



## **Killer**

### **Software installation for Windows**

***Release Notes***

***January 8, 2019***

---

### **Confidential and Proprietary – Rivet Networks LLC**

Killer is a registered trademark of Rivet Networks LLC.

This technical data may be subject to U.S. and international export, re-export, or transfer (“export”) laws.

Diversion contrary to U.S. and international law is strictly prohibited.

**2019 Rivet Networks LLC**

## Revision history

Revision	Date	Description
A	Sep 15, 2016	Initial Release
B	Nov 02, 2016	Updated Maintenance Release
C	Nov 09, 2016	Fixed breaking out Domains from non-browsers
D	Nov 16, 2016	Don't show Wifi Analyzer on Ethernet, fix CH characters in domain detection
E	Nov 18, 2016	Additional fix to CH characters in domain detection
F	Dec 19, 2016	Updated 11ac drivers, Bug fixes
G	Feb 02, 2017	Updated 11ac drivers, Bug fixes
H	Feb 20, 2017	Updated 11ac drivers, resolving issue seen in a small number of platforms that would cause WiFi drops.
J	Apr 18, 2017	Updated 11ac drivers, Updated Ethernet Drivers, fixes to Rivet Filtering Engine, Application, installer.
K	Jun 07, 2017	Fix IPv6 issues with CNN.com/FileVoyager.com, German Language fixes, Game Detection fixes, Updated Ethernet driver for RS1+RS2 WHQL. Fix/re-add Modify/Repair to installation.
L	Jun 22, 2017	Updated 11AC drivers to 12.0.0.312
M	Jul 03, 2017	Updated 11AC Drivers, Killer Doubleshot Pro fix, game detection updates.
N	Aug 22, 2017	Change Installer name for Microsoft JS Tool. Fix KillerDiagnostics FR. Updated 11AC Wifi driver., KCC Improvements, Doubleshot IPv6 fixes, ESET Co-existence fix.
O	Sep 28, 2017	Killer Control Center fixes, Bandwidth Estimator fixes, 11AC WiFi driver update, Ethernet driver update.
P	Nov 12, 2017	Reduced/Removed DPC interrupts from Rivet Filtering Engine driver, RS2+RS3 drivers for Ethernet, 11AC WiFi
Q	Nov 20, 2017	Fix COM initialization Killer Network Service crash, fixed connecting to L2TP/IPsec VPNs.
R	Dec 27, 2017	Advanced Stream Detect optimizations.
S	Jan 11, 2018	Added Killer 1550 support.
T	Jan 26, 2018	Detection Updates, Killer wireless driver updates,

		Accessibility fixes, VPN fixes
U	Jan 29, 2018	Hotfix: Issues with device discovery for some Killer Wireless devices.
V	Feb 16, 2018	Installer upgrade fixes, Proper WiFi mode shown for 1525/1435/1535 5Ghz in KCC, Updated 1535/1435 driver.
W	Mar 09, 2018	Accessibility changes. Fixed issue on a fast system boot that could cause traffic to not be seen in Killer Control Center.
X	Apr 03, 2018	Updated 1550 WLAN driver
Y	Jun 04, 2018	Wireless xTend UWD (Windows 10 1803) release.
Z	Jun 15, 2018	Fixed Rivet Filtering Engine Bugchecks (D1): RfeInsertFlowContextIntoPortTbl, flow_tagProcIdForSpc, rfeGetDeviceIdFromV4, Fixed P1 traffic always showing as Upload traffic.
AA	Jun 28, 2018	Changed the way the installer is stopping and removing Killer Network Service. Added removal of xTend services on uninstall.
AB	July 11, 2018	Updated 1550 drivers, updated 1435/1535 drivers, adjusted installer custom actions for UWD uninstall. Wireless xTend improvements.
AC	Aug 07, 2018	Updated 1435/1535 WLAN driver. Updated 1550 WLAN driver. RS3+RS4 WHQL Ethernet driver.
AD	Sep 11, 2018	Updated Killer 1550 WLAN driver, Rivet Filtering Engine/Killer Software Component driver, Killer E2X00 driver, Killer 1435/1535 driver, Installer failure to uninstall Killer Network Software component/extension drivers.
AE	Sep 21, 2018	Fixed issue with Bandwidth Test function.
AF	Jan 08, 2019	Update to Killer Software 2.0. Updates to 1435/1535 driver, 1550 driver, inclusion of E3000 and E2500v2 drivers.

