



Intel® PROSet/Wireless Bluetooth Technology 19.80 PV SP Software Release

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Release Overview

Intel is pleased to announce the Bluetooth 19.80 PV SP release. This release introduces defect corrections and a customer specific DCR.

The intended audience of this document is all OEM/ODMs.

This release package (iBTW2200_19.80.0.1G.zip) has different drivers per POA – The driver versions in the slide 5 matrix will appear in device manager.

General Information

Bluetooth Software Build

- TIC # iBTW2200
- Intel Driver zip file: iBTW2200_19.80.0.1

Tested Platforms

- Skylake
- Broadwell
- Kaby Lake

Supported Hardware

- Windstorm Peak(WsP)/8265
- Sandy Peak(SdP)/3168
- Snowfield Peak(SfP) / 8260
- Douglas Peak(DgP) / 18260 (WiGig)
- Maple Peak (MP)/17265 (WiGig)
- Stone Peak 2 (StP2) / 7265
- Stone Peak 1 (StP1) / 3165
- Wilkins Peak 2(WP2) / 7260
- Wilkins Peak 1(WP1) / 3160

Supported Operating Systems on Adapter

- WP/StP/7265-C0: Windows 7 - 32/64bit; Windows 8.1 – 32/64 bit; Windows 10 – 32/64 bit
- StP/7265-D0: Windows 7 – 32/64bit; Windows 8.1 32/64bit; Windows 10 – 32/64 bit
- SfP/8260: Windows 7 – 32/64bit; Windows 8.1 – 64 bit; Windows 10 – 64 bit
- SdP/3168: Windows 7- 32/64; Windows 8.1 –32/64 bit; Windows 10 – 32/64 bit
- WsP/8265: Windows 7 – 32/64bit; Windows 8.1 – 64 bit; Windows 10 – 64 bit

POA Driver Matrix

(Colors indicate same driver version)

19.80.0.1	Win7.G	Win7.H	Win8.1	Win10
WsP	19.70.0.4	19.70.0.4	19.31.0.1	19.80.0.1
SfP	19.70.0.4	19.70.0.4	19.31.0.1	19.80.0.1
SdP	19.70.0.4	19.70.0.4	19.31.0.1	19.80.0.1
StP C0/D0/D1	19.70.0.4	19.70.0.4	19.31.0.1	19.80.0.1
WP	19.70.0.4	19.70.0.4	19.41.0.1	19.41.0.1

Release Details

Adapters	Release Zip File (H layout is FW only)
WsP/8265 SdP/3168 SfP/8260 DgP/18260 MP/17265 StP2/7265 StP1/3165 WP1/3160 WP2/7260	iBTW2200G iBTW2200H (see table for usage)

Release Usage Table	Adapter	WIN7 (MOT)	WIN7 (MSFT)	WIN8.1 (MOT)	Win8.1 (MSFT)	Win10 (MSFT)
	WP	G	H	NA	G	G
	StP	G	H	NA	G	G
	SfP	G	H	NA	G	G
	SdP	N/A	H	NA	G	G
	WsP	G	H	NA	G	G

Bluetooth Features/Software Enhancements

DCR-5147 – Customer specific change

Important Notes about this Release

This release is certified for Redstone 2 (RS2). This includes all POAs in the matrix on slide 5.

IBTSIVA is ON for all HW/SW combinations

Drivers for Windows 7 and Windows 8.1 are considered frozen and are not expected to change unless a business critical defect is discovered.

Known Issues & Limitations – 19.80 PV SP

NIC/OS observed	Defect ID	Description	Recovery	Comments
WsP/SfP/StP2/SdP/Win10	BT-143	HID lag/MOS degradation/WiFi tput under some conditions	N/A	Observed during internal COEX stress testing only. Not noticeable to end-users
StP/Wsp/Win10	BT-852	Increased Idle power consumption (~15mW)	N/A	RS2 BT background scanning Feature for advertising. This should not be considered an issue. It was listed because not all customers were aware that the new feature caused additional current drain. It will be removed in next RN.
WsP/SfP/StP/Win7/Win10-RS2	BT-981	HFP has low audio quality when inquiring during stream	N/A	RS2 and Win 7 seeing HFP audio stutter when force search for surrounding BT devices. Failure rate 60%
SdP/Win10	BT-1576	HFP audio is chopped and LE mouse is little laggy When multi profiles are active	N/A	Fixed on RAM products. Observed on ROM products only. Some headsets show issue more often. Occurs 40%
WsP/SfP/Win10	BT-1684	Platform usb hid devices stuck after LE keyboard keys stopped responding	Unpair/re-pair HID	Only seen on some platforms
WsP/SfP/StP2/SdP/Win10	BT-1687	Poor Audio quality in Skype HFP calls	N/A	Random fades observed and can be difficult to understand speech. Impacts both incoming and outgoing audio. Observed in noisy RF environments.
SfP/Win10	BT-1737	Bad audio (A2DP) quality when user works with BLE mouse	N/A	Does not always occur. Audio is intelligible but static is noticeable
SfP/SdP/Win10	BT-1991	HFP Audio/Headset fails to correctly reconnect after moving out of range when connected to Skype Call	Sometimes a reboot is required	High failure rate in specific scenario
SdP/Win10	BT-2159	HFP stops working after several tests in playback devices	N/A	Need to switch back and forth between playback devices in order for this to occur. Less likely use scenario.
WsP/Win10	WiFiWin-114	Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic	N/A	Less common BT use case (OPP). OPP tput degradation up to 50% - Will be tracked in WiFi Release note for next RN

Corrected issues – 19.80 PV SP

NIC/OS observed	Defect ID	Title	Root Cause/comments
SdP/StP/ Win10	BT-956	The unit seriously intermittent freeze on OS when playing video overnight with BT speaker connected	In some rare cases the buffer release messages were getting overwritten while in queue. The fix was to free the buffers in interrupt context.
WsP/Win10	BT-1381	BT mouse cursor would very lag while moving BT mouse after resuming from S4	A register setting related to RF settling time was changed but due to the low reproducibility of this issue it was not found until intensive testing was performed. The fix was to change it back to the original setting.
SdP/Win10	BT-1584	Arabic language string overlap	Right-to-left transformation was not applied to one of the dialog boxes
SdP/StP/ Win10	BT-1663	Intel 3168 BT device lost during S3 stress test.	Very rare failure (FR: 1/15,000) during internal test. If S3/S4 occurs when USB is in suspend the USB controller side software would get into a state where USB communication stopped. Fix is to wake up USB controller from suspend state prior to BT module entering S3/S4

Issues no longer observed/Closed for other reasons/Non-Intel 19.80 PV SP

NIC/OS	Defect ID	Title	Comments

Validation Guidance – 19.80 PV SP

Testable

Testable with comment

Blocked

Functional Area	19.50 PV	19.50.1 PV	19.60 PV	19.71 PV	19.80 PV	Notes for This Release (see known Issues and Limitations for more details)
OPP						
AVRCP						
A2DP						
ACPI						
SPP						
FTP						
HID						
HFP						BT-1687 – Poor audio quality during skype calls – occasional distortion
Multi Profile						BT-1737 - [CNV Powered By][UX][BT][19.60.2 HF] - Bad audio (A2DP) quality when user works with BLE mouse
BLE HID						
PAN						
PBAP						
RF Kill						
Connected Stby						
Power Consumption						
Wake						
Sx transitions / Stability						
WiFi/BT Coex						WIFIWIN-114 – Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic
Installation / Upgrade						
Selective Suspend						
Device WHCK Pass Rate						

BT 19.x Release History

BT19.0

Schedule, Features and POR
CDI Document # 567669



This Release →

Milestone Release Name	Date	BT TIC	BT KIT
19.0 PV	Released ww23	iBTW0191	116265
19.01 PV	Released ww30	iBTW0285	117361
19.10 PV MR	Released ww38	iBTW0518	117788
19.11 PV SP	Released ww42	iBTW0667	118332
19.30 PV MR	Released ww50	iBTW0949	119760
19.40 PV SP	Released ww03	iBTW1091	120196
19.50 PV MR	Released ww09	iBTW1310	120920
19.50.1 PV HF	Released ww11	iBTW1424	121111
19.60 PV SP	Released ww16	iBTW1636	121600
19.71 PV SP	Released ww26	iBTW2016	122927
19.80 PV SP	Released Ww33	iBTW2200	123940

Tools Info

Find ibttrace tool below

<https://personal.filesanywhere.com/fs/v.aspx?v=8d6f658a59666eaf6c98>

Glossary

PC = Production Candidate – Part of the initial software series on a new adapter (e.g. alpha, beta, PC, PV)

PV = Production Version – Software that is approved for shipping

SP = Service Pack – an intermediate release between major release. It usually only has defect corrections.

