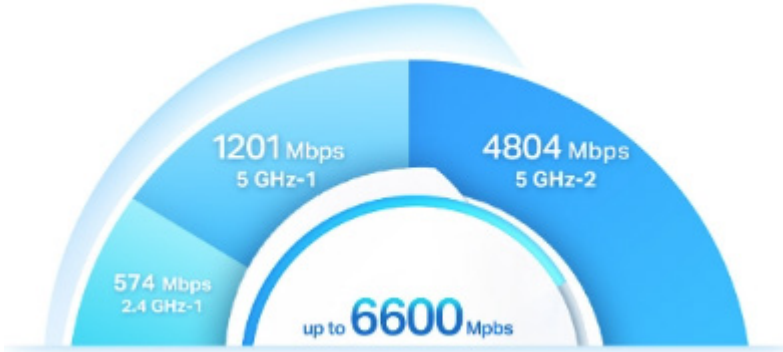


EXHIBIT 25

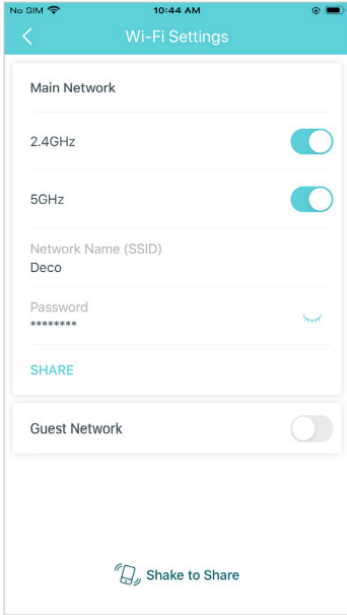
Infringement Claim Chart for Claims of U.S. Patent No. 10,356,681 Based on TP-Link Deco Products

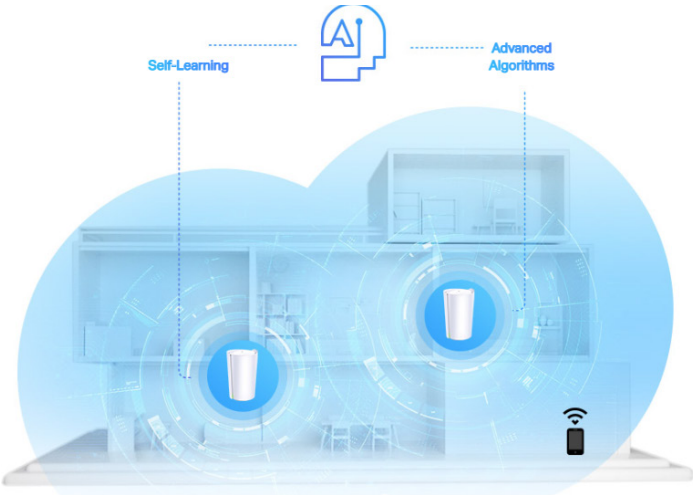
Netgear contends that at least the following claims of U.S. Patent No. 10,356,681 (the “’681 patent”) identified below are infringed by the ’681 Accused TP-Link Products, which include TP-Link Deco WiFi 6, WiFi 6E, and WiFi 7 products supporting TP-Link’s Deco Mesh and dedicated backhaul features, and TP-Link Omada products supporting TP-Link’s Mesh and dedicated backhaul features (collectively herein the “’681 Accused TP-Link Products”). The ’681 Accused TP-Link Products include, but are not limited to, TP-Link Deco BE95, Deco BE65, Deco BE85, Deco M9 Plus, Deco W7200, Deco XE200, Deco XE75, Deco XE75 Pro, Deco XE5300, Deco X90, Deco X5700, Deco X68, Deco X3600, and Omada EAP690E HD. It should be understood that Netgear’s contentions are not limited to these products but instead encompass any and all reasonably similar products and components that infringe in the same or similar manner as discussed below.

Claim Language	Representative TP-Link Products ¹
3[pre]. A method for effecting client roaming in a distributed multi-band wireless networking system, comprising:	To the extent the preamble is limiting, the '681 Accused TP-Link Products perform a for effecting client roaming in a distributed multi-band wireless networking system. For example: The '681 Accused TP-Link Products, such as the Deco X90, can create a distributed multi-band mesh Wi-Fi network.  Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/).

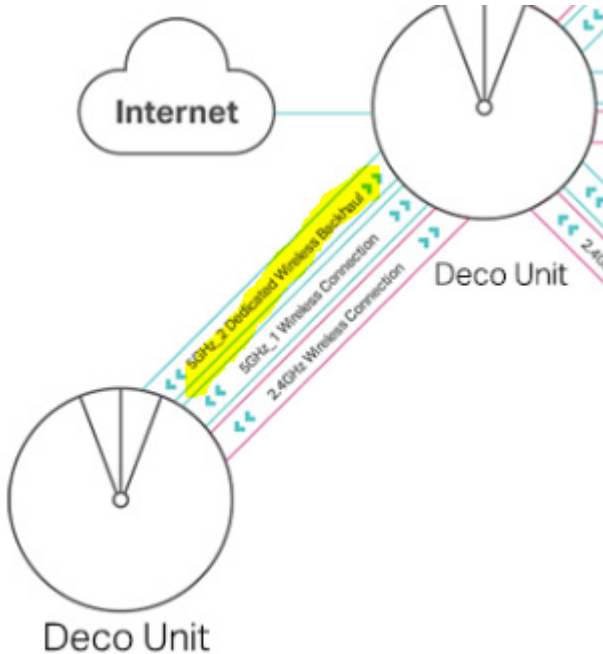
¹ This analysis is preliminary, and Netgear's investigation is ongoing. Netgear reserves the right to amend or supplement these charts after further investigation and discovery, claim construction, or other meriting circumstances. Such supplemental information may include, but is not limited to, source code, data sheets, design specifications, deposition testimony, testing information, reference designs implementation and utilization information, and/or schematics.

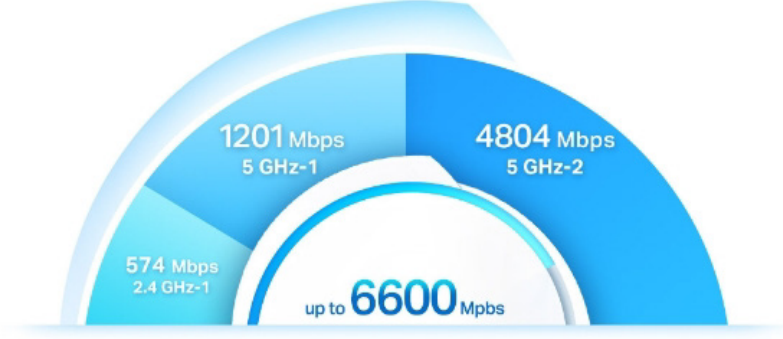
Claim Language	Representative TP-Link Products ¹
	Wireless · Wireless Standards: IEEE 802.11a/n/ac/ax 5 GHz, IEEE 802.11b/g/n/ax 2.4 GHz · Mesh protocol: 802.11k/v/r · Frequency: 2.4 GHz and 5 GHz · Signal Rate: 4804 Mbps on 5 GHz (1) + 1201 Mbps on 5 GHz (2) + 574 Mbps on 2.4 GHz[†] · Transmit Power: FCC: <30 dBm(2.4 GHz), <30 dBm(5 GHz) CE: <20 dBm (2.4 GHz), <30 dBm (5 GHz) · Wireless Security: WPA/WPA2-PSK/WPA3 encryptions Exhibit 49 [TP-Link Deco X90 Datasheet] at 4 (https://static.tp-link.com/2020/202010/20201021/Deco%20X90%201.0_Datasheet.pdf).

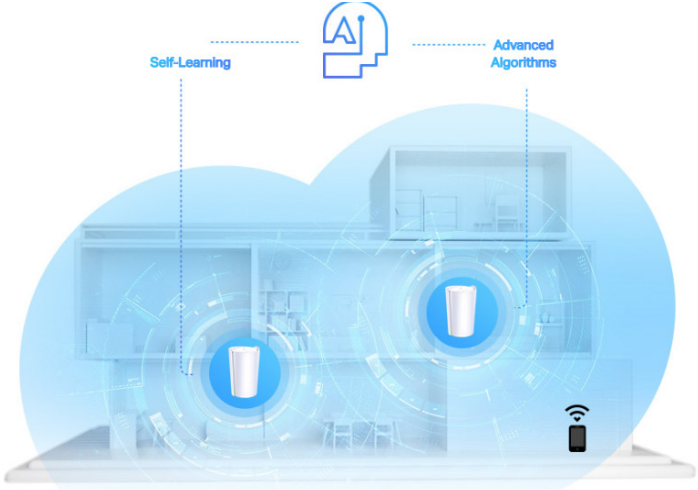
Claim Language	Representative TP-Link Products ¹
	 Exhibit 50 [TP-Link Deco X90 Manual] at 17 (https://static.tp-link.com/2020/202011/20201126/1910012843_Deco%20X90&Deco%20X5700_UG_V1.pdf).

