IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

H2 INTELLECT LLC, **Plaintiff,** **vs.** **THE HOME DEPOT, INC.,** **HOME DEPOT U.S.A., INC., AND** **HOME DEPOT PRODUCT AUTHORITY, LLC,** **Defendants.**	**Civil Action No. 2:24-cv-00694** **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff H2 Intellect LLC files this Complaint for Patent Infringement against Defendants The Home Depot, Inc. ("Home Depot"), Home Depot U.S.A., Inc. ("HDUSA"), and Home Depot Product Authority, LLC ("HDPA"), and allege as follows:

NATURE OF THE ACTION

1. This is a civil action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. §§ 1, et seq., including §§ 271, 281, 284, and 285.

THE PARTIES

2. Plaintiff H2 Intellect LLC is a Texas limited liability corporation having an address located at 3630 Durness Way, Houston, TX 77025.

3. Upon information and belief, The Home Depot, Inc. ("Home Depot") is a corporation organized under the laws of the State of Delaware with a place of business in Atlanta, GA 30339.

4. Upon information and belief, Home Depot U.S.A., Inc. ("HDUSA") is a subsidiary of Home Depot and is a corporation organized under the laws of the State of Delaware with a place of business in Atlanta, GA 30339.

5. Upon information and belief, Home Depot Product Authority ("HDPA") is a subsidiary of Home Depot and is a corporation organized under the laws of the State of Georgia with a place of business in Atlanta, GA 30339.

6. Upon information and belief, Home Depot's, HDUSA's, and HPDA's registered agent for service of process in Texas is Corporation Service Co. d/b/a CSC-Lawyers Inc., 211 E. 7th Street Suite 620, Austin, TX 78701. Upon information and belief, Defendants Home Depot, HDUSA, and HDPA sell, offer to sell, and/or use products and services throughout the United States, including in this judicial district, and introduce infringing products and services into the stream of commerce knowing that they would be sold and/or used in this judicial district and elsewhere in the United States.

JURISDICTION AND VENUE

7. This is an action arising under the patent laws of the United States, 35 U.S.C. § 271.

8. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

9. Venue is proper in this judicial district under 28 U.S.C. §§ 1391 and 1400(b) because Defendant has committed acts of infringement and has a regular and established place of business in this District. Upon information and belief, Defendants have a regular and established place of business in Texas and in this District, including at 411 TX-281 E Loop, Longview, TX 75605, 601 Northcreek Dr., Sherman, TX 75092, 3901 Old Jacksonville Hwy, Tyler, TX 75701, 4211 S Medford Dr, Lufkin, TX 75901, and other locations. Home Depot has thousands of

employees working throughout the state of Texas, including within the Eastern District of Texas. Given the location of the plaintiff and its primary stakeholders in Texas, the location of the inventors' activities and contacts at various chambers of commerce in Texas, and the location of relevant witnesses at Home Depot, including in East Texas, the Eastern District of Texas is a highly convenient, if not the most convenient, forum for this lawsuit.

10. This Court has personal jurisdiction over Defendants. Defendants Home Depot, HDUSA, and HDPA have continuous and systematic business contacts with the State of Texas. Defendants, directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others), conducts their business extensively throughout Texas, by shipping, distributing, offering for sale, selling, and advertising (including the provision of interactive web pages and mobile applications) their products and/or services in the State of Texas and the Eastern District of Texas. Defendants regularly do business or solicit business, engage in other persistent courses of conduct, and/or derive substantial revenue from products and/or services provided to individuals in the State of Texas.

11. Defendants Home Depot, HDUSA, and HDPA directly and/or through subsidiaries or intermediaries (including distributors, retailers, and others), have purposefully and voluntarily placed one or more products and/or services in the stream of commerce that practice the Asserted Patents with the intention and expectation that the one or more products and/or services will be purchased and used by consumers and/or Defendants' employees in the Eastern District of Texas. These products and/or services have been and continue to be purchased and used by operators/carriers in the Eastern District of Texas.

BACKGROUND OF THE INVENTORS

12. Inventors Ryan Hardin and Andrew Hill both grew up in Henderson, Texas. After college, Hardin and Hill started an IT services company called Pronet Solutions Corp. in 2002 in East Texas. Upon establishing the business after a few years, Hardin and Hill began to investigate and discuss emerging and future business opportunities that would leverage their technological backgrounds and expertise.

13. In the 2006-2007 timeframe, Hardin and Hill were interested in the digital billboard business. At that time, digital billboards were relatively new, and Hardin and Hill saw an opportunity to grow a business for displaying content (e.g., advertisements) on digital billboards, which they could efficiently manage and control remotely. However, Hardin and Hill ultimately saw significant barriers to entry for getting into the digital billboard business, including costs, regulatory considerations, and governmental issues.

14. Then, in late 2007, Hardin was at a meeting in Henderson, and when getting in his car to go to his next appointment, he looked at his phone and thought—why should he and Hill risk the expense to erect digital billboards if much of the public might soon be carrying digital billboards in their pockets? Of course, at that time, smartphones were in a period of rapid development, and while a few mobile devices had GPS, access to the internet, and apps, they were certainly not as commonplace as today. Hardin and Hill were betting on the future. This thought inspired Hardin and Hill to develop several specific technological improvements to the manner in which mobile devices operated over the then-conventional technologies. Going forward, Hardin and Hill continued to fine-tune the implementation of their inventions and applied for their first patent on May 1, 2009.

