

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION**

COMMWORKS SOLUTIONS, LLC,

Plaintiff

-against-

TECHNICOLOR CONNECTED
HOME USA LLC and
TECHNICOLOR USA, INC.,

Defendants.

Civil Action No.: []

Jury Trial Demanded

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff CommWorks Solutions, LLC (“CommWorks” or “Plaintiff”), by way of this Complaint against Defendants Technicolor Connected Home USA LLC and Technicolor USA (collectively, “Technicolor” or “Defendants”), alleges as follows:

PARTIES

1. Plaintiff CommWorks Solutions, LLC is a limited liability company organized and existing under the laws of the State of Georgia, having its principal place of business at 44 Milton Avenue, Suite 254, Alpharetta, GA 30009.
2. On information and belief, Defendant Technicolor Connected Home

USA LLC is a limited liability company organized and existing under the laws of Delaware, having its principal place of business at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and having a regular and established place of business in this State at 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044. On information and belief, Technicolor Connected Home USA LLC is a subsidiary of Technicolor USA, Inc. Technicolor Connected Home USA LLC may be served through its registered agent Registered Agent Solutions, Inc., 900 Old Roswell Lakes Parkway, Suite 310, Roswell, GA 30076.

3. On information and belief, Technicolor USA, Inc. is a corporation organized and existing under the laws of Delaware, having its principal place of business at 6040 Sunset Boulevard, Hollywood, CA 90038 and having a regular and established place of business in this State at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044. Technicolor USA, Inc. may be served with process in this action by and through its registered agent, Registered Agent Solutions, Inc., 900 Old Roswell Lakes Parkway, Suite 310, Roswell, GA 30076.

4. On information and belief, Technicolor makes, uses, sells, offers for sale, and/or imports throughout the United States, including within this District, products that infringe the Patents-in-Suit, defined below.

JURISDICTION AND VENUE

5. This is an action under the patent laws of the United States, 35 U.S.C. §§ 1, *et seq.*, for infringement by Technicolor of claims of U.S. Patent No. 6,891,807; U.S. Patent No. 7,027,465; U.S. Patent No. 7,177,285; U.S. Patent No. 7,463,596; U.S. Patent No. 7,911,979; and U.S. Patent No. RE44,904. (collectively “the Patents-in-Suit”).

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

7. Technicolor Connected Home USA LLC is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Technicolor Connected Home USA LLC maintains a regular and established place of business in Georgia in this Judicial District at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044; (ii) Technicolor Connected Home USA LLC sells products and services to customers in this Judicial District; and (iii) the patent infringement claims arise directly from Connected Home USA LLC’s continuous and systematic activity in this Judicial District.

8. Venue is proper as to Technicolor Connected Home USA LLC in this Judicial District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and

belief, Technicolor Connected Home USA LLC has a regular and established place of business in this Judicial District at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044, and has committed acts of patent infringement in this Judicial District and/or has contributed to or induced acts of patent infringement by others in this District.

9. Technicolor USA, Inc. is subject to personal jurisdiction of this Court because, *inter alia*, on information and belief, (i) Technicolor USA, Inc. maintains a regular and established place of business in Georgia in this Judicial District at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044; (ii) Technicolor USA, Inc. sells products and services to customers in this Judicial District; and (iii) the patent infringement claims arise directly from Technicolor USA, Inc.'s continuous and systematic activity in this Judicial District.

10. Venue is proper as to Technicolor USA, Inc. in this Judicial District under 28 U.S.C. § 1400(b) because, *inter alia*, on information and belief, Technicolor USA, Inc. has a regular and established place of business in this Judicial District at 4855 Peachtree Industrial Blvd, Suite 200, Norcross, GA, 30092 and 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044, and has

committed acts of patent infringement in this Judicial District and/or has contributed to or induced acts of patent infringement by others in this District.

BACKGROUND

11. On May 10, 2005, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 6,891,807 (“the ’807 Patent”), entitled “Time Based Wireless Access Provisioning.” A true and correct copy of the ’807 Patent is attached hereto as Exhibit 1.

12. At the time of the invention, wireless access to data networks was not yet conventional. Then existent systems for provisioning access to a network were impractical, such as for wireless devices which lacked a user interface configured for communicating provisioning information, or for simple home-based intranets, such as a wireless picture frame device lacking a control interface to read or extract identification information, such as a MAC address, to facilitate wireless access provisioning. Ex. 1 at col. 3:5-18. Further, wireless devices that did have a dedicated user interface were incapable of, or cumbersome in, communicating device identification and exchanging provisioning information, still requiring a user to be technically proficient to properly initiate and complete a provisioning process. *Id.* at col. 3:19-28.