MR = Major Release – Includes new features and defect corrections.

WA = Workaround

RN = Release Note

HF = Hot Fix – a software release with minimal change. Created to resolve a urgent customer need.

YB – Yellow exclamation mark in device manager. Indicates that a driver is not functioning properly

lbsiva – Software service that runs after certain sleep cycles and restarts the BT device upon YB detection

TAT – Turn around Time

POA – Platform, OS, Adapter e.g. (Kaby lake, RS1, WsP) – usually refers to OS/Adapter combo.

SfP – Snowfield Peak; WsP – Windstorm Peak; SdP – Sandy Peak; StP – Stone Peak; WP – Wilkins Peak;

DgP – Douglas Peak; MP – Maple Peak; OkP – Oak Peak

Backup Section

Old Release Info

Known Issues & Limitations – 19.71 PV SP

NIC/OS	Defect ID	Description	Recovery	Comments
WsP/SfP/StP2/SdP/ Win10	BT-143	HID lag/MOS degradation/WiFi tput under some conditions	N/A	Observed during internal COEX stress testing only. Not noticeable to end-users
StP/Wsp/Win10	BT-852	Increased Idle power consumption (~15mW)	N/A	RS2 BT background scanning Feature. MSFT investigating how to optimize. https://docs.microsoft.com/en-us/windows/uwp/launch-resume/connected-apps-and-devices
WsP/SfP/StP/Win7/ Win10-RS2	BT-981	HFP has low audio quality when inquiring during stream	N/A	RS2 and Win 7 seeing HFP audio stutter when force search for surrounding BT devices. Failure rate 60%
WsP/SfP/Win10	BT-1684	Platform usb hid devices stuck after LE keyboard keys stopped responding	Unpair/re-pair HID	Only seen on some platforms
WsP/SfP/StP2/SdP/ Win10	BT-1687	Poor Audio quality in Skype HFP calls	N/A	Distortion seems random and is bursty. Impacts both incoming and outgoing audio
WsP/Win10	WiFiWin-114 WiFiWin-118	Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic	N/A	Less common BT use case (OPP). OPP tput degradation up to 50%

Corrected issues – 19.71 PV SP

NIC/ OS	Defect ID	Title	Root Cause/Comments	Source
WsP/Win7	BT-393	Mistranslation when install 8265 BT driver with JPN OS.	Setup.dll provided by 3rd party was out of date. The file was updated and issue was corrected.	19.60.1 HF
WsP/Win7	BT-412	Some sentences had been cut off when install 8265 BT driver	Setup.dll provided by 3rd party was out of date. The file was updated and issue was corrected.	19.60.1HF
WP	BT-757	WMP can't normally work and no sound send out from speaker after resume from S3 with BT speaker connect.	Logic from an older adapter resulted in a HCI_Reset command being sent on D0Entry, sometimes resulting in no sound from the speaker. The fix was to check the adapter type to determine if the HCI reset command should be sent	19.41.1
WsP/Win7	BT-901	Win7 would have unexpected error code while silence upgrade install	Error was listed in incorrect list in mup.xml. File was corrected	19.60.1HF
StP/WsP/W in10	BT-925 BT-940	BT headset have no sound when take away unit about 25 meters with BT keyboard/mouse connected	Sending Flush indication event with wrong connection handle, now that check is modified to look for link specific flush variable and if this variable is set for link we send Flush event to Host.	New this release
WsP/Win7	BT-1307	Failure to upgrade from Bluetooth 19.30 to 19.50 on win7	The versioning for Win7 used to be controlled by a 3rd party. Intel has now integrated that source code so that this versioning is under Intel control	19.60.1HF
WsP/Win7	BT-1327	WHQL_Audio Logo Test (System)	This failure was root caused to slower SCO connection time. The connection time process was optimized for speed and the failure went away.	19.60.2 HF
WsP/Win10	BT-1394	BLE scanner is hard to receive 'Scan Response Packet' sometimes	Root cause was that the rate of increase of the backoff counter was too high which caused the scan response packet to be missed. The correction was to reduce this rate of increase.	New this release
WsP/Win10	BT-1591	Error 'Device 'Unknown USB Device' occurred when resume from S3/S4 or in standby	The 1ms remote wake up window was not protected properly. The fix was to protect the PPD power-on sequence in a critical section (the sensitive part), while allowing remote wake up 1ms window to be interruptible	New this release

Validation Guidance – 19.71 PV SP

Testable

Testable with comment

Blocked

Functional Area	WsP Beta	19.0 PC	19.0 PV	19.0 1 PV	19.10 PV	19.11 PV	19.30 PV	19.40 PV	19.50 PV	19.50.1 PV	19.60 PV	19.71 PV	Notes for This Release (see known Issues and Limitations for more details)
OPP													
AVRCP													
A2DP													
ACPI													
SPP													
FTP													
HFP													
HID													BT-1687 – Poor audio quality during skype calls – occasional distortion
Multi Profile													4 non-critical tests not passing
BLE HID													
PAN													
PBAP													
RF Kill													
Connected Stby													
Power Consumption													
Wake													
Sx transitions / Stability													
WiFi/BT Coex													WIFIWIN-114/WIFIWIN-118 – Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic
Installation / Upgrade													
Selective Suspend													
Device WHCK Pass Rate													

Known Issues & Limitations – 19.60 PV SP

NIC/OS	Defect ID	Description	Recovery	Comments
WsP/SfP/StP2/SdP/Win10	BT-143	HID lag/MOS degradation/WiFi tput under some conditions	N/A	Observed during internal COEX stress testing only. Not noticeable to end-users
WsP/Win8.1	BT-217	BLE devices fail to function on WsP/Win8.1 after being idle after performing an RF Kill and S5 warm state change	Reboot	Very unlikely use case and OS/NIC combination. Planned fix version is 19.70
StP/Wsp/Win10	BT-852	Increased Idle power consumption (~15mW)	N/A	RS2 BT background scanning Feature. MSFT investigating how to optimize. https://docs.microsoft.com/en-us/windows/uwp/launch-resume/connected-apps-and-devices
SfP/Win10	BT-889	Cannot connect to more than 5 LE peripherals enabled on DUT	N/A	Planned fix version is 19.70
WsP/SfP/StP/Win7	BT-977	BT enumerator disappears while HID reconnects	N/A	This is occurring when mouse is idle and you go to use it again, the BT enumerator can drop for a few seconds but then reconnects and works. Planned fix version is 19.70
WsP/SfP/StP/Win7/Win10-RS2	BT-981	HFP has low audio quality when inquiring during stream	N/A	RS2 and Win 7 seeing HFP audio stutter when force search for surrounding BT devices. Failure rate 60%. Planned fix version is 19.70
DgP/Win10	BT-1011	Very long BLE mouse connection after BT OFF/ON or after S3	N/A	Microsoft issue. Solution under discussion
WsP/Win10	BT-1053	HID Mouse lags or stops working after LE peripherals are enabled on DUT	N/A	Cannot connect HID mouse while LE peripherals are enabled. Planned fix version is 19.70
SdP/StP/Win10	BT-1245	LE+BR/EDR connection to the same device cannot be sustained	N/A	Same issue as BT-888 see below, but this defect is for ROM based products. Planned fix version is 19.70
WsP/Win10	WiFiWin-114 WiFiWin-118	Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic	N/A	Less common BT use case (OPP). OPP tput degradation up to 50%