## 1 Purpose

The software package is a single installer to install Killer drivers and software. The software package includes Ethernet driver, WLAN host driver, WLAN firmware binary, NFA board configuration data binaries, RfeCoSvc WFP driver, Killer Control Center, and Killer Network service binaries and associated software.

If applicable, a separate Bluetooth Installation is also supplied as taken directly from QCA with no additional modifications.

### 1.1 Identification

This release is:	<b>Killer Control Center Suite</b>
The release version is:	<b>2.0.1134</b>

Killer Control Center:	<b>Obtained from Microsoft App Store</b>
KCC 2.0 Version:	<b>2.0.2332.0</b>
KCC 1.X Version:	<b>1.7.2332.0</b>

### 1.2 Filename's and MD5 Checksums

Filename:	<b>KillerPerformanceSuite_2.0.1134_UWD_x64.exe</b>
MD5 Checksum:	<b>d6c5b814932fb0cafedd648d1914e2e4</b>

### 1.2 Additional Considerations

The Killer Control Center application from the Microsoft Store will automatically launch the proper version based on the applicable Killer hardware installed in your PC. Killer E3000 and Killer 1550 will launch a different looking UI that contains Killer Intelligence Engine and GameFast. Previous hardware will launch the 1.X version of the Killer Control Center.

## 2 Supported Hardware and Software

The following hardware is supported in this release:

OS 64 bit	Ethernet	11AC WLAN 2.4/5Ghz	11AC WLAN 2.4/5Ghz
Product Name			
Windows 10	Killer E2200	Killer 1525	Killer 1550
	Killer E2400	Killer 1435	Killer 1550i
	Killer E2500	Killer 1535	Killer 1550s
	Killer E2500v2		
	Killer E3000		

*NOTE: Windows 10 current supported v15063, 16299*

## 3 Installation

The software package includes a single installer for all Killer products for Windows 7, Windows 8.1 and Windows 10. The installer automatically detects the existing Killer modules and platform OS version and then installs the respective files.

### 3.1 Installation options

The software package supports the following command line functions

Function	Command Line	Details
Silent Install	<code>setup.exe /s /v" /qn /norestart"</code>	Used for unattended Install without UI interaction.
Extract Drivers	<code>setup.exe /v"EXTRACTDRIVERS=&lt;path&gt;"</code> ex: <code>setup.exe /v"EXTRACTDRIVERS=c:\killerdrivers"</code>	Used to extract drivers from package. Note: This is only supported on FRESH or CLEAN system without current software installation present.
Help	<code>setup.exe /?</code>	Used to display help message to show all possible commands

### 3.2 Driver Version

The following table shows the driver version for Ethernet, WLAN and the BWC Filter.

OS	E2X00 ETHERNET	E2500V2 ETHERNET	E3000 Ethernet	1525 WLAN	1435/1535 WLAN	1550 WLAN
Windows 10	9.0.0.49	10.032.1206.2018	10.032.1206.2018	12.0.0.448	12.0.0.817	20.110.0.3
	<b>Killer Extension</b>	<b>Killer Component</b>				
	2.0.2332.0	2.0.2332.0				

## 4 Testing

This release has gone through a formal Rivet Networks testing cycle. The software is certified by Microsoft WHCK and all driver binaries are WHQL signed.

### 4.1 WFA Certification

The following table shows the WFA certification status

Product	Board	OS	Description
Killer 1525	NFA344i	Windows 7	Certification done, CID55138
		Windows 8.1	Certification done, CID55194
		Windows 10	Certification done, CID61609
Killer 1535	NFA364A	Windows 7	Certification done, CID58807
		Windows 8.1	Certification done, CID58808
		Windows 10	Certification done, CID61588
Killer 1435	NFA344A	Windows 7	Certification done, CID58805
		Windows 8.1	Certification done, CID58806
		Windows 10	Certification done, CID61581