13. The invention of the ’807 Patent improved upon existent network

provisioning systems by enabling provisioning without requiring a user interface for the initiation of a provisioning process—“a major technological advance.” *Id.* at col. 3:29-33. The invention of the ’807 Patent further improved upon existent provisioning systems by providing a wireless access provisioning structure and process with minimal device requirements and/or user proficiency, whereby a wireless device is readily provisioned by the provisioning system, and whereby other unauthorized devices within an access region are prevented from being provisioned by the provisioning system. *Id.* at col. 3:34-41. The invention of the ’807 Patent further improved upon existent provisioning systems by providing a time-based wireless access provisioning system integrated with easily monitored parameters of a wireless device, such as the time monitoring of power on and/or start of signal transmission, for provisioning secure encrypted communication. *Id.* at col. 3:42-50. Moreover, the structure of the devices described in the ’807 Patent was not conventional at the time of the invention. Specifically, a device such as an access point, comprising a provisioning activation button, time-based provisioning logic, access control list, wired network logic, a wired network connection and a transceiver were not conventional (or even available) at the time of the invention.

14. On April 11, 2006, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,027,465 (“the ’465 Patent”), entitled

“Method for Contention Free Traffic Detection.” A true and correct copy of the ’465 Patent is attached hereto as Exhibit 2.

15. At the time of the invention, “conventionally ... transmission differentiation based on priority was not conducted at all.” Ex. 2 at col. 2:9-10. Obtaining priority information for traffic transmitted through an Access Point (AP) required searching all fields in all frames for indications of the priority state of the actual data frame, resulting in all fields in all frames being checked and all headers being analyzed, starting from the outer most headers, until the right field in the header had been found. *Id.* at col. 1:53-59. This measure was very complex, took a long time, and required a large amount of processing, especially for complex tunneling protocols. *Id.* at col. 1:62-65. All the frame headers and protocols which can be included in the data frames transmitted via the network had to be known, hence, the amount of information needed for identifying the data was huge. *Id.* at col. 1:66-2:4. Such a huge amount of information was typically too heavy to handle in small and low price equipment like WLAN access points (AP). *Id.* Further, then existing systems according to the IEEE 802.11 standard did not separate traffic based on priority. *Id.* at col. 2:11-15.

16. The invention of the ’465 Patent improved upon conventional network traffic routing systems by providing methods by which priority traffic can easily be

distinguished from normal traffic without the need of complex processing making it possible to execute in a low cost and possibly low performance AP. *Id.* at col. 2:19-23, 2:60-62, 3:43. The methods of the invention of the '465 Patent further improved upon conventional network traffic routing systems by easily finding higher priority traffic from the stream of MAC layer frames without necessarily requiring knowledge of the upper layer protocols. *Id.* at col. 2:53-56. The methods of the invention of the '465 Patent further improved upon conventional network traffic routing systems by being protocol-independent and flexible such that their configuration may be done in an external configuration program; with the Access Point not needing to know anything about the processed traffic; further alleviating the need of complex structure of the device. *Id.* at col. 2:63-66, 3:5-11. A further advantage over conventional network traffic routing systems is that installation of new software or hardware in the network element would not be required when new protocols or modified protocols are introduced in the network. *Id.* at col. 3:12-21.

17. On February 13, 2007, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,177,285 (“the '285 Patent”), entitled “Time Based Wireless Access Provisioning.” A true and correct copy of the '285 Patent is attached hereto as Exhibit 3.

18. At the time of the invention, wireless access to data networks was not yet conventional. Then existent systems for provisioning access to a network were impractical, such as for wireless devices which lacked a user interface configured for communicating provisioning information, or for simple home-based intranets, such as a wireless picture frame device lacking a control interface to read or extract identification information, such as a MAC address, to facilitate wireless access provisioning. Ex. 3 at col. 3:13-26. Further, wireless devices that did have a dedicated user interface were incapable of, or cumbersome in, communicating device identification and exchanging provisioning information, still requiring a user to be technically proficient to properly initiate and complete a provisioning process. *Id.* at col. 3:27-36.

19. The invention of the '285 Patent improved upon existent network provisioning systems by enabling provisioning without requiring a user interface for the initiation of a provisioning process—"a major technological advance." *Id.* at col. 3:37-41. The invention of the '285 Patent further improved upon existent provisioning systems by providing a wireless access provisioning structure and process with minimal device requirements and/or user proficiency, whereby a wireless device is readily provisioned by the provisioning system, and whereby other unauthorized devices within an access region are prevented from being

provisioned by the provisioning system. *Id.* at col. 3:42-49. The invention of the '285 Patent further improved upon existent provisioning systems by providing a time-based wireless access provisioning system integrated with easily monitored parameters of a wireless device, such as the time monitoring of power on and/or start of signal transmission, for provisioning secure encrypted communication. *Id.* at col. 3:50-58. Moreover, the structure of the devices described in the '285 Patent was not conventional at the time of the invention. Specifically, a device such as an access point, comprising a provisioning activation button, time-based provisioning logic, access control list, wired network logic, a wired network connection and a transceiver were not conventional (or even available) at the time of the invention.

