



Release Notes: JN-AN-1216

ZigBee 3.0 IoT Control Bridge

These release notes provide information on the SDK compatibility, memory usage and change history for the JN-AN-1216 ZigBee 3.0 IoT Control Bridge Application Note

1 Public v1011 (5-Sep-2018)

Updated for new SDK releases.

1.1 Public v1011: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004 JN516x-EK001	- -	JN516x JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 – SDK	JN-SW-4170	v1840	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 – SDK	JN-SW-4270	v1841	JN517x

1.2 Public v1011: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_GP_PROXY_COORDINATOR_1000000.bin	210620	1956	29773
ZigbeeNodeControlBridge_JN5169_GP_PROXY_COORDINATOR_1000000. bin	211104	1960	29781
ZigbeeNodeControlBridge_JN5169_GP_PROXY_FULL_FUNC_DEVICE_1000000.bin	230300	2024	30137

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_GP_PROXY_COORDINATOR_1000000.bin	196854	2365	29577
ZigbeeNodeControlBridge_JN5179_GP_PROXY_FULL_FUNC_DEVICE_1000000. bin	213450	2685	29977

1.3 Public v1011: New Features

Green Power(GP) feature added.

1.4 Public v1011: Bug Fixes

artf568355: sZpsIntStore has been changed to uint32 type from tsMicroIntStorage
 artf581549: Add NCI control/notification commands, Reserved new serial command IDs
 artf606219: JN-AN-1216 control bridge build issue for full function device
 artf609489: ZGWUI doesn't properly handle Bool attribute type set in Config Rprt
 artf609492: add APP_vUpdateReportableChange to support reportable attribute type in both uint8 and uint16
 artf609494: 3rd parameter of APP_vUpdateReportableChange is not correct
 artf610202 : Incorrect sector set for JN5168 to store tclk keys.

1.5 Public v1011: Known Issues

None.

2 Public v1010 (12-Feb-2018)

Updated for new SDK releases.

2.1 Public v1010: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004 JN516x-EK001	- -	JN516x JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 – SDK	JN-SW-4170	v1745	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 – SDK	JN-SW-4270	v1746	JN517x

2.2 Public v1010: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	187016	1860	28685
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	187016	1860	28685
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	203920	1796	29613
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	203920	1796	29613
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	187467	1868	28709
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	187467	1868	28709
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	204355	1796	29637
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	204355	1796	29637

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	175774	2253	28533
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	175766	2253	28533
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	190590	2429	29413
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	190582	2429	29413

2.3 Public v1010: New Features

None.

2.4 Public v1010: Bug Fixes

None.

2.5 Public v1010: Known Issues

None.

3 Public v1009 (18-Jan-2018)

Updated for new SDK releases.

3.1 Public v1009: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 – SDK	JN-SW-4170	v1735	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 – SDK	JN-SW-4270	v1736	JN517x

3.2 Public v1009: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	186784	1864	28637
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	186784	1864	28637
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	203811	1784	29577
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	203811	1784	29577
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	187302	1864	28673
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	187302	1864	28673
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	204232	1796	29601
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	204232	1796	29601

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	175534	2253	28501
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	175526	2253	28501
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	190418	2429	29397
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	190410	2429	29297

3.3 Public v1009: New Features

None.

3.4 Public v1009: Bug Fixes

None.

3.5 Public v1009: Known Issues

None.

4 Public v1008 (12-Jan-2018)

Updated for new SDK releases.

4.1 Public v1008: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1731	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1732	JN517x

4.2 Public v1008: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	186784	1864	28637
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	186784	1864	28637
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	203811	1784	29577
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	203811	1784	29577
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	187302	1864	28673
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	187302	1864	28673
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	204232	1796	29601
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	204232	1796	29601

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	175534	2253	28501
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	175526	2253	28501
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	190418	2429	29397
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	190410	2429	29397

4.3 Public v1008: New Features

None.

4.4 Public v1008: Bug Fixes

None.

4.5 Public v1008: Known Issues

None.

5 Public v1007 (24-Aug-2017)

Updated for new features and bug fixes

5.1 Public v1007: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1518	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1520	JN517x

5.2 Public v1007: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	177031	1760	28317
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	177031	1760	28317
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	177031	1760	28317
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	177031	1760	28317
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	177486	1772	28333
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	177486	1772	28333
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	177486	1772	28333

ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	177486	1772	28333
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The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	166248	2173	28173

5.3 Public v1007: New Features

Network State Support (Ipsw8403)

Added support to the Control Bridge for the user to check the network details at any time.

5.4 Public v1007: Bug Fixes

Control Bridge Attribute Report Wrong Field (Ipsw7032)

Report Individual Attribute no longer saves the status to the buffer.

