BROADCOM®

Release Notes

BTW 6.1.0.1501 SDK

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Proprietary Information

LICENSED SOFTWARE

Compatibility

This section discusses the compatibility of applications produced using the SDK when deployed against Broadcom's various WIDCOMM BTW Bluetooth software products. BTW refers to Broadcom's WIDCOMM Bluetooth software products for Windows PCs. Currently, there are two major BTW products - Broadcom's Bluetooth Software for Windows, and Broadcom's Vista Profile Pack. The latest SDK release is compatible with both BTW products.

Broadcom's Bluetooth Software for Windows refers to all versions of the Broadcom/WIDCOMM Bluetooth Stack software. Previous releases are identified by version as BTW 1.x, 3.x, and 4.x. Current versions are referred to as BTW 5, and are identified by version as 5.0.x.x and 5.1.x.x. Broadcom's Vista Profile Pack is a version of the Broadcom/WIDCOMM Bluetooth software that runs on the Microsoft Bluetooth stack. It is referred to as BTW 6, and is identifiable by version as 6.x.x.x.

Additionally, there is Broadcom's Vista Audio Pack. This product is identified by version as 5.2.x.x. SDK compatibility with BTW versions 5.2.x.x is limited, as this product supports audio profiles only. Contact Broadcom Technical Support directly at http://www.broadcom.com/products/bluetooth_support.php for information on SDK and Vista Audio Pack compatibility.

SDK versions loosely follow BTW version numbers. As of the release of SDK version 6.1.0.1501, the SDK produces applications that can be deployed for Vista Profile Pack and Bluetooth Software for Windows platforms.

Compatibility with Broadcom's Bluetooth Software for Windows

BTW and SDK software versions 1.4.2.10 SP5 through the latest BTW 5 versions are designed to be forward- and backward-compatible with all combinations of SDK and BTW software, where both components are version 1.4.2.10 SP5 or greater. With the release of SDK version 6.1.0.1501, SDK software compatibility includes BTW 6 as well.

BTW and SDK software versions previous to 1.4.2.10 SP5 are not forward- or backward-compatible with other software versions and are deprecated. For applications built with SDK versions previous to 1.4.2.10 SP5 that now need to run on PCs with BTW 1.4.2.10 SP5 and later, Broadcom recommends rebuilding the application using the latest SDK release to avoid interface discrepancies in the Profile APIs.

All of the SDK APIs and classes are fully supported in Bluetooth Software for Windows deployments, subject to documented deprecations and with the exceptions described below in "Compatibility and New Features".

Compatibility with Broadcom's Vista Profile Pack

SDK version 6.1.0.1501 is the first SDK release compatible with Vista Profile Pack (BTW 6). Applications built with SDK versions prior to 6.1.0.1501 are only compatible with BTW versions prior to BTW 6, whereas applications built with SDK version 6.1.0.1501 or greater are fully forward- and backward-compatible with all supported BTW versions, including BTW 6. Furthermore, the binary applications produced by SDK versions 6.1.0.1501 are capable of executing under any supported BTW version without the need for deployment - specific libraries or build configurations.

Vista Profile Pack runs on Microsoft's Bluetooth stack. As a result, some SDK features, APIs, and classes may not be fully supported in a particular BTW 6 version. See the "BTW 6 Vista Profile Pack Limitations" section in this document, and consult the latest SDK Release Notes for up to date SDK and BTW 6 API and class support details, available at http://www.broadcom.com/products/bluetooth_support.php.

Compatibility and Visual Studio 2005 Support

If an SDK application is built using Microsoft Visual Studio 2005, the application must be prepared to redistribute the Broadcom and the Microsoft runtime and interface library files to target platforms when appropriate. See the SDK Programmer's Guide, Section 3 – "Build Environments" for information on redistribution requirements.

Compatibility and New Features

When compatible BTW and SDK versions (as discussed earlier) are used together, the following apply:

- Applications built using an SDK version older than the BTW software version on which the application runs will run properly but may not be able to take advantage of newer features added in the more recent BTW software version.

- Applications built using an SDK version newer than the BTW software version on which the application runs will not run properly if it depends on newer features added in the more recent SDK version.

Changes in the SDK software generally consist of additions, such as new functions or new codes appended to enumerated constant lists. Such changes are documented in the SDK Release Notes for the version to which the change applies. In addition, concise comments in the affected SDK header file identify changes and specify the BTW and SDK versions in which the change(s) occur.

Changes from 5.1.0.3101

These Release Notes document the changes in the SDK from the previous SDK release, version 5.1.0.3101. For information on possible porting requirements from SDK versions previous to 5.1.0.3101, refer to the Release Notes for those versions, available at http://www.broadcom.com/products/bluetooth_support.php.

The 6.1.0.1501 release is intended primarily to add support to the Broadcom BTW SDK package for BTW 6, Vista Profile Pack Bluetooth software (Microsoft Bluetooth stack). As such, for applications created using previous versions of the SDK, there are no developer changes required in order to compile the application with the new SDK version if targeting BTW 5, Bluetooth Software for Windows (Broadcom stack). However, for applications creating an SDP service record, there is a new method in the CSdpService class, Commit(). Applications that may be targeted for Vista Profile pack deployments must use this method, and applications that will be targeted for Broadcom stack BTW deployments are encouraged to use the method as well for portability.

New in this version:

Classes:
```
COppMultiPush
```

APIs:
```
SdpService::Commit()            - Developer Impact – see above
CBtIf::SetLocalDeviceName()     - Developer Impact – deprecated, no longer functional
CBtIf::SwitchRole()             - Developer Impact – deprecated, no longer supported
IsBroadcomStack()
```

Sample Applications:

BluePrint has been changed to allow selection of which print profile to use. After discovery of services, only the profiles supported by the print server enabled. The checkboxes remaining can then be unchecked to specify which profile to use.