20. On December 9, 2008, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,463,596 (“the '596 Patent”), entitled “Time Based Wireless Access Provisioning.” A true and correct copy of the '596 Patent is attached hereto as Exhibit 4.

21. At the time of the invention, wireless access to data networks was not yet conventional. Then existent systems for provisioning access to a network were impractical, such as for wireless devices which lacked a user interface configured for communicating provisioning information, or for simple home-based intranets, such as a wireless picture frame device lacking a control interface to read or extract

identification information, such as a MAC address, to facilitate wireless access provisioning. Ex. 4 at col. 3:13-26. Further, wireless devices that did have a dedicated user interface were incapable of, or cumbersome in, communicating device identification and exchanging provisioning information, still requiring a user to be technically proficient to properly initiate and complete a provisioning process. *Id.* at col. 3:27-36.

22. The invention of the '596 Patent improved upon existent network provisioning systems by enabling provisioning without requiring a user interface for the initiation of a provisioning process—"a major technological advance." *Id.* at col. 3:37-41. The invention of the '596 Patent further improved upon existent provisioning systems by providing a wireless access provisioning structure and process with minimal device requirements and/or user proficiency, whereby a wireless device is readily provisioned by the provisioning system, and whereby other unauthorized devices within an access region are prevented from being provisioned by the provisioning system. *Id.* at col. 3:42-49. The invention of the '596 Patent further improved upon existent provisioning systems by providing a time-based wireless access provisioning system integrated with easily monitored parameters of a wireless device, such as the time monitoring of power on and/or start of signal transmission, for provisioning secure encrypted communication. *Id.*

at col. 3:50-58. Moreover, the structure of the devices described in the '596 Patent was not conventional at the time of the invention. Specifically, a device such as an access point, comprising a provisioning activation button, time-based provisioning logic, access control list, wired network logic, a wired network connection and a transceiver were not conventional (or even available) at the time of the invention.

23. On March 22, 2011, the United States Patent and Trademark Office duly and lawfully issued U.S. Patent No. 7,911,979 (“the '979 Patent”), entitled “Time Based Access Provisioning System and Process. A true and correct copy of the '979 Patent is attached hereto as Exhibit 5.

24. At the time of the invention wireless access to data networks was not yet conventional. Then existent systems for provisioning access to a network were impractical, such as for wireless devices which lacked a user interface configured for communicating provisioning information, or for simple home-based intranets, such as a wireless picture frame device lacking a control interface to read or extract identification information, such as a MAC address, to facilitate wireless access provisioning. Ex. 5 at col. 3:19-31. Further, wireless devices that did have a dedicated user interface were incapable of, or cumbersome in, communicating device identification and exchanging provisioning information, still requiring a user to be technically proficient to properly initiate and complete a provisioning

process. *Id.* at col. 3:32-41.

25. The invention of the '979 Patent improved upon existent network provisioning systems by enabling provisioning without requiring a user interface for the initiation of a provisioning process—"a major technological advance." *Id.* at col. 3:42-46. The invention of the '979 Patent further improved upon existent provisioning systems by providing a wireless access provisioning structure and process with minimal device requirements and/or user proficiency, whereby a wireless device is readily provisioned by the provisioning system, and whereby other unauthorized devices within an access region are prevented from being provisioned by the provisioning system. *Id.* at col. 3:47-53. The invention of the '979 Patent further improved upon existent provisioning systems by providing a time-based wireless access provisioning system integrated with easily monitored parameters of a wireless device, such as the time monitoring of power on and/or start of signal transmission, for provisioning secure encrypted communication. *Id.* at col. 3:54-62. Moreover, the structure of the devices described in the '979 Patent was not conventional at the time of the invention. Specifically, a device such as an access point, comprising a provisioning activation button, time-based provisioning logic, access control list, wired network logic, a wired network connection and a transceiver were not conventional (or even available) at the time of the invention.

26. On May 20, 2014, the United States Patent and Trademark Office duly and lawfully reissued U.S. Patent No. RE44,904 (“the ’904 Patent”), entitled “Method for Contention Free Traffic Detection.” A true and correct copy of the ’904 Patent is attached hereto as Exhibit 6.

