1   Introduction

These Release Notes provide relevant release information and history of the OpenThread Library which is part of the Software Development Kit (SDK). For the generic release notes which are part of the Base Components, please refer to [6].

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2 License Information

The software and example applications in this SDK are provided for evaluation purposes only. By using this software, the user accepts the license agreement specified in the SDK License Agreements [3] .

3 Release History

3.1 v1.5.1.0

This release is based on the Qorvo Base Components library version v2.10.3.1 [6] and on v1.5.1.0 SDK release.

3.1.1 New Features

Enabled Thread 1.3 functionality, for additional info on the IEEE802.15.4 MAC update, see Qorvo Base Components library version v2.10.3.1 Release Notes [6]

3.1.2 Bugs Fixed

N/A

3.1.3 Known Issues

- When the device is in the middle of receiving many ping messages, it might occur that MLE Announcements mechanism kicks in and will change the channel for a short time and send announcement messages on other channels. The result is that the device is not able to listen and receive ping messages on the main channel during the short period the announcements are being sent. After that it will return to its original channel and can continue its operation. This is also seen when Open Thread's channel manager is enabled. There the stack can switch the channel, resulting in a period it cannot receive ping messages on the original channel.

3.1.4 Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.5.1.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py

For more information versioning, please refer to the overview.txt in the software packages.

3.2 v1.5.0.0

This release is based on the Qorvo Base Components library version v2.10.2.0 [5] and on v1.5.0.0 SDK release.

3.2.1 New Features

Enabled OpenThread Border Router Functionality

3.2.2 Bugs Fixed

N/A

3.2.3 Known Issues

- When the device is in the middle of receiving many ping messages, it might occur that MLE

Announcements mechanism kicks in and will change the channel for a short time and send announcement messages on other channels. The result is that the device is not able to listen and receive ping messages on the main channel during the short period the announcements are being sent. After that it will return to its original channel and can continue its operation. This is also seen when Open Thread's channel manager is enabled. There the stack can switch the channel, resulting in a period it cannot receive ping messages on the original channel.

3.2.4 Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.5.0.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py

For more information versioning, please refer to the overview.txt in the software packages.

3.3 v1.4.0.0

This release is based on the Qorvo Base Components library version v2.9.15.0 [4] and on v1.4.0.0 SDK release.

3.3.1 New Features

N/A

3.3.2 Bugs Fixed

- Fixed missed packages during **Bluetooth®** LE scanning
- Updated ACK Tx power

3.3.3 Known Issues

- On application level we do see a 0.1% packet error rate. Not reproduceable on MAC level.

- When the device is in the middle of receiving many ping messages, it might occur that MLE Announcements mechanism kicks in and will change the channel for a short time and send announcement messages on other channels. The result is that the device is not able to listen and receive ping messages on the main channel during the short period the announcements are being sent. After that it will return to its original channel and can continue its operation. This is also seen when Open Thread's channel manager is enabled. There the stack can switch the channel, resulting in a period it can not receive ping messages on the original channel.

3.3.4 Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.4.0.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/v1.1.16.0 dd17636a3575f5f2d087bf580d84ad16b2bb7d13

For more information versioning, please refer to the overview.txt in the software packages.

3.4   v1.1.0.4 Engineering Release

!   **This is an Engineering Build. The content of this package should be used for testing purposes only.**

This release is based on the Qorvo Base Components library version v2.9.9.1 (v1.1.0.2 SDK release) with support for getting and setting TX power enabled by updated P959_OpenThread version.

3.4.1   New Features

- Get and set TX power for thread

3.4.2   Bugs Fixed

N/A

3.4.3   Known Issues

N/A

3.4.4   Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.4/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.4/release/GP_P1053_SW_15656_Smart_Home_Gateway_OpenThread_Lib_GP712.py
gpHub/P959_OpenThread/v1.1.14.0 d263ba1cb900f23a3a8792760cbb1b0672eae429

For more information versioning, please refer to the overview.txt in the software packages.

3.5   v1.1.0.2

This release is based on the Qorvo Base Components library version v2.9.9.1 and on v1.1.0.0 SDK release with focus on supporting GP712

3.5.1   New Features

N/A

3.5.2   Bugs Fixed

N/A

3.5.3   Known Issues

N/A

3.5.4   Traceability

The SDK is built from the following release scripts:

Script

//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.2/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py //depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.2/release/GP_P1053_SW_15656_Smart_Home_Gateway_OpenThread_Lib_GP712.py
gpHub/P959_OpenThread/v1.1.10.0 2521f8eae93a6ccec9fe9d1b1a2895f1d920a6cb

For more information versioning, please refer to the overview.txt in the software packages.