Claim Language	Representative TP-Link Products ¹
	 Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). AI-Driven Mesh: Always Learning, Constantly Optimizing Armed with AI-Driven Mesh, Deco X90 delivers smart WiFi that follows you wherever you are, without interruption. It automatically learns your network environment, client quality, and user behaviors. Sophisticated algorithms account for various factors so that Deco X90 provides ideal mesh WiFi, unique to your home. Walk through your home and enjoy seamless streaming at the fastest possible speeds.*  Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/).

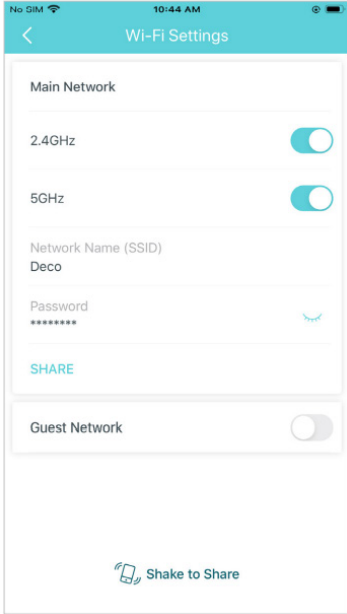
Claim Language	Representative TP-Link Products ¹
3[a] wirelessly interconnecting a plurality of wireless networking devices via a wireless channel which is dedicated for communications between said wireless networking devices;	The '681 Accused TP-Link Products wirelessly interconnect a plurality of wireless networking devices via a wireless channel which is dedicated for communications between said wireless networking devices. For example: The '681 Accused TP-Link Products, such as the Deco X90, are wirelessly interconnected by a dedicated backhaul channel used for communications between other mesh nodes, such as other '681 Accused TP-Link Products. In the exemplary case of the Deco X90, the dedicated backhaul channel is a dedicated 5GHz backhaul channel.  Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90).

Claim Language	Representative TP-Link Products ¹
	 The diagram illustrates a TP-Link Mesh WiFi system. At the top left, a cloud labeled "Internet" is connected to a "Deco Unit" (represented as a circle with three internal lines radiating from a central point). This Deco Unit is connected to a second "Deco Unit" below it. The connection between the two Deco Units is shown with three parallel lines: a yellow line labeled "5GHz, 3 Dedicated Wireless Backhaul", a light blue line labeled "5GHz, 1 Wireless Connection", and a pink line labeled "2.4GHz Wireless Connection". The second Deco Unit also has three lines radiating from its center, indicating it provides wireless coverage to other devices. Exhibit 53 (https://www.tp-link.com/us/mesh-wifi/) (annotated).

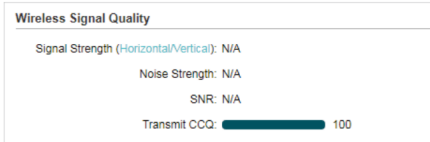
Claim Language	Representative TP-Link Products ¹
	 Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/).
3[b] said interconnected wireless networking devices collectively comprising a single, multi-band wireless network providing broad coverage to said client devices; and	The '681 Accused TP-Link Products wirelessly interconnect a plurality of wireless networking devices wherein said interconnected wireless networking devices collectively comprising a single, multi-band wireless network providing broad coverage to said client devices. For example: The '681 Accused TP-Link Products, such as the Deco X90, are capable of providing a single, multi-band mesh network that provides broad coverage to multiple client devices.

Claim Language	Representative TP-Link Products ¹
	 Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). AI-Driven Mesh: Always Learning, Constantly Optimizing Armed with AI-Driven Mesh, Deco X90 delivers smart WiFi that follows you wherever you are, without interruption. It automatically learns your network environment, client quality, and user behaviors. Sophisticated algorithms account for various factors so that Deco X90 provides ideal mesh WiFi, unique to your home. Walk through your home and enjoy seamless streaming at the fastest possible speeds.*  Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/).

Claim Language	Representative TP-Link Products ¹
	The figure is a semi-circular speedometer-style graphic. It is divided into three colored segments: a light blue segment on the left labeled '574 Mbps 2.4 GHz-1', a medium blue segment in the middle labeled '1201 Mbps 5 GHz-1', and a dark blue segment on the right labeled '4804 Mbps 5 GHz-2'. In the center of the semi-circle, there is a white circular area with the text 'up to 6600 Mbps' in blue. Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). Wireless · Wireless Standards: IEEE 802.11a/n/ac/ax 5 GHz, IEEE 802.11b/g/n/ax 2.4 GHz · Mesh protocol: 802.11k/v/r · Frequency: 2.4 GHz and 5 GHz · Signal Rate: 4804 Mbps on 5 GHz (1) + 1201 Mbps on 5 GHz (2) + 574 Mbps on 2.4 GHz[†] · Transmit Power: FCC: <30 dBm(2.4 GHz), <30 dBm(5 GHz) CE: <20 dBm (2.4 GHz), <30 dBm (5 GHz) · Wireless Security: WPA/WPA2-PSK/WPA3 encryptions Exhibit 49 [TP-Link Deco X90 Datasheet] at 4 (https://static.tp-link.com/2020/202010/20201021/Deco%20X90%201.0_Datasheet.pdf).

Claim Language	Representative TP-Link Products ¹
	 Exhibit 50 [TP-Link Deco X90 Manual] at 17 (https://static.tp-link.com/2020/202011/20201126/1910012843_Deco%20X90&Deco%20X5700_UG_V1.pdf).
3[c] said multi-band wireless network dynamically optimizing wireless connections to said client devices by comparing signals received from said client devices at said wireless networking devices and	The '681 Accused TP-Link Products dynamically optimize wireless connections to said client devices by comparing signals received from said client devices at said wireless networking devices and making decisions to switch a client from one wireless networking device to another wireless networking device. For example: The '681 Accused TP-Link Products, such as the Deco X90, are configured to dynamically optimize wireless connections within the mesh network by making client switch its connection from one mesh network node to a more optimal mesh network node.

Claim Language	Representative TP-Link Products ¹
making decisions to switch a client from one wireless networking device to another wireless networking device;	The '681 Accused TP-Link Products support TP-Link Mesh Technology that includes features such as adaptive routing, seamless roaming, self-healing, and AI-Drive Mesh. To support the seamless roaming feature, the '681 Accused TP-Link Products support roaming standards. Through the 802.11k standard, one of the mesh nodes may request a neighbor report for a particular client. The request is processed by exchanging client information that evaluates the connection quality between the client and the neighboring (second) mesh. This neighboring report request report exchange is for the purpose of achieving true seamless roaming. The graphic is a light blue rectangular box. At the top, it has the title 'True Seamless Roaming' in a large, bold, black font. Below the title, there is a paragraph of text in a smaller, regular black font: 'Deco units work together to form one unified network. Your phone or tablet automatically connects to the fastest Deco as you move through your home, creating a truly seamless online experience. Support for IEEE 802.11r as well as 802.11k/v mean switching from one Deco to another is so smooth it's unnoticeable - even during streaming.' Exhibit 65 (https://www.tp-link.com/us/mesh/). 802.11k, 802.11v and 802.11r are all standards designed to create a more seamless roaming experience for wireless clients. With 802.11k, the AP can respond to Wi-Fi clients' Neighbor Report request, let them understand the RF environment around them better. As a result, it helps them select a stronger signal, decrease the time used to scan the surrounding Wi-Fi, and have a better roaming. With 802.11v, the AP will not only respond to Wi-Fi clients' Neighbor Report request, but also evaluate the client connection quality, and direct the wireless clients to roam to be best AP which will provide a better WLAN experience, thus to balance the load among the APs. With 802.11r, the time for wireless authentication will be reduced, it's suitable for WPA2-PSK and WPA2-Enterprise encryption method."

Claim Language	Representative TP-Link Products ¹								
	Exhibit 79 (https://www.tp-link.com/us/support/faq/2097/) (emphasis added). The neighbor report request may contain a plurality of qualitative parameters regarding the strength of the connection between the client and the neighboring mesh node. These include but are not limited to Signal Strength, Noise strength, SNR (signal to noise ratio), and CCQ (client connection quality). 3 View Wireless Signal Quality Go to the STATUS page. In the Wireless Signal Quality section, you can view the current signal quality of the upstream wireless network. It is only applicable for the Client, Repeater (Range Extender), Bridge and AP Client Router (WISP Client) modes. Figure 3-1 Wireless Signal Quality  <table border="1"> <tbody> <tr> <td>Signal Strength (Horizontal/Vertical)</td><td>Displays the received wireless signal strength of the root AP.</td></tr> <tr> <td>Noise Strength</td><td>Displays the received environmental noise from wireless interference on the operating frequency.</td></tr> <tr> <td>SNR</td><td>Displays the Signal to Noise Ratio (SNR) of the device. SNR refers to the power ratio between the received wireless signal strength and the environmental noise strength. The larger SNR value is, the better network performance the device can provide.</td></tr> <tr> <td>Transmit CCQ</td><td>Displays the wireless Client Connection Quality (CCQ). CCQ refers to the ratio of effective transmission bandwidth and the actual total bandwidth. It reflects the quality of the actual link. A larger value means a better utilization of the bandwidth.</td></tr> </tbody> </table> Exhibit 80 (https://www.tp-link.com/us/configuration-guides/monitoring_the_network_cpe_and_wbs_/).	Signal Strength (Horizontal/Vertical)	Displays the received wireless signal strength of the root AP.	Noise Strength	Displays the received environmental noise from wireless interference on the operating frequency.	SNR	Displays the Signal to Noise Ratio (SNR) of the device. SNR refers to the power ratio between the received wireless signal strength and the environmental noise strength. The larger SNR value is, the better network performance the device can provide.	Transmit CCQ	Displays the wireless Client Connection Quality (CCQ). CCQ refers to the ratio of effective transmission bandwidth and the actual total bandwidth. It reflects the quality of the actual link. A larger value means a better utilization of the bandwidth.
Signal Strength (Horizontal/Vertical)	Displays the received wireless signal strength of the root AP.								
Noise Strength	Displays the received environmental noise from wireless interference on the operating frequency.								
SNR	Displays the Signal to Noise Ratio (SNR) of the device. SNR refers to the power ratio between the received wireless signal strength and the environmental noise strength. The larger SNR value is, the better network performance the device can provide.								
Transmit CCQ	Displays the wireless Client Connection Quality (CCQ). CCQ refers to the ratio of effective transmission bandwidth and the actual total bandwidth. It reflects the quality of the actual link. A larger value means a better utilization of the bandwidth.								