27. At the time of the invention, “conventionally ... transmission differentiation based on priority was not conducted at all.” Ex. 6 at col. 2:9-10. Obtaining priority information for traffic transmitted through an Access Point (AP) required searching all fields in all frames for indications of the priority state of the actual data frame, resulting in all fields in all frames being checked and all headers being analyzed, starting from the outer most headers, until the right field in the header had been found. *Id.* at col. 1:63-2:2. This measure was very complex, took a long time, and required a large amount of processing, especially for complex tunneling protocols. *Id.* at col. 2:5-8. All the frame headers and protocols which can be included in the data frames transmitted via the network had to be known, hence, the amount of information needed for identifying the data was huge. *Id.* at col. 2:8-14. Such a huge amount of information was typically too heavy to handle in small and low price equipment like WLAN access points (AP). *Id.* Further, then existing systems according to the IEEE 802.11 standard did not separate traffic based on priority. *Id.* at col. 2:20-25.

28. The invention of the '904 Patent improved upon conventional network traffic routing systems by providing methods by which priority traffic can easily be distinguished from normal traffic without the need of complex processing making it possible to execute in a low cost and possibly low performance AP. *Id.* at col. 2:29-32, 3:2-4, 3:52-53. The methods of the invention of the '904 Patent further improved upon conventional network traffic routing systems by easily finding higher priority traffic from the stream of MAC layer frames without necessarily requiring knowledge of the upper layer protocols. *Id.* at col. 2:62-65. The methods of the invention of the '904 Patent further improved upon conventional network traffic routing systems by being protocol-independent and flexible such that their configuration may be done in an external configuration program; with the Access Point not needing to know anything about the processed traffic; further alleviating the need of complex structure of the device. *Id.* at col. 3:5-8, 3:14-21. A further advantage over conventional network traffic routing systems is that installation of new software or hardware in the network element would not be required when new protocols or modified protocols are introduced in the network. *Id.* at col. 3:22-31.

29. CommWorks is the assignee and owner of the right, title, and interest in and to the Patents-in-Suit, including the right to assert all causes of action

arising under said patents and the right to any remedies for infringement of them.

30. Technicolor has infringed and continues to infringe the Patents-in-Suit by making, using, selling, or offering for sale in the United States, or importing into the United States routers, access points, gateways, devices, and products with Wi-Fi-related technology claimed in the Patents-in-Suit. Below is a non-exhaustive listing of Accused Products:

CGM4981	DJA0231	TG588
CGA4336	DJA0230	TG788
CGA4236	DJN2231	TG797
CGA4332	DJN2130	TG213
CGA6444	DMA0120	TG234
CGA4233	DNA0332	TG389
CGM4331	DPC3928	TG1400
CGM4140	DPC3940	TG1600
CGA4234	DPC3848	TG1700
CGA0112	DPC3941	TG2000
CGA0101	DWA0120	TG2200
CGA2231	DWA1230	TC7300
CGA4131	DWA0100	TC7210
CGA2121	EW1350	TC8735
CGA0111	EWA1330	TC8737
CWA0121	EPC3940	TC7230
C1100	FGA2233	TC7200
C2100	FGA2131	TC7110
CLG-8202	FGA5330	TC8715
DGA4333	FGA2232	TC8717
DGA4134	FGA2230	TC8305
DGA4131	FGA2130	TD5131
DGA4331	FGA2110	TD5130
DGA4122	MBHA10	TD5136
DGA0122	MWA1100	TD5336
DGA4330	OWA311	UGW1726
DGA2231	OWA0131	H500-p
DGA2232	OWA0130	H500-t
DGA4231	THG3000	WAP371
DGA4131	TG1700	

DGA0120	TG800	
DGA4132	TG589	
DGA4130	TG789	
	TG799	

NOTICE

31. Technicolor has been aware of the existence of the Patents-in-Suit, and of its infringement of the Patents-in-Suit, at least as of May 29, 2021 when it was notified by a subpoena that Technicolor’s “access points/routers” were the “Accused Products.” On information and belief, upon receiving notice that its products were accused, Technicolor researched and identified the underlying patents and investigated its infringement thereof, consistent with its “Code of Ethics” relating to Intellectual Property of Others.

32. Technicolor further learned of its infringement of the Patents-in-Suit on February 3, 2022 when counsel for CommWorks conferred with counsel for Technicolor and described the applicability of the Patents-in-Suit to Technicolor products.

COUNT I: INFRINGEMENT OF THE '807 PATENT BY TECHNIColor

33. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

34. On information and belief, Technicolor has infringed the '807 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by

making, using, offering for sale, selling, and/or importing into the United States Wi-Fi enabled routers, access points, and gateways, such as, for example, the Technicolor CGA4234 Gateway (included in the “Accused Products”).

