IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

PADCOM, INC.,	)	
	)	
Plaintiff and Counterclaim Defendant,	)	
	)	
v.	)	Civ. No. 03-983-SLR
	)	
NETMOTION WIRELESS, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	

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MEMORANDUM OPINION

Dated: February 22, 2006
Wilmington, Delaware

ROBINSON, Chief Judge

I. INTRODUCTION

On October 27, 2003, Padcom, Incorporated ("plaintiff") filed this action against NetMotion Wireless Incorporated ("defendant") for infringement of certain claims of United States Patent Nos. 6,198,920 ("the '920 patent") and 6,418,324 ("the '324 patent"). (D.I. 1) On June 9, 2004, plaintiff filed a first amended complaint including infringement of United States Patent No. 6,826,405 ("the '405 patent") and on June 30, 2004, defendant filed a counterclaim. (D.I. 44, 47) On January 5, 2005, plaintiff filed a second amended complaint. (D.I. 89)

The asserted claims have been narrowed to claims 6 and 16 of the '920 patent, claims 10, 49, 58, 60 and 67 of the '324 patent and claims 18, 19, 22, 23, 39, 44, 68 and 71 of the '405 patent. Before the court is defendant's motion for summary judgment (D.I. 278) of invalidity of the '324 patent, the '920 patent and the '405 patent under 35 U.S.C. § 102.

II. Background

A. The Parties

Plaintiff is a company that develops, makes, licenses, sells and services software and hardware products that enhance connectivity for wireless network users and simplify administration, control and support of mobile solutions. (D.I. 89 at ¶ 12) In about 1995, plaintiff created and provided internet protocol ("IP") data over private radio frequency ("RF")

networks for its wireless customers. (Id. at ¶ 13) Plaintiff also developed technology that enabled communications over multiple active networks by using a variety of protocols to seamlessly switch among the networks, thus maintaining and improving connectivity. (Id. at 14)

In February of 2001, defendant entered the telecommunications software market. (D.I. 340 at 3) Defendant developed patented technology that allows mobile users to maintain persistent, secure connections to applications, networks and data as they seamlessly roam between offices, buildings or global locations. (D.I. 95 at 6)

B. Technology

In the mid-1990s, there were many different wireless (e.g., cellular) communications networks. (D.I. 266 at 3) Examples include a large variety of proprietary radio systems licenses for private or government use and public wireless networks such as those used for cell phone communications.[1] (Id.) Most of these wireless networks were designed for voice communication and did not provide interfaces or protocols for data communication, such as transferring text messages, emails, pictures or video messages

[1]The standards used for the public wireless networks included Advanced Mobile Phone System (AMPS), Global System for Mobile Communications (GSM) used by Cingular and T-Mobile, and Code Division Multiple Access (CDMA) which is the standard used by carries such as Verizon Wireless, Sprint PCS and Alltel. (D.I. 266 at 4)

wirelessly. (Id.) To address these needs, additional standards were established so that data could be carried over public wireless networks originally designed for voice.[2] (Id.) These standards enabled use of the industry-standard network format known as the Internet Protocol (IP) for such data communications. (Id.) Throughout the 1990s, private networks, used primarily by public safety services like law enforcement and companies with field service employees, remained proprietary and inherently incompatible with one another. (Id.) They did not, at that time, use the IP.

A need existed to convert data between mobile devices (such as laptops) and host devices (such as computers on a wired network), regardless of the networks connecting them. In other words, there existed a need to allow two devices on dissimilar or incompatible networks to talk to one another. (Id.)

The mobile computing community recognized the utility of permitting the mobile commuting device to automatically roam from network to network without disrupting the sending and receiving of data. (D.I. 284 at 3) Typically, most applications or communication sessions would be disrupted once the device was no longer connected to the first network. (Id.) This caused the

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[2]One example of such a standard is Cellular Digital Packet Data (CDPD), which added the capability of sending and receiving data over existing AMPS analog cellular telephone networks. (D.I. 266 at 4)

data transmission to stop and the user would manually restart the transmission once connectivity on the new network was obtained. (Id.)