Corrected issues – 19.60 PV SP

NIC/OS	Defect ID	Title	Root Cause/Comments
SfP/WsP/Win10	BT-858	Bluetooth mice experience glitches due to connection resets	This was due to a side effect of a software WA. The WA was removed and this problem is no longer observed.
WsP/Win10	BT-867	Services discovery keep on failing on automation testbed for most HFP/A2DP tests @ ~ 30-50 dBm pathloss	Same root cause as BT-858
SfP/WsP/Win10	BT-888	LE+BR/EDR connection to the same device cannot be sustained	Priority setting resulted in the BR/EDR link not getting scheduled frequently enough resulting in a very low tput which can result in a disconnect. The priority setting was corrected.
StP/All OS	BT-901	Win7 would have unexpected error code while silence upgrade install	Error code was incorrect in XML. XML file was corrected.
Win8.1	BT-929	BT WHQL got failed result	RSSI range which triggers remote device TX power modification was adjusted to enable more reliable eSCO transfers.
Win7/SdP/StP	BT-992	Bluetooth - Downlevel - Bluetooth 2.1 Logo Tests (Windows 7) failed at very last step "Parse Event Log for Errors" with "Device errors were found in the event log." error	Message intended only for RAM based products (SfP/WsP) sent to ROM product (SdP). Fix is to check for product type before sending command.
WsP/Win10	BT-1004	Bluetooth setting/icon disappear and device is disconnected in a short time	A controller reset was caused because the scheduler was blocked due to all IRQs being disabled. The fix was to only block USB interrupts. BT-977 is a dup of this.
SfP/Win8.1	BT-1158	BT device becomes Generic Bluetooth Adapter after upgrade install from 19.40 to 19.50.1	Due a versioning change the upgrade procedure was not working properly because the Windows check indicated an upgrade was not needed. The fix was to change part of the versioning so that window would upgrade properly
StP/SdP/Win7/Win10	BT-1174	Error'Device 'Unknown USB Device ... added/removed' occurred when running WinPVT Restart, Standby, and Hibernate Stress	ROM devices have limited patch space and when new fixes are needed it can be a challenge to find the required memory. The root cause here was that a patch that was written in C was converted to assembly code to conserve space. The issue was due to a coding error.

Issues no longer observed/Closed for other reasons/Non-Intel 19.60 PV SP

NIC/OS	Defect ID	Title	Comments
WsP/Win7	BT-94	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	No longer seen with latest build
WsP/Win10	BT-377	Higher power for MS BLE Mice while connected / idle	This issue was a side effect due to a work around. The fix for BT-1004 eliminated the side effect so BT-377 is no longer observed with 19.60
WsP/SfP/StP2/SdP/Win10	BT-63	Low WiFi tx throughput while BT A2DP active streaming DUT in slave role	Not a valid test case
StP/SfP/WsP/Win7/Win10	MWG100264377 BT-44	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	Test setup issue not Intel issue

Known Issues & Limitations – 19.50 PV MR

NIC/OS	Defect ID	Description	Recovery	Comments
WsP/Win8.1	BT-217	BLE devices fail to function on WsP/Win8.1 after being idle after performing an RF Kill and S5 warm state change	Reboot	Very unlikely use case and OS/NIC combination
WsP/Win7	BT-94	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	Automatically recovers	Limited to a specific OEM and only to couple of their platforms but recovers after 1.5 minutes. Failure rate is <25%. Fix planned for 19.60
WsP/SfP/StP2/SdP/Win10	BT-143	HID lag/MOS degradation/WiFi tput under some conditions	N/A	Observed during internal COEX stress testing only. Not noticeable to end-users
WsP/Win10	BT-867	Services discovery keep on failing on automation testbed for most HFP/A2DP tests @ ~ 30-50 dBm pathloss	N/A	Part of internal stress test. Failure seen about 60%. Unlikely to be noticed in normal use. Fix planned 19.60
WsP/SfP/StP/Win7	BT-977	BT enumerator disappears while HID reconnects	N/A	This is occurring when mouse is idle and you go to use it again, the BT enumerator can drop for a few seconds but then reconnects and works
WsP/SfP/StP/Win7/Win10-RS2	BT-981	HFP has low audio quality when inquiring during stream	N/A	RS2 and Win 7 seeing HFP audio stutter when force search for surrounding BT devices. Failure rate 60%
WsP/StP/Win10 RS2	BT-852	Increased Idle power consumption (~15mW)	N/A	RS2 BT background scanning Feature. MSFT investigating how to optimize. https://docs.microsoft.com/en-us/windows/uwp/launch-resume/connected-apps-and-devices
WsP/Win10	BT-858	Bluetooth Legacy mice experience glitches due to connection resets	Disable selective suspend	Only seen on some BR/EDR mice and only when left idle for a prolonged time. Fix planned for 19.60(HF) ww10
SdP/StPWin7	BT-992	Bluetooth 2.1 Logo Tests (Windows 7) failed at very last step "Parse Event Log for Errors" with "Device errors were found in the event log." error	N/A	Will be fixed in 19.60HF planned for ww10
WsP/Win10	WiFiWin-114 WIFIWin-118	Lower BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic	N/A	Less common BT use case (OPP). OPP tput degradation up to 50%

Corrected issues – 19.50 PV MR

NIC/OS	Defect ID	Title	Root Cause/Comments
SdP/Win10	BT-84	BT headset is disconnected in aging test and reconnection fails	Only observed on a specific platform. Implemented a watchdog which improved performance to an acceptable level
WsP/Win7/Win10	BT-289/BT-338	BT mouse and KBD connection drop while connected to 2.4ghz AP with web browsing	Interrupt processing was blocked and prevented transmit programming from completing properly. Changed interrupt methodology to fix issue.
WsP/Win10	BT-496	More than 2 LE links not functional in DUT(Central role)	Data corruption because of incorrect pointer usage. Pointer usage was corrected.
Wsp/Win7	BT-500/BT-508	VTS performance, Suspend results can't meet spec. / BT device exceeds the time parameters of the VTS	Sometimes responses were not processed completely. The fix was to optimize the messaging protocol
WsP/Win10	BT-520	BT mouse is not working	A shared pointer led to an to exception sometimes. Fix was to provide 2 dedicated pointers.
WsP/Win10	BT-681	The BT device cannot be used after paired with system	See BT-520 comment
WsP/SfP/StP/Win8.1	BT-706	Concurrent BLE test (7 LE links) failed because of LE disconnection with LL Response timeout/connection timeout	Data corruption because of incorrect pointer usage. Pointer usage was corrected. See BT-496
WsP/Win10	BT-716	Connect the Bluetooth, mouse, keyboard, earphone, and all equipment will be disconnected for some time	Due to illegal mem access. Mem access was corrected.

Corrected issues – 19.50 PV MR

NIC/OS	Defect ID	Title	Comments
WsP/Win 10	BT-750	Unsigned DpInst.exe	Fixed by including it as part of the elements to be signed
WsP/Win 10	BT-757	WMP can't normally work and no sound send out from speaker after resume from S3 with BT speaker connect.	Logic from an older adapter resulted in a HCI_Reset command being sent on D0Entry, sometimes resulting in no sound from the speaker. The fix was to check the adapter type to determine if the HCI reset command should be sent
WsP/Win10	BT-816	Noisy HFP audio after reboot when a LE Mouse connected	Improper packet length initialization after reboot led to audio noise. Initialization issue was corrected
WsP/Win 10	BT-882	DUT stopped receiving scan response after longer testing	Synched on a spurious packet resulting in scan response being missed. Buffering change fixed this.
WsP/Win 10	BT-916	DUT stopped sending scan response after longer testing	SCAN_REQ packet was not being transmitted sometimes due to lower COEX priority. Fixed by raising it's priority to high.

Issues no longer observed/Closed for other reasons/Non-Intel 19.50 PV MR

NIC/OS	Defect ID	Title	Comments
WsP/SfP/StP2/ SdP/Win10	BT-63	Low WiFi tx throughput while BT A2DP active streaming DUT in slave role	Not a valid test case
WsP/Win10	BT-177	BT LE HID is lagging during Wi-Fi Tx/Rx traffic OR Wifi Rx is Low on Active LE movement	No repro with 19.50
StP/SfP/WsP/Win7/ Win10	MWG100264377 BT-44	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	Test setup issue not Intel issue

