b>Explanation</b>
N/A	Mesh models	Implementation of sensors, time, scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

ID	Issue	Explanation
4975	GCC on OSX	GCC linking with link-time optimization may fail on OSX due to an issue in GNU binutils
5813	Advertisement timing	When multiple advertisements are active concurrently care must be taken in choosing the advertising intervals or the Mesh advertisement timing may be affected

## Changes: 1.4.1 compared to 1.4.0

### Quality Improvements

Documentation updates  
CTL temperature server transaction behavior fixes  
IV update handling fixed  
IV update timing assumptions changed  
Many robustness fixes and improvements  
Example application robustness fixes and improvements  
Visual DCD editor model ordering fixed

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4983	Generic server unicast response issue	Generic server models would try to use publish TTL for sending unicast replies, and fail if it was not set
5447	IV update flag #1	When a normal state node receives a secure beacon that contains the same IV but in_progress bit is set to 1, it changes its state to in_progress state, but it should stay in normal state.
5452	IV update flag #2	The node loses the age of the IV update when it's reset, causing it to transition to normal mode immediately; changed to node assuming it needs to wait 96h before attempting IV index update after boot

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time, scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one

ID	Issue	Explanation
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4975	GCC on OSX	GCC linking with link-time optimization may fail on OSX due to an issue in GNU binutils
5813	Advertisement timing	When multiple advertisements are active concurrently care must be taken in choosing the advertising intervals or the Mesh advertisement timing may be affected

## Changes: 1.4.0 compared to 1.3.4

### New Features

Feature	Explanation
NVM3 support on NCP	NVM3 is now used for NCP use cases enabling more than one flash page to be used as persistent storage
Encrypted NCP interface	NCP interface between EFR and host may be encrypted. Please see the new NCP example application in the SDK for details.
New configuration client API	Please see updated API reference manual for details of the new API class called <code>mesh_config_client</code> . Commands in this class are for configuring nodes in the Mesh network: key management, publish and subscribe settings manipulation, and node feature configuration. Many commands in <code>mesh_prov</code> class have been deprecated, and the new commands in <code>mesh_config_client</code> needs to be used.
Provisioning API updates	<ul style="list-style-type: none"><li>• <code>mesh_prov_provision_device_with_address</code>: defined address for provisioned device</li><li>• <code>mesh_prov_initialize_network</code>: initialize mesh network and assign provisioner address and IV index for the network</li></ul>
Test API updates	<ul style="list-style-type: none"><li>• <code>mesh_test_prov_prepare_key_refresh</code>: prepare key refresh by feeding the new network key and all needed application keys</li><li>• <code>mesh_test_get_key</code>: for getting the keys e.g. Network Analyzer needs the keys for analyzing the traffic in the network</li></ul>
802.11 co-existence	First implementation of Bluetooth mesh - Wi-Fi co-existence allowing mesh scan mode enabling/disabling for more optimal concurrent Wi-Fi use
iOS update	Bluetooth mesh ADK has now updated iOS developer API v2.0 and accordingly updated reference application source code
IAR compiler	IAR compiler updated to 8.30.1

Feature	Explanation
Bluetooth SDK	Silicon Labs Bluetooth mesh SDK 1.4.0 is compatible with Silicon Labs Bluetooth SDK 2.11.0. Please see Bluetooth related changes from Bluetooth SDK Release Notes document.

## Quality Improvements

Updated example applications  
 Updated Bluetooth mesh decoders in Network Analyzer  
 Documentation updates  
 Improved Friend and LPN communication  
 Memory consumption optimizations  
 Issue with lost advertisement set events solved  
 Segmented messages handling memory leak fixed  
 Multiple mesh model qualification issues fixed  
 Many robustness fixes and improvements

## Fixed Known Issues since the previous Release

ID	Issue	Explanation
3660	UART DFU issue	UART DFU issue has been fixed
4415	GATT service visibility	SDK sample applications would by mistake expose both the provisioning and the proxying service
4562	Address assigning	In the case address assigning to all elements failed, there is no proper error code and this is now fixed
4568	Client model subscription list issue	Client model subscription lists were not shared according to the specification
4772	Friend leaks messages between subnetworks	Friend was corrected to send message from only one subnetwork, defined by the key used in establishing the friendship, to the LPN
4946	Key refresh only handles two application keys	Fixed key refresh state machine to proceed with updating all given application keys during a key refresh process
4953	Key refresh application key blacklisting	Allowed application to specify per node which application keys are not to be refreshed during a KR process; to be used when all nodes don't have all application keys