C. Patents in Suit

The invention of the patents in suit is generally directed to sending and receiving a data transmission over different wireless data networks and switching among these different networks without interrupting the data transmission or disrupting the application. Plaintiff is the owner of the '324 patent entitled "Apparatus and Method for Transparent Wireless Communication Between a Remote Device and Host System," the '920 patent entitled "Apparatus and Method for Intelligent Routing of Data Between a Remote Device and a Host System," and the '405 patent entitled "Apparatus and Method for Intelligent Routing of Data Between a Remote Device and a Host System." (D.I. 89 at ¶¶ 8-10) (collectively called "the patents in suit")

The patents in suit are continuations-in-part of an earlier patent, United States Patent No. 5,717,737 (not in suit). The first of the patents in suit was the '324 patent, filed September 17, 1997. The '920 patent, filed March 16, 2000, and the '405 patent, filed June 10, 2002, are continuations of the '324 patent although the '920 patent actually issued before the '324 patent.[3]

[3]The '324 patent issued on July 9, 2002, the '920 patent issued March 6, 2002 and the '405 patent issued November 30, 2004.

All of the asserted claims from the patents in suit claim priority to the September 17, 1997 filing date of the '324 patent. The written description of the '920 patent is virtually identical to the '324 written description. The '405 written description, however, was amended during prosecution.

The problem facing the inventors of the patents in suit was how to continue to send and receive data on a mobile computing device (such as a laptop) when the device has changed physical locations, so that the device is no longer on its "home" network. (D.I. 284 at 3) The patents in suit disclose a routing system that: 1) forwards data generated by a local application across one of a number of different networks simultaneously connected to the mobile device, and 2) switches between the different networks while forwarding data. (D.I. 261 at 4) For example, a mobile device, such as a laptop computer, may be connected to two data networks, such as a wireless local area network (WLAN) and a wireless wide area network (WWAN). The invention enables the laptop to automatically transition from the WWAN to the WLAN while the laptop is downloading a data stream (e.g., performing a file transfer), without disrupting or reinitiating the transmission. (D.I. 284 at 6)

In the Background of the Invention, the applicants reference a well-known and industry-adopted Open Systems Interconnection ("OSI") model, which shows the seven "layers" of communication.

('324 patent, col. 2, ll. 48-56) "Each layer performs a specific task in transporting data between two or more entities." ('324 patent, col. 2, ll. 56-58) The patents in suit relate to the communication between two networks that are different at either the data link layer, the network layer or both. The network layer is responsible for routing data packets from one network to another. (D.I. 266 at 7) In this process, each computer is assigned a logical network address, which is used by a router to determine how to forward packets from one network to another in cases where the networks use the same network protocol (such as IP). (Id. at 7) The data link layer is below the network layer and serves to adapt communication between the network layer and the bottom physical layer.[4] (Id. at 7)

In the invention described in the patents in suit, two devices different at the network layer can communicate with each other by essentially going through a converter, called a "mobile data controller" in the patents. (D.I. 266 at 5) Converters are connected to a "router" that routes or forwards data from one network to another. (Id.) Converters translate the data from the first device into the protocol by the proprietary wireless network selected by the router, and then forwards that converted data from the proprietary protocol to the second device. (Id.)

[4]The physical layer is the layer at which data is physically transmitted.

The second device then converts the data from the proprietary protocol to the protocol used on the second network. (Id.)

D. Prior Art

1. Project Octopus Thesis

The Project Octopus Thesis, dated September 17, 1994, describes a wireless networking research project at Carnegie Mellon University in 1994. (D.I. 344 at 9) Project Octopus is described in a group Master's thesis entitled "Project Octopus: A Framework for Ubiquitous Mobile Computing," by Marcus Alzona, et al., Technical Report TR 1994-6, Information Networking Institute, Carnegie Mellon University (hereinafter called the "Project Octopus Thesis"). (D.I. 344 at 9) The Project Octopus Thesis was cited in "Applications of Mobile Computing and Communications," by Bernd Bruegge, et. A., IEEE Personal Communications, February 1996, pages 64-71. (D.I. 344 at 9)

The Octopus Project Thesis describes a proposed mechanism with the goal of communicating, over one network at a time, between a Local Framework and a Remote Framework. (D.I. 344 at 10) There is also a "NameServer" which can keep track of the available networks for each Framework, but does not send or receive data. (Id.) The Project Octopus Thesis proposed that, when a Local Framework wants to send data to a Remote Framework, the NameServer would ascertain the networks available to the Local Framework, as well as the networks available to the Remote

Framework. (Id.) Using this information, the Local Framework determines whether there are any common networks between them. (Id.) If so, it identifies one of the common network as preferable and contacts the Remote Framework over the identified network and attempts to negotiate use of the network for communicating with the Remote Framework. If successful, the network is ready for the Local Framework to send data to the Remote Framework. If the network disconnects, the Local Framework will try to negotiate another mutually acceptable network and will attempt to send the message on the second network. (Id.)