Known Issues & Limitations – 19.40 PV SP

NIC/OS	Defect ID	Description	Recovery	Comments
WsP/Win7	MWG100266168 BT-500	BT device exceeds the time parameters of the VTS tool	None	VTS is a MSFT tool used to measure suspend/resume times and is used by some OEM/ODMs. Complete fix expected from Intel USB team
WsP/Win8.1	BT-217	BLE devices fail to function on WsP/Win8.1 after being idle after performing an RF Kill and S5 warm state change	Reboot	Very unlikely use case and OS/NIC combination
WsP/Win7	MWG100263816 BT-94	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	Automatically recovers	Limited to a specific OEM and only to couple of their platforms but recovers after 1.5 minutes. Failure rate is <25%.
WsP/Win7/Win10	BT-289/BT-338	BT BLE Mouse and BLE KBD connection drop while connected to 2.4Ghz AP with web browsing session active	NA	This issue will not occur in this release due to another change. It is listed here because it is still actively being worked on and has not been fixed permanently yet. Fix coming in 19.50
SdP	BT-84	BT headset is disconnected in aging test and reconnection fails	Low FR; Improved in 19.30	Fix planned for 19.50
StP/SfP/WsP/Win7/Win10	MWG100264377	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	N/A	Uncommon use case (OPP file transfer) File transfer speed is degraded and sometimes MOS is degraded also but all profiles still work. Failure rate 3/5.
WsP/SfP/StP2/SdP/Win10	MWG100267483/BT-177 MWG100265993/BT-143 MWG100265518/BT-63	HID lag/MOS degradation/WiFi tput under some conditions	None	Observed during internal COEX stress testing only. Not noticeable to end-users
WsP/Win10	BT-757	Windows Media Player can't normally work and no sound send out from speaker after resume from S3 with BT speaker connect	Not characterized yet	In Progress

Corrected issues – 19.40 PV SP

NIC/OS	Defect ID	Title	Comments
SdP/SfP/WsP/Win 7	MWG100264421 BT-46	BT HFP connection dropped after pairing to second platform with OS win 10	During a Win7 HFP session a 2nd PC with Win 10 was paired. A generic abort was sent by the Win10 PC but that killed the original HFP session. Fix was to change the code so that only an abort signal from 2 entities linked in the HFP session can end the session
SfP/WsP/Win 10	MWG100266200 BT-160 MWG100259128 BT-120	BT headset fails to Auto Reconnect back to DUT while running BT SW RFKILL OFF/ON	In some scenarios and for some headsets the re-connection procedure was not working reliably within the Windows 5s BT connection period. The scan/page procedure was optimized for reliable reconnection for all devices.
SdP/SfP/StP2/Win 7/Win 10	MWG100266347 BT-164	Paired HID mouse doesn't work after S3 with Wake on Bluetooth	Sometimes the BT remote wake process fails due to a race condition that results in the connection request getting dropped. The code was changed to preserve the connection request and process it immediately after the race window.
SfP/Win10	BT-343	Bluetooth pairing fail when LTE is enabled	A signal was being checked during pairing. This was incorrect behavior and caused the pairing issue and is fixed by this change.

Issues no longer observed/Closed for other reasons/Non-Intel (19.40)

NIC/OS	Defect ID	Title	Recovery	Comments
WP2/Win10	BT-327	SKL/3168/WIN7]The yellow bang about "Inter(R) wireless Bluetooth(R)" when wake up system from S3	reboot	No longer seen
SfP/Win7	MWG100264945/ BT-54	BT LE KB and MSE resume S3_S4 reconnect sometimes takes more than 5 seconds	N/A	Problem went away with updated USB driver

Known Issues & Limitations – 19.30 MR

NIC/OS	Defect ID	Description	Recovery	Comments
WsP/Win7	MWG100266168	BT device exceeds the time parameters of the VTS tool	None	VTS is a MSFT tool used to measure suspend/resume times and is used by some OEM/ODMs.
WsP/Win8.1	BT-217	BLE devices fail to function on WsP/Win8.1 after being idle after performing an RF Kill and S5 warm state change	Reboot	Very unlikely use case and OS/NIC combination
WsP/Win7	MWG100263816 BT-94	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	Automatically recovers	Limited to a specific OEM and only to couple of their platforms but recovers after 1.5 minutes. Failure rate is <25%.
StP/SfP/WsP/Win7/ Win10	MWG100264377	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	N/A	Uncommon use case (OPP file transfer) File transfer speed is degraded and sometimes MOS is degraded also but all profiles still work. Failure rate 3/5.
WsP/SfP/StP2/SdP/ Win10	MWG100267483 MWG100265993 MWG100265518	HID lag/MOS degradation/WiFi tput under some conditions	None	Observed during internal COEX stress testing only. Not noticeable to end-users
SdP/SfP/WsP/Win7	MWG100264421	BT HFP connection running on Win7 dropped after pairing to second platform with Win10	Disable/ Re-enable BT	Fix coming in 19.40 – Role switch test. Uncommon use case and not a typical end-user scenario, part of an internal test plan. Failure rate 100%
WsP/Win7/Win10	BT-289/	BT BLE Mouse and BLE KBD connection drop while connected to 2.4Ghz AP with web browsing session active	NA	This issue will not occur in this release due to another change. It is listed here because it is still actively being worked on and has not been fixed permanently yet.

Known Issues & Limitations – 19.30 MR (Cont.)

NIC/OS	Defect ID	Description	Recovery	Comments
SfP/Win7/Win10	MWG100265663	Power consumption is increased after enabling SW RF kill	N/A	Side effect of a USB workaround. BT idle current is increased by ~3ma when using the SW RF Kill function. Normal BT current drain is not impacted. If a platform has updated USB software and the 19.30.1 HF with the USB workaround removed then this issue will not occur
WsP/All OS	MWG100266415	Sleep S3/S4 manually, SUT with new BT driver will auto wakeup with fail rate	NA	Known consequence of using 19.30. Only impacts customers using hybrid sleep. If a platform has updated USB software and the 19.30.1 HF with the USB workaround removed then this issue will not occur

Corrected Issues – 19.30 MR

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
StP-D1/Win10	MWG100264870 MWG100265123	Customer Specific issue	Protocol mismatch due to backward capability omission. Code was changed to take into account earlier revisions of an API
SfP/WsP/Win10	MWG100259067	A2DP Source (Master) + BLE HID + OPP Rx (Master) : OPP tpt is low.	Maintenance packets were scheduled too frequently causing some OPP packets to be dropped. Maintenance packet scheduling was changed so that OPP tpt is no longer impacted.
SdP/Win10	MWG100260992 MWG100264937	DRTU was not automatically loading Bluetooth drivers	Interface was incorrectly set to UART instead of USB. This prevented communication from the DRTU tool to the adapter. Fix was to set to the appropriate interface.
WsP/Win10	MWG100262843	Poor A2DP audio quality after resuming from S4	Incorrect QoS setting prevented A2DP stream to be protected from high priority actions. This sometimes resulted in A2DP audio gaps. Qos setting was corrected. Improvement may be noticeable end-users.
Sfp/Win10	MWG100263952	Intel 8260 BT will be gray and still disabled after resuming from S3/S4 with airplane mode on.	Issue seen with older OTP only when BT and WiFi are contending for authentication services. A work around was put in place so that BT will get guaranteed access upon retry. End-users who have the older OTP may notice
SfP/WsP/Win7	MWG100264254	With BT headset connected user is not able to pair/connect to DUT2	Role switch rejection from the peer device was not handled properly resulting in disconnection. Code was changed to handle the role switch rejection case.
WP/Win7	MWG100264679	BSoD 0x50 occurs on WiFi driver 17.x or 16.x if BT driver v19.x is installed	A newer iBTSiva API did not take into consideration the need to interoperate with older WiFi SW versions. This resulted in an insufficient memory situation resulting in a BSOD. The API was changed for backwards compatibility. End-users who had older WiFi will benefit from this change.
WP1/StP1/Win10	MWG100264814	WP1 disappears after Sx transition	ibtsiva was skipping over all non-WP2 cards (WP1,StP, SfP, etc.) in it's service loop. As a result, non-WP2 cards that encountered a YB were not being soft-reset. Software was changed to check all adapter variants. End-users with non-WP2 adapters may see fewer Ybs

Corrected issues – 19.30 MR PV

NIC/OS	Defect ID	Title	Comments
StP1/WsP/Win10	MWG100265028 MWG100265103 MWG100265104	Unexpected characters for BT in device manager	Wrong encoding UTF-8 used instead of UTF-16. This only happens on certain Asian language OS's so some end-users might see it.
WsP/Win10	MWG100265144	The text layout of BT installation window is broken	Incorrect implementation in build script. Some end-users who are manually installing Asian languages versions of Win10 might notice.
WsP/Win10	MWG100265360	WsP BLE has lower TX power compared to past releases	Frequency compensation used wrong channel due to API change and it resulted in lower TX power. Code was changed to use the correct channel
SfP/Win7	MWG100261864 MWG100266015 MWG100263735	WiFi Throughput decreased if pairing BT mouse on Win7 A specific Customer COEX test was failing	A bandwidth allocation calculation for BT scanning was incorrect resulting in reduced WiFi tput and was not meeting lab test expectations. The calculation was corrected and lab test passed.