15. Separate from the patented inventions, not only did Hardin and Hill realize a technical solution was needed—but they realized they needed a way to market the technology to consumers. In this same timeframe, Hardin and Hill coincidentally received a phone call from the Henderson Area Chamber of Commerce, which requested a website be designed—but as cheaply as possible. Hardin and Hill ultimately saw this as an opportunity to market their inventions. As a result, Hardin and Hill decided they would develop and host the website for free for the Henderson Area Chamber of Commerce, but then ultimately, build free websites for all Chambers of Commerce. Then, through the access the chambers had with businesses, the websites could get advertising revenue—which is how Hardin and Hill could ultimately be compensated. Moreover, once setting up this network of chambers of commerce was complete, eventually the patented technology could also be marketed and used to create location-aware content delivery on mobile devices as they envisioned an increased demand from businesses for location-aware apps and from the public for mobile devices. Hardin and Hill called the product "ChamberPlanet."

16. Hardin and Hill spent years developing ChamberPlanet and started to get numerous chambers of commerce on board. At one point, Hardin and Hill were working with the Henderson Area Chamber, Jacksonville Chamber, Bullard Area Chamber, Pittsburgh Camp County Chamber, and the Greater Marshall Chamber of Commerce. In fact, Hardin and Hill negotiated the purchase of the MarshallTexas.com domain from a third party and provided it to the Greater Marshall Chamber of Commerce. As more chambers got on board, more challenges arose, including that the chambers also desired an integrated billing system with their websites—which was complex and took significant time to develop.

17. On or around 2012, however, while Hardin and Hill were still developing and growing the ChamberPlanet product, their separate business Pronet also began to experience some challenges, largely due to the business disruptions created by the financial crisis. Hardin and Hill had to focus more on Pronet, which was the business that provided revenue to them—and this slowed the growth of ChamberPlanet. In addition, numerous members of Hardin's family began to have serious health issues. Hardin's wife had medical issues in pregnancies which required multiple surgeries and then she later developed cancer. Around the same time, Hardin's mother fell and broke her back, and Hardin's father required a lung transplant. Hardin needed to prioritize his family over the continued development of ChamberPlanet for a period of time.

18. During this period of time, however, Hardin and Hill noticed that mobile devices were starting to utilize the technological advances that Hardin and Hill invented and ultimately patented. Moreover, these companies developing the mobile devices and related software and services had significantly more financial resources that enabled them to commercialize the inventions much more quickly than Hardin or Hill could. As a result, Hardin and Hill then decided to focus more on protecting the intellectual property they had developed, while continuing to look for opportunities to bounce back and continue to make progress on their technology.

19. Hardin and Hill have a significant amount of intellectual property they have developed, including the following patents: U.S. Patent No. 8,433,296, U.S. Patent No. 8,977,247,

U.S. Patent No. 9,286,625, U.S. Patent No. 9,779,418, U.S. Patent No. 10,049,387, U.S. Patent No. 10,984,447, U.S. Patent No. 11,948,171, and U.S. Patent No. 12,056,736.[1]

THE ASSERTED PATENTS

20. Plaintiff is the owner in right, title, and interest in and to multiple United States patents and patent applications, including U.S. Patent No. 8,433,296 (the "'296 Patent") and U.S. Patent No. 11,948,171 (the "'171 Patent") (collectively, the "Asserted Patents"). The Asserted Patents are valid and enforceable, and the inventions claimed in the Asserted Patents were novel, non-obvious, unconventional, and non-routine as of the May 1, 2009 filing date of the patent application leading to issuance of the Asserted Patents.

21. The '296 Patent, entitled "Exclusive Delivery of Content within Geographic Areas," was duly and legally issued to inventors Ryan Hardin and Andrew Hill on April 30, 2013. Plaintiff owns the entire right, title, and interest in the '296 Patent and is entitled to sue for past and future infringement. A true and correct copy of the '296 Patent is attached as Exhibit A.

22. The '171 Patent, entitled "Exclusive Delivery of Content within Geographic Areas," was duly and legally issued to inventors Ryan Hardin and Andrew Hill on April 2, 2024. Plaintiff owns the entire right, title, and interest in the '171 Patent and is entitled to sue for past and future infringement. A true and correct copy of the '171 Patent is attached as Exhibit B.

[1] Hardin and Hill also developed three patents in a patent family relating to the application of dynamic tokens, which family is not asserted in this complaint: U.S. Patent No. 9,245,284, U.S. Patent No. 9,710,794, and U.S. Patent No. 10,719,819.

OVERVIEW OF THE INVENTIONS

23. The Asserted Patents are generally directed to methods and systems for delivering content to application programs on mobile devices based on the geographic location of the devices. The Background of the Asserted Patents describes conventional delivery of content to mobile devices in response to requests based on user interactions and preferences. The Asserted Patents describe and claim particular technical solutions that overcome the disadvantages of the conventional methods while being specifically applicable to the unique nature of mobile devices.