2. Bay Area Research Wireless Access Network (BARWAN) Article

The Bay Area Research Wireless Access Network Article (the "BARWAN Article") describes a wireless networking research project at the University of California, Berkeley in the mid-1990s. The BARWAN Article, titled "The Case For Wireless Overlay Networks," by Randy H. Katz, et al., was published January 1996 in Proceedings of the SPIE Multimedia and Networking Conference. (D.I. 279 at 10) The BARWAN project developed software for mobile users who had a mobile device with connections to more than one wireless network. (D.I. 279 at 10) The BARWAN project only employed wireless overlay networks that used the IP network layer protocol. (Id.) The proposed system tracks the location of the mobile host and forms "Multicast Groups" that include the

mobile host's current base station as well as a small number of base stations that the mobile host may be able to reach in the near future. (D.I. 284 at 27) Once the multicast group is formed, duplicate copies of the packets of data destined for a mobile host are simultaneously delivered from the "Source" to the base stations located in the multicast group. (Id.) The mobile host then determines from which of these base stations it will receive packets. (D.I. 344 at 30) The BARWAN Article describes that a mobile device determines when to switch from one wireless network to another network by monitoring those networks and choosing to register with another wireless network based potentially on signal quality, network congestion, or cost. Such a switch between different types of overlapping overlay networks is called a "vertical handoff." (Id.)

III. STANDARD OF REVIEW

A court shall grant summary judgment only if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). The moving party bears the burden of proving that no genuine issue of material fact exists. See Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 n.10 (1986). "Facts that could alter the outcome are 'material,' and disputes

are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct." Horowitz v. Fed. Kemper Life Assurance Co., 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted). If the moving party has demonstrated an absence of material fact, the nonmoving party then "must come forward with 'specific facts showing that there is a genuine issue for trial.'" Matsushita, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e)). The court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." Pa. Coal Ass'n v. Babbitt, 63 F.3d 231, 236 (3d Cir. 1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. See Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249 (1986).

IV. DISCUSSION

An issued patent is presumed valid. See 35 U.S.C. § 282. To overcome this presumption, the party challenging validity bears the burden of proving by clear and convincing evidence that the invention fails to meet the requirements of patentability. See Hewlett-Packard Co. v. Bausch & Lomb, Inc., 909 F.2d 1464, 1467 (Fed. Cir. 1990). Clear and convincing evidence is evidence

that "could place in the ultimate fact finder an abiding conviction that the truth of [the] factual contentions are 'highly probable.'" Colorado v. New Mexico, 467 U.S. 310, 316 (1984).

Under 35 U.S.C. § 102(b), "[a] person shall be entitled to a patent unless the invention was patented or described in a printed publication in this or a foreign country . . . more than one year prior to the date of the application for patent in the United States." A claim is anticipated only if each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631 (Fed.Cir.1987); Scripps Clinic & Research Found. v. Genentech, Inc., 927 F.2d 1565, 1576 (Fed. Cir. 1991)("There must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention.").

An anticipation inquiry involves two steps. First, the court must construe the claims of the patent in suit as a matter of law. Key Pharms. v. Hercon Laboratories Corp., 161 F.3d 709, 714 (Fed. Cir. 1998). Second, the finder of fact must compare the construed claims against the prior art. Id. A finding of anticipation will invalidate the patent. Applied Med. Res. Corp. v. U.S. Surgical Corp., 147 F.3d 1374, 1378 (Fed. Cir. 1998).

A. Project Octopus Thesis

Defendant asserts that the Project Octopus Thesis anticipates the asserted claims, but focuses on only three limitations of the claims. Defendant asserts that the Project Octopus Thesis teaches the "dissimilar networks" limitation because it describes communications across dissimilar networks, including networks that not only require different interfaces, but are also different at the network and data link layers. (D.I. 279 at 7) Defendant asserts that the Project Octopus Thesis describes mobile devices with endpoints connected by wireless networks with no other points in common and, therefore, satisfies the "parallel networks" limitation. (Id.) Finally, defendant asserts the Project Octopus Thesis teaches the "transmitting while switching" limitation.