Issues no longer observed/Closed for other reasons/Non-Intel – 19.30 MR PV

NIC/OS	Defect ID	Title	Recovery	Comments
StP1/Win10	MWG100264227	Intel 3165 Bluetooth Device will disappear when running S4 stress	reboot	MSFT suspected – refer to BITS298420 F/R – seen on 4 out of 6 platforms
WP2/Win10	BT-206	HOGP profile – Stuck cursor and noisy audio when pairing with a BLE mouse.	None	WP only issue. Closed as will not fix. Insufficient patch space
WsP/Win10	MWG100264151	After uninstalling driver during re-install and uninstall test cases, device won't enumerate in Device Manager	Upgrade to Win10 manually	Caused by older BT version in MSFT Dynamic Update (DU). Root causes is that his older version does not have support for WsP. Once MSFT updates DU to 19.10 this will no longer be an issue.

Important Notes about this Release

This release has been certified for Win10 Redstone 1 (RS1) and is the beta release for Redstone 2 (RS2).

When using Windows 7 this release will work best if paired with a USB driver dated Aug. 2016 or newer.

INF install is supported for Win10 on WsP, SdP, WP, StP, and SfP.

- The INF directory includes ibtusb, and ibtfltcoex folders. These correspond to USB based devices, and Jackson Peak devices.
- Starting with this release, UART support has been dropped. There is no longer a ibtuart folder

IBTSIVA is ON for all HW/SW combinations

Previously we noted that the INF_Install directory had a folder called LNP which contained the Snowfield Peak software. This was a source of confusion and in this release the folder was renamed back to SFP

Known Issues & Limitations – 19.11

NIC/OS	Defect ID	Description	Comments
WsP/Win7	MWG100263816	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	Limited to a specific OEM and only to couple of their platforms but automatically recovers after 2 minutes. Failure rate is <25%
StP/WsP/Win7	MWG100264303	Low OPP throughput when transferring a file during A2DP streaming with a BLE or HID mouse paired	Only impacts OPP tput. Tput sometimes drops below 50Kbps instead of 100Kbps but everything works.
StP/SfP/WsP/Win7/Win10	MWG100264377	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	Uncommon use case OPP file transfer.. File transfer speed is degraded and sometimes MOS is degraded also but all profiles still work.
WsP/Win10	MWG100264151	After uninstalling driver during re-install and uninstall test cases, device won't enumerate in Device Manager	Caused by older BT version in MSFT Dynamic Update. Dependency on MSFT. End-user will need to manually update if this issue encountered. Only happens when upgrading from Win7 to Win10.
SdP/SfP/WsP/Win7	MWG100264421	BT HFP connection running on Win7 dropped after pairing to second platform with Win10	Still under investigation – Role switch test but may be expected behavior between Win7 and Win10. Not a typical end-user scenario part of an internal test plan.
SfP/Win7	MWG100264945	BT LE KB and MSE resume S3_S4 reconnect sometimes takes more than 5 seconds	Reconnect is always successful just slower than it should be.
SfP/Win7/Win10	MWG100265663	Power consumption is increased after enabling SW RF kill	BT idle current increased by ~3ma when using SW RF Kill function. Normal BT current drain is not impacted.

Corrected Issues – 19.11

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
WsP/Win10	MWG100263963 MWG100260561	Bluetooth shows yellow bang after restart when using a specific OEM procedure	Due to windows kernel mode constraints the path to the drive name (C, D, etc) must be absolute. Previously we used the "BootDir" registry key for the drive name but this proved inadequate for one of our customers so switched to "InstallerLocation" registry key.
StP/Win10	MWG100263688	"ibtusb.sys" can't uninstall from Windows system	Custom Action to delete the file was not running with Admin privileges. Made changes to that the action is now run with the right privileges.
SdP/WsP/Win7	MWG100264249	YB code 43 while running S3, S4 cycles with KBD and Mouse connected	Firmware sometimes takes more than 1sec to respond to a HCI reset command and previously a 1s timer was used, so when the timer expired it would cause a fault. This was fixed by increasing the timer value.
WsP/Win10	MWG100264610	Bluetooth can halt in case where AP connected, streaming to headset and doing OPP file transfer or has BT scan window open for over 15 minutes	Due to an error in slot calculation, transmit was restricted to only odd numbered slots. This impacted throughput and resulted in unexpected behavior. The calculation was corrected and proper performance was restored
SdP/Win7	MWG100264422 MWG100264254	With BT headset is connected user is not able to pair/connect to a second BT enabled platform	The case when a role switch failed was not fully implemented and this resulted in a missed authentication step which ended up in the link being dropped. The missing code was added and the issue has been resolved.
WP/StP/Win10	MWG100263325	WHCK issue with RS1 (UsbScoDataTransportLayer fail on FullDuplexDataTransfer) on StP/C0	This failure was due to a bad code merge. The code was reviewed and corrected.
All/All	MWG100261760	The lbtver does not display the correct HW string for some adapters	Coding mistake resulted in the wrong HW being reported.

Corrected Issues – 19.11

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SfP/Win10	MWG100265044 MWG100264281 MWG100263952 MWG100263556 MWG100264762 MWG100264304	Bluetooth is missing from the Device Manager after S3/S4 and hybrid S5	Older OTP had authentication error when both WiFi and BT download firmware at same time. Fix is to detect the older OTP and then give enough time for WiFi FW to download before starting BT FW download. This result in slower FW download but YB no longer observed.
WP2/Win7	MWG100264678 MWG100264679 MWG100264680	BSOD (BugCheck 50) occurs after installing new Bluetooth driver and v17.x WiFi	A change was made to WiFi code which impacted ibtsiva functionality. Fix was to adjust ibtsiva to detect different WiFi versions and allocate appropriate memory for proper communication.
WsP/Win7	MWG100262127 MWG100260404	BLE Mouse and Keyboard take too long to reconnect (more than 5s)	FW download procedure was optimized for speed by changing the packet download protocol. This change only works for WsP. A separate change is needed for SfP (MWG100264945)
All/Win10	MWG100265103 MWG100265104 MWG100265028 MWG100265372	BT device name is broken in Device Manager	Impacted languages that required 2 byte characters. Tool auto changed to UTF-8.
WsP/Win10	MWG100265144	The text layout of BT installation window is broken	Clip art and localized text direction were misaligned. Scripting error.

Corrected Issues – 19.11

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
WP1/StP1/All	MWG100264814	Some adapters disappears after Sx transition (observed on WP1)	Non-WP2 cards that encountered a YB were not being soft-reset.

Issues no longer observed/Closed for other

NIC/OS	Defect ID	Title	Comments
WsP/Win10	MWG100259125	EventID17 on BTHUSB While Running S3 or S4 cycles	Specific OEM provided a BIOS fix and issue is no longer observed
StP/D0	MWG100260855	A2DP can be choppy on reconnect when power off/on a headset for about 30-40 seconds. – 2 test of 4 failures	Defective headset. Another one of the same model was tried and it worked fine.
WsP / Win8.1, Win10	MWG100256725	After wake up from S3 to S4 transition the Bluetooth shows as yellow bang	Microsoft Issue resolved with TH2 KB 3156421
SfP/Win10	MWG100239677	BT Yellow bang on Code 43 while timer set to transfer from S3 to S4 then resume	MSFT Issue - MSFT provided WU release #3156421 that fixes the issue
SfP/All OS	MWG100262698	Toggle RF Kill 100x test cannot complete 100 cycles	Internal Automated test. Test setup issue confirmed
WsP/SfP/All OS	MWG100260732	Driver version is not consistent between DM, DM details and Program and features	MSFT controls this display
WsP / Win10	MWG100256764	AVRCP does not work while the DUT is in CS	(closed, cannot use AVRCP in CS)
SfP/Win7	MWG100258426	BSOD (0x9F) occurred when run WinPVT WMI Stress overnight. (closed not a defect)	Only reproduced on a specific OEM laptop. Closed on BT side and moved to Wifi team.
SfP/Win10	MWG100259487	Intel 8260 BT show error message.FR:4/25	Closed on Intel side. MSFT indicated this is fixed in RS1.
StP/SdP/SfP/WsP/Win10	MWG100263149	YB on BT driver during internal stress test	No longer observed
StP/WsP/Win7	MWG100264303	Low OPP throughput when transferring a file during A2DP streaming with a BLE or HID mouse paired	Only impacts OPP tput. Tput sometimes drops below 50Kbps instead of 100Kbps but everything works.