ID	Issue	Explanation
5180	Unpredictable advertisement timing	Link layer priorities in SDK sample applications were not correct, resulting in advertisement de-prioritization
5183	Segmented messages	Segmented messages now work correctly with relay nodes
5346	Project settings	Project settings related to heap size are no longer overridden when project is regenerated
5404	Key refresh crash	Race condition in adaptation layer caused a crash when key refresh was done multiple times, and this is now fixed
5423	Shared subscription lists	Shared subscription list changes were not always stored properly, and this is now fixed

## Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4975	GCC on OSX	GCC linking with link-time optimization may fail on OSX due to an issue in GNU binutils
4983	Generic server unicast response issue	Generic server models would try to use publish TTL for sending unicast replies, and fail if it was not set
5447	IV update flag #1	When a normal state node receives a secure beacon that contains the same IV but in_progress bit is set to 1, it changes its state to in_progress state, but it should stay in normal state.
5452	IV update flag #2	The node loses the age of the IV update when it's reset, causing it to transition to normal mode immediately.

## Changes: 1.3.4 compared to 1.3.3

### Quality Improvements

A number of issues have been fixed

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4459	Buffer leak in friendship termination	A memory leak occurring when terminating a friendship was fixed
	Key refresh error handing fix	Errors during key refresh protocol were not correctly handled in all cases
4908	Allocation failure not checked	Handling of memory allocation failure when passing data to the Mesh stack was corrected
4913	Incorrect Friend Clear Confirm PDU	Corrected generation of Friend Clear Confirm PDU
4919	Tx failure not checked	Corrected releasing of memory buffer if forwarding a PDU from Friend to LPN fails
4936	Friend re-queuing its own PDUs	Corrected issue where Friend re-queued its own PDUs to LPN when a relay node had echoed them back to Friend
5156	Optimize pstore usage	Corrected allocation of key storage chunks in pstore not to waste space

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working



ID	Issue	Explanation
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4975	GCC on OSX	GCC linking with link-time optimization may fail on OSX due to an issue in GNU binutils

## Changes: 1.3.3 compared to 1.3.2

### Quality Improvements

A number of issues have been fixed

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4716	Ignore misbehaving receiver	Fixed transport layer state machine to stop sending after configured iterations are completed even when receiver keeps sending an unchanging partial acknowledgement
4729	Recover from temporary out of memory situation	Recover link layer operation properly when a temporary out of memory situation takes place
4763	Seed RNG without SM initialization	Seed random number generator also when LE security manager is not being used

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

## Changes: 1.3.2 compared to 1.3.1

### Quality Improvements

Network retransmit intervals further corrected

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4682	Incorrect network retransmit intervals with periodic publishing	Fixed calculation of delays between consecutive network layer retransmissions also for messages originating spontaneously from the node

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

## Changes: 1.3.1 compared to 1.3.0

### Quality Improvements

Multiple bug fixes implemented

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4460	Useless provisioning error code	Error code given when provisioning fails now conveys useful information on the cause of failure
4468	LPN not entering sleep mode as expected	Issue in health server wakeup timing fixed
4484	MSC initialization conflict	Corrected issue in MSC initialization if application has already initialized MSC
4512	No error indication from MSC	Corrected error reporting when MSC operations fail
4513	Mesh data traffic stops	Temporary out of memory situations during internal message construction now properly handled
4601	Incorrect network retransmit intervals	Fixed calculation of delays between consecutive network layer retransmissions
4670	Test command affects sequence numbering	If the test command to query element sequence number was used before any data was sent, updating the sequence numbers to persistent storage was affected

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working

ID	Issue	Explanation
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

## Changes: 1.3.0 compared to 1.3.0 Alpha 3

### New Features

Feature	Explanation
PTA coexistence	Enable the use of PTA coexistence functionality in Mesh SDK

### Quality Improvements

Multiple bug fixes implemented

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4206	Concurrent friendship and GATT proxying	It should not be possible to have an open GATT proxy connection and an active friendship at the same time, as an LPN must receive all its messages from its Friend
4232	Unprovisioned device beacon advertising interval configuration	Made the advertising interval used in unprovisioned device beacons configurable by the normal BGAPI LE GAP commands
4345	Fixed friend node network key handling	Corrected friend node defaulting to network key index 0
4376	Fixed event generation for immediately failing provisioning	If an attempt to provision a device using PB-GATT fails immediately, e.g., because of an invalid LE connection, provisioning failure event creation could cause a crash
4381	Do not reuse addresses of removed devices immediately	Provisioner should not reuse mesh addresses of removed devices immediately, as replay protection lists at other nodes may have records of traffic from the removed device.

