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Custom advertisement + gatt.xml

Answered

Francesco Donadon
asked this on October 18, 2013, 22:53

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Hi,

experimenting with the custom advertisements, It appears that setting a custom advertisement "overwrites" the service advertisement that the module does automatically for the services defined in the gatt.xml file.

Is it possible to use some custom advertisements AND keep advertising other services/characteristics as well? In case, would it need to be done manually, such as alternating periodically the advertisement data?

I cannot find any literature on the advertisement/response data structure, and right now I don't have access to a BLED112 dongle so that I can use it for debugging.. does anybody have any good documentation on the subject?

Thank you in advance!

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2 people would like this to be answered.   [Me too!]

Comments

Hello Francesco,   **Answer**

This example project posted online has sample code which implements a custom advertisement packet and custom scan response packet:

- https://bluegiga.zendesk.com/entries/23130518-BGScript-custom-advertisement-Custom-advertisement-packet-creation

If you use the **gap_userdata** constant in the **gap_set_mode** command, then you will only use the user-defined data; it is not possible to mix auto-generated content and user-generated content. The KB article above also has a PDF attachment that is a subsection of the Bluetooth 4.0 spec, which discusses the details of advertisement packet fields. The "custom_advertisement" project itself has many comments in the BGScript source file which explain how the packets are built and what each byte means.

Jeff Rowberg
Bluegiga
Technologies

October 23, 2013, 18:40

I am following the example and successfully creating custom advertisement and scan response data.

I have a question about local_name. I can add the local_name adv data packet and iOS scanners such as LightBlue see it.

But, the Device_Name specified in the gatt.xml is not over ridden by the local_name in the advertisement data.

How do I change that name dynamically?

**DAVID
PROCTOR**

March 5, 2014, 02:15

The advertisement/scan response packet content is independent from the GATT structure and content; if you want to modify the device name in GATT, you have to write a new value to the Device Name characteristic using the **attributes_write** command. This is actually done on line 90 of the unmodified **custom_advertisement.bgs** source file. If you change the name again later, you have to manually write this also.

Note that most of the example projects we have (not including the custom advertisement one) use a **const** value for the Device Name in GATT, so you cannot rewrite them at runtime. Constant GATT values can be convenient because you don't need to manually fill them with data from your application code, while non-constant values are always initially empty and must be initialize/updated at runtime.

Jeff Rowberg
Bluegiga
Technologies

March 5, 2014, 16:39

I will try that soon.

I don't see line 90 of the unmodified **custom_advertisement.bgs** source file??

I downloaded **custom_advertisement.bgs** source file from the .zip on https://bluegiga.zendesk.com/entries/23130518-BGScript-custom-adver...

**DAVID
PROCTOR**

March 5, 2014, 19:17

Support

Jeff Rowberg
Bluegiga
Technologies

It is possible that you have an older version than what is up there now. Lines 89-90 look like this:

```
# write custom device name to local GATT attribute
call attributes_write(c_device_name, 0, 18, sr_data(2:18))
```

March 5, 2014, 19:23

FAVARO
GIANLUCA

Hi

i'm a novice for BLe113 and even i use the custom advertisement example to personalize my device; normally if i perform a scan with a smartphone i see the data set with the command call attributes_write relative at the uuid="2a00" and using the sr_data vector, but if i use a BGUI software i'm not able to view the data placed inside the adv_data() near the RSSI string. So i don't understand when the adv_data are used, i think the they are visible without scanning process from client but pushed from server (the device) as broadcasting data. I'm confused on this aspect. Can you explain me the question?

BR

Favaro Gianluca

April 13, 2015, 11:54

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