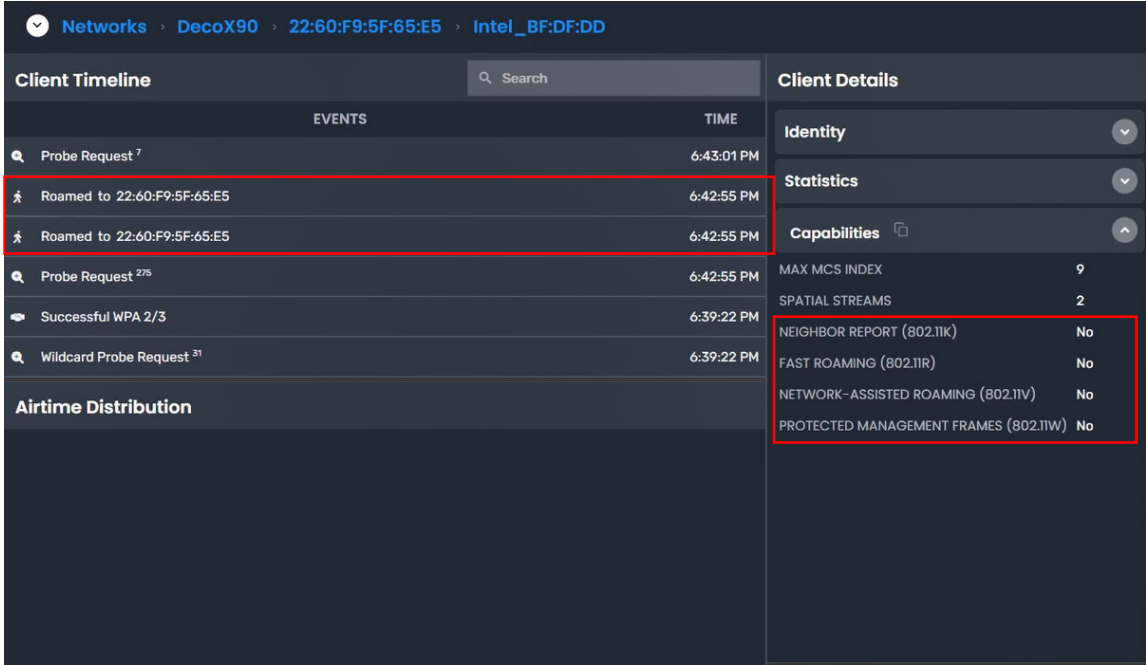
Claim Language	Representative TP-Link Products ¹
	Additionally, the '681 Accused TP-Link Products make decisions based off of more variables than just signal strength itself, but instead uses a plurality of qualitative parameters indicative of a quality of a potential link. Why does the satellite Deco still keep selecting the main Deco as a signal source instead of the nearest satellite Deco? Deco will choose the best signal source by itself. The selection does not depend absolutely on the signal strength, but also on the connection rate. Sometimes satellite Deco units may get slower speed due to half-duplex mode and interferences caused by connected devices like phones, or other devices. To ensure the satellite Deco gets reliable speed, the main Deco stays selected by Satellite Deco after comparative analysis. Some users tested that after moving one of the satellites far enough and not being able to reach the main Deco, they finally get the desired connection map:  However, the speed of the satellite becomes slower than what it could get when connecting to the main Deco directly. Due to the working pattern and protocol/regulation of Wi-Fi technology, the more wireless hops, the slower the speed would be. This rule applies to any kind of mesh or extender system. So it is not always good to connect to the nearest Deco unit. Exhibit 81 (https://community.tp-link.com/en/home/forum/topic/276958) (annotated). To support the AI-Driven Mesh feature, according to TP-Link, the '681 Accused TP-Link Products “keep[] a close watch on the signal strength of your devices” to “constantly create optimal connections,” “[a]fter self-learning the actual network conditions influencing your Wi-Fi performance.” Exhibit 69 (https://www.tp-link.com/en/mesh/ai-driven-mesh/). In particular, “AI-Roaming guides your device connections to the optimal Deco according to the loading conditions of each node to efficiently utilize your network bandwidth.” <i>Id.</i> To do so, each mesh node must, “without requiring that the established wireless link to be corrupted or lost... measure a plurality of qualitative parameters indicative of a quality of a potential link.” AI-Roaming: Always Learning As a smart upgrade to common roaming, AI-Roaming keeps a close watch on the signal strength of your devices. After self-learning the actual network conditions influencing your Wi-Fi performance, AI-Roaming helps your devices seamlessly switch to another source when necessary to constantly create optimal connections.

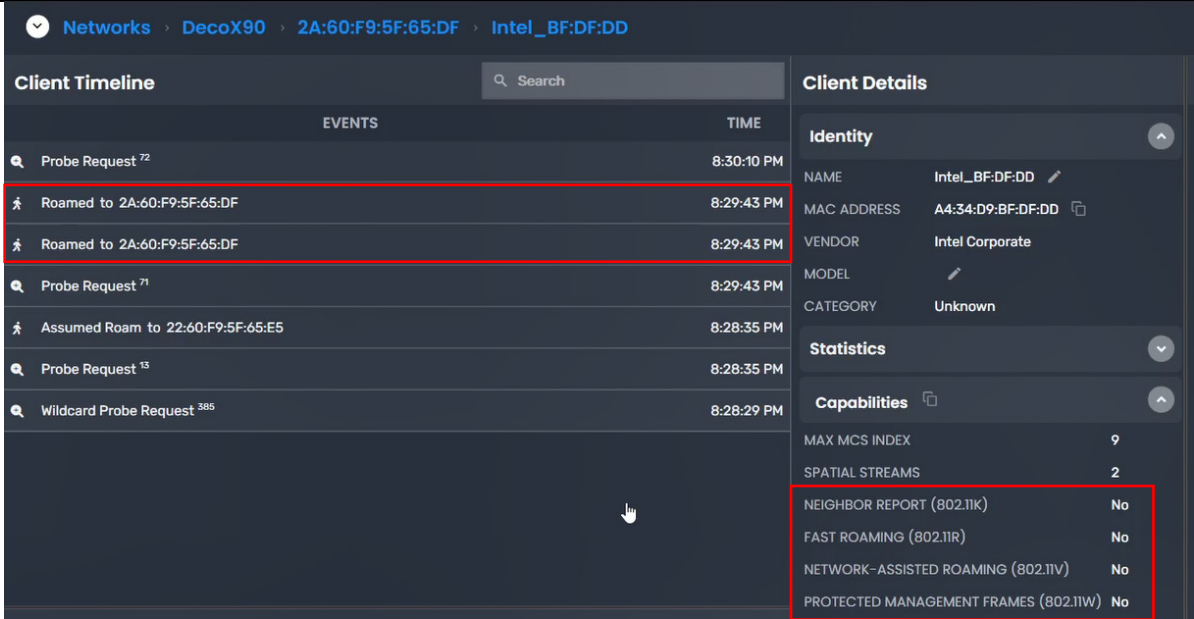
Claim Language	Representative TP-Link Products ¹
	Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). AI-Driven Mesh: Always Learning, Constantly Optimizing Armed with AI-Driven Mesh, Deco X90 delivers smart WiFi that follows you wherever you are, without interruption. It automatically learns your network environment, client quality, and user behaviors. Sophisticated algorithms account for various factors so that Deco X90 provides ideal mesh WiFi, unique to your home. Walk through your home and enjoy seamless streaming at the fastest possible speeds.*  Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). Ideal Wi-Fi Unique to Your Home Traditional mesh provides an uninterrupted streaming experience as you move throughout your signal coverage area. However, your network conditions can still be undermined by many other factors in a real environment, such as your router's placement, some thick walls, or even a microwave. Armed with AI-Driven Mesh Technology, Deco automatically learns the network environment, client quality, and user behaviors in your home. With sophisticated, multifactored algorithms, Deco customizes an ideal mesh Wi-Fi solution unique to your home. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/).