24. The innovations described and claimed in the Asserted Patents provide several benefits over conventional technologies, including existing geofencing solutions, as described below.

25. *First*, one or more of the Asserted Patents includes the feature that the area for content delivery is customizable, which enables delivery of content in near-real time to areas as specific as particular business or home locations. *See, e.g.*, '296 Patent, at 8:40-41. The area can be defined by various "geometric constructs," or by "map features, such as streets, rivers, landmarks, or any of the other various map features." *See, e.g.,* '296 Patent at 8:46-48; '171 Patent at 9:27-30. This is claimed by, for example, allowing sponsors to provide "perimeter definitions" (*see, e.g.,* '296 Patent at 8:46-65; '296 Patent, claim 1 ("establishing a plurality of perimeters defining a plurality of geographic areas"); '171 Patent at 9:41-43; '171 Patent, claim 1 ("geographic reservation data [that] comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest")). This solves unique problems associated with providing content to applications on mobile devices. For example, it allows a business that rents canoes to provide content to mobile devices (or related mobile

applications) located on the unique geographic confines of a particular river or lake. *See, e.g.,* ’296 Patent at 4:56-60; ’171 Patent at 5:8-16 (“reserved geographic area can be partially bounded by a … river, … or other desired boundary.”). Or it could allow a parent to receive a notification via a mobile application on her mobile device when her child arrives safely at home from school. *See, e.g.,* ’296 Patent at 9:21-27; ’171 Patent at 9:39-45 (“the content received from the sponsor can be stored for later delivery to registered applications running on mobile devices having target locations… such target locations may include… when the mobile device or target location physically enters… the sponsor’s reserved area”).

26. *Second*, one or more of the Asserted Patents describes and claims the feature that the delivery of content is based on the mobile device entering an area for a predetermined/specified period of time, for example where this period of time can be specified by the requestor. *See, e.g.,* ’296 Patent at 3:18-20 (“The request can also include time limitations, limitations based on the length of time a mobile device remains within a given geographic area, or other desired limitations.”); 9:21-27. Conventional methods prior to May 1, 2009, did not enable content delivery specifically targeted to mobile applications within a given area for a certain amount of time. This technological advance enables the delivery of content for those mobile devices that enter and remain within the claimed requested customizable region. In contrast, conventional broadcast delivery (e.g., TV or radio) is generally neither aware of the location of the intended device (apart from knowing that they must be within range of the transmitter, e.g., in a city), nor is aware of how long the intended device has remained within range, nor is it aware of any movement of the intended device. This capability allows, for example, avoiding the delivery of

content when a mobile device has not met the time restriction, e.g., the mobile device is merely passing through the region or nearby the region's boundary.

27. This capability was particularly important to avoid the problem in the industry of "alert spam," wherein mobile devices would receive unwanted alerts (such as notifications or offers) that were not relevant to the mobile device application or user. As explained in the preceding paragraph, the Asserted Patents describe and claim a technical solution to this problem of alert spam that was unique to mobile devices. The capability is actually counterintuitive, for example, for a parent receiving a notification via a mobile application on her mobile device when her child arrives safely at home from school, one would think that ideally the notification would be sent immediately, but by including a slight time delay there are actually technical benefits that may outweigh the benefit of an immediate notification.

28. *Third*, one or more of the Asserted Patents include the feature that an entity operating as a centralized management system can receive requests from multiple apps for the delivery of content when the device enters a specific geographic area, determine a mobile device's physical geographic location, and deliver content to requesting apps when it has been determined that the mobile device has entered any of the specified areas and remained therein for a predetermined/specified period of time. *See, e.g.* '296 Patent at 3:18-20, 9:21-27. The centralized management system can thereby deliver specific content to each of a number of registered apps within specific regions under centralized management.

29. *Fourth*, one or more of the Asserted Patents include the feature that an identifier can be provided for each request from an application program, and that this identifier be associated with the application program and a region; this identifier further being provided to the requesting

application program when entry into the region has been detected. *See, e.g.,* '296 Patent at 5:58-61; '171 Patent, claim 1 ("sending… a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on the mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest"). This is a unique technological solution for the central management of content delivery for multiple mobile devices, multiple areas, and potentially multiple apps running on mobile devices. It also describes a novel system for mobile device location awareness in which computer programs on a mobile device can become aware of the location of the mobile device with respect to a selected geographic area of interest. A benefit of the system is that the application processor that the computer program uses does not need to remain awake and continuously poll the device location so that the computer program can become aware of the mobile device location. Among other benefits, this technological solution improves the mobile device's battery life because the application processor uses less power.

30. *Fifth*, one or more of the Asserted Patents include the feature that the geographic areas can be exclusively reserved, including providing technical solutions for time-sharing and resolving competing priority claims in real-time. *See, e.g.,* '296 Patent at 3:11-22, claim 2 ("reserving a specific one of the plurality of geographic areas for exclusive delivery of content associated with a particular one of the plurality of sponsors to registered application programs"). This feature solves problems that are unique to the environment of mobile devices with multiple applications, such as how to resolve competing claims for exclusivity in a particular geographic area when multiple applications are simultaneously in use on a mobile device.