## 5 Known Issues

ID	Component	Description

## 6 Fixed Issues

- **Version 2.0.1134**

ID	Component	Description
N/A	Software Package	Update to version 2.0 of Killer Software. Numerous feature additions, fixes and optimizations.
N/A	Killer Control Center UWP	AutoStart with Windows now fully supported. Proper entry shown in Task Manager Startup Tab. Startup behavior is minimized to system tray.
N/A	Killer Control Center	Updated Simplified and Traditional Chinese strings.
N/A	Killer Control Center	Updated UI size on 1920 x 1080, 125DPI setting as window would open slightly too large.
2240320	Killer 1435/1535 driver	[NFA364A] Wi-Fi antenna frontend control firmware change
2345366	Killer 1435/1535 driver	[NFA344A] Resolved network unstable when BT is on
2360478	Killer 1435/1535 driver	Resolved BSOD when running the cold-boot stress test
2363601	Killer 1435/1535 driver	Resolved Modern Standby Exit latency issue
N/A	Killer E2500v2 Driver	Add registry key "*ModernStandbyWoLMagicPacket" to Windows 10 inf files. Default value is "0".
N/A	Killer E2500v2 Driver	Add support for power saving mode.
N/A	Killer E3000 Driver	activate ASPM function.
N/A	Killer E3000 Driver	Add registry key "*ModernStandbyWoLMagicPacket" to Windows 10 inf files. Default value is "0".
N/A	Killer E3000 Driver	update parameters and set thermal sensor overtemp_thr to 120 degree.
N/A	Killer E3000 Driver	E3000 cannot access Microsoft App Store when LSO is enabled and link speed is 100Mbps.
N/A	Killer E3000 Driver	default enable EEE/Advanced EEE/UPS.
N/A	Killer E3000 Driver	Add support for power saving mode.
WIFI-13883	Killer 1550 Driver	[BSOD_0x133][Netwtw08!nalOptDirectReadReg] BSOD 0x133 DPC WATCHDOG VOILATION occurred when running overnight Test
WIFI-11356	Killer 1550 Driver	WIFI connect AP take too long(about 30 sec to 60 sec) after restart to system - No beacon after connection

WIFI-11128	Killer 1550 Driver	After Win10 RS5 system Modern-standby resume, WiFi shows limited internet connection
WIFI-14035	Killer 1550 Driver	[BSOD 0x133][Netwtw08!dddNdisAcquireSpinLock] BSOD during using 5G hotspot
WIFI-12588	Killer 1550 Driver	[Win10_RS5] Wireless icon Show red X after resume from hybrid shutdown
WIFI-12637	Killer 1550 Driver	[Win10 RS4] WLAN is not automatically connected to AP after system restart
WIFI-11956	Killer 1550 Driver	[GLK-JFP2-1216] WLAN device Yellow bang issue
WIFI-13820	Killer 1550 Driver	[Win10 RS5] Sometimes OS displays "No Wi-Fi networks found"
WIFI-13760	Killer 1550 Driver	[Win10 RS5] Miracast becomes disabled after S3 cycle in RS5
WIFI-12594	Killer 1550 Driver	[ThP2][WiFi] uCode ASSERT (ImacID = 0x0, rtStatus = 0x104B) during IPerf longevity test
WIFI-14336	Killer 1550 Driver	WiFi icon show red X and No WiFi networks found
WIFI-13729	Killer 1550 Driver	[RS5]WiFi icon shows limited connection after resume from MS, but it can auto recover in 30~60secs
WIFI-14549	Killer 1550 Driver	[BSoD_0x9F][nt!PnpBugcheckPowerTimeout] Manual_CB_DC Bluescreen(Bsod:0X9f) w/ dump file when do manual_CB_DC
N/A	Killer Network Service	Fix issue with Chinese SSID being displayed incorrectly in KCC
N/A	KillerNetworkComponent	Fix issue where Killer 1550 device name change caused Domain detection to not be enabled.
1492	Killer Control Center	[KCC][UI][APPS][Block] Priority 1 applications can be Blocked in the GUI
1494	Killer Control Center	[UI Refresh] Wifi Analyzer sizing issues
1488	Killer Control Center	Gamefast number formatting
1497	Killer Filtering Engine	[kfecosvc] BSOD see in field – Malformed packet
1502	Killer GameFast	GameFast is not disable on reboot in 'manual' mode.
1452	Killer Network Service	Memory Issue - Large Non-Paged pool usage if Service is on/started.
1493	Rivet Filtering Engine	E3000 issues loading most websites when linked at 100Mbps Full
WIFI-12362	Killer 1550 Driver	The wifi icon show red X after connecting with WIDI and clicking the wifi icon on task bar
WIFI-11512	Killer 1550 Driver	Can't connect wireless WAPI AP with message "password is not correct" pops up after done configuration environment then input right password.
WIFI-9931	Killer 1550 Driver	WAPI-PSK cannot be connected with WAPI1493.
WIFI-11935	Killer 1550 Driver	System occurs BSOD 0x7E, stop code SYSTEM_THREAD_EXCEPTION_NOT_HANDLED when run warm boot – non-Intel platform
WIFI-12376	Killer 1550 Driver	Intel 9560 WLAN Upload TpT with 11ac is not stable