Claim Language	Representative TP-Link Products ¹
	Connect to the Optimal Deco AI-Roaming guides your device connections to the optimal Deco according to the loading conditions of each node to efficiently utilize your network bandwidth. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). A Customized Mesh Solution How a mesh network is internally bridged directly affects your Wi-Fi performance. AI-Driven Mesh comprehensively weighs factors that influence your Wi-Fi, all while establishing a mesh network. These factors include the number of your mesh nodes, their product types, and how they connect with each other. After analyzing all of these, AI-Driven Mesh custom creates the ideal mesh Wi-Fi solution for you. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). Furthermore, the adaptive routing feature of the '681 Accused TP-Link Products “allow router nodes to communicate with each other to generate various signal transmission paths,” where “Adaptive Routing finds the path with the least interference according to the load status of each router node or the current frequency band,” resulting in optimal connections for connected devices. Exhibit 61 (https://www.tp-link.com/uk/blog/332/what-is-mesh-wifi-what-does-it-do-and-how-to-choose-a-mesh-wifi-router-/). To determine the path with the least interference, each mesh node must, “without requiring that the established wireless link to be corrupted or lost... measure a plurality of qualitative parameters indicative of a quality of a potential link.” 2) Adaptive Routing Working as a unified WiFi system, your phone or tablet automatically connects to the fastest mesh device as you move through your home. If one mesh node has an issue, the system will automatically reroute data via the other devices to make sure you stay online.

Claim Language	Representative TP-Link Products ¹
	Exhibit 66 (https://partner.tp-link.com/nl/news-detail.html?id=4825). 2. Adaptive Routing Mesh networks allow router nodes to communicate with each other to generate various signal transmission paths. Adaptive Routing finds the path with the least interference according to the load status of each router node or the current frequency band. This guarantees you're always getting the fastest possible speeds. Exhibit 61 (https://www.tp-link.com/uk/blog/332/what-is-mesh-wifi-what-does-it-do-and-how-to-choose-a-mesh-wifi-router-/).
3[d] wherein said decision to switch said client is made for said client by said multi-band wireless network independently of said client;	The '681 Accused TP-Link Products make decisions to switch a client from one wireless networking device to another wireless networking device wherein said decision to switch said client is made for said client by said multi-band wireless network independently of said client. For example: The '681 Accused TP-Link Products, such as the TP-Link Deco and Omada mesh products, are configured to dynamically optimize wireless connections within the mesh network by making client switch its connection from one mesh network node to a more optimal mesh network node. This decisions can be made independent of the client device. For example, the '681 Accused TP-Link Products, such as the TP-Link Deco and Omada mesh products, will force client devices to roam if the products determine that a client device is not roaming from one access point to another access point when the TP-Link Omada mesh network determines that roaming should occur. When that is the case, the Omada mesh products, for example, are configured to issue commands or instructions, by the Omada's "force-disassociation" feature, that causes the roaming decision to be implemented independent of the client device.

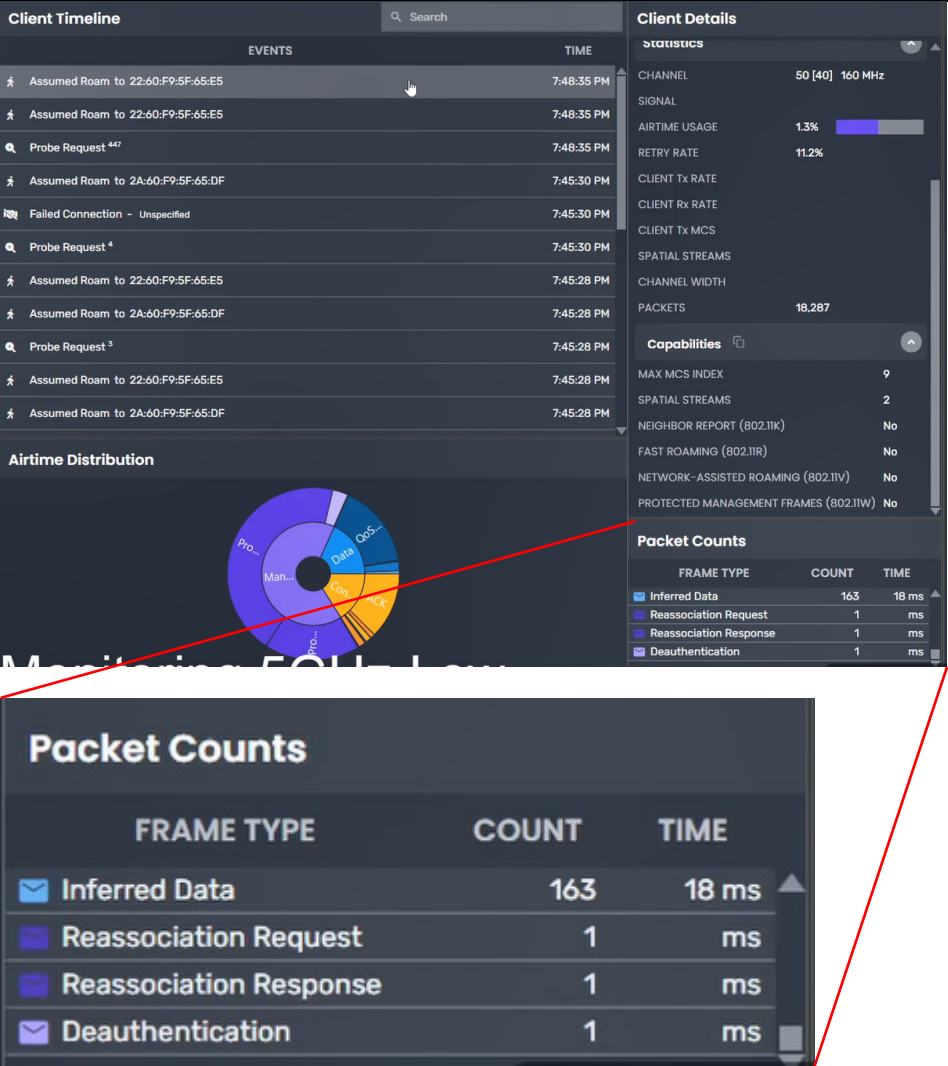
Claim Language	Representative TP-Link Products ¹
	Force-disassociation The controller dynamically monitors the link quality of every associated client. When the client's current link quality drops below the predefined threshold and there are some other APs with better signal, the current AP issues an 11v roaming suggestion to the client. With Force-disassociation disabled, the AP only issues a roaming suggestion, but whether to roam or not is determined by the client. With Force-disassociation enabled, the AP not only issues a roaming suggestion but also disassociates the client after a while. Thus the client is supported to re-associate to a better AP. This function is recommended when there are sticky clients that don't roam.
	Exhibit 82 at 12 (https://static.tp-link.com/2021/202105/20210518/Configure%20WLAN%20for%20EAP%20via%20Omada%20Controller.pdf). Force-disassociation The controller dynamically monitors the link quality of every associated client. When the client's current link quality drops below the predefined threshold and there are some other APs with better signal, the current AP issues an 11v roaming suggestion to the client. With Force-disassociation disabled, the AP only issues a roaming suggestion, but whether to roam or not is determined by the client. With Force-disassociation enabled, the AP not only issues a roaming suggestion but also disassociates the client after a while. Thus the client is supported to re-associate to a better AP. This function is recommended when there are sticky clients that don't roam. Exhibit 83 at 15 (https://static.tp-link.com/2019/201910/20191023/configuring_the_eaps_globally_via_omada_controller.pdf). Testing of TP-Link Deco products confirm that they have the same or similar functionality as the "force-disassociation feature" of the TP-Link Omada products. For example, the '681 Accused TP-Link

Claim Language	Representative TP-Link Products ¹
	Products, such as the TP-Link Deco X90, will similarly cause client devices to roam between mesh nodes, even for legacy devices that to not support 802.11 roaming procedures.  Testing of a TP-Link Deco X90 Mesh System.