35. For example, on information and belief, Technicolor has infringed and continues to infringe at least claim 59 of the '807 Patent by making, using, offering to sell, selling, and/or importing the Accused Products, which include a network access point. *See* Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance); Ex. 9 at 1, 7, 11 (showing that WPS access points comprise a network access point between a wireless device, i.e., an enrollee, and a network, e.g., a Wireless Local Area Network (“WLAN”)). The network access point comprises a connection to a network. *See* Ex. 9 at 7, 19 (showing, e.g., that WPS access points are connected to a network, such as a WLAN). The network access point further comprises a receiver for receiving input signals from at least one wireless device. *See* Ex. 9 at 11, 14, 25, 80 (showing, e.g., WPS access points includes a receiver, such as Interface A for receiving Probe Request {WSC IE PBC} signals from the wireless device (enrollee)). The network access point further comprises means for provisioning access between the wireless device and the network. *See* Ex. 9 at 7, 9, 11, 19, 77-78 (showing, e.g., WPS

access points include a PushButton Configuration (“PBC”) method for connecting the wireless device (enrollee) and the network, such as a WLAN). The network access point further comprises a time-based interval which selectably allows the provisioning if a received input signal occurs within the time interval. *See* Ex. 9 at 25, 77-78, 80 (showing, e.g., WPS access points allow provisioning if the Probe Request {WSC IE PBC} occurs within a 120-second walk time).

36. On information and belief, Technicolor has induced infringement of the ’807 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, customers, and end users, to use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the Accused Products, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶¶ 31-32 above (explaining that CommWorks notified Technicolor of infringement); Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance).

37. On information and belief, Technicolor has committed the foregoing

infringing activities without a license.

38. On information and belief, Technicolor knew the '807 Patent existed and knew of exemplary infringing Technicolor products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '807 Patent.

COUNT II: INFRINGEMENT OF THE '465 PATENT BY TECHNICOLOR

39. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

40. On information and belief, Technicolor has infringed the '465 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by performing methods for contention free traffic detection using Accused Products.

41. For example, on information and belief, Technicolor has infringed at least claim 1 of the '465 Patent by performing a method for detecting priority of data frames in a network. *See* Exs. 10-11 (showing that Technicolor engineers in Georgia “[p]erform testing of ... home internet gateway products” and “[a]ssist with installation and utilization of new Technicolor products”); Ex. 12 (stating that “Technicolor ... is supporting [a large ISP]’s recently announced launch of advanced consumer trial of DOCSIS 3.1-powered gigabit Internet service in Atlanta” by “provid[ing] a DOCSIS 3.1-powered, gigabit model” and that

“Technicolor worked closely with [the large ISP]”); Ex. 7 (showing, e.g., the Technicolor CGA4234 Gateway supports Wi-Fi Multimedia (“WMM”)); Ex. 8 (showing, e.g., the Technicolor CGA4234 Gateway is WMM certified by the Wi-Fi Alliance); Ex. 13 at 7-8, 25-26 (showing that WMM compatible Access Points detect the priority of data frames in a network by mapping to the Access Category (“AC”) of the Enhanced Distributed Channel Access (“EDCA”) mechanism); *see also* Ex. 14 at 12, 51, 268-269 (showing another example in which 802.11-2007+ compatible Access Points detect priority data frames in a network by mapping the AC of the EDCA mechanism). The method for detecting priority of data frames comprises the step of extracting a bit pattern from a predetermined position in a frame. *See* Ex. 13 at 10, 12, 25 (showing, for example, WMM compatible Access Points extract a bit pattern from a predetermined position in a data frame, such as in the QoS Control field); Ex. 14 at 51, 60, 67, 253 (showing, for example, 802.11-2007+ compatible Access Points extract a bit pattern from a predetermined position in a data frame, such as in the QoS Control field). The method for detecting priority of data frames further comprises the step of comparing said extracted bit pattern with a search pattern. *See* Ex. 13 at 25-26 (showing, for example, that WMM compatible Access Points compare the extracted UP bit pattern with a search pattern, such as the Access Category (“AC”)); Ex. 14 at 252,