WIFI-11936	Killer 1550 Driver	[BSOD 0xD1][Netwtw08!bssPluginHandleBeaconReceivedAPI] BSOD during surfing Internet
WIFI-11844	Killer 1550 Driver	[BSOD-0x133][Netwtw08!mibTblLockerEnterWrite+0x83] occurred during AP connection
WIFI-11128	Killer 1550 Driver	After Win10 RS5 system Modern-standby resume,WiFi shows limited internet connection
WIFI-12107	Killer 1550 Driver	"0xd1" BSOD occurred after idle about half an hour.
WIFI-11663	Killer 1550 Driver	Random wireless disconnection issue - Connect/roam task/Allowed BSSIDs list
WIFI-12126	Killer 1550 Driver	Random wireless disconnection issue - DFS/BSS timestamp
2334067	Killer 1435/1535 Driver	QCA6174A for Win10: Resolved problem about TIS test
2318997	Killer 1435/1535 Driver	Resolved the ping failure with send buffer=1400 when AP Fragment-threshold=1024
2315488	Killer 1435/1535 Driver	0x7E BSOD happened when the system was resumed from the connected standby state
2313081	Killer 1435/1535 Driver	BSOD happened when the driver versifier was enabled

- **Version 1.7.1089**

ID	Component	Description
N/A	Killer Control Center	Fixed issue being able to connect to and run bandwidth estimation.

- **Version 1.7.1080**

ID	Component	Description
N/A	Installer	Installer CustomAction would encounter exception and exit during parsing of UWD KillerNetworkComponent/KillerNetworkExtension drivers, causing those drivers to not be removed and causing subsequent installs to be incomplete.
N/A	Killer Control Center	Updated Japanese language string for 'No Killer Network Devices Connected'
N/A	Killer Control Center	Fixed Full xTend page UI detection for OS version RS4 (17134) or greater
2301504	Killer 1435/1535 Driver	Fixed blacklist issue
2301014	Killer 1435/1535 Driver	Fixed 0xD1 issue to trigger YB(1DF)
2299528	Killer 1435/1535 Driver	Fixed pldr 0x0A crash issue
2290427	Killer 1435/1535 Driver	WFA WPA2 security improvement fix (case 5.2.1)
2287872	Killer 1435/1535 Driver	Fixed the FW assert by Associate ID is zeor for WMI_PEER_ASSOC_CMDI
2286222	Killer 1435/1535 Driver	Fixed 0xD5_VRF_INVALID_Qcamain10x64!WdiTaskDisconnectHdlr

2285400	Killer 1435/1535 Driver	Fixed 9F NBL issue for PLDR on x86 platform
2266792	Killer 1435/1535 Driver	Fixed BSOD (d1) from End-User, HOST 12.0.0.709
WIFI-10712	Killer 1550 Driver	Issues with WFP Cloning and LSO
WIFI-10016	Killer 1550 Driver	Disconnect WIFI,click WIFI icon in tray,it will show "X" sometimes]

### • Version 1.7.1053

ID	Component	Description
2280040	Killer 1435/1535 Driver	Qualcomm® drivers met the Microsoft Modern Standby ADK. <input type="checkbox"/> Added enableHwRfKill.reg into driver.
2280040	Killer 1435/1535 Driver	WLAN driver shows YB in DM and red X in system tray when resumed from S4.
2273903	Killer 1435/1535 Driver	Reduce 3 db for 5 Ghz VHT and HT mode if Ukraine country is detected.
2279775	Killer 1435/1535 Driver	Enabled mechanism for Ukraine power reduction in Wi-Fi driver
2274110	Killer 1435/1535 Driver	Changed the passive/active status of CH36 - CH48 (F8_5180_5240) in FCC6 to passive.
2273369	Killer 1435/1535 Driver	Fixed 0x133 BSOD issue.
N/A	Rivet Filtering Engine	Reset g_initCompState on all driver unload paths. VM Domain issue.
N/A	Rivet Filtering Engine	Fixed Verifier stranded memory issue, createHtb was issued prior to driver init complete. Added check for this in init to insure no stranded memory.
N/A	Rivet Filtering Engine	Added code to report Initialization failures via Query Device Ioctl.
N/A	Rivet Filtering Engine	Merged remaining MS Dashboard fixes related to how flowContexts are stored and deleted.