31. *Sixth*, one or more of the Asserted Patents also provide solutions to resolving potentially competing claims to a reserved area. *See, e.g.,* '296 Patent at 7:19-25. One example embodiment is to increase the predetermined radial distance of a target location if needed to determine which content should be provided in response to a negative determination. *See, e.g.,* '296 at claim 4 ("determining whether at least one of the plurality of sponsors is associated with a geographical representation lying at least partially within a predetermined radial distance of a target location; in response to a negative determination, increasing the predetermined radial distance.").

32. *Seventh,* one or more of the Asserted Patents also provide solutions for more accurately determining the location of mobile devices even when devices do not have GPS signal or an active internet connection, which was an unmet need and improvement over conventional methods. *See, e.g.,* '171 Patent at 4:51-5:3, 12:10-33, claims 69, 72, 78. One example embodiment is to store on the device a database of nearby WiFi addresses with their corresponding location positions received from other mobile devices, then use detected WiFi signals to triangulate the mobile device's location. *See, e.g.,* '171 Patent at 4:58-62 ("a target location… can be determined based on … methods such as triangulation…"); claim 69 ("using the location information received… in combination with wireless information received via an antenna of the mobile device… to position the geographic location of the mobile device"). The database can be provided to the mobile device during a time that the device is connected to the internet, by a content delivery platform from location information (such as WiFi addresses and GPS data) previously collected from one or more mobile devices. *See, e.g.,* '171 Patent at 4:53-58, 12:24-33. This solution can provide more accurate location information and content delivery than conventional methods. This

feature is particularly valuable as it provides positioning and geofencing solutions in challenging scenarios like indoor environments where GPS signals are blocked and public WiFi is unavailable. This feature also provides solutions for creating databases of location information by leveraging mobile devices connected to a content delivery platform.

33. These claimed features provide technological solutions to problems that are unique to the technological environment of multiple application programs on mobile devices and thereby improve the functionality of mobile devices. For example, the centralized management solution allows for battery savings through the reduction of instances in which a device's location must be polled. It also provides solutions for resolving competing claims of exclusivity to a particular geographic area by content providers, allowing geographic exclusivity to be further divided among other dimensions including based on mobile application and time. As mentioned above, it also addresses the unmet need in the industry for a solution to the problem of "alert spam."

COUNT I: CLAIM FOR PATENT INFRINGEMENT OF THE '296 PATENT

34. Plaintiff repeats and realleges the allegations in paragraphs 1-33 as if fully set forth herein. Defendants have infringed, contributorily infringed, and/or induced infringement of one or more claims of the '296 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '296 Patent including, but not limited to the Home Depot mobile application and mobile devices used by Defendants' employees (collectively, the "Accused Products").

35. Upon information and belief, Defendants' products and services that infringe one or more claims of the '296 Patent include at least the Home Depot mobile application and

infrastructure (including Store Mode and Curbside Pickup features) and mobile devices used by Defendants' employees (including the hdPhone operating system and device). The products listed are exemplary, and Plaintiff will be able to provide a more comprehensive list after discovery. Upon information and belief, Defendants also infringe one or more claims of the '296 Patent through their use of geofencing or location information in their advertising or content delivery efforts or their own applications they develop.

36. For example, upon information and belief, one or more of the Accused Products infringe at least claim 11 of the '296 Patent. Defendants make, use, sell, offer for sale, import, export, supply, or distribute within the United States one or more of the Accused Products and thus directly infringe the '296 patent.

37. Defendants indirectly infringe one or more claims of the '296 Patent as provided by 35 U.S.C. § 271(b) by inducing infringement by others, such as manufacturers, resellers, and end-user customers in this District and throughout the United States. For example, direct infringement is the result of activities performed by manufacturers, resellers, or operators/carriers of mobile devices which use the Accused Products, who, upon information and belief, perform each step of the claimed invention as directed by Defendants. Upon information and belief, Defendants' customers, including in this District, also use the claimed invention when they use Defendants accused products. Defendants received actual notice of the '296 Patent at least as early as the filing of this Complaint.

38. Defendants contributorily infringe one or more claims of the '296 Patent as provided by 35 U.S.C. § 271(c) by contributing to the infringement by others, such as manufacturers, resellers, and end-user customers in this District and throughout the United States.

39. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to register a plurality of application programs for use with a content delivery platform, wherein the plurality of registered application programs are each associated with at least one application program type, including as demonstrated in the images below.

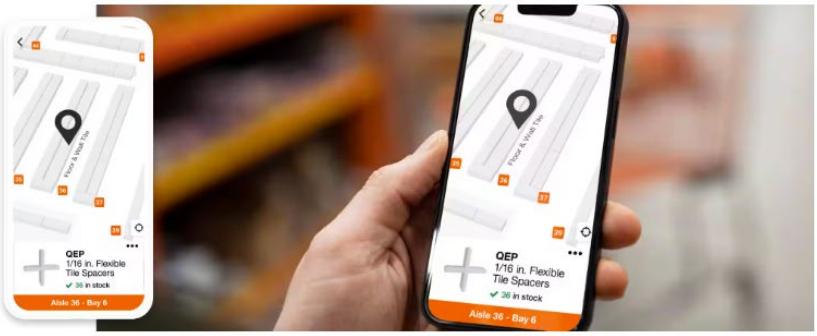
STORE MODE

Take your project from doing to done when you visit any store. View in-stock items, Product Lists, reviews & more.