Known Issues & Limitations – 19.10 PV iBTW0xxx

NIC/OS	Defect ID	Description	Comments
SfP/WsP/all OS	MWG100258196 MWG100257333 MWG100258438 MWG100263414 MWD100257333	COEX Related Tput issues	Plan to correct in future release
WP/StP/Win10	MWG100263325	WHCK issue with RS1 (UsbScoDataTransportLayer fail on FullDuplexDataTransfer) on StP/C0	Will be fixed in 19.11
StP/Win7	MWG100260753	COEX: Low Mos Score in during Wifi Tx and Rx traffic	MOS score 2.68
WsP/Win7,Win10	MWG100260754	COEX:Low Mos Score in during Wifi Associated or Wifi Tx or Rx traffic	MOS score 1.9-2.5; passing score is 3.5
SfP/Win7	MWG100258438	COEX:Low Mos Score in during Wifi Tx on	MOS score 1.525
WsP/Win7	MWG100260754 MWG100258438	COEX: Low Mos Score in during Wifi Associated or Wifi Tx or Rx traffic	Will be fixed in future release
WsP/Win10	MWG100258196 MWG100259448	Low OPP Throughput for Send and Receive traffic along with Wifi traffic	Will be fixed in future release
WsP/Win7	MWG100263816	Driver has yellow bang in Device Manager immediately after installation for more than a minute then is able to recover	Will be fixed in future release
StP/WsP/Win7	MWG100264303	Low throughput when transferring a file during A2DP streaming with a BLE or HID mouse paired	Tpt drops to 20Kbps instead of 100Kbps but all profiles still work.
StP/SfP/WsP/Win7/Win10	MWG100264377	Low throughput and/or low MOS score encountered during send/receive file while streaming HFP audio	Multi profile issue. File transfer speed is degraded and sometimes MOS score is also

Known Issues & Limitations – 19.10 PV iBTW0xxx

NIC/OS	Defect ID	Description	Comments
SdP/Win7	MWG100264422 MWG100264254	With BT headset connected user is not able to pair/connect to DUT2	Only happens on subsequent re-pairing. Fix coming in 19.11
WsP/Win10	MWG100264151	After uninstalling driver during re-install and uninstall test cases, device won't enumerate in device manager	Caused by older BT version in MSFT Dynamic Update. Working with MSFT to update. End-user will need to manually update if this issue encountered.
WsP/Win10	MWG100264610	Bluetooth can halt in case where AP connected, streaming to headset and doing OPP file transfer or has BT scan window open for over 15 minutes	Will be fixed in a later release
StP/Win7	MWG100263943	Yellow Bang - Problem Code 10 - on StP D0	Failure observed 2/1000 trials on BDW/HSW system
StP/SdP/SfP/WsP/Win10	MWG100263149	YB on BT driver during internal stress test	FR 10/1400. Will be fixed in a later released
SdP/SfP/WsP/Win7	MWG100264421	BT HFP connection dropped after pairing to second platform with OS win 7	Still under investigation

Corrected Issues – 19.10 PV iBTW0xxx

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SdP/Win10	MWG1002263817	Device Yellow Bang - Problem Code 10	This YB was due to the Host timing out before receiving the HCI Reset Command Complete Event. Previously, the timeout was 1 second. With a recent change to FW, HCI reset can take up to 1.5s. To account for this and provide a safeguard, we have increased the HCI command timeout to 4 seconds.
SfP/WsP/Win8.1/Win10	MWG100264300	YB during install on some platforms	ibusb driver was changed to look for the install and upgrade registry key in a new location. The new inx generation scripts hadn't integrated this change.
SdP/Win10	MWG1002263817	Device Yellow Bang - Problem Code 10	This YB was due to the Host timing out before receiving the HCI Reset Command Complete Event. Previously, the timeout was 1 second. With a recent change to FW, HCI reset can take up to 1.5s. To account for this and provide a safeguard, we have increased the HCI command timeout to 4 seconds.
SfP/WsP/Win8.1/Win10	MWG100264300	YB during install on some platforms	ibusb driver was changed to look for the install and upgrade registry key in a new location. The new inx generation scripts hadn't integrated this change.
SfP/WsP/All OS	MWG100256648	Yellow Bang sometimes observed during upgrade to Win10	Versions older than 18.16.1 only had a 2 part HW ID for WsP and StP which fail to load the correct FW file resulting in a YB. 3rd party SW change to 3 part HW ID corrects this issue.
SfP/Win7	MWG100253400	Device Yellow Bang - Problem Code 10	usb reset disables EP without clearing corresponding interrupt bit
SfP/WsP/Win10	MWG100263188	YB on BT driver (code 43) while running S3/Resume cycles with BT KBd, mouse, Headset connected	Asynchronous WiFi kill action disrupted a BT RX initialization activity resulting in a fatal error. Change was made to handle the RF Kill so that this would not happen.

Corrected Issues – 19.10 PV iBTW0xxx

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SdP/Win7	MWG100263191	Device Yellow Bang - Problem Code 10	<p>Symptom #1: event and ACL EP stuck due to flushing w/o proper EP disable</p> <p>Symptom #2: event EP stuck due to disabling EP w/o first checking if EP was enabled first in usb reset (SnowfieldPeak had the same problem already addressed in a separate CQ)</p> <p>Impact: on some machines such as E54_1, BT YB and unusable after average 10 cycles of S3, until a full power shutdown and reboot</p>
SfP/Win7	MWG100256935	BT yellow bang(Code 10) when running S3 aging	<p>2 root causes were identified. (1) FW not handling clear_feature (halt) (2) Incomplete host recovery mechanism. The host recovery mechanism was improved to include USB port reset when pipe halt happens.</p>
SfP/WsP/Win7	MWG100261263	Driver has yellow bang in Device Manager immediately after installation	<p>When the iBTUSB driver is installed, it checks the "InstallOrUpgrade" registry key and reset the device to bootloader if this value is 1. Normally, this registry key is installed/created by the INF.</p> <p>For Win7, it uses the Motorola's INF file to install the driver and this key was missing in there. So, the driver never reset the device to bootloader after the first installation, if the device is already running in operational mode.</p> <p>Fix is done in 3 places</p> <ul style="list-style-type: none"> - For RAM based INX, hardcoded the registry key. - Updated build script so it doesn't create the registry key during the build. - Updated the driver to read the registry key from the new location and reset the device.

Corrected Issues – 19.10 PV iBTW0xxx

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SdP/win7	MWG100263191	Device Yellow Bang - Problem Code 10 - on SDP	Incomplete USB endpoint management Impact: On some machines such as E54_1, BT YB and unusable after average 10 cycles of S3, until a full power shutdown and reboot
StP1/Win10	MWG100256942	With specific OEM application the Bluetooth Device sometimes disappears when resume from S3 & S4. test with F/R 1/10.	Driver was not reading all the buffered responses upon returning to an active state from sleep. An additional improvement was to send an HCI_Reset if one were not sent from the OS.
WsP/win7	MWG100263231	BSOD on 9F X64_0x9F_3_POWER_DOWN_ibtusb_IMAGE_iusb3hub.sys while running S5 cycles	After sending RFKILL command, skip reading the event and let the system exit D0.
StP/SdP/Win10	MWG100262773	Bluetooth disappears randomly from the device manage rand and shows up as unknown device	Improvement in performance after removing a previous software patch.
All Adapters/All OS	MWG100261907 MWG100262423 MWG100262518 MWG100262519 MWG100262746	Bluetooth Stops Working after KB3161608 is install on Win 7	3 rd party SW design made assumption about location of table in MSFT nttdll.dll. MSFT made change that caused table location to move and thus resulted in impaired BT functionality. Additional information available from Intel account managers.