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done

ID	Issue	Explanation
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

## Changes: 1.3.0 Alpha 3 compared to 1.3.0 Alpha 2 Patch 2

### New Features

Feature	Explanation
Static OOB from application	If static OOB data is not stored to flash, stack can request it from the application during provisioning
OOB capability requirements	Device is able to abort provisioning if it needs OOB authentication but Provisioner does not use any during provisioning

### Quality Improvements

Multiple qualification related bug fixes and improvements

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4021	Flash consumption	Flash consumption optimizations are done based on application level feature selections
4208	Main/temperature element binding	Element binding is done automatically based on location attribute matching
4250	Application key decryption regression	Fixed a regression in application key handling
4294	Sequence number storage issue	Element sequence numbers were written to flash much too often

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one



ID	Issue	Explanation
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4206	Concurrent friendship and GATT proxying	It should not be possible to have an open GATT proxy connection and an active friendship at the same time, as an LPN must receive all its messages from its Friend

## Changes: 1.3.0 Alpha 2 Patch 2 compared to 1.3.0 Alpha 2 Patch 1

### Quality Improvements

Further improvements to link-time optimization

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4021	Flash consumption	Flash consumption optimizations are not fully done yet based on application level feature selections
4206	Concurrent friendship and GATT proxying	It should not be possible to have an open GATT proxy connection and an active friendship at the same time, as an LPN must receive all its messages from its Friend

## Changes: 1.3.0 Alpha 2 Patch 1 compared to 1.3.0 Alpha 2

### Quality Improvements

Linker option fixes to enable link-time optimization

### Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them
4021	Flash consumption	Flash consumption optimizations are not fully done yet based on application level feature selections
4026	Concurrent friendship and GATT proxying	It should not be possible to have an open GATT proxy connection and an active friendship at the same time, as an LPN must receive all its messages from its Friend

# Changes: 1.3.0 Alpha 2 compared to 1.3.0 Alpha

## New Features

Feature	Explanation
Friend	Initial implementation of the Friend node
Feature selection	With new, more fine-grained initialization functions, application can choose the used features to optimize the flash consumption better than before

## Quality Improvements

Example application updates

Various bug fixes across the software

Low power node power consumption improvements

## Fixed Known Issues since the previous Release

ID	Issue	Explanation
N/A	Friendship feature	The friendship feature is not yet implemented
4112	LPN does not update subscription lists to friend	Implementation of model subscription list updating by the LPN to the friend is missing

## Known Issues in this Release

ID	Issue	Explanation
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them

ID	Issue	Explanation
4021	Flash consumption	Flash consumption optimizations are not fully done yet based on application level feature selections

## Changes: 1.3.0 Alpha compared to 1.2.0

### New Features

Feature	Explanation
Low power	Initial implementation of the low power feature
Mesh models	Color temperature light models (server, temperature server, setup server, and client) have been implemented

### Quality Improvements

None

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
4110	API documentation gaps	API reference documentation for some commands was written but not included in the generated PDF

### Known Issues in this Release

ID	Issue	Explanation
N/A	Friendship feature	The friendship feature is not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them.
4112	LPN does not update subscription lists to friend	Implementation of model subscription list updating by the LPN to the friend is missing

## Changes: 1.2.0 compared to 1.2.0 (build 125)

### Quality Improvements

Multiple issues fixed in the protocol stack

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
2044	Stack de-initialization	BGAPI command for informing stack of system power down is implemented; application is responsible for calling it
2162	Provisioner resends data	Provisioner resends only until it gets an acknowledgement from the device
2728	Subscription lists are not shared	Subscriptions lists between models that have bound states are shared
2769	Board configuration issue	Sample application hardware configuration issues on certain board revisions (BRD4103A Rev A01 and A02, BRD4161A Rev A01 and A02) have been fixed
2889	Proxy service advertisement stops	GATT proxy service advertisement is continuous
3200	GATT proxy disconnection issue	GATT proxy disconnection does not prevent correct advertising or new proxy connections
3248	PA configuration issue	Sample applications for MGM12P (BRD4303) have PA configuration
3297	Embedded Provisioner issue with re-provisioning	Issue with embedded provisioner device database cleanup was fixed
3521	Device composition data BGAPI handling issue	Issue in parsing long DCD data was fixed
3801	GATT proxy configuration message replay checks	GATT proxy configuration messages are now replay checked
3826	Too frequent use of persistent storage	Corrected the write interval for element sequence numbers in persistent storage

ID	Issue	Explanation
3850	GATT provisioning issue with low memory	GATT provisioning retries sending GATT messages after a transient out of memory condition

## Known Issues in this Release

ID	Issue	Explanation
N/A	Low power and friendship features	The low power and friendship features are not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
3046	No command to remove only mesh keys from persistent storage	Currently the only ways to clear mesh data from persistent storage are to factory reset the device, which also removes non-mesh data, or to delete mesh keys one by one
3660	UART DFU issue	UART DFU is not working
3878	Mesh GATT events visible to the application	Application will get the BGAPI events related to GATT provisioning and proxying; it needs to ignore them.