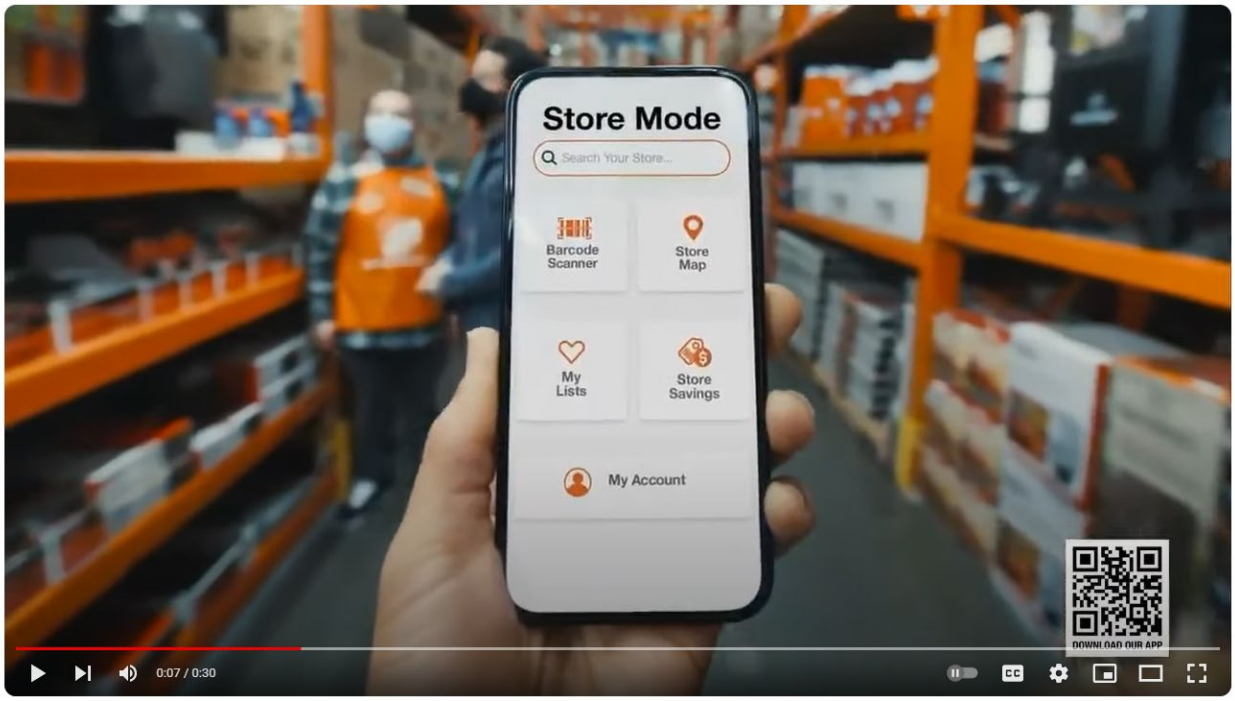
Home Depot, *Home Depot App: Store Mode* (May 27, 2024), https://www.homedepot.com/c/SF_Mobile_Shopping [hereinafter *Example Image 1.1*].

PRODUCT LOCATOR

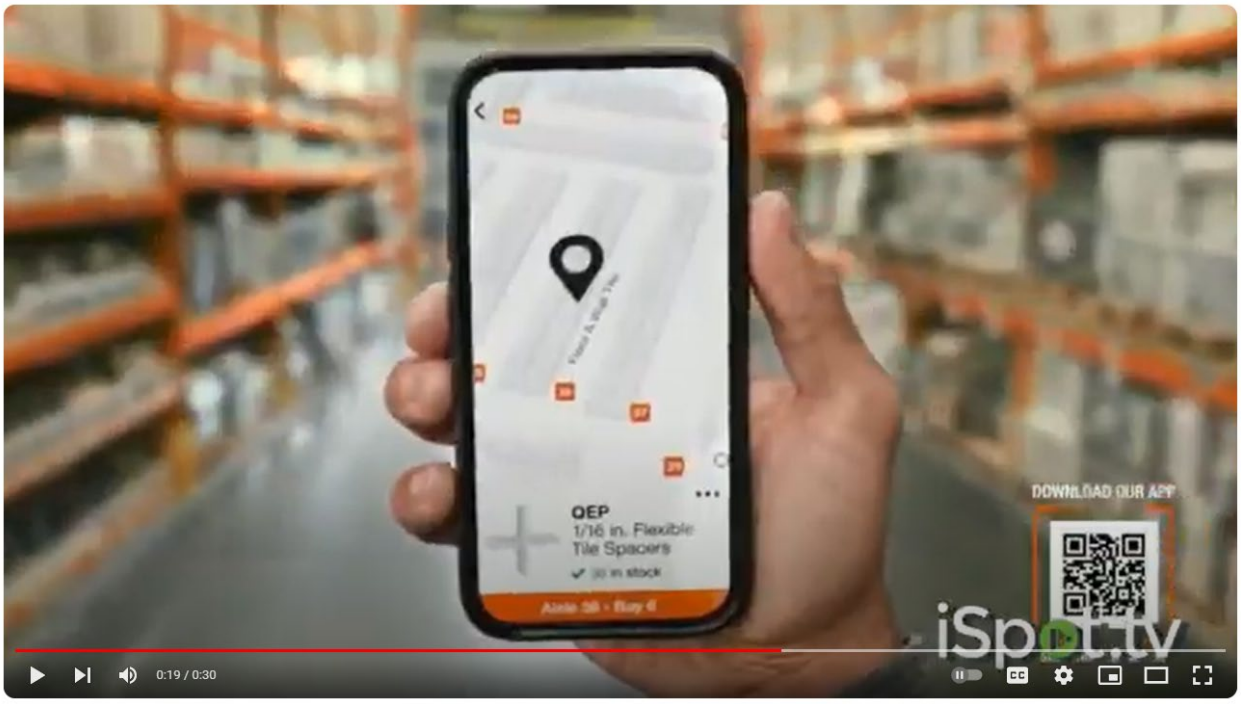
No need to wander. The app helps you navigate to the aisle and bay to find the item you need.