Complex Descriptor Request ID Incorrect (Ipsw7085)

Complex Descriptor Request ID was not consistent with the ID defined in the ZGWUI, and so would result in an (Unsupported Command). Fixed this issue by correcting the ID in the Control Bridge.

ZigBee GUI does not decode Identify messages (Ipsw7220)

The message sent to indicate Start/Stop Identifying was not previously parsed in the ZGWUI.

OTA progress bar still flashing like it is progressing even though complete (Ipsw7237)

Fixed an issue where the OTA progress bar would carry on flashing after the process was completed. Now the bar is cleared and it shows a 'complete' status to indicate the process has finished.

User Descriptor Command ID Incorrect (Ipsw7684)

The ID for a User Descriptor command was not consistent across the Control Bridge and ZGWUI. This is now resolved.

User Set Descriptor Command ID Incorrect (Ipsw7685)

The ID for a User Set Descriptor command was not consistent across the Control Bridge and ZGWUI. This is now resolved.

Typo Errors for Remove Scene Command (Ipsw7711)

The ZGWUI would display both 'Remove Scene' and 'Remove All Scenes' as 'View Scene' responses. This has been fixed.

Bulb cannot rejoin after factory reset (Ipsw8447)

If a bulb joined the Control Bridge, but was then factory reset, it would not be able to join again unless the Control Bridge was reset. This is now resolved.

5.5 Public v1007: Known Issues

None.

5.6 Public v1007: Serial Command Changes

Move to Level with/without on/off

Added `<onoff: uint8_t>`.

6 Public v1006 (12-Jul-2017)

Updated for new features and bug fixes

6.1 Public v1006: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1518	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1520	JN517x

6.2 Public v1006: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	176629	1768	28325
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	176629	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	176629	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	176629	1768	28325
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	177065	1760	28337
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	177065	1760	28337
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	177065	1760	28337
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	177065	1760	28337

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	166248	2173	28173
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	166248	2173	28173

6.3 Public v1006: New Features

Optional Extension Fields (Ipsw8324)

Added a checkbox in the GUI to show or hide the extension fields associated with the Add Scene command.

Enable OTA Server output in ZPS configuration (Ipsw8360)

Enabled output for the OTA cluster in the .zpscfcg file.

6.4 Public v1006: Bug Fixes

Write Attribute command fix

Solved issue with Write Attribute that could potentially cause the Coordinator to crash when used.

6.5 Public v1006: Known Issues

None

6.6 Public v1006: Serial Command Changes

None

7 Public v1005 (05-Apr-2017)

Updated for new features and bug fixes.

7.1 Public v1005: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1518	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1520	JN517x

7.2 Public v1005: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	176609	1768	28325
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	176609	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	176609	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	176609	1768	28325
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	177045	1760	28337
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	177045	1760	28337
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	177045	1760	28337
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	177045	1760	28337

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	163296	2173	27989
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	163296	2173	27989
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	163296	2173	27989
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	163296	2173	27989

7.3 Public v1005: New Features

OOB Commissioning Data Request and Response (Ipsw8102)

Added support for Out of Band Commissioning Data Request and Response.

OOB Commissioning Data Command Update (Ipsw8146)

Updated Out of Band Commissioning Data command to include Device ID and Short Address.

7.4 Public v1005: Bug Fixes

ZGWUI Field Clearing Issue (Ipsw7713)

Previously, the ZGWUI would delete any text in a field upon mouse click. This was used to get rid of the flavour text describing what to input to that field. However, it would also delete user input data which could be frustrating for the user.

Now, once user data has been entered, fields are no longer cleared upon mouse click.

Update All Tooltips (Ipsw7860)

Tooltips have now been added to all fields.

Enabled SimpleDescResp, IdentifyClientServer and ResetToFactory Default Command (Ipsw7908)

Updated the following for Control Bridge Pre-Certification:

- Enable SimpleDescResp (make it discoverable)
- Enable Identify Server (update in zcl_options.h)
- Enable handling of Basic Cluster command RTFD (update in zcl_options.h for E_CLD_BASIC_CMD_RESET_TO_FACTORY_DEFAULTS)

ZGWUI About Button Issue (Ipsw8233)

Corrected location of VERSION.txt so 'About' button so the ZGWUI is now functional.

7.5 Public v1005: Known Issues

None

7.6 Public v1005: Serial Command Changes

Out of Band Commissioning Data Response

Added Out of Band Commissioning Data Request (0x8029)

Out of Band Commissioning Data Request

Added Out of Band Commissioning Data Request (0x0029)

8 Public v1004 (25-Nov-2016)

Updated for new features and bug fixes.