## Changes: 1.2.0 (build 125) compared to 1.1.0 (build 88)

### Quality Improvements

Throughput and latency related performance improvements

Multiple issues fixed in the protocol stack

Multiple stack configuration parameters have been made available for customer testing purposes

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
1723	Mesh/LE interoperability	Advertisement sets used by Mesh are documented. Other advertisement sets can be freely used by the application.
1731	Long message memory usage	Memory usage of long application messages has been optimized
1746	Resource allocation control to application	Application now control Mesh stack configuration and memory usage
2559	Maximum length application messages do not work	Corrected memory handling in sending maximum length application messages (380 bytes including opcode).
2579	Command to request IV index update	BGAPI commands to request IV index update and to check IV index update status have been implemented
3158	GATT proxy server notifications	GATT proxy server is an internal component that the application should not directly control. BGAPI has been adjusted accordingly
3190	Vendor model memory leak	Vendor model memory leak has been corrected
3269	Generic client model callback not functioning	Generic client callback code used wrong return value that discarded correct status values; fixed.
3339	Scanning stops after a while	Link layer issue in radio event handling has been fixed.
3507	Timings are not correct with BG13	Timer initialization in BG13 devices has been fixed

ID	Issue	Explanation
3696	Relay latency interval is fixed	Relay latency interval (interval of delay before relaying a network PDU) has been made configurable
3758	Scanning and advertisement parameters are not adjustable	Scanning and advertisement parameters for Mesh advertisements have been made adjustable with BGAPI commands; these should be used only in test environments
3793	Adjusting stack parameters requires a Provisioner	Multiple parameters (network retransmit count and interval, relay retransmit count and interval) have been made adjustable with BGAPI commands; these should be used only in test environments, not in production environment where Provisioner controls those values.
3825	Persistent storage written to too often	Element sequence numbers are written too often into persistent storage, causing unnecessary wear on flash.
3847	Lightness server default range issue	Fixed the default (not set by application) range for lightness server to be the full 16 bit value range

## Known Issues in this Release

ID	Issue	Explanation
N/A	Low power and friendship features	The low power and friendship features are not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
2044	Stack de-initialization	BGAPI command for informing stack of system power down not yet implemented
2162	Provisioner resends data	In very rare circumstances the Provisioner does not detect the provisioning has ended and continues to send provisioning PDUs
2728	Subscription lists are not shared	Subscriptions lists between root models and models that extend them should be shared (only one copy)
2769	Board configuration issue	Sample application hardware configuration has issues on certain board revisions (BRD4103A Rev A01 and A02, BRD4161A Rev A01 and A02)

ID	Issue	Explanation
2889	Proxy service advertisement stops	GATT proxy service advertisement should be continuous, but stops after a time
3046	No command to remove only mesh keys from persistent storage	Currently the only way to clear mesh data from persistent storage is to factory reset the device. This also removes non-mesh data.
3200	GATT proxy disconnection issue	GATT proxy disconnection may lead to a situation where node sends garbled service advertisements and is not ready for another connection
3248	PA configuration issue	Sample applications for MGM12P (BRD4303) are missing PA configuration
3297	Embedded Provisioner issue with re-provisioning	When running the Provisioner on BG12/BG13, resetting a node and reprovisioning it may have issues with key uploading
3521	Device composition data BGAPI handling issue	Events for handling device composition data in embedded Provisioner BGAPI interface are incorrect for invalid data and long data
3801	GATT proxy configuration message replay checks	GATT proxy configuration messages are not replay checked, but should be
3850	GATT provisioning issue with low memory	Application has to allocate enough heap from the system so that provisioning communication does not fail due to lack of buffers.