Plaintiff contends that all of the asserted claims (except claim 58 of the '324 patent) requires at least two parallel and dissimilar networks be connected at a time.[5] Plaintiff argues

[5]Claims 6 and 16 of the '920 patent require a "plurality of parallel dissimilar networks [be] available for data transmission." Claims 10, 49, 60 and 67 of the '324 patent require "at least two of the plurality of parallel wireless [networks/communication links] . . . connected . . .." Claims 18, 19, 22, 23 and 71 of the '405 patent require switching from a current network to the current most preferred network "while remaining connected to the current network for a period of time after switching. . .." Claims 39 and 44 of the '405 patent require "remaining connected to both the first network and the second network for a period of time." Claim 68 requires "remaining connected to the at least two incompatible wireless networks for a period of time after switching."

that the Project Octopus Thesis discloses parallel and dissimilar networks, but with only one network at a time being connected.[6] Plaintiff raises a genuine issue of material fact regarding whether the Project Octopus Thesis limits its system to having only one network at a time available for data transmission because the Local Framework negotiates a connection over only one network at a time. (D.I. 344 at 14)

The court also concludes that plaintiff has raised a genuine issue of material fact regarding whether the Project Octopus Thesis disrupts or stops the transmission. The court has construed the phrase "a transmission occurs while switching" to mean: The router redirects transmission of data or data packets from one network to another network, without disrupting or reinitiating the transmission, and sending the data or data packets over only one of the networks at a time. Using the same argument as above, plaintiff states that the Project Octopus Thesis cannot switch from one network to another, because only one network is connected to the system.[7] Plaintiff's expert testifies that, in the Project Octopus Thesis, the transmission is stopped when the first network is lost and while the Local

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[6]Connected was construed to mean "ready to send and receive data."

[7]All of the asserted claims, except claim 68 of the '405 patent, include a "transmitting while switching" limitation in varying formats, all of which are construed alike.

Framework is searching for a second available network. (D.I. 344 at 19) Furthermore, plaintiff asserts that, once a new network is successfully negotiated, the Local Framework will only attempt to resend the identical message, as opposed to continuing the original transmission.

As to the other limitations of the asserted claims not discussed by defendant, the court concludes that defendant has not satisfied its burden of clear and convincing evidence of invalidity. Summary judgement is denied.

B. BARWAN Article

Defendant again asserts only three limitations of the asserted claims. As to the other limitations, the court concludes defendant has not satisfied its burden of clear and convincing evidence of invalidity. The three limitations discussed are the "dissimilar networks," the "parallel networks" and "transmitting while switching." Defendant bases its arguments on its proposed claim construction. As a result of the court's construction of "dissimilar networks," the court agrees with defendant's argument that the BARWAN Article teaches networks different at the data-link layer and, therefore, this limitation is met. Furthermore, the court's construction of "parallel networks" requires two common endpoints. This limitation again appears to be satisfied.

However, plaintiff argues, similar to the argument discussed

regarding the Project Octopus Thesis, that the BARWAN Article does not teach a connection with multiple networks. Plaintiff asserts that, while the BARWAN Article teaches that interfaces are "powered up" to determine if the mobile host is in range, the interfaces are not "connected" in that they are not ready to send and receive data. (D.I. 344 at 35) Plaintiff produces expert testimony that the powering up of a second network to determine whether the device is in range does not teach the ability of the remote host to be connected after the transition to the second network has occurred or maintaining more than one network ready to send and receive data. (Id.) Plaintiff also produces expert testimony to raise a genuine issue of material fact regarding whether the BARWAN Article teaches sending data over only one network at a time, as required by the asserted claims. Finally, plaintiff produces expert testimony that the BARWAN Article teaches the use of IP Multicast to transition from a first network to a second network (D.I. 344 at 33); the system transmits duplicate copies of the packets to multiple base stations. (Id.) The court's construction of switching during a transmission, which requires sending data over only one network at a time, excludes such a system. The plaintiff has raised a genuine issue of material fact with respect to the BARWAN Article; therefore, defendant's motion for summary judgment is denied.

V. CONCLUSION

For the reasons discussed above,[8] defendant's motion for summary judgment is denied. An order consistent with this memorandum opinion shall issue.

[8]Because the court denies summary judgment on the issues raised by defendant in its opening brief, the court does not reach the issues raised by plaintiff in its answering brief.

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	)	
NETMOTION WIRELESS, INC.,	)	
	)	
Defendant and Counterclaim Plaintiff.	)	

O R D E R

At Wilmington this 22d day of February, 2006, consistent with the memorandum opinion issued this same date;

IT IS ORDERED that defendant's motion for summary judgment (D.I. 278) of invalidity under 35 U.S.C. § 102 is denied.

United States District Judge