



Intel® Connectivity Performance Suite

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INTEL® CONNECTIVITY PERFORMANCE SUITE

USER GUIDE

OVERVIEW

The Intel® Connectivity Performance Suite is a software solution that improves PC networking performance by creating a personalized network experience based on each user's unique situation. It automatically prioritizes high priority traffic over lower priority traffic to ensure that the user's most critical applications get the best networking performance. It also monitors several key wireless metrics and works to make sure users are always connected to the healthiest available access point and Wi-Fi band. If a problem cannot be automatically fixed, then the application will provide targeted recommendations that will help users improve their networking performance. Optimizing the network performance for each user's situation will provide a best-in-class networking experience and will directly address issues that cause PC users significant frustration.

NETWORK HEALTH PAGE

By default, the first page that you will see when you open the Intel® Connectivity Performance Suite is the Network Health Page. This page gives you real-time information about what access point you are connected to, the score of each access point and recommendations for your network.

The screenshot displays the Intel Connectivity Performance Suite interface. The main section is titled "Wifi Score by Access Point" and includes a toggle for "Only show authorized networks". Below this is a table with the following data:

Connect	Network	Band	WiFi Score	Type	Status
<input checked="" type="checkbox"/>	cougarman2		82	5	Locked
<input type="checkbox"/>	cougarman2_Gu...		77	5	Locked
<input type="checkbox"/>	Alrubaye's house		51	5	Locked
<input type="checkbox"/>	Cougarman		48	4	Locked
<input type="checkbox"/>	tsunami		42	6	Locked
<input type="checkbox"/>	tsunami MAC: 08:36:C9:79:E1:B7	2.4	42	6	Locked
<input type="checkbox"/>	tsunami MAC: 08:36:C9:77:6E:E7	2.4	35	6	Locked

To the right of the table is the "Connection Speeds" section, showing "My Network" as "cougarman2" with a speed of "519.12 Mbps" to the router. A "Test Speed" button is located below this section.

At the bottom, the "Recommendations to improve your network experience" section contains a message: "Your computer has more advanced Wi-Fi capabilities (Wi-Fi 6) than your access point (Wi-Fi 5). Consider upgrading your access point."

WIFI SCORE BY ACCESS POINT

The Wi-Fi score is based on 7 key metrics used by the application to come up with an overall Wi-Fi score that takes into account the most important drivers of Wi-Fi performance. Good scores will be shown in green, medium in yellow and poor in red. The Smart Access Point Selection feature looks at the scores and if there is a score delta of greater than 20%, the application will automatically switch the user to the better Access Point if it has the same SSID or will suggest a better Access Point if it is a different SSID (the suggestion will come as a pop-up notification and will also be available in the Recommendations section of the UI).

CONNECTION SPEEDS

“My Network” will show your access point and the speed to the router. The Test Speed button will run a speed test to the router.

RECOMMENDATION

This section will display recommendations that the user may perform in order to improve their networking experience. The user can also dismiss the recommendation by using the trash icon, in which the recommendation will not show again for that network. The recommendation can be restored from the setting page by checking the Reset Recommendation Preferences option.

The following recommendations are available:

Messages
Your computer has more advanced Wi-Fi capabilities (Wi-Fi generation) than your access point (Wi-Fi generation). Consider upgrading your access point.
Network xx offers significantly better connectivity than your current network.
Your computer has a faster ethernet link rate than your network equipment. Consider checking/updating your ethernet switch, router, or network cables.
The current network does not have internet access. Check network equipment for issues.
To avoid any disruptions to the current VPN session, AP Switching has been disabled. AP Switching can be enabled in the advanced settings.
Intel® Connectivity service is disconnected.

PRIORITIZATION PAGE

Intel® Connectivity Performance Suite

Network Health Prioritization

Prioritization

Mode Selector

Boost the priority of the selected mode

- Voice and Video Calls
- Gaming
- Streaming
- Productivity

Usage Details

24 hrs 7 days

Top Apps in Boosted Category

Mode	App/Website	Time Active
	Video Application	19 hrs 29 mins
	streaming video	0 hrs 23 mins
	facebook.com	0 hrs 16 mins

Top Apps in All Categories

Mode	App/Website	Time Active
	Google Chrome	20 hrs 25 mins
	Skype for Business	19 hrs 55 mins
	Video Application	19 hrs 29 mins

[Show More](#)

PRIORITIZATION

When the “Prioritization” button is turned on, high priority traffic will automatically be prioritized to give users the best networking experience. Every application and website that the Intel® Connectivity Performance Suite detects is automatically put into one of five categories, prioritized by how important that traffic is. Below is the list of categories in priority order:

- 1. Voice and Video Calls:** usually VOIP applications like Teams, Skype, or Discord, are put into this category by default.
- 2. Gaming:** game traffic is prioritized to provide the lowest possible latency.
- 3. Streaming:** services for streaming video like Netflix, YouTube, and Twitch.
- 4. Productivity:** includes standard productivity applications and is the default category for standard web traffic
- 5. Downloads:** large downloads that consume a large amount of bandwidth

MODE SELECTOR

The user can Boost the priority of the mode that they feel is the most important for their user experience. By clicking on a mode, the green arrow will appear beside that mode displaying that category has been boosted. Boosting a mode is not required to get good performance, but it will provide extra priority to the selected category of traffic. Please note that the application does not allow the user to boost downloads as that could have a very negative impact on other traffic. For vPro systems only, the “Gaming” mode will not display as a boost-able category, however, gaming traffic is still being prioritized based on the traffic priority detailed above.