Corrected Issues – 19.10 PV iBTW0xxx

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SfP/WsP/Win10	MWG100256041 MWG100244910 MWG100259003	BT Failed to auto repair with headset after RF Kill On, cycle Sx, RF Kill off	<p>When the windows host enters different power save modes, it is supposed to release the existing connections gracefully. If the existing connections are not closed gracefully, the remote devices wait for the connection time-out before trying to re-connect back. During this time if the other device stops trying to connect, it may not connect back at all. This problem will be seen when we go to these power save modes but come back quickly before normal timer expiry.</p> <p>The correction is that during a HCI_reset with existing connections then the controller initiates the disconnection with the remote devices</p>
StP D1/Win10	MWG100258250	During BLE HID movement, BT lag and Wifi Tpt reduced	BT lag issue fixed . Only seen on StP D1 during LE HID movements
StP/Win10	MWG100256735 MWG100259047	Hardware information shows unknown on Intel®Wireless Bluetooth® Properties	The issue is that when ibtproppage dll is called with insufficient privilege, the IOCLT to read fw version from the dll fails and the BT property page is populated with the statement "Unknown" device. To fix the issue, ibtproppage dll is enhanced to read the version from the registry which is kept updated by the driver.
StP/SdP/SfP/WsP /Win7	MWG100260040 MWG100262772	ibtsiva not present after Upgrade install scenario	"There are multiple version numbers in Intel's Bluetooth software for Windows 7. There is the version recorded inside the installer itself, in the MSI file, that is built by Motorola. In addition there is a driver added to the build by Intel, that has its own version number. The previous version of the Motorola installer did not properly handle a situation that resulted from a Microsoft behavior that the installation framework does not install new files if they are older than what is currently on the system, which in a complex scenario could result in ibtsiva.exe getting removed from the users system during the upgrade."

Corrected Issues – 19.10 PV iBTW0xxx

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
SdP/StP1/Win10	MWG100254549 MWG100256328 MWG100256329 MWG100260396	EDR HID Mouse movement is lagging when listening to A2DP audio	Resolved by raising priority of the mouse activity
SfP/Win10	MWG100255362 MWG100253351 MWG100257328 MWG100261863 MWG100261864	Low WiFi TpT when BT is Connectable Discoverable	Some packets should have been filtered out from the calculation. This filtering was added.
StP/SdP/SfP/WsP	MWG100258441	MS Arc Touch mouse has issues connecting to DUT	Changed the behavior of the controller to close the connection when we don't have Rx buffers even when peer sets MD bit to one, but we don't close the connection event when we have Tx data to send (Tx MD bit was also set by us).
SfP/Win10	MWG100257492	AHBTW1264_18.1.1601.06 has included un-signed driver "ibtfltcoex"	Removed driver from build and package process
SfP/Win10	MWG100255777	EDR HID Laggy while reconnection when connected with A2DP and HID BLE, with WiFi traffic	Sniff attempt/timeout priority is lower than A2DP in BT scheduler. Some poorly behaving mice send out invalid DSniff sniff requests and skip every other sniff anchor point polling.
WP2+/All OS	MWG100261373	Bluetooth MSI Install logging not on by default	DCR 5007 Code was missing from PV files for the MSI

Issues no longer observed/Closed for other

NIC/OS	Defect ID	Title	Comments
WsP/Win10	MWG100259125	EventID17 on BTHUSB While Running S3 or S4 cycles	Specific OEM provided a BIOS fix and issue is no longer observed
StP/D0	MWG100260855	A2DP can be choppy on reconnect when power off/on a headset for about 30-40 seconds. – 2 test of 4 failures	Defective headset. Another one of the same model was tried and it worked fine.
WsP / Win8.1, Win10	MWG100256725	After wake up from S3 to S4 transition the Bluetooth shows as yellow bang	Microsoft Issue resolved with TH2 KB 3156421
SfP/Win10	MWG100239677	BT Yellow bang on Code 43 while timer set to transfer from S3 to S4 then resume	MSFT Issue - MSFT provided WU release #3156421 that helps fix the issue
SfP/All OS	MWG100262698	Toggle RF Kill 100x test cannot complete 100 cycles	Internal Automated test. Test setup issue confirmed
WsP/SfP/All OS	MWG100260732	Driver version is not consistent between DM, DM details and Program and features	MSFT controls this display
WsP / Win10	MWG100256764	AVRCP does not work while the DUT is in CS	(closed, cannot use AVRCP in CS)
SfP/Win7	MWG100258426	BSOD (0x9F) occurred when run WinPVT WMI Stress overnight. (closed not a defect)	Only reproduced on a specific OEM laptop. Closed on BT side and moved to Wifi team.
SfP/Win10	MWG100259487	Intel 8260 BT show error message.FR:4/25	Closed on Intel side. MSFT indicated this is fixed in RS1.

Known Issues & Limitations – 19.01 PV iBTW0285

NIC/OS	Defect ID	Description	Comments
StP D1/Win10	MWG100258250	During BLE HID movement, Wifi Tpt impacted	Partial fix - BT lag issue fixed – Wifi tput issue WIP – Only seen on StP D1 during LE HID movement
WsP / Win10	MWG100258196	OPP TPT less than POR	Plan to correct in future release
WsP / Win10	MWG100256764	AVRCP does not work while the DUT is in CS	Plan to correct in future release
SfP/Win7	MWG100258426	BSOD (0x9F) occurred when run WinPVT WMI Stress overnight.	Only reproduced on a specific OEM laptop. Closed on BT side and moved to Wifi team.
SfP/Win10	MWG100259487	Intel 8260 BT show error message.FR:4/25	Closed on Intel side. MSFT indicated this is fixed in RS1.
StP/SdP/SfP/WsP/Win7	MWG100260040/ MWG100262772	ibtsiva not present after Upgrade install scenario – win 7 only	Planned to be fixed in 19.11 PV (ww36) – In an upgrade scenario from an older Bluetooth driver version to this driver version Ibtstva will not work until the driver installation is repaired. Expected impact to end users is considered low.
SfP/WsP/all OS	MWG100258196, MWG100257333, MWG100258438, MWG100260750	Low OPP Throughput for Send and Receive traffic along with Wifi traffic/Low BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic/Low Mos Score in during Wifi Tx on [Win7 :DUT + BrcM NUC :BTOE]/Low OPP Throughput for Send traffic along with Wifi on and Associated & Wifi Rx/Tx.	Plan to correct in future release

Known Issues & Limitations – 19.01 PV iBTW0285

NIC/OS	Defect ID	Description	Comments
StP/Win7	MWG100260753	Low Mos Score in during Wifi Tx and Rx traffic	MOS score 2.68
WsP/Win7,Win10	MWG100260754	Low Mos Score in during Wifi Associated or Wifi Tx or Rx traffic	MOS score 1.9-2.5; passing score is 3.5
SfP/Win7	MWG100258438	Low Mos Score in during Wifi Tx on	MOS score 1.525
SdP/StP/Win7, Win10	MWG100260750	Coex]Low OPP Throughput for Send traffic along with Wifi on and Associated.	Fix coming in next release
SfP/All OS	MWG100262698	Toggle RF Kill 100x test cannot complete 100 cycles	Internal Automated test. Test setup issue suspected
WsP/SfP/All OS	MWG100260732	Driver version is not consistent between DM, DM details and Program and features	Will be fixed in future release
SfP/WsP/Win10	MWG100256041 MWG100244910 MWG100259003	BT Failed to auto repair with headset after RF Kill On, cycle Sx, RF Kill off	Will be fixed in future release
WsP/Win7	MWG100260754, MWG100258438	Low Mos Score in during Wifi Associated or Wifi Tx or Rx traffic (Coex) Observed with WiFi STHWFW0298	Will be fixed in future release
WsP/Win10	MWG100258196 MWG100259448	Low OPP Throughput for Send and Receive traffic along with Wifi traffic (Coex) Observed with WiFi STHWFW0298	Will be fixed in future release
SfP/Win7	MWG100257333	Low BT OPP Tx/Rx TPT while WiFi Tx/Rx traffic (Coex) Observed with WiFi STHWFW0298	Will be fixed in future release
SfP/Win10	MWG100260750	Low OPP Throughput for Send traffic along with Wifi on and Associated & Wifi Rx/Tx.(Coex) Observed with WiFi STHWFW0298	Will be fixed in future release

Corrected Issues – 19.01 PV iBTW0285

NIC/OS	Internal Defect ID	Description	Fix Comments/Root Cause
StP/SdP/SfP/WsP/Win7	MWG100260039	ibtsiva not present after Repair install scenario	The first attempt to run ibtsiva would sometimes fail because the firmware download was not yet complete. The fix was to add a delay when VID/PID not seen immediately.
SfP/Win7	MWG100256935 MWG100259424 MWG100259072 MWG100252350/ MWG100260436	BT yellow bang(Code 10) when running S3 aging	See Technical Advisory - MWG100256935_YB_during_S3_Aging_Test
WsP/Win10	MWG100262089	Memory leak issue occurred during S3 by ibtsiva.exe.	Within a while loop a buffer was being allocated to the same pointer. The delete/free routine was outside of the while loop. When more than 1 devld was found in the registry the leak occurred
SfP/All OS	MWG100255362 MWG100257328 MWG100261863 MWG100261864	Low WiFi TpT when BT is connectable, discoverable/Low WiFi TPT while BT discoverable/Wifi Throughput result is low with 18.40.2.1 WiFi driver with 19.0.x bluetooth driver enabled/WiFi Throughput decreased if pairing BT mouse on Win7	Rejected package content was included in AGG TL calculation