268-269 (showing, for example, that 802.11-2007+ compatible Access Points compare the extracted TID bit pattern User Priority (“UP”) with the Access Category (“AC”) search pattern). The method for detecting priority of data frames further comprises the step of identifying a received frame as a priority frame in case said extracted bit pattern matches with said search pattern. *See* Ex. 13 at 25-26 (showing, for example, that WMM compatible Access Points identify the priority Access Category (“AC”) of the WMM Data frame if the UP of said frame matches an AC search pattern); Ex. 14 at 51, 252, 268-269 (showing, for example, that 802.11-2007+ compatible Access Points identify the priority Access Category (“AC”) of the data frame if the TID UP bit pattern matches an AC search pattern). In the method for detecting priority of data frames, the predetermined position in said frame is defined by the offset of said bit pattern in said frame. *See* Ex. 13 at 10-12 (showing, for example, WMM compatible Access Points predetermine the position of the bit pattern by inspecting the Frame Control field to anticipate which non-minimal field has data present in the frame MAC Header so the offset of the UP bit pattern can be determined); Ex. 14 at 60, 62, 67 (showing, for example, 802.11-2007+ compatible Access Points predetermine the position of the bit pattern by inspecting the Frame Control field to anticipate which non-minimal field has data present in the frame MAC Header so the offset of the TID bit pattern can

be determined).

42. On information and belief, Technicolor has committed the foregoing infringing activities without a license.

**COUNT III: INFRINGEMENT OF THE '285 PATENT BY
TECHNICOLOR**

43. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

44. On information and belief, Technicolor has infringed the '285 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States Wi-Fi enabled routers, access points, and gateways, such as, for example, the Technicolor CGA4234 Gateway (included in the "Accused Products").

45. For example, on information and belief, Technicolor has infringed and continues to infringe at least claim 43 of the '285 Patent by making, using, offering to sell, selling, and/or importing the Accused Products, which include an access point. *See* Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup ("WPS")); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance); Ex. 9 at 1, 7, 11 (showing WPS access points comprise an access point between a wireless device, i.e., an enrollee, and a network, e.g., a Wireless Local Area Network ("WLAN")). The access point

comprises means for tracking an operating parameter of a wireless device, wherein the tracked operating parameter of the wireless device comprises any of a power on, and an onset of a signal transmission of the wireless device. *See* Ex. 9 at 11, 13, 25, 80 (showing, e.g., WPS access points monitor Probe Request {WSC IE, PBC}, wherein said Probe Requests include an onset of a signal transmission, e.g., PushButton Configuration (“PBC”) operating parameter in the onset signal Probe Request {WSC IE PBC} transmitted from an in range wireless device (enrollee) seeking access to the network). The access point further comprises logic for initiating an association of the wireless device with a network if the tracked operating parameter occurs within a time interval. *See* Ex. 9 at 12-13, 25, 77-78, 80 (showing, e.g., WPS access points’ logic initiates association of the wireless device with a network, such as by a Probe Response {WSC IE PBC} and subsequent Registration Protocol if the Probe Request {WSC IE PBC} from the wireless device (enrollee) occurs within the 120-second walk-time of the PBC active state of the WPS access point).

46. On information and belief, Technicolor has induced infringement of the ’285 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, customers, and end users, to use, sell, and/or offer to sell in the United

States, and/or import into the United States, the Accused by, among other things, providing the Accused Products, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶¶ 31-32 above (explaining that CommWorks notified Technicolor of infringement); Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance).

47. On information and belief, Technicolor has committed the foregoing infringing activities without a license.

48. On information and belief, Technicolor knew the ’285 Patent existed and knew of exemplary infringing Technicolor products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’285 Patent.

**COUNT IV: INFRINGEMENT OF THE ’596 PATENT BY
TECHNICOLOR**

49. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

50. On information and belief, Technicolor has infringed the ’596 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by

making, using, offering for sale, selling, and/or importing into the United States Wi-Fi enabled routers, access points, and gateways, such as, for example, the Technicolor CGA4234 Gateway (included in the “Accused Products”).

51. For example, on information and belief, Technicolor has infringed and continues to infringe at least claim 16 of the '596 Patent by making, using, offering to sell, selling, and/or importing the Accused Products, which include a system for associating devices. *See* Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance); Ex. 9 at 1, 9, 11 (showing WPS access points associate devices to a network, such as through the PushButton Configuration (“PBC”) method). The system for associating devices comprises means for tracking an operating parameter of a first device, wherein the operating parameter of the first device comprises any of a power on of the first device, and an onset of a signal transmission of the first device. *See* Ex. 9 at 9, 11-13, 25, 77, 80 (showing, e.g., WPS access points track the PBC operating parameter of the first device found in the onset signal of the Probe Request {WSC IE PBC} where the Probe Request is activated by pressing a PBC button on the first device (enrollee) that is seeking access to the network). The system for associating devices further comprises means for automatically associating the first

device with at least one other device if the tracked operating parameter occurs within a time interval. *See* Ex. 9 at 12-13, 77-78, 80 (showing, e.g., WPS access points automatically associate the first device seeking access with the access point by sending a Probe Response {WSC IE PBC} and subsequent Registration Protocol if the Probe Request {WSC IE PBC} of the first device (enrollee) occurs within the 120-second walk time).