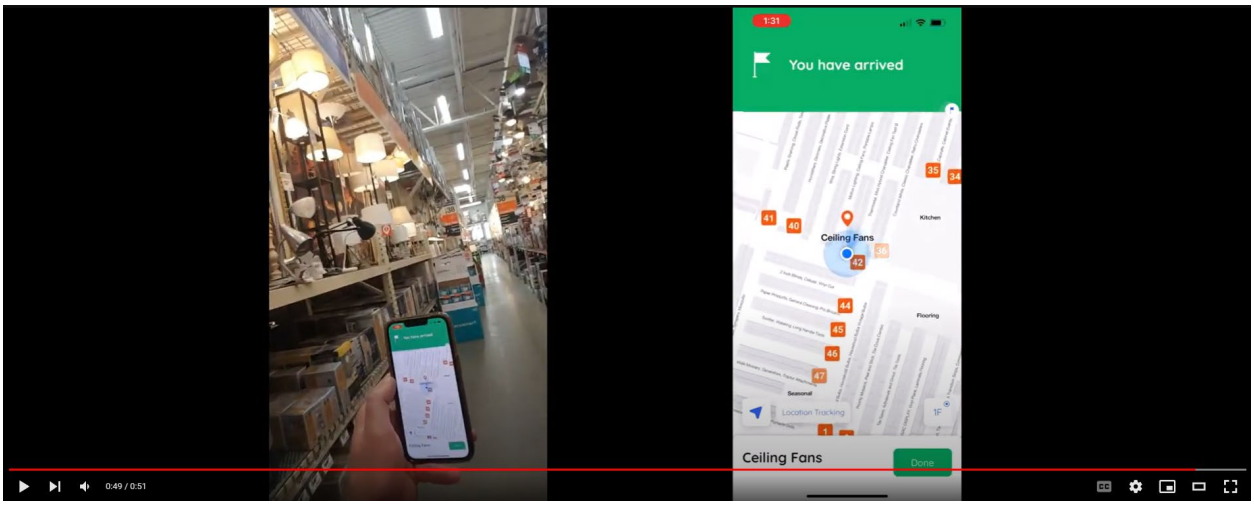
Home Depot, *Home Depot App: Product Locator* (May 27, 2024), https://www.homedepot.com/c/SF_Mobile_Shopping [hereinafter *Example Image 1.2*].



SN®, *The Home Depot Commercial 2022* (May 27, 2024), https://www.youtube.com/watch?v=bLbiUqIu8WE [hereinafter *Example Image 1.3*].



Pointr – The Deep Location Company, *Home Depot Commercial 2024 | Map My List* (May 27, 2024), https://www.youtube.com/watch?v=7XbygJeebqo [hereinafter *Example Image 1.4*].



Pointr – The Deep Location Company, *Home Depot walk through* (June 27, 2023), https://www.youtube.com/watch?v=-5sGrZkkzjE [hereinafter *Example Image 1.5*].

Home Depot's revamped mobile app highlights engaging features like barcode search, voice search and visual search. When a user walks into a Home Depot store, the app will automatically switch to in-store mode. Then, the shopper can use the app to navigate to the aisle in which a product is located. Home Depot also works with Adobe on mobile analytics, geofencing and mobile content optimization to drive offline sales and in-store pickups.

"Our core mobile strategy is focused on our customers' needs," Vemana said. "It's all about how to make their shopping experience easier and consistent across desktop, mobile and in the store."

Augmented reality is an area that Home Depot is looking to improve. Its competitor Lowe's recently introduced Lowe's Vision, an in-store navigation app that uses Google's Tango AR tech to let shoppers in Sunnyvale, California, and Lynnwood, Washington, search for products, add them to a shopping list and locate them within stores using AR. Home Depot has already let shoppers place virtual products in the real world through its shopping app, but it doesn't plan to develop a navigation app like Lowe's Vision anytime soon.