Issues no longer observed

NIC/OS	Defect ID	Title	Comments
WsP/Win10	MWG100259125	EventID17 on BTHUSB While Running S3 or S4 cycles	Specific OEM provided a BIOS fix and issue is no longer observed
StP/D0	MWG100260855	A2DP can be choppy on reconnect when power off/on a headset for about 30-40 seconds. – 2 test of 4 failures	Defective headset. Another one of the same model was tried and it worked fine.
WsP / Win8.1, Win10	MWG100256725	After wake up from S3 to S4 transition the Bluetooth shows as yellow bang	Microsoft Issue resolved with TH2 KB 3156421
SfP/Win10	MWG100239677	BT Yellow bang on Code 43 while timer set to transfer from S3 to S4 then resume	MSFT Issue - MSFT provided WU release #3156421 that helps fix the issue

Known Issues & Limitations – 19.0 PV iBTW0191

NIC/OS	Defect ID	Description	Comments
StP D1/Win10	MWG100258250	During BLE HID movement, Wifi Tpt impacted	Partial fix - BT lag issue fixed – Wifi tput issue WIP – Only seen on StP D1 during LE HID movement
StP/SdP/SfP/WsP/Win7	MWG100260040	ibtsiva not present after Upgrade install scenario – win 7 only	Planned to be fixed in 19.11 PV (ww36) – In an upgrade scenario from an older Bluetooth driver version to this driver version Ibtsiva will not work until the driver installation is repaired. Expected impact to end users is considered low.
WsP / Win8.1, Win10	MWG100256725	After wake up from S3 to S4 transition the Bluetooth shows as yellow bang	Microsoft Issue resolved with TH2 KB 3156421
WsP / Win10	MWG100258196	OPP TPT less than POR	Plan to correct in future release
WsP / Win10	MWG100256764	AVRCP does not work while the DUT is in CS	Plan to correct in future release
SfP/Win7	MWG100256935 MWG100259424 MWG100259072	BT yellow bang(Code 10) when running S3 aging	Plan to correct in future release
SfP/Win7	MWG100258426	BSOD (0x9F) occurred when run WinPVT WMI Stress overnight.	Plan to correct in future release
SfP/Win10	MWG100259487	Intel 8260 BT show error message.FR:4/25	Joint investigation MSFT/Intel - ongoing

Corrected Issues – 19.0 PV iBTW0191

NIC/OS	Internal Defect ID	Description	Comments
WsP / Win10	MWG100259683	Unable to find devices in inquiry window after installing the bluetooth driver	
SdP/WsP/Win10	MWG100260039	ibtsiva not present after Repair install scenario	
WP2/all	MWG100244881	IBTSIVA does not work properly ... WiFi OID didn't get digital HW reset signal from iBT(buffer too short)	Issue occurred due to code refactoring
WsP / all	MWG100259047/ MWG100256735	Intel 8265 BT show "Unknown" and different FW version in hardware tag/ Hardware information shows unknown on Intel®Wireless Bluetooth® Properties	
WsP/ Win8.1	MWG100257488	System WHQL - Bluetooth Point to Point Tests (Windows v6.3) failure	
WsP / all	MWG100258038	The Hardware tab for the WsP BT adapter in Device manager shows the BT adapter as Unknown.	
StP/Win8.1	MWG100256942	Use Bluetooth Lock to Work(lock&unlock screen), The Bluetooth Device sometimes disappear when resume from S3 & S4. test with F/R 1/10.	
SfP/Win7	MWG100253496	BT Speaker doesn't reconnect after BT speaker power off>on	
StP/SdP/Win8.1	MWG100250303	Headset disconnects in random (~10mins) during HFP connection (fixed bug, to use 1 patch vector instead of occupied 3 vectors).	
SdP/Win7/Win10	MWG100256193	BT A2DP lag with WiFi radio on	

Corrected Issues – 19.0 PV iBTW0191

NIC/OS	Internal Defect ID	Description	Comments
SfP/Win10	MWG100258108	BT HID is lagging while WIFI traffic	
StP/SfP/Win7	MWG100249565	HFP audio becomes corrupted when other profiles are used	
SfP/Win10	MWG100255423	Throughput drop or connection drop happens while surfing internet web site with BT mouse connected	
SfP/Win10	MWG100250420	Specific BT A2DP lagging with WiFi radio on	
WsP/all	MWG100255519	BT HW RF kill inoperative	
WsP/Win8.1	MWG100257384	System WHQL - Bluetooth Inband SCO Test" fails	

Known Issues & Limitations – WsP Beta AHBTW1296

NIC/OS	Internal Defect ID	Description	Comments
WsP / all	MWG100255519	BT HW RF kill inoperative	Planned to correct for PC/PV
WsP / Win8.1, 10	MWG100256725	After wake up from S3 to S4 transition the Bluetooth shows as yellow bang	Microsoft Issue, expected to be resolved in RS1. Microsoft Case Numbers: Windows 10: ID:115092113185494 & ID:215092113185494001, Windows 8.1: ID:115012612322494.
WsP/ Win8.1	MWG100257384	System WHQL - Bluetooth Inband SCO Test" fails	Planned to correct for PC/PV
WsP/ Win8.1	MWG100257488	System WHQL - Bluetooth Point to Point Tests (Windows v6.3) failure	Planned to correct for PC/PV
WsP / all	MWG100258038	The Hardware tab for the WsP BT adapter in Device manager shows the BT adapter as Unknown.	Planned to correct for PC/PV
WsP / Win7	MWG100258447	LE HID does not wake the DUT	Wake function supported with KBL platform only and requires KBL platform BIOS v33.4 (ww16 platform BKC)
WsP / Win7	MWG100258448	HID after wake no mouse movement	
WsP / Win10	MWG100258196	OPP TPT less than POR	Planned to correct for PC/PV
WsP / Win10	MWG100256764	AVRCP does not work while the DUT is in CS	Planned to correct in future release

Fixed Issues – WsP Beta AHBTW1296

NIC/OS	Internal Defect ID	Description	Comments
SfP, WsP / Win10	MWG100250420	BT A2DP lagging with WiFi radio on	Some devices have been found not to comply with power control as defined by BT SIG spec. Disabled ATPC pending longer term solution.
SfP, WsP / Win10	MWG100255423	Throughput drop or connection drop happens while surfing internet web site with BT mouse connected	Adjust WiFi higher priority + force Dynamic SMPS
All / Win7	MWG100253496	BT Speaker doesn't reconnect after BT speaker power off>on	Corrected state machine in disconnect flow
SfP, WsP / Win10	MWG100256942	Bluetooth Device sometimes disappear when resume from S3 & S4	Ensure driver flushes out device FIFO buffer, additionally driver sends HCI Reset if MSFT stack does not send one on entry into Sx scenarios
WsP / Win7	MWG100255207	firmware files not getting copied to System32/drivers folder on Win7	Changed build_sw.csv file to add WSP files in "Intel Bluetooth.msi_Update\seq\" folder so that Win7 MSI can pick them up.
WsP / Win7	MWG100255138	OPP RX while Master fails to connect or drops connection during multi-profile	Corrected PB_RCC_ARQN implementation
SfP, WsP / Win10	MWG100240944	Response to HCI_Read_Local_OOB_Data command takes 2.5secs	Increased clock frequency during key calculation to reduce latency
WsP / Win7	MWG100256257	RSSI is not stable when multiple devices are connected	
SfP, WsP / Win7	MWG100255651	BT tray icon disappears, Inquiry in bad state during S5 cycles	Corrected LMP detach implementation
SfP, WsP / Win7	MWG100240208	LE Specification test fails	Corrected LE guard timer implementation
SfP, WsP / Win7, 8.1, 10	MWG100256406	BT Bootloader makes unaligned memory (word) accesses	Corrected memory access misalignment
WdP / Win10	MWG100255286	RF LED light does not change when Bluetooth radio is toggled	Corrected LED control logic
SfP, WsP / Win10	MWG100255427	Barcode Reader connection is unstable	Corrected LMP detach implementation

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