52. On information and belief, Technicolor has induced infringement of the '596 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, customers, and end users, to use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other things, providing the Accused Products, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. *See* ¶¶ 31-32 above (explaining that CommWorks notified Technicolor of infringement); Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance).

53. On information and belief, Technicolor has committed the foregoing

infringing activities without a license.

54. On information and belief, Technicolor knew the '596 Patent existed and knew of exemplary infringing Technicolor products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the '596 Patent.

COUNT V: INFRINGEMENT OF THE '979 PATENT BY TECHNICOLOR

55. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

56. On information and belief, Technicolor has infringed the '979 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by making, using, offering for sale, selling, and/or importing into the United States Wi-Fi enabled routers, access points, and gateways, such as, for example, the Technicolor CGA4234 Gateway (included in the "Accused Products").

57. For example, on information and belief, Technicolor has infringed and continues to infringe at least claim 14 of the '979 Patent by making, using, offering to sell, selling, and/or importing the Accused Products, which include a system. *See* Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup ("WPS")); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance); Ex. 9 at 1, 11-14 (showing WPS access points

include a provisioning system to implement interfaces such as A, M, and/or E to provision devices accessing a network using the PushButton Configuration (“PBC”) method). The system comprises means for tracking an operating parameter of a first device, wherein the operating parameter of the first device comprises any of a power on of the first device, and an onset of a signal transmission of the first device. *See* Ex. 9 at 12-13, 25, 80 (showing, e.g., WPS access points monitor a PBC operating parameter, such as an onset of a Probe Request {WSC IE PBC} sent by the first device (enrollee)). The system further comprises means for sending a signal to initiate provisioning of the first device with a network if the tracked operating parameter occurs within a selected time interval. *See* Ex. 9 at 12-13, 77-78, 80 (showing, e.g., WPS access points sends a Probe Response {WSC IE, PBC} signal to initiate provisioning of the first device (enrollee) if the Probe Request {WSC IE PBC} occurs within the 120-second walk time).

58. On information and belief, Technicolor has induced infringement of the '979 Patent pursuant to 35 U.S.C. § 271(b), by actively and knowingly inducing, directing, causing, and encouraging others, including, but not limited to, its partners, customers, and end users, to use, sell, and/or offer to sell in the United States, and/or import into the United States, the Accused Products by, among other

things, providing the Accused Products, specifications, instructions, manuals, advertisements, marketing materials, and technical assistance relating to the installation, set up, use, operation, and maintenance of said products. See ¶¶ 31-32 above (explaining that CommWorks notified Technicolor of infringement); Ex. 7 (showing the Technicolor CGA4234 Gateway supports Wi-Fi Protected Setup (“WPS”)); Ex. 8 (showing the Technicolor CGA4234 Gateway is WPS certified by the Wi-Fi Alliance).

59. On information and belief, Technicolor has committed the foregoing infringing activities without a license.

60. On information and belief, Technicolor knew the ’979 Patent existed and knew of exemplary infringing Technicolor products while committing the foregoing infringing acts thereby willfully, wantonly and deliberately infringing the ’979 Patent.

**COUNT VI: INFRINGEMENT OF THE ’904 PATENT BY
TECHNICOLOR**

61. Plaintiff incorporates the preceding paragraphs as if fully set forth herein.

62. On information and belief, Technicolor has infringed the ’904 Patent pursuant to 35 U.S.C. § 271(a), literally or under the doctrine of equivalents, by performing methods for contention free traffic detection using Accused Products.

63. For example, on information and belief, Technicolor has infringed and continues to infringe at least claim 7 of the '904 Patent by performing a method comprising detecting a received frame is a priority frame based, at least in part, on information in the received frame. *See* Exs. 10-11 (showing that Technicolor engineers in Georgia “[p]erform testing of ... home internet gateway products” and “[a]ssist with installation and utilization of new Technicolor products”); Ex. 12 (stating that “Technicolor ... is supporting [a large ISP]’s recently announced launch of advanced consumer trial of DOCSIS 3.1-powered gigabit Internet service in Atlanta” by “provid[ing] a DOCSIS 3.1-powered, gigabit model” and that “Technicolor worked closely with [the large ISP]”); Ex. 7 (showing, e.g., the Technicolor CGA4234 Gateway supports Wi-Fi Multimedia (“WMM”)); Ex. 8 (showing, e.g., the Technicolor CGA4234 Gateway is WMM certified by the Wi-Fi Alliance); Ex. 13 at 7, 10, 12, 25-26 (showing that, for example, WMM compatible Access Points detect the priority of data frames by mapping to an Access Category (“AC”) based, at least in part, on information in the QoS Control field of a received frame, such as the User Priority (“UP”) subfield); Ex. 14 at 12, 51, 60, 67, 287 (showing that, for example, 802.11-2007+ compatible Access Points detect the priority of data frames by mapping to an Access Category (“AC”) based, at least in part, on information in the QoS Control field of a received frame,