Claim Language	Representative TP-Link Products ¹																														
	 The screenshot displays the TP-Link Deco X90 Mesh System interface. At the top, the breadcrumb navigation shows 'Networks > DecoX90 > 2A:60:F9:5F:65:DF > Intel_BF:DF:DD'. The main content is divided into two panels. The left panel, titled 'Client Timeline', contains a table of events: <table border="1"> <thead> <tr> <th>EVENTS</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>Probe Request ⁷²</td> <td>8:30:10 PM</td> </tr> <tr> <td>Roamed to 2A:60:F9:5F:65:DF</td> <td>8:29:43 PM</td> </tr> <tr> <td>Roamed to 2A:60:F9:5F:65:DF</td> <td>8:29:43 PM</td> </tr> <tr> <td>Probe Request ⁷¹</td> <td>8:29:43 PM</td> </tr> <tr> <td>Assumed Roam to 22:60:F9:5F:65:E5</td> <td>8:28:35 PM</td> </tr> <tr> <td>Probe Request ¹³</td> <td>8:28:35 PM</td> </tr> <tr> <td>Wildcard Probe Request ³⁸⁵</td> <td>8:28:29 PM</td> </tr> </tbody> </table> The right panel, titled 'Client Details', shows information for the client 'Intel_BF:DF:DD'. It includes fields for NAME, MAC ADDRESS (A4:34:D9:BF:DF:DD), VENDOR (Intel Corporate), MODEL, and CATEGORY (Unknown). Below this is a 'Statistics' section and a 'Capabilities' section. The 'Capabilities' section lists several features with their status: <table border="1"> <thead> <tr> <th>Capability</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>MAX MCS INDEX</td> <td>9</td> </tr> <tr> <td>SPATIAL STREAMS</td> <td>2</td> </tr> <tr> <td>NEIGHBOR REPORT (802.11K)</td> <td>No</td> </tr> <tr> <td>FAST ROAMING (802.11R)</td> <td>No</td> </tr> <tr> <td>NETWORK-ASSISTED ROAMING (802.11V)</td> <td>No</td> </tr> <tr> <td>PROTECTED MANAGEMENT FRAMES (802.11W)</td> <td>No</td> </tr> </tbody> </table>	EVENTS	TIME	Probe Request ⁷²	8:30:10 PM	Roamed to 2A:60:F9:5F:65:DF	8:29:43 PM	Roamed to 2A:60:F9:5F:65:DF	8:29:43 PM	Probe Request ⁷¹	8:29:43 PM	Assumed Roam to 22:60:F9:5F:65:E5	8:28:35 PM	Probe Request ¹³	8:28:35 PM	Wildcard Probe Request ³⁸⁵	8:28:29 PM	Capability	Status	MAX MCS INDEX	9	SPATIAL STREAMS	2	NEIGHBOR REPORT (802.11K)	No	FAST ROAMING (802.11R)	No	NETWORK-ASSISTED ROAMING (802.11V)	No	PROTECTED MANAGEMENT FRAMES (802.11W)	No
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PROTECTED MANAGEMENT FRAMES (802.11W)	No																														
	Testing of a TP-Link Deco X90 Mesh System.																														

Claim Language

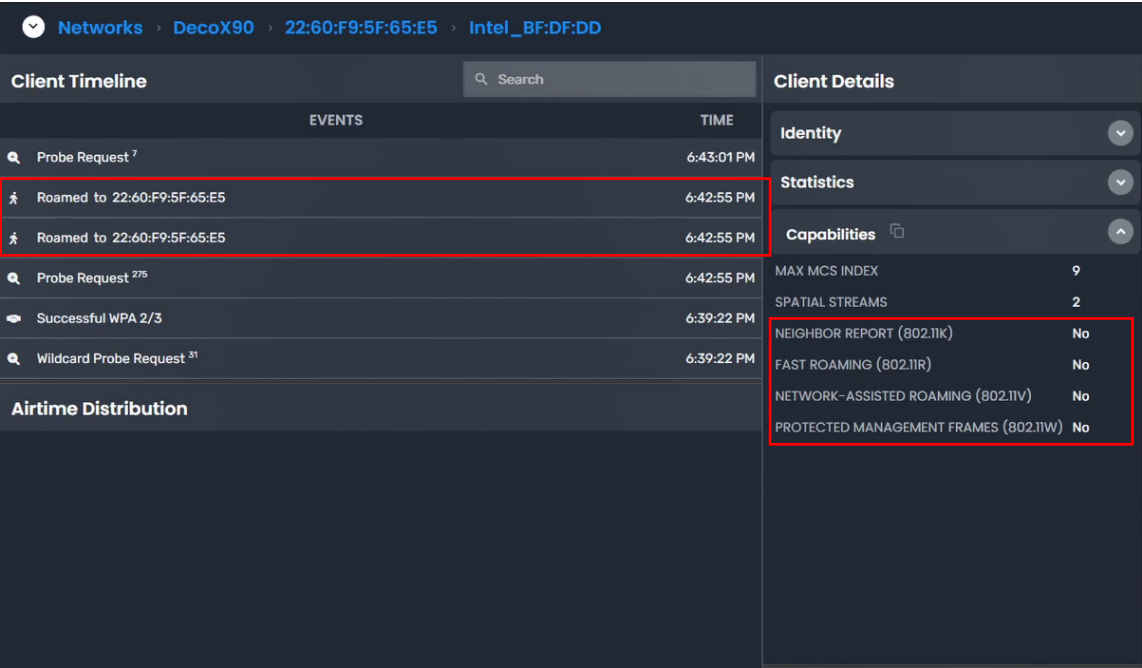
Representative TP-Link Products¹

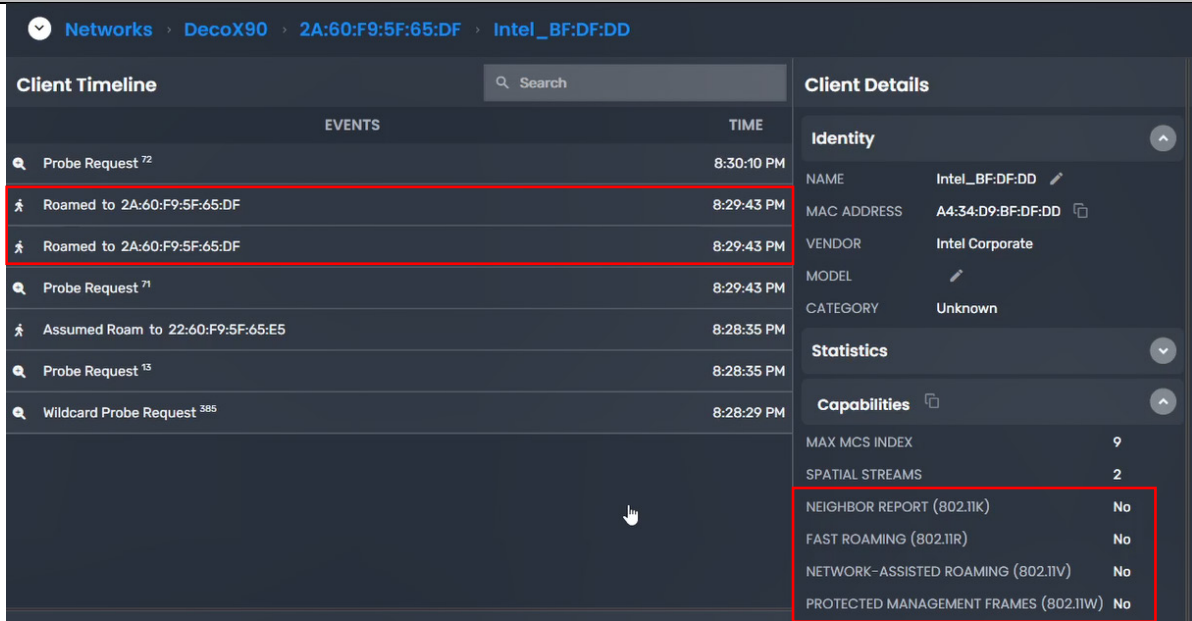


Testing of a TP-Link Deco X90 Mesh System.

Claim Language	Representative TP-Link Products ¹
3[e] said decision at said wireless networking devices to switch a client from one wireless networking device to another wireless networking device further comprising:	<i>See</i> discussion regarding claim element [3c] and 3[d].
3[f] said multi-band wireless network operating a first one or more of said wireless network devices in a monitor mode for legacy clients with wireless network devices on a same channel;	The '681 Accused TP-Link Products operate a first one or more of said wireless network devices in a monitor mode for legacy clients with wireless network devices on a same channel. For example: The '681 Accused TP-Link Products, such as the TP-Link Deco and Omada mesh products, are configured to monitor for legacy client devices that do not support roaming. For example, the '681 Accused TP-Link Products will force client devices to roam if the products determine that a client device is not roaming from one access point to another access point when the TP-Link Omada mesh network determines that roaming should occur. One typical reason for why a client device would not roam as the TP-Link Omada mesh network determines that it should is because the client device is a legacy device that does not support intelligent roaming, such 802.11 roaming standards. When that is the case, the Omada mesh products, for example, are configured to issue commands, by the Omada's "force-disassociation" feature.