3.6   v1.1.0.0

This release supports QPG7015M only.

3.6.1   New Features

- Using BaseComps version v2.9.9.1.[1]

3.6.2   Bugs Fixed

N/A

3.6.3   Known Issues

- When the Zigbee 3.0 stack is enabled, the OpenThread application is unable to join or commission.

- When the Zigbee 3.0 stack is disabled, some packet loss has been observed, causing the OpenThread stack to form a separate partition.

3.6.4   Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.2/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.1.0.2/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/v1.1.10.0 2521f8eae93a6ccec9fe9d1b1a2895f1d920a6cb

For more information versioning, please refer to the overview.txt in the software packages.

3.7   v1.0.0.0

This release supports QPG7015M only.

3.7.1   New Features

- Using BaseComps version v2.9.6.1.[1]

3.7.2   Bugs Fixed

N/A

3.7.3   Known Issues

N/A.

3.7.4   Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v1.0.0.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/v1.1.10.0 2521f8eae93a6ccec9fe9d1b1a2895f1d920a6cb

For more information versioning, please refer to the overview.txt in the software packages.

3.8 v0.9.1.0

3.8.1 New Features

N/A.

3.8.2 Bugs Fixed

- Fixed FD leak at factory reset

3.8.3 Known Issues

N/A.

3.8.4 Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.9.1.0/release/GP_P1053_SW_15656_Smart_Home_Gateway_OpenThread_Lib_GP712.py
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.9.1.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/v1.1.7.0 e47a651c59c0d41ca2d6d763127a92bf96886f87

For more information versioning, please refer to the overview.txt in the software packages.

3.9   v0.8.2.0

Minor update.

3.9.1   New Features

N/A.

3.9.2   Bugs Fixed

N/A.

3.9.3   Known Issues

- PAN ID 0xFFFF can hang-up the application.

- Frequent restarts could result in CLI socket stalling.

3.9.4   Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.8.2.0/release/GP_P1053_SW_15656_Smart_Home_Gateway_OpenThread_Lib_GP712.py
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.8.2.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/master_20181015_677d49b
190d91f7abe518a7148a28d310c76c56f64dafb2

For more information versioning, please refer to the overview.txt in the software packages.

3.10   v0.8.1.0

This is the first official release including QPG7015M.

3.10.1 New Features

N/A. First release.

3.10.2 Bugs Fixed

N/A. First release.

3.10.3 Known Issues

- PAN ID 0xFFFF can hang-up the application.

3.10.1 Traceability

The SDK is built from the following release scripts:

Script
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.8.1.0/release/GP_P1053_SW_15656_Smart_Home_Gateway_OpenThread_Lib_GP712.py
//depot/release/Embedded/Applications/P1053_Gateway_v2.0/v0.8.1.0/release/GP_P1053_SW_15655_Smart_Home_Gateway_OpenThread_Lib_QPG7015M.py
gpHub/P959_OpenThread/master_20181015_677d49b ce46431947892e1a8a6572210f307a6b3985dec6

For more information versioning, please refer to the overview.txt in the software packages.

References

[1]   Basecomps releasenotes, version v2.9.9.1
[2]   Basecomps releasenotes, version v2.9.6.1
[3]   SDK License Agreement; Qorvo Document GP_P341_SW_15611.
[4]   Basecomps releasenotes, version v2.9.15.0
[5]   Base Components release notes, version v2.10.2.0
[6]   Base Components release notes, version v2.10.3.1

Abbreviations

SDK   Software Development Kit

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Document History

Version	Date	Section	Changes
1.00	04 Apr 2019		v0.8.1.0 release.
1.01	18 Jul 2019		v0.8.2.0 release.
1.02	16 Jan 2020		v0.9.1.0 release
1.03	14 May 2020		v1.0.0.0 release
1.04	13 Aug 2020		v1.1.0.0 release
1.05	3 Sep 2020		v1.1.0.2 release
1.06	2 Jun 2021		v1.1.0.4 release
1.07	8 Jul 2021		V1.4.0.0 release
1.08	16 Feb 2022		V1.5.0.0 release