"There's good engagement in AR, and we are working on the tech in various ways," Vemana said.

Yuyu Chen, *On Black Friday, Home Depot saw more mobile traffic than desktop,* DIGIDAY (November 28, 2017), https://digiday.com/marketing/how-home-depot-uses-mobile-to-drive-sales/ [hereinafter *Example Image 1.6*].

1. Digitizing maps

An accurate in-store map is the first step to Store Mode. It unlocks a host of other features, including wayfinding, product location, aisle location, and proximity-based push notifications. Indoor mapping in retail poses two significant challenges. Firstly, manually creating digital maps for hundreds (or even thousands) of diverse stores is incredibly time-consuming which can delay your app launch considerably. Secondly, keeping maps updated in a retail environment that changes their layout frequently according to the retail calendar and changing seasons, promotions, and displays is a never-ending task. Fortunately, tools like MapScale® can retrieve existing maps of all stores in any format and convert them in a fraction of the time it would take using a manual conversion. Maps can be upgraded and changed in seconds with simple cloud-based mapping tools. Once this step has been completed, the groundwork is laid for rich and engaging location-aware features.

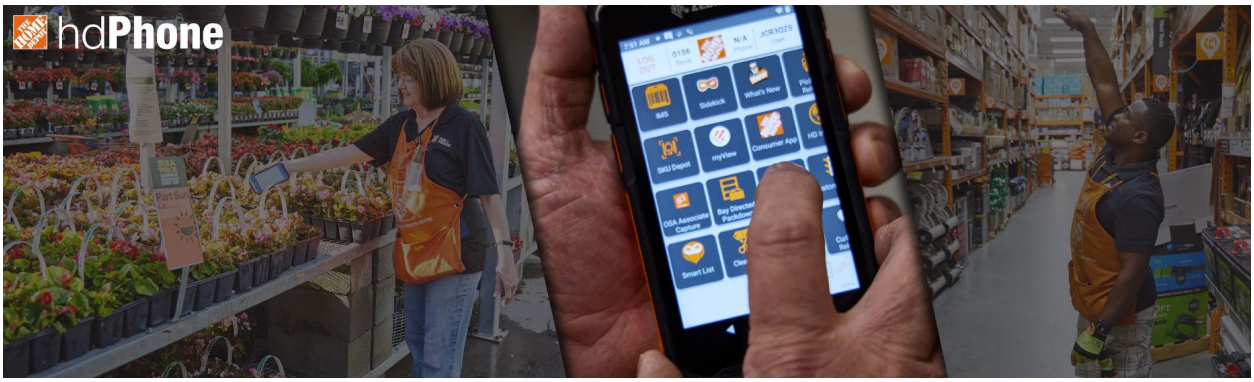
Watch how Home Depot has enabled digital maps & Store Mode in their app:

Pointr, *The Building Blocks To Implement Retail App Store Mode: Digitizing Maps* (October 18, 2022), https://www.pointr.tech/blog/building-blocks-to-implement-store-mode [hereinafter *Example Image 1.7*].

3. Blue Dot Positioning

With stores like Macy's or Home Depot that take up thousands of square feet of floor space and multiple storeys, simply indicating which aisle a product is located in isn't enough guidance to help a customer find what they are looking for. Indoor blue dot positioning will enable retailers to guide shoppers to the products on their shopping list turn-by-turn (much like GPS positioning does outdoors). Bluetooth Low Energy (BLE) hardware is the cheapest, most accurate and most secure enabler of indoor location technology. The hardware can be implemented as standalone beacons, or reside inside WiFi access points or inside smart lighting, sensors and cameras. Together with a SDK (Software Development Kit) that resides inside the mobile, you can calculate the user's real time location in the app with great accuracy. The SDK helps retailers steer customers to general points of interest, like bathroom facilities, customer service, or elevators.

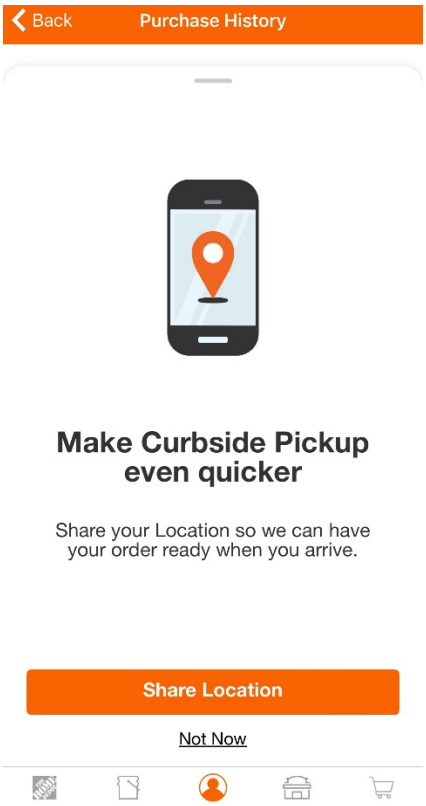
Pointr, *The Building Blocks To Implement Retail App Store Mode: Blue Dot Positioning* (October 18, 2022), https://www.pointr.tech/blog/building-blocks-to-implement-store-mode [hereinafter *Example Image 1.8*].