### • Version 1.7.1034

ID	Component	Description
1253	Killer Control Center	[xTend] UI - repeated switches between 'Hotspot' and 'Extend Current Network' can cause wait form stuck (UI hung)
N/A	Killer Control Center / xTend	Reduce likelihood that xTend UI can get hung waiting for command timeouts.
1352	Killer xTend	Attempt to set band for Killer 1550 wireless xTend
WIFI-9315	Killer 1550 Driver	Let system enter to Modern standby, roams AP, let system go out of Modern standby, can not connect AP
WIFI-7753	Killer 1550 Driver	Disconnect WIFI;click WIFI icon in tray; it will show "X" sometimes
WIFI-9910	Killer 1550 Driver	WIFI show red X when idle
WIFI-9250	Killer 1550 Driver	Disable WLAN Device in Device manager is slowly about 12 seconds
WIFI-9970	Killer 1550 Driver	[Win10 RS4]The time of shutdown/disable WLAN under optanemode is too long

2237144	Killer 1435/1535 Driver	0x1E_c000094_VRF_Qcamain10x64!TxAllocTargetDescTxData
2211881	Killer 1435/1535 Driver	LKD_0x15E_VRF_Mini_Nbl_Leak_IMAGE_Qcamain10x64.sys

- **Version 1.7.1030**

ID	Component	Description
N/A	Installer	Adjusted the way the Killer Network Service was being stopped and removed during uninstall.
N/A	Installer	Added xTend services to be stopped and removed during uninstall.

- **Version 1.7.1023**

ID	Component	Description
1333	Rivet Filtering Engine	BSOD - DRIVER_IRQL_NOT_LESS_OR_EQUAL (d1) - RfeInsertFlowContextIntoPortTbl - system idle
1346	Rivet Filtering Engine	bugcheck from MS dashboard - AV_RfeCo10X64!rfeGetDeviceIdFromV4
1348	Rivet Filtering Engine	bugcheck from MS dashboard - AV_rfeco10x64!flow_tagProcIdForSpc
1349	Rivet Filtering Engine	All P1 traffic being shown in UI as Upload (even download traffic)

- **Version 1.7.1016**

ID	Component	Description
N/A	Killer Software	Now a UWD Software release for Windows 10 1803 or above.
N/A	Killer Software	Added Killer Wireless xTend feature for Killer 1550 equipped devices.
N/A	Killer Software	Numerous detection and compatibility enhancements.
N/A	Killer Drivers	Multiple stability enhancements.

- **Version 1.5.1859**

ID	Component	Description
Multiple	Killer 1550 Driver	Updated Killer 1550 driver. Numerous Stability and BSOD fixes.

- **Version 1.5.1852**

ID	Component	Description
N/A	Killer Control Center	Additional Accesibility/Narrator fixes.
1208	Rivet Filtering Engine	During boot on a fast system, Network service starting before RfeCo, causing traffic to not be monitored.

- **Version 1.5.1847**

ID	Component	Description
1215	Installer	Additional upgrade fixes – Upgrade from Killer Network Manager installations supported, upgrade block fixed from certain unsupported scenarios
1216	Killer Network Service	1525/1435/1535 WiFi adapters show 2.4Ghz on Settings page even when connected to 5Ghz network
N/A	1435/1535 Driver	Updated to address a few edge case BSOD crashes.
N/A	1550 Driver	Adjusted settings on Killer 1550 installations.

- **Version 1.5.1822**

ID	Component	Description
1215	Installer	Fixed upgrade scenarios from Killer Control Center based installations.

- **Version 1.5.1805**

ID	Component	Description
1206	Killer Network Service	Hotfix: Fixed issue with device discovery for some Killer Wireless devices.

- **Version 1.5.1804**

ID	Component	Description
1206	Killer Control Center	Killer Control Center does not open when clicking KillerControlCenter.exe from Program Files Folder
1200	Killer Control Center	Show Inactive Applications toggle cuts up into the scroll bar
1196	Killer Control Center	[Wifi Analyzer] Chinese characters in SSID don't appear correctly.
1195	Killer Control Center	[Category view] Category stays colored for adapter even after no processes running in that category.
1194	Killer Control Center	Accessibility issues - Screen Reader
1193	Killer Control Center	Accessibility issues - Navigation
1192	Killer Control Center	Accessibility issues with app
1187	Installer	Install fails when run from network drive
1186	Rivet Filtering Engine	Star Wars Battlefront 2 can't connect to servers when Doubleshot is enabled.
1185	Rivet Filtering Engine	DoubleShot not forcing Skype traffic over appropriate adapter.
1182	Rivet Filtering Engine	Customer Site VPN - can't connect to L2TP/IPsec VPN with Advanced Stream Detect enabled