Claim Language	Representative TP-Link Products ¹
	Force-disassociation The controller dynamically monitors the link quality of every associated client. When the client's current link quality drops below the predefined threshold and there are some other APs with better signal, the current AP issues an 11v roaming suggestion to the client. With Force-disassociation disabled, the AP only issues a roaming suggestion, but whether to roam or not is determined by the client. With Force-disassociation enabled, the AP not only issues a roaming suggestion but also disassociates the client after a while. Thus the client is supported to re-associate to a better AP. This function is recommended when there are sticky clients that don't roam. Exhibit 82 at 12 (https://static.tp-link.com/2021/202105/20210518/Configure%20WLAN%20for%20EAP%20via%20Omada%20Controller.pdf). Force-disassociation The controller dynamically monitors the link quality of every associated client. When the client's current link quality drops below the predefined threshold and there are some other APs with better signal, the current AP issues an 11v roaming suggestion to the client. With Force-disassociation disabled, the AP only issues a roaming suggestion, but whether to roam or not is determined by the client. With Force-disassociation enabled, the AP not only issues a roaming suggestion but also disassociates the client after a while. Thus the client is supported to re-associate to a better AP. This function is recommended when there are sticky clients that don't roam. Exhibit 83 at 15 (https://static.tp-link.com/2019/201910/20191023/configuring_the_eaps_globally_via_omada_controller.pdf). Testing of TP-Link Deco products confirm that they have the same or similar functionality as the "force-disassociation feature" of the TP-Link Omada products. For example, the '681 Accused TP-Link

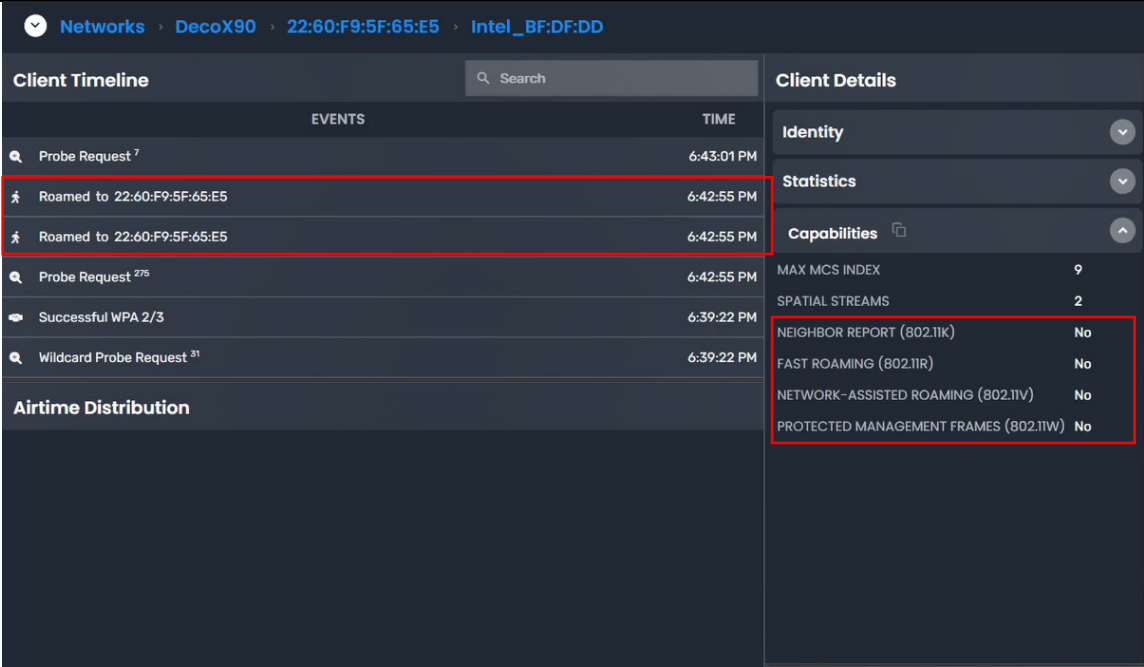
Claim Language	Representative TP-Link Products ¹
	Products, such as the TP-Link Deco X90, will similarly detect clients devices that are not intelligently roaming in the mesh network and cause said client devices to roam between mesh nodes, even for legacy devices that to not support 802.11 roaming procedures.  Testing of a TP-Link Deco X90 Mesh System.

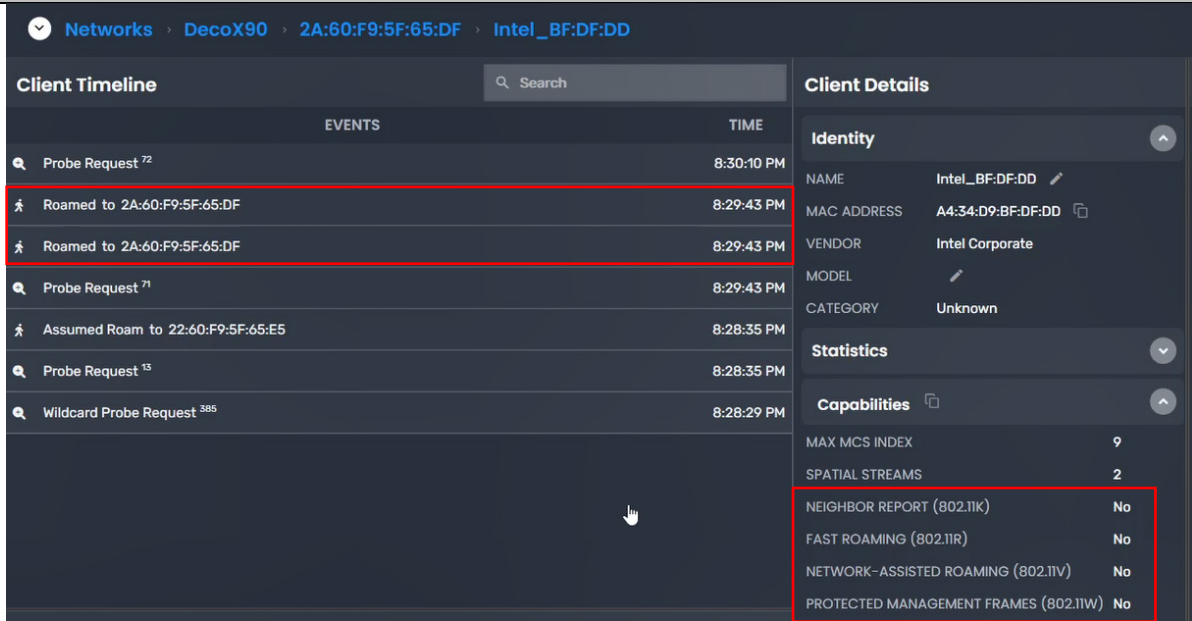
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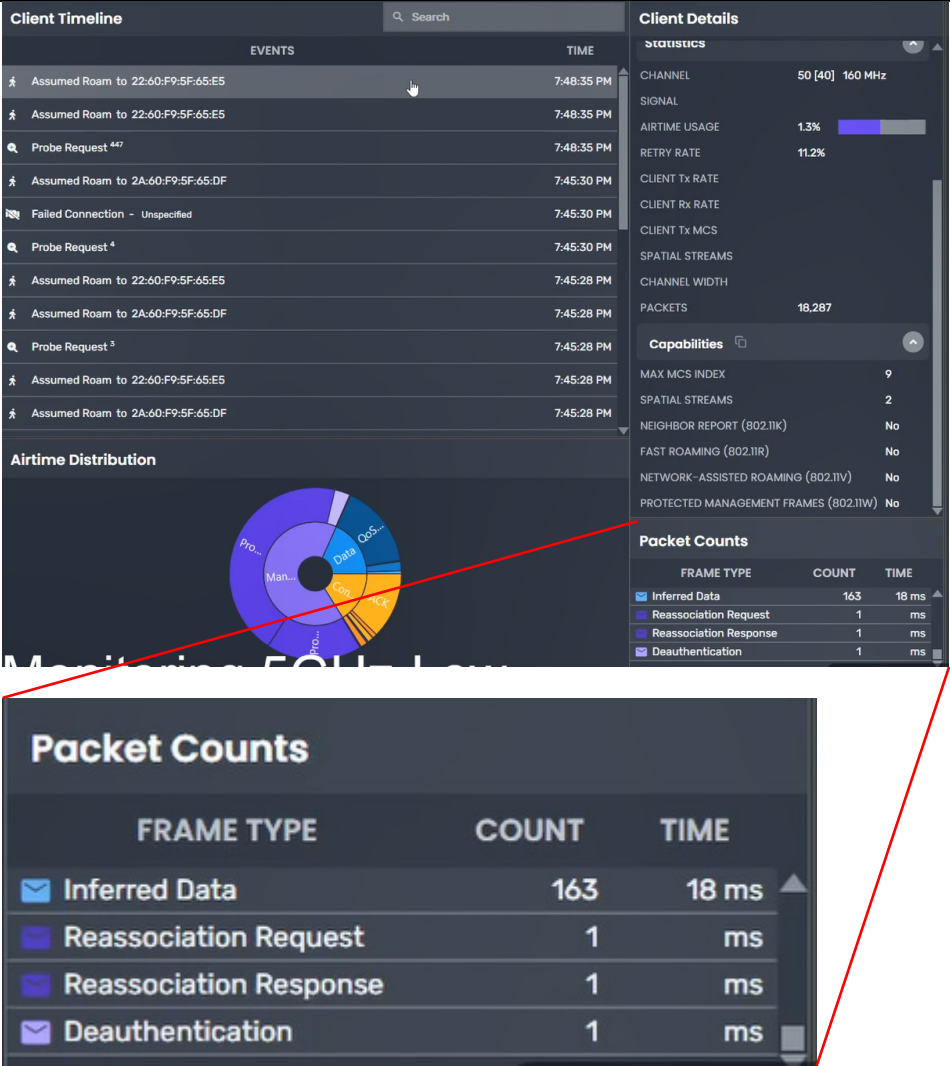
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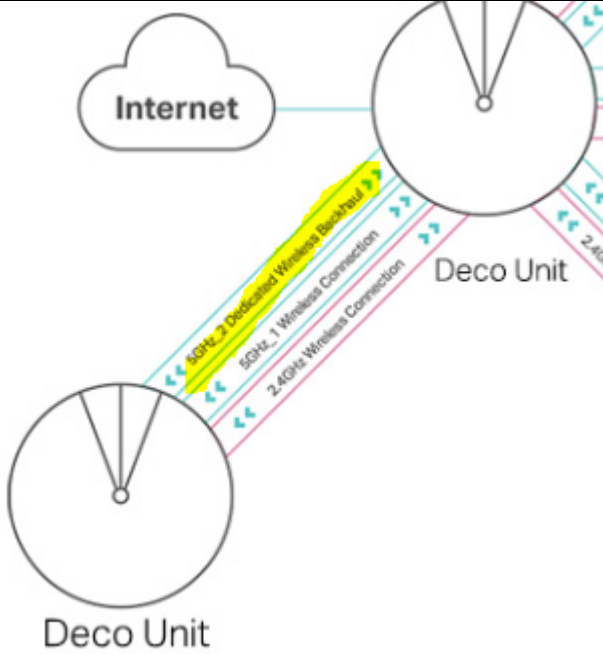
Representative TP-Link Products¹