such as the User Priority (“UP”) TID subfield). The method further comprises extracting a bit pattern from a predetermined position in the received frame. *See* Ex. 13 at 10, 12, 25 (showing, for example, that in WMM compatible Access Points extract a bit pattern (i.e. UP subfield bit pattern) from a predetermined position in a data frame, such as in the QoS Control field); Ex. 14 at 51, 60, 67, 253 (showing, for example, that 802.11-2007+ compatible Access Points extract a bit pattern (i.e. TID) UP from a predetermined position in a data frame, such as in the QoS Control field). The method further comprises comparing the extracted bit pattern with a search pattern. *See* Ex. 13 at 25-26 (showing, for example, that WMM compatible Access Points compare the extracted UP bit pattern with a search pattern, such as the AC); Ex. 14 at 252, 258-259 (showing, for example, that 802.11-2007+ compatible Access Points compare the extracted TID bit pattern UP with the AC search pattern). In the method, the detecting is based on a match between the extracted bit pattern and the search pattern. *See* Ex. 13 at 25-26 (showing, for example, that WMM compatible Access Points determine the AC of the WMM Data frame if the UP of said frame matches to an AC search pattern); Ex. 14 at 51, 252, 268-269 (showing, for example, that 802.11-2007+ compatible Access Points determine the priority AC of the data frame if the TID UP bit pattern matches an AC search pattern). The method further comprises transmitting the

received frame in a transmit period reserved for priority frames in response to the detecting. *See* Ex. 13 at 25-27, 39 (showing, for example, that WMM compatible Access Points detect a data frame to be high priority and transmits said frame from a high priority queue, with the transmitting occurring while frames in said queue are being sent in succession onto the wireless medium during said queue's Transmission Opportunity ("TXOP") interval); Ex. 14 at 5, 15, 51, 69, 252-253, 268-269, 1021-1023 (showing, for example, that 802.11-2007+ compatible Access Points detect a data frame to be high priority and transmits said frame from a high priority queue, with the transmitting occurring while frames in said queue are being sent in succession onto the wireless medium during said queue's Transmission Opportunity ("TXOP") interval). The method adjusts a duration of the transmit period reserved for priority frames based on statistic information regarding sent priority frames. *See* Ex. 13 at 25, 27 (showing, for example, that WMM compatible Access Points adjust the duration of the TXOP interval (such as the TXOP limit) based on statistic information regarding sent priority frames, such as when using a lower PHY rate than selected for the initial transmission attempt of the first data frame, for retransmission of a data frame or for the initial transmission of a data frame if any previous data frame in the current data frame set has been retransmitted); Ex. 14 at 5, 15, 287, 1024-1025 (showing, for example,

that 802.11-2007+ compatible Access Points adjust the duration of the TXOP based on statistic information regarding sent priority frames, such as when using a lower PHY rate than selected for the initial transmission attempt of the first data frame, for retransmission of a data frame or for the initial transmission of a data frame if any previous data frame in the current data frame set has been retransmitted).

64. On information and belief, Technicolor has committed the foregoing infringing activities without a license.

PRAYER FOR RELIEF

WHEREFORE, CommWorks prays for judgment in its favor against Technicolor for the following relief:

- A. Entry of judgment in favor of CommWorks against Technicolor on all counts;
- B. Entry of judgment that Technicolor has infringed the Patents-in-Suit;
- C. Entry of judgment that Technicolor's infringement of the '807, '285, '596, and '979 Patents has been willful;
- D. Award of compensatory damages adequate to compensate CommWorks for Technicolor's infringement of the '807, '285, '596, and '979

Patents, in no event less than a reasonable royalty trebled as provided by 35 U.S.C. § 284;

E. Award of compensatory damages adequate to compensate CommWorks for Technicolor's infringement of the '465 and '904 Patents, in no event less than a reasonable royalty as provided by 35 U.S.C. § 284;

F. CommWorks' costs;

G. Pre-judgment and post-judgment interest on CommWorks' award; and

H. All such other and further relief as the Court deems just or equitable.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38 of the Fed. R. Civ. Proc., Plaintiff hereby demands trial by jury in this action of all claims so triable.

Dated: July 18, 2022

Respectfully submitted,

/s/ Daniel A. Kent

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