WIFIWIN-4839	Killer 1550	WiFi acts abnormally
WIFIWIN-4181	Killer 1550	[9260/WIN10 RS3] WLAN icon show LAN red "x" after installing WLAN driver successfully
WIFI-5142	Killer 1550	9260 WiFi red X during reboot test
1106788	Killer 1435/1535	Bug Check 1D8 Qcamain10x64!ath_pcie_bug_check+0x492

- **Version 1.5.1784**

ID	Component	Description
	All Components	Added support and drivers for Killer 1550.

- **Version 1.5.1757**

ID	Component	Description
	Rivet Filtering Engine	Optimized Advanced Stream Detect when a large number of connections are trying to compete for bandwidth.
	Killer Network Service	Optimized Advanced Stream Detect rules.

- **Version 1.5.1618**

ID	Component	Description
	Rivet Filtering Engine	Fixed issue that would cause L2TP/IPsec VPN's to fail to connect when Advanced Stream Detect function was turned on.
	Killer Network Service	Fixed issue where COM initialization would fail on some systems during startup, causing the service to fail startup.

- **Version 1.5.1608**

ID	Component	Description
	Rivet Filtering Engine	Reworked to not use DPC Interrupts, which would cause high DPC execution time on higher bandwidth links with high utilization.
	Ethernet Driver	RS2+RS3 WHQL driver
	11AC WiFi	RS2+RS3 WHQL driver
2127262	11AC WiFi	KRACK - Mac core changes for WPA GTK Key Reinstallation (firmware) on Rom
2136107	11AC WiFi – K1525	KRACK - Disable WoW
2133091	11AC WiFi – K1525	Cannot see Wi-Fi AP's with latest host (12.0.0.438)
2136192	11AC WiFi	System Crash - Bugcheckid:0x1D2
2133092	11AC WiFi	Add function in adminservice to enable BT which is disabled.

2132273	11AC WiFi	adminsvice checks YB 3 times before resetting Bluetooth
2128667	11AC WiFi	Ping AP fails after system wake up from Modem Standby
2123732	11AC WiFi	Country EG,TN,UZ,IL,KW,MA TX power from CH36~CH64 is 20 db that do not match expected the TX power 23db in the latest version24 regulatory table.(always)
2121622	11AC WiFi	WLAN card is lost when running S3 stress testing with AC adaptor plugged.
2094888	11AC WiFi	The Wi-Fi cannot be used when system resumes from S3 (AMD Summit Ridge)

• **Version 1.4.1503**

ID	Component	Description
	11AC Driver	Reverted to previous 11AC WHQL driver due to incompatibility with Killer 1525 modules.
	Rivet Filtering Engine	Fixed additional issue that could cause a BAD_POOL_CALLER (d1) crash to occur

• **Version 1.4.1494**

Component	Description
Killer Control Center	Fixed issue where multiple subsequent changes to xTend settings could cause the Killer Control Center to stop responding.

• **Version 1.4.1492**

Component	Description
Killer Control Center	Improved speedtest tool to account for server-side changes.
11AC WiFi	Updated to latest WHQL driver
Ethernet	Win10: Fixed issue with UDP packets that would cause Shrewsoft VPN to not work.

• **Version 1.4.1474**

Component	Description
Killer Control Center	Improved messaging for when Killer Service is not present when Killer Control Center is Launched.
Killer Control Center	Fixed memory leak when Launching KCC from minimized state when Killer Service is not present/running.
Bandwidth Estimator	Improved detection of bad test servers.
Killer Control Center	HotFix for 1.4.1472 not properly updating statistics/App data.

• **Version 1.4.1466**

ID	Component	Description
1118	Killer Doubleshot Pro	Pro Evolution Soccer 2017 fails to connect to online server when Doubleshot is enabled.
1111	Killer Doubleshot Pro	Additional fixes for Issue with NiceHashMiner.exe and certain IPv6 websites when on an IPv6 network and Doubleshot is enabled.
	Killer Control Center	Improved keyboard accessibility. Enabled correct tabbing of all UI elements.
	Killer Control Center	Cleaned up Killer Control Center UI in a few places.
	Rivet Filtering Engine	Microsoft fix for ESet Coexist problems