USAGE DETAILS

When “Usage Details” is turned on the user will see usage data for the most used apps. The usage data can be shown as the last 24 hours or last 7 days, depending on which radio button is chosen.

The data will be shown in two categories: Top Apps in Boosted Category and Top Apps in All Categories. The data will show which Mode the app is placed in, the name of the app, and the time that it is connected to the network within the time period chosen.

The data shown is not displayed real time, rather it is collected and when the application exits the data is stored locally. Once stored it is read and then displayed by the UI in the Usage Details section.

The “Show More” button will display the top 15 apps in a separate window, giving the user a larger view of the apps being used.

If the Usage Details radio button is switched off/on, the usage details will reset, and the counter will start over.

The screenshot displays the Intel Connectivity Performance Suite interface. At the top, there is a navigation bar with the Intel logo and the text "Connectivity Performance Suite". Below this, there are two tabs: "Network Health" and "Prioritization", with "Prioritization" being the active tab. The main content area features a table with the following columns: "Mode" (represented by icons), "App/Website", and "Time Active". To the right of the table, there is a vertical bar with "Time Active" labels and corresponding values. On the left side of the table, there are four category buttons: "Voice" (green), "Gaming" (red), "Streaming" (yellow), and "Productivity" (purple). The "Productivity" button is highlighted with a purple border.

Mode	App/Website	Time Active
	Google Chrome	20 hrs 25 mins
	Skype for Business	19 hrs 54 mins
	Video Application	19 hrs 29 mins
	Host Process for Windows Services	19 hrs 9 mins
	Teams.exe	18 hrs 23 mins
	Microsoft Outlook	18 hrs 18 mins
	Google	17 hrs 43 mins
	Microsoft OneDrive	17 hrs 25 mins
	Local Security Authority Process	3 hrs 59 mins
	NT Kernel & System	3 hrs 28 mins
	Microsoft Word	1 hrs 25 mins

Time Active values on the right side of the table:

- 19 hrs 55 mins
- 18 hrs 23 mins
- 20 hrs 25 mins
- 19 hrs 55 mins
- 19 hrs 29 mins

ADVANCED SETTINGS PAGE

This page is accessed by clicking on the icon in the upper right corner.




This page contains three options that can be toggled on or off.


1. Pop up notification for better access points: This enables a pop-up notification to be displayed if there is a significantly better access point than the one you are currently using. The pop up will have a button on it that will allow to quickly switch to the better access point.
2. Automatically switch to a better network: This enables automatic switching to a better network if one is available and if the Wi-Fi score is 20% better than the one the users is connected to. The user must also have permission to connect to the better network.
3. Enable AP Switching when connected to VPN: This will enable the user to automatically switch to a better access point even if the user is currently connected to a VPN. By default, the application will not auto switch when a user is connected to a VPN.


There are also two reset buttons for resetting preferences and defaults.


1. Reset Recommendation preferences: This button can be used to once again show the recommendations on the Network Health page.
2. Reset all settings to default: This button can be used to restore all custom settings back to defaults.


Advanced Settings

Pop up notifications for better access points 

Automatically switch to a better network 

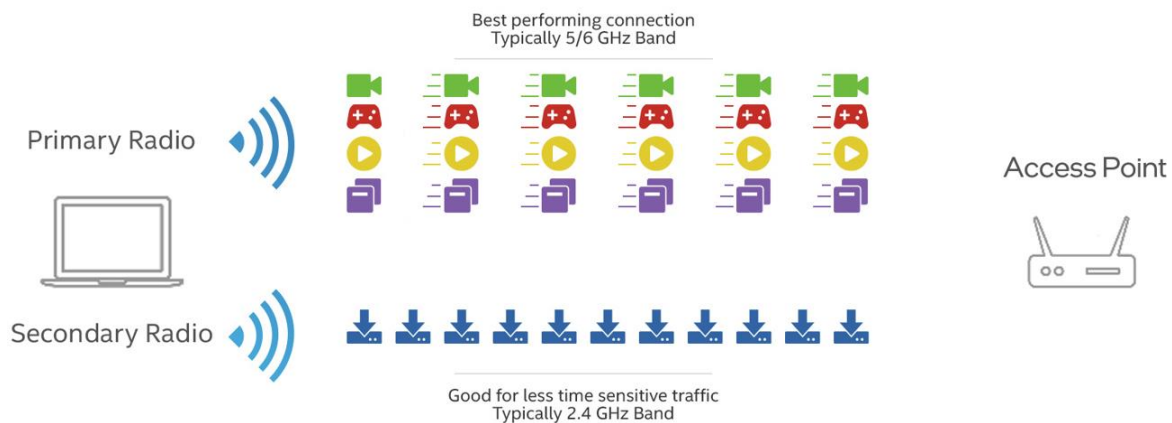
Enable AP Switching when connected to VPN 

Reset recommendation preferences 

Reset all settings to default 

INTEL® DOUBLE CONNECT TECHNOLOGY

Intel® Double Connect Technology takes advantage of the two radios on the Intel® Wi-Fi 6E AX411 and intelligently routes traffic to the optimal Wi-Fi radio. This enables the simultaneous use of both 5/6GHz and 2.4GHz connections. This will lead to better application performance and a theoretical max throughput of 3Gbps.



Intel Double Connect Technology will identify each radio and send traffic over the radio that is most effective. Intel® Connectivity Performance Suite will automatically detect if the appropriate Wi-Fi module is installed to make use of Intel® Double Connect Technology without requiring any user intervention. If Double Connect is turned off, the second radio is still enabled however no traffic will be routed over the second radio.