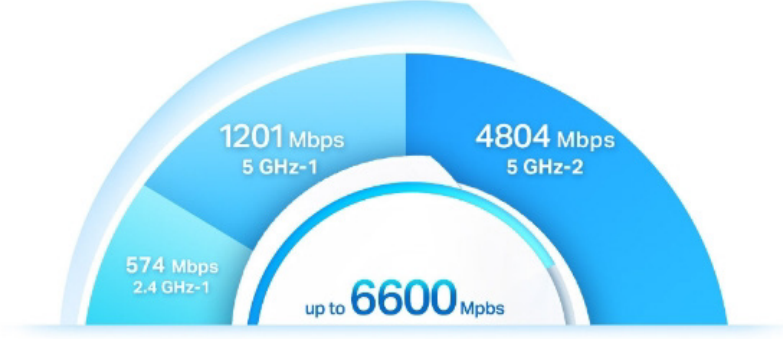


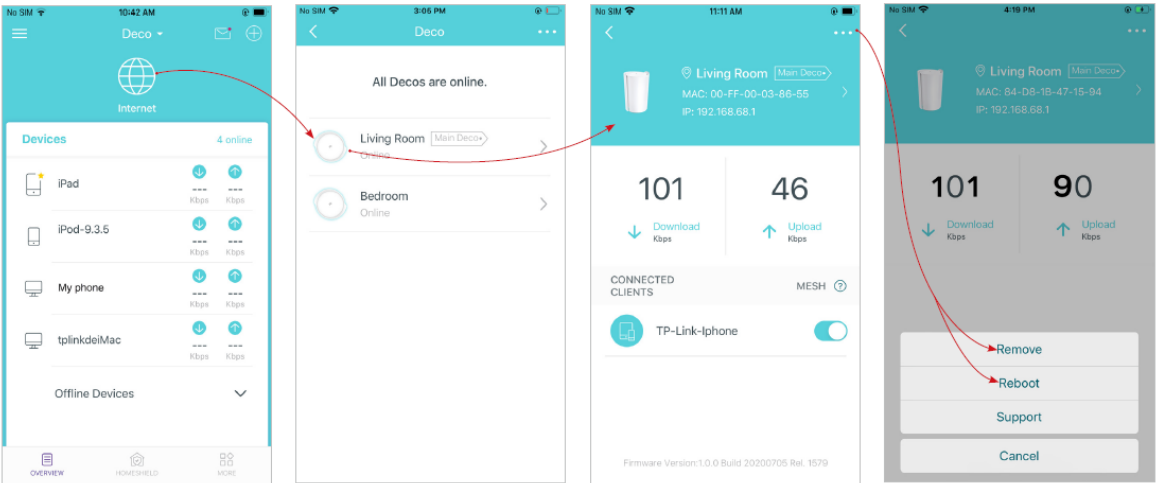
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Claim Language	Representative TP-Link Products ¹
3[h] said wireless network devices coordinating their operation with each other via said wireless channel which is dedicated for communications between said wireless networking devices;	The '681 Accused TP-Link Products coordinate their operation with each other via said wireless channel which is dedicated for communications between said wireless networking devices. For example: The '681 Accused TP-Link Products, such as the TP-Link Deco and Omada mesh products, are capable of communication with other mesh access points, such as other '681 Accused TP-Link Products, over backhaul communication links between the access points. The diagram illustrates a mesh network setup within a modern, multi-level home environment. Two white, cylindrical smart antennas are positioned on different floors. A thick, blue, double-headed arrow labeled 'stronger backhaul' connects the two antennas, indicating a dedicated communication link. Each antenna is surrounded by a blue circular signal field. The background shows various rooms including a living area, dining area, and kitchen, with furniture and other smart devices visible, all connected to the network. Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90).

Claim Language	Representative TP-Link Products ¹
AI-Driven Mesh: Always Learning, Constantly Optimizing Armed with AI-Driven Mesh, Deco X90 delivers smart WiFi that follows you wherever you are, without interruption. It automatically learns your network environment, client quality, and user behaviors. Sophisticated algorithms account for various factors so that Deco X90 provides ideal mesh WiFi, unique to your home. Walk through your home and enjoy seamless streaming at the fastest possible speeds.*	 The diagram illustrates the TP-Link Deco X90 AI-Driven Mesh system. It shows a house with two mesh nodes (Deco X90) and a smartphone. The nodes are connected by a mesh network, and the smartphone is connected to the network. The diagram is labeled with 'Self-Learning' and 'Advanced Algorithms'.
	Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/).

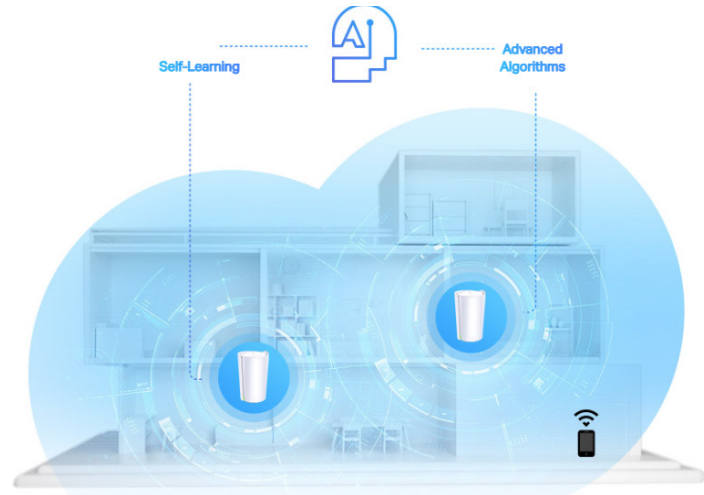
Claim Language	Representative TP-Link Products ¹
	 The diagram illustrates a TP-Link Mesh WiFi system. At the top left, a cloud labeled "Internet" is connected to a "Deco Unit" (represented by a circle with three internal lines). This Deco Unit is connected to a second "Deco Unit" below it. The connection between the two Deco Units is labeled "4GHz, 3 Dedicated Wireless Backhaul" (highlighted in yellow), "5GHz, 1 Wireless Connection" (in blue), and "2.4GHz Wireless Connection" (in pink). The second Deco Unit also has "2.4GHz" connections indicated by pink lines and arrows. Exhibit 53 (https://www.tp-link.com/us/mesh-wifi/) (annotated).

Claim Language	Representative TP-Link Products ¹
	 Exhibit 47 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). Because the '681 Accused TP-Link Products communicate with each other via the dedicated backhaul connection, the management functions, data, and/or commands between the '681 Accused TP-Link Products are coordinated and communicated via these dedicated backhauls channels. For example, the Accused TP-Link Deco Products can be remotely rebooted via the TP-Link Deco App, where the reboot command is communicated to the Deco product via a dedicated backhaul.

Claim Language	Representative TP-Link Products ¹
	Remove/Reboot Deco You can remove or reboot your Deco easily on the Deco app. Follow the steps below. Tap  to check all Deco's status Tap a Deco unit to enter the details Tap  to remove or reboot the Deco Note: If the LED light of Deco does not turn pulsing blue after tapping Remove, refer to Appearance to use the reset button to reset it.  Exhibit 50 at 13 (https://static.tp-link.com/2020/202011/20201126/1910012843_Deco%20X90&Deco%20X5700_UG_V1.pdf); <i>see also</i>, e.g., Exhibit 52 at 11 (https://static.tp-link.com/upload/manual/2022/202210/20221013/1910013233_Deco%20XE75_User%20Guide_REV2.0.0.pdf); Exhibit 58 (https://community.tp-link.com/en/home/kb/detail/412594).
3[i] said multi-band wireless network determining when a wireless network device	The '681 Accused TP-Link Products determine when a wireless network device other than a wireless network device currently in communication with said client is better suited to handle a client by a predetermined margin. For example:

Claim Language	Representative TP-Link Products ¹
other than a wireless network device currently in communication with said client is better suited to handle a client by a predetermined margin; and	As discussed above, the '681 Accused TP-Link Products, such as the TP-Link Deco and Omada mesh products, are configured to roam client devices when there is a more optimal mesh network node for the client device to connect to. The '681 Accused TP-Link Products support TP-Link Mesh Technology that includes features such as adaptive routing, seamless roaming, self-healing, and AI-Drive Mesh. To support the seamless roaming feature, the '681 Accused TP-Link Products support roaming standards. Through the 802.11k standard, one of the mesh nodes may request a neighbor report for a particular client. The request is processed by exchanging client information that evaluates the connection quality between the client and the neighboring (second) mesh. This neighboring report request report exchange is for the purpose of achieving true seamless roaming. The image is a screenshot of a website section titled "True Seamless Roaming". Below the title, it states: "Deco units work together to form one unified network. Your phone or tablet automatically connects to the fastest Deco as you move through your home, creating a truly seamless online experience. Support for IEEE 802.11r as well as 802.11k/v mean switching from one Deco to another is so smooth it's unnoticeable - even during streaming." Exhibit 65 (https://www.tp-link.com/us/mesh/). 802.11k, 802.11v and 802.11r are all standards designed to create a more seamless roaming experience for wireless clients. With 802.11k, the AP can respond to Wi-Fi clients' Neighbor Report request, let them understand the RF environment around them better. As a result, it helps them select a stronger signal, decrease the time used to scan the surrounding Wi-Fi, and have a better roaming. With 802.11v, the AP will not only respond to Wi-Fi clients' Neighbor Report request, but also evaluate the client connection quality, and direct the wireless clients to roam to be best AP which will provide a better WLAN experience, thus to balance the load among the APs.