BTW 6 Vista Profile Pack Limitations:

Limitations apply to the 6.1.0.1501 SDK release when applications are deployed against Vista Profile Pack BTW 6 target systems (systems running Microsoft Bluetooth stacks). Some classes and APIs are either currently not supported or are only supported with limited functionality under those deployments. Some of the limitations vary depending on the BTW 6 major version number, 6.0.x.x or 6.1.x.x currently.

This list of limitations may change as more functionality becomes available through the stack and SDK for these deployments. Check http://www.broadcom.com/products/bluetooth_support.php for updates to these Release Notes.

Classes:
- CL2CapConn and CL2CapIF are not supported on 6.0 versions, but are supported in 6.1.
- CDunClient, CLapClient, CSppClient, and CSppServer are not supported in 6.0 or 6.1

Sample apps:
- BlueComChat will not work on either 6.0 or 6.1.
- BluePrint HCRP print profile will not work on 6.0 PP, but will work on 6.1.
- BlueTime will not work on 6.0, but will work on 6.1
- BlueAudio only works for SCO on 6.0. 6.1 supports SCO and eSCO.

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APIs:

- CRfCommPort::OnEventReceived only reports a limited subset of events in 6.0 and 6.1: RXFLAG, TXEMPTY, TXCHAR, CONNECTED_RFCOMM, CONNECT_ERR
- GetConnectionStats (all classes where present) do not support the RSSI data field in 6.0 or 6.1.
- SetEScoMode (all classes where present) supported in 6.1, not supported in 6.0.
- The following APIs are not supported on 6.0 or 6.1:
    - o SetLinkSupervisionTimeout (all classes where present)
    - o ReadEScoLinkData, ChangeEScoLinkParms, EScoConnRsp (all classes where present)
    - o CL2CapConn:
        - Reconfigure
        - OnConnectPendingReceived
        - OnCongestionStatus
    - o CBtIf:
        - ReadLinkMode
        - SendVendorSpecificHcicmd
        - SetSniffMode
        - CancelSniffMode
        - IsRemoteDevicePresent
        - GetLocalServiceName
        - GetNextLocalServiceName
        - CreateCOMPortAssociation
        - RemoveCOMPortAssociation
        - ReadCOMPortAssociation
    - o CRfCommPort:
        - SetFlowEnabled
        - SetModemSignal
        - GetModemStatus
        - SendError
        - Purge

Resolved Issues

BLTH00023962
SDK SDP method FindAttribute overwrites structures with attribute values > max

Release Note:
Added check for too long attributes, truncate if found at max length.

BLTH00084214
Profile Pack SDK

Release Note:
Added Profile Pack support to the BTW SDK

BLTH00087222
Allow multiple objects to be sent on one OPP/OBEX connection

Release Note:
Allow multiple objects to be sent on one OPP/OBEX connection

BLTH00087705
CBtIf::RemovePrinter does not delete printer from system on Profile Pack

Release Note:
CBtIf::RemovePrinter now does delete printer from system on Profile Pack

BLTH00088783
Add COppMultiPush class to DK

Release Note:
Add COppMultiPush class to DK to allow multiple objects

BLTH00089266
SDK SDP FindAttribute fails to retrieve 8 and 16 byte integer type values

Release Note:
Added support for 8 and 16 byte integer attribute types

BLTH00089952
CObexClient SetWriteTimeout not working in SDK

Release Note:
Fixed timer subsystem init

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BLTH00090041
HCRP: Unpairing Between Server and Client Still Allows Client to Print

Release Note:
Defect is fixed when Unpairing Between Server and Client Still Allows Client to Print.

BLTH00090061
1000-BTW-UM205-RCD.pdf - Update to SDK Sample App User Manual

Release Note:
Update Sample App manual with Profile Pack support, minor corrections, and BluePrint profile choice checkbox capability.

BLTH00090470
COppClient class compatibility issue

Release Note:
fixed the COppClient class compatibility issue.

BLTH00097275
Doc_1000-BTW-PG100-RCD.pdf SDK Programmer's Guide updates for PP support

Release Note:
Updated Programmer's Guide with Profile Pack support.

Known Issues

BLTH00051402
OBEX header manipulation results in memory leaks. SDK applications experiencing memory leaks if the application performs operations on a CObexHeaders object received via a callback.

BLTH00052086
CL2CapConn::Reconfigure only affects MTU (BTW).

BLTH00071273
With BlueAudio, users cannot read the eSCO parameters correctly after adjustment.

BLTH00087685
SPP print sessions from SDK leave printers in bad state.

BLTH00087689
CHeadphoneClient GetConnectionStatistics only returns bConnected properly, no statistics.

BLTH00087690
SDK StartInquiry returns device names as "NoName".

BLTH00092609
For Blueheadphone, BlueComchat and BlueObex, clients need couple tries to find expected servers.

BLTH00093178
Unknown issue causes BlueObex application to stop working due to 99525 crash.

BLTH00093909
BlueHeadphone and BlueAudio must pair with headset before able to connect on Vista.

BLTH00094318
CBtIf::Role_Switch always returns TRUE even if Role Switch fails.

BLTH00096952
BlueObex connection disconnect automatically after 3 minutes.

BLTH00097320
BlueObex application starts unexpected second inquiry on stop session.

BLTH00098823
Bonding problem under Vista 64 using 32 bit DK application

BLTH00099525
BIP/OPP/OBEX race condition can cause crash
Crash from potential race condition if thread waiting for callback notification immediately destroys the SDK object, can execute before callback finishes. Workaround is to allow a couple hundred ms delay before object deletion triggered from callback

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