8.1 Public v1004: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1518	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1520	JN517x

8.2 Public v1004: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	175692	1768	28325
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	175692	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	175692	1768	28325
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	175692	1768	28325
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	176181	1768	28333
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	176181	1768	28333
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	176181	1768	28333
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	176181	1768	28333

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	163556	2173	28005
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	163556	2173	28005
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	163556	2173	28005
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	163556	2173	28005

8.3 Public v1004: New Features

Move to Saturation Command (Ipsw7862)

Added Move to Saturation command to the ZLL Colour Cluster tab on the ZGWUI.

Tx Power Command (Ipsw7924)

Added Tx Power command to the ZGWUI

8.4 Public v1004: Bug Fixes

View Scene Command Issue (Ipsw7910)

The Control Bridge would hang after sending a View Scene command. Now fixed.

General Updates and Changes for v1004 (Ipsw7970)

- Updated Eclipse build configurations
- Sending with APS Acks is now mandatory
- Fixed the problem of not sending Simple Descriptor Response.

8.5 Public v1004: Known Issues

None

8.6 Public v1004: Serial Command Changes

None

9 Public v1003 (04-Oct-2016)

Updated for new features and bug fixes.

9.1 Public v1003: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1396	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1483	JN517x

9.2 Public v1003: Memory Usage

The applications of this Application Note have the following memory footprints on the JN516x devices, when using the JN5169 ZigBee 3.0 SDK [JN-SW-4170].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5168_COORDINATOR_1000000.bin	172039	1752	28029
ZigbeeNodeControlBridge_JN5168_COORDINATOR_115200.bin	172039	1752	28029
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_1000000.bin	172039	1752	28029
ZigbeeNodeControlBridge_JN5168_FULL_FUNC_DEVICE_115200.bin	172039	1752	28029
ZigbeeNodeControlBridge_JN5169_COORDINATOR_1000000.bin	172523	1760	28057
ZigbeeNodeControlBridge_JN5169_COORDINATOR_115200.bin	172523	1760	28057
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_1000000.bin	172523	1760	28057
ZigbeeNodeControlBridge_JN5169_FULL_FUNC_DEVICE_115200.bin	172523	1760	28057

The applications of this Application Note have the following memory footprints on the JN5179 device, when using the JN5179 ZigBee 3.0 SDK [JN-SW-4270].

Application	Text Size (Bytes)	Data Size (Bytes)	BSS Size (Bytes)
ZigbeeNodeControlBridge_JN5179_COORDINATOR_1000000	163272	2173	27989
ZigbeeNodeControlBridge_JN5179_COORDINATOR_115200	163272	2173	27989
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_1000000	177748	2357	22829
ZigbeeNodeControlBridge_JN5179_FULL_FUNC_DEVICE_115200	177748	2357	22829

9.3 Public v1003: New Features

Erase PD Reset (Ipsw7476)

Erase PD now automatically performs a reset too.

Enable Default Response (Ipsw7696)

Default Response is now enabled by default.

9.4 Public v1003: Bug Fixes

Get Version Command Return (Ipsw6812)

The Get Version command now returns the version number of the application note.

Return Status After a Failed Start Network (Ipsw6856)

Following a failed Start Network, Return Status is now sent back to the host.

Version Number Parsing (Ipsw7239)

The ZGWUI now parses the version number correctly.

Report String Parsing (Ipsw7242)

Control Bridge now parses string correctly for reports.

Debug Output on UART (Ipsw7325)

Debug output on UART now fixed.

JN517x Image (Ipsw7433)

ZGWUI now recognizes JN517x image accurately.

NFC Commissioning Issue (Ipsw7451)

Fixed NFC Commissioning Issue on JN5179.

OTA Upgrade After Touchlink (Ipsw7543)

Fixed issue where an exception would occur during OTA upgrade after Touchlink.

Bind Request Issue (Ipsw7683)

Bind Request now checks for Group and IEEE address and only accepts those two.

Write Attribute Request Attribute Issue (Ipsw7687)

Fixed issue where Write Attribute Request would send an extra attribute.

Raw Data Request (Ipsw7692)

Fixed Raw Data Request command.

Send Identify Request Issue (Ipsw7695)

Fixed issue where Send Identify Request would send incorrect data.

Error Message on Joining Network (Ipsw7705)

Fixed issue where an error message would be displayed on a device joining the network.

Group Membership Wrong Group ID (Ipsw7708)

Fixed issue with wrong Group ID when getting Group Membership.

Endianness Issue (Ipsw7782)

Fixed endianness issue in serial protocol for attribute report.

JTAG Debug (Ipsw7801)

Fixed JTAG debug with the LPC link2 probe.