## Changes: 1.1.0 (build 88) compared to 1.0.1 (build 25)

### New Features

Feature	Explanation
Qualification	Mesh Profile 1.0 mandatory feature qualification (Declaration ID D037122)

### Quality Improvements

Specification conformance fixes related to qualification testing  
Improvements in concurrent use of *Bluetooth* and *Bluetooth* Mesh  
Throughput and latency related performance improvements

### Fixed Known Issues since the previous Release

ID	Issue	Explanation
N/A	Bluetooth qualification	The implementation was not Bluetooth qualified

### Known Issues in this Release

ID	Issue	Explanation
N/A	Low power and friendship features	The low power and friendship features are not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
1723	Mesh/LE interoperability	Due to limitations in the beta care must be taken with concurrent advertisements with LE and mesh (predefined advertisement sets are used)
1731	Long message memory usage	Memory usage of long application messages should be optimized
1746	Resource allocation control to application	Beta release allocates a predefined amount of resources to the stack
2044	Stack de-initialization	BGAPI command for informing stack of system power down not yet implemented

ID	Issue	Explanation
2162	Provisioner resends data	In rare circumstances the Provisioner does not detect the provisioning has ended and continues to send provisioning PDUs
2579	Command to request IV index update	Stack implements IV index update, but BGAPI command for application to request it is missing
3158	GATT proxy server notifications	The GATT proxy server does not inform the user with mesh_proxy_connected and mesh_proxy_disconnected events. The proxy connections otherwise work.

# ***Bluetooth* Mesh Software 1.0.1 build 25**

<b>Software Version</b>	1.0.1 build 25
<b>Software Status</b>	Beta
<b>Release Date</b>	1st of August, 2017
<b>Affected Products</b>	EFR32BG12/MG12 EFR32BG13/MG12

## **Changes: 1.0.1 (build 25) compared to 1.0.0 (build 22)**

### **Quality Improvements**

GATT connection robustness improvements  
Stack library shrunk in size

### **Fixed Known Issues since the previous Release**

<b>ID</b>	<b>Issue</b>	<b>Explanation</b>
2633	Cleanup after incomplete GATT connection	Stack did not properly clean up its state after an incomplete GATT provisioning or proxy connection, resulting in device not becoming connectable after connection teardown.

### **Known Issues in this Release**

<b>ID</b>	<b>Issue</b>	<b>Explanation</b>
N/A	Bluetooth qualification	The implementation has not yet been Bluetooth qualified
N/A	Low power and friendship features	The low power and friendship features are not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
1723	Mesh/LE interoperability	Due to limitations in the beta care must be taken with concurrent advertisements with LE and mesh
1731	Long message memory usage	Memory usage of long application messages should be optimized

ID	Issue	Explanation
1746	Resource allocation control to application	Beta release allocates a predefined amount of resources to the stack
2044	Stack de-initialization	BGAPI command for informing stack of system power down not yet implemented
2162	Provisioner resends data	In rare circumstances the Provisioner does not detect the provisioning has ended and continues to send provisioning PDUs
2579	Command to request IV index update	Stack implements IV index update, but BGAPI command for application to request it is missing

# ***Bluetooth* Mesh Software 1.0.0 build 22**

<b>Software Version</b>	1.0.0 build 22
<b>Software Status</b>	Beta
<b>Release Date</b>	18th of July, 2017
<b>Affected Products</b>	EFR32BG12/MG12 EFR32BG13/MG12

## **Features in the First Release**

<b>Feature</b>	<b>Explanation</b>
Mesh Core 1.0	<i>Bluetooth</i> mesh core 1.0 compliant stack implementing relay and GATT proxy features
Mesh Models 1.0	Bluetooth mesh Models 1.0 compliant application model implementation including Generic models, Light Lightness models and vendor models

## **Fixed Known Issues since the previous Release**

<b>ID</b>	<b>Feature</b>	<b>Explanation</b>
N/A	N/A	First public release

## **Known Issues in this Release**

<b>ID</b>	<b>Issue</b>	<b>Explanation</b>
N/A	Bluetooth qualification	The implementation has not yet been Bluetooth qualified
N/A	Low power and friendship features	The low power and friendship features are not yet implemented
N/A	Mesh models	Implementation of sensors, time/scenes and some lighting models is not yet done
1723	Mesh/LE interoperability	Due to limitations in the beta care must be taken with concurrent advertisements with LE and mesh



ID	Issue	Explanation
1731	Long message memory usage	Memory usage of long application messages should be optimized
1746	Resource allocation control to application	Beta release allocates a predefined amount of resources to the stack
2044	Stack de-initialization	BGAPI command for informing stack of system power down not yet implemented
2162	Provisioner resends data	In rare circumstances the Provisioner does not detect the provisioning has ended and continues to send provisioning PDUs
2579	Command to request IV index update	Stack implements IV index update, but BGAPI command for application to request it is missing