Claim Language	Representative TP-Link Products ¹
	With 802.11r, the time for wireless authentication will be reduced, it's suitable for WPA2-PSK and WPA2-Enterprise encryption method." Exhibit 79 (https://www.tp-link.com/us/support/faq/2097/) (emphasis added). The '681 Accused TP-Link Products make decisions based off of more variables than just signal strength itself, but instead uses a plurality of qualitative parameters indicative of a quality of a potential link. Why does the satellite Deco still keep selecting the main Deco as a signal source instead of the nearest satellite Deco? Deco will choose the best signal source by itself. The selection does not depend absolutely on the signal strength, but also on the connection rate. Sometimes satellite Deco units may get slower speed due to half-duplex mode and interferences caused by connected devices like phones, or other devices. To ensure the satellite Deco gets reliable speed, the main Deco stays selected by Satellite Deco after comparative analysis. Some users tested that after moving one of the satellites far enough and not being able to reach the main Deco, they finally get the desired connection map:  However, the speed of the satellite becomes slower than what it could get when connecting to the main Deco directly. Due to the working pattern and protocol/regulation of Wi-Fi technology, the more wireless hops, the slower the speed would be. This rule applies to any kind of mesh or extender system. So it is not always good to connect to the nearest Deco unit. Exhibit 81 (https://community.tp-link.com/en/home/forum/topic/276958) (annotated). To support the AI-Driven Mesh feature, according to TP-Link, the '681 Accused TP-Link Products "keep[] a close watch on the signal strength of your devices" to "constantly create optimal connections," "[a]fter self-learning the actual network conditions influencing your Wi-Fi performance." Exhibit 69 (https://www.tp-link.com/en/mesh/ai-driven-mesh/). In particular, "AI-Roaming guides your device connections to the optimal Deco according to the loading conditions of each node to efficiently utilize your network bandwidth." <i>Id.</i> To do so, each mesh node must, "without requiring that the established wireless link to be corrupted or lost... measure a plurality of qualitative parameters indicative of a quality of a potential link."

Claim Language	Representative TP-Link Products ¹
	AI-Roaming: Always Learning As a smart upgrade to common roaming, AI-Roaming keeps a close watch on the signal strength of your devices. After self-learning the actual network conditions influencing your Wi-Fi performance, AI-Roaming helps your devices seamlessly switch to another source when necessary to constantly create optimal connections. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). AI-Driven Mesh: Always Learning, Constantly Optimizing Armed with AI-Driven Mesh, Deco X90 delivers smart WiFi that follows you wherever you are, without interruption. It automatically learns your network environment, client quality, and user behaviors. Sophisticated algorithms account for various factors so that Deco X90 provides ideal mesh WiFi, unique to your home. Walk through your home and enjoy seamless streaming at the fastest possible speeds.*  Exhibit 69 (https://www.tp-link.com/us/deco-mesh-wifi/product-family/deco-x90/). Ideal Wi-Fi Unique to Your Home Traditional mesh provides an uninterrupted streaming experience as you move throughout your signal coverage area. However, your network conditions can still be undermined by many other factors in a real environment, such as your router's placement, some thick walls, or even a microwave. Armed with AI-Driven Mesh Technology, Deco automatically learns the network environment, client quality, and user behaviors in your home. With sophisticated, multifactored algorithms, Deco customizes an ideal mesh Wi-Fi solution unique to your home. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/).

Claim Language	Representative TP-Link Products ¹
	Connect to the Optimal Deco AI-Roaming guides your device connections to the optimal Deco according to the loading conditions of each node to efficiently utilize your network bandwidth. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). A Customized Mesh Solution How a mesh network is internally bridged directly affects your Wi-Fi performance. AI-Driven Mesh comprehensively weighs factors that influence your Wi-Fi, all while establishing a mesh network. These factors include the number of your mesh nodes, their product types, and how they connect with each other. After analyzing all of these, AI-Driven Mesh custom creates the ideal mesh Wi-Fi solution for you. Exhibit 69 (https://www.tp-link.com/us/mesh/ai-driven-mesh/). Furthermore, the adaptive routing feature of the '681 Accused TP-Link Products “allow router nodes to communicate with each other to generate various signal transmission paths,” where “Adaptive Routing finds the path with the least interference according to the load status of each router node or the current frequency band,” resulting in optimal connections for connected devices. Exhibit 61 (https://www.tp-link.com/uk/blog/332/what-is-mesh-wifi-what-does-it-do-and-how-to-choose-a-mesh-wifi-router-/). To determine the path with the least interference, each mesh node must, “without requiring that the established wireless link to be corrupted or lost... measure a plurality of qualitative parameters indicative of a quality of a potential link.” 2) Adaptive Routing Working as a unified WiFi system, your phone or tablet automatically connects to the fastest mesh device as you move through your home. If one mesh node has an issue, the system will automatically reroute data via the other devices to make sure you stay online.

Claim Language	Representative TP-Link Products ¹
	Exhibit 66 (https://partner.tp-link.com/nl/news-detail.html?id=4825). 2. Adaptive Routing Mesh networks allow router nodes to communicate with each other to generate various signal transmission paths. Adaptive Routing finds the path with the least interference according to the load status of each router node or the current frequency band. This guarantees you're always getting the fastest possible speeds. Exhibit 61 (https://www.tp-link.com/uk/blog/332/what-is-mesh-wifi-what-does-it-do-and-how-to-choose-a-mesh-wifi-router-/).
3[j] said multi-band wireless network triggering roaming when a wireless network device other than a wireless network device currently in communication with said client is determined better suited to handle said client.	See discussion regarding claim element [3i].
10[pre]. An apparatus for effecting client roaming in a distributed multi - band wireless networking system, comprising:	See discussion regarding claim limitation 3[pre].
10[a] a plurality of wireless networking devices wirelessly interconnected via a	See discussion regarding claim limitation 3[a].

Claim Language	Representative TP-Link Products ¹
wireless channel which is dedicated for communications between said wireless networking devices;	
10[b] said interconnected wireless networking devices collectively comprising a single, multi-band wireless network providing broad coverage to said client devices; and	<i>See discussion regarding claim limitation 3[b].</i>
10[c] said multi-band wireless network comprising at least one processor that dynamically optimizes wireless connections to the client devices by comparing signals received from said client devices at said wireless networking devices and that makes decisions at said wireless networking devices to switch a client from one wireless networking device to	<i>See discussion regarding claim limitation 3[c].</i>

Claim Language	Representative TP-Link Products ¹
another wireless networking device;	
10[d] wherein said decision to switch said client is made for said client by said multi-band wireless network independently of said client;	<i>See discussion regarding claim limitation 3[d].</i>
10[e] said processor making said decision at said wireless networking devices to switch a client from one wireless networking device to another wireless networking device further comprising executing programmed steps in which:	<i>See discussion regarding claim limitation 3[e].</i>
10[f] said multi-band wireless network operating a first one or more of said wireless network devices in a monitor mode for legacy clients with wireless	<i>See discussion regarding claim limitation 3[f].</i>

Claim Language	Representative TP-Link Products ¹
network devices on a same channel;	
10[g] said multi-band wireless network operating a second one or more of said wireless network devices in a sniffing mode to detect said clients;	<i>See discussion regarding claim limitation 3[g].</i>
10[h] said wireless network devices coordinate their operation with each other via said wireless channel which is dedicated for communications between said wireless networking devices;	<i>See discussion regarding claim limitation 3[h].</i>
10[i] said multi-band wireless network determines when a wireless network device other than a wireless network device currently in communication with said client is better suited to handle a client by a	<i>See discussion regarding claim limitation 3[i].</i>

Claim Language	Representative TP-Link Products ¹
predetermined margin; and	
10[j] said multi-band wireless network triggers roaming when a wireless network device other than a wireless network device currently in communication with said client is determined better suited to handle said client.	<i>See discussion regarding claim limitation 3[j].</i>