9.5 Public v1003: Known Issues

None

9.6 Public v1003: Serial Command Changes

None

10 Public v1002 (28-Sep-2016)

Updated for new JN-SW-4170 and JN-SW-4270 SDK releases.

10.1 Public v1002: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1385	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1474	JN517x

10.2 Public v1002: New Features

None.

10.3 Public v1002: Bug Fixes

None.

10.4 Public v1002: Known Issues

None

10.5 Public v1002: Serial Command Changes

Remove Scene Response

Changed <scene ID: uint16_t> to <scene ID: uint8_t>.

Add Enhanced Scene

Changed <scene ID: uint16_t> to <scene ID: uint8_t>.
 Changed <transition time: uint8_t> to <transition time: uint16_t>.
 Changed <length: uint8_t> to <length: uint16_t>.
 Changed <max length: uint8_t> to <max length: uint16_t>.

View Enhanced Host->Node Scene

Changed <scene ID: uint16_t> to <scene ID: uint8_t>.

Copy Scene

Changed <from scene ID: uint16_t> to <from scene ID: uint8_t>.
 Changed <to scene ID: uint16_t> to <to scene ID: uint8_t>.

Move to Colour Temperature

Changed <colour temperature: uint8_t> to <colour temperature: uint16_t>.
 Changed <transition time: uint8_t> to <transition time: uint16_t>.

Move Colour Temperature

Changed <rate: uint8_t> to <rate: uint16_t>.
 Changed <minimum temperature: uint8_t> to <minimum temperature: uint16_t>.
 Changed <maximum temperature: uint8_t> to <maximum temperature: uint16_t>.
 Added <options mask: uint8_t>.
 Added <options override: uint8_t>.

Step Colour Temperature

Changed <step size: uint8_t> to <step size: uint16_t>.
 Changed <transition time: uint8_t> to <transition time: uint16_t>.
 Changed <minimum temperature: uint8_t> to <minimum temperature: uint16_t>.
 Changed <maximum temperature: uint8_t> to <maximum temperature: uint16_t>.

Read Individual Attribute Response

Added Read Individual Attribute Response (0x8100).

Write Individual Attribute Response

Added Write Individual Attribute Response (0x8110).

Report Individual Attribute Response

Added Report Individual Attribute Response (0x8102).

11 Public v1001 (23-Apr-2016)

Updated to add JN517x devices.

11.1 Public v1001: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x

Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1385	JN516x
LPCXpresso -Toolchain	7.9.2	493	JN517x
JN517x ZigBee 3.0 - SDK	JN-SW-4270	v1474	JN517x

11.2 Public v1001: New Features

Updated Binaries (Ipsw6811)

Binaries generated now contain the baud rate they support, and users can now build 1000000 and 115200 baud rate binaries.

Complex Descriptor Request and Response (Ipsw6842)

Implemented Complex Descriptor Request and Response messages.

Remove Authenticated Device (Ipsw6876)

Added a command for Remove Authenticated Device.

Support for User Descriptor Set Request and User Descriptor Request (Ipsw6936/7)

Added support for both of the above to the ZGWUI and Control Bridge.

11.3 Public v1001: Bug Fixes

Transport Key Decider Function (Ipsw6797)

Transport Key Decider Function now matches the callback prototype.

Channel Mask on Air (Ipsw6822)

Channel Mask on air now matches the channel mask entered into the ZGWUI.

Device Type Default (Ipsw6855)

Device now defaults to Coordinator Device Type.

Group Addressing Table Size Issue (Ipsw6857)

Fixed.

E_ZCL_CBET_DISCOVER_INDIVIDUAL_ATTRIBUTE_RESPONSE handler (Ipsw6858)

Handler is now implemented to report back each attribute.

Transaction Time Size (Ipsw6880)

Control Bridge now passes transaction time as a uint16.

11.4 Public v1001: Known Issues

None

11.5 Public v1001: Serial Command Changes

Move to Level with/without on/off

Added `<onoff: uint8_t>`.

12 Public v1000 (07-Apr-2016)

First JN516x public release.

12.1 Public v1000: Compatibility

The software provided with this Application Note has been tested with the following evaluation kits and SDK versions.

Product Type	Part Number	Version	Supported Chips
JN516x Evaluation Kits	JN516x-EK004	-	JN516x
	JN516x-EK001	-	JN516x
Beyond Studio for NXP -Toolchain	JN-SW-4141	v1308	JN516x
JN516x ZigBee 3.0 - SDK	JN-SW-4170	v1385	JN516x

12.2 Public v1000: New Features

None (first release)

12.3 Public v1000: Bug Fixes

None (first release)

12.4 Public v1000: Known Issues

None (first release)

12.5 Public v1000: Serial Command Changes

None (first release)

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