The new mobile devices allow for increased capabilities:

- Communicate anywhere throughout the entire store and into the parking lots.
- Advanced-range barcode scanning enables associates to locate products, check pricing and inventory availability in hand or from more than 40 feet away, which is helpful when serving customers and locating products in overhead storage.
- Docking with Zebra's Workstation Connect enables associates to view and demo products and specifications on larger screens, helping customers find products to complete their projects.
- Additional capabilities include multi-device integration, more efficient app speeds, in-store texting, direct walkie talkie communication, and more.

Home Depot, *The Home Depot Upgrades In-Store Network and Mobile Devices to Enhance the Interconnected Experience* (June 15, 2022), https://corporate.homedepot.com/news/company/home-depot-upgrades-store-network-and-mobile-devices-enhance-interconnected-experience [hereinafter *Example Image 1.9*].



Home Depot Mobile Application [hereinafter *Example Image 1.10*].

Battleground: Online and offline user experience (UX)

Home Depot took a guerrilla approach to the on-premise "user experience." While there was no curbside pickup at Home Depot before the pandemic at all, they were able to have a first solution ready in a matter of hours.

According to CIO Carrey, they started with a "manual process where a customer would arrive at the store after ordering online, inform an associate of their order number, and then the associate would get the order and bring it out." They even had handmade signs to direct people to the pickup location.

In Home Depot's next iteration, customers had to text or call when they arrived at the store. Eventually, they transitioned to a process fully embedded in their app using geofencing so that most of the communication and data exchange happened automatically. Home Depot was able to do this quickly by leveraging solutions like DataStax built on Apache Cassandra.

Radar Team, *Retail showdown: Safe curbside pickup at Home Depot versus Lowe's*, RADAR.COM (Jan. 21, 2021), https://radar.com/blog/retail-showdown-curbside-pickup [hereinafter Example Image 1.11].

Home Depot also used DataStax and Apache Cassandra to stand up curbside apps quickly. Siddiqui said Home Depot is a big open source shop.

Siddiqui explained:

> Some of the tenants of that One Home Depot journey has been creating a set of common services, a common API, a common compute environment. There will be shared decisions between all our different channels. As we've developed these common services, we have been able to really reconcile what a customer sees online, what an associate gets to see in store and how to connect it all together.

> As those services were available, our mobile application, and our first phones, which are in our associates use in the stores. We did not offer by curbside pickup before all of this happened, but we were able to in a very agile manner, build a solution. The first solution was really in a matter of few hours.
>
> And then with the rapid testing in two weeks, majority of our US stores implemented curbside pickup. And the first one, customers are manually checked in by a Greeter, and there was manual release of the order by the Runners. In the next iteration, customers could text us or call when they were in the parking lot. And associates had an app guiding through the order release using the first one mobile devices. Then we embedded the application of that into our app and brought geo-fencing in, automatically we can communicate to a customer in the parking lot, what car they are in, and our associate knows and can deliver the order.

Larru Dignan, *How Home Depot navigated a demand boom during COVID-19,* ZDNET.COM (Nov. 3, 2020), https://www.zdnet.com/article/how-home-depot-navigated-a-demand-boom-during-covid-19/ [hereinafter Example Image 1.12].

40. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to establish a plurality of perimeters defining respective geographic areas, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

41. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to maintain at least one record indicating content delivery reservations associating each of a plurality of sponsors with specific registered application

program types and at least one of the plurality of geographic areas, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

42. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying programs of computer executable instructions, the program of instructions comprising at least one instruction to receive, from a sponsor, a request to obtain an interest in a selected one of the plurality of geographic areas, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

43. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to provide the sponsor a response to the request, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

44. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to store a record of the interest in the selected one of the plurality of geographic areas, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

45. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to receive, from the sponsor, content to be delivered to application programs having target locations contained within the selected one of the plurality of geographic areas, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

46. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to receive a request from a registered application program for content to be used within the registered application program, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

47. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to select content associated with at least one of the plurality of sponsors to be delivered to the registered application program of a specific type, in accordance with a content delivery reservation associating the at least one sponsor with a geographic area and a registered application program type, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

48. Defendants provide products comprising a non-transitory computer readable medium tangibly embodying a program of computer executable instructions, the program of instructions comprising at least one instruction to provide the selected content to the registered application program, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

49. By engaging in the conduct described herein, Defendants have injured Plaintiff and are thus liable for infringement of one or more claims of the ’296 Patent, pursuant to 35 U.S.C. § 271. Defendants have committed these acts of infringement without license or authorization. To the extent any element is not found literally, upon information and belief, it is satisfied by the doctrine of equivalents.

50. As a result of Defendants' infringement of one or more claims of the '296 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement, together with interests and costs. In addition, Defendants' infringement is causing irreparable harm and monetary damage to Plaintiff and will continue to do so unless and until Defendants are enjoined by the Court.

COUNT II: CLAIM FOR PATENT INFRINGEMENT OF THE '171 PATENT

51. Plaintiff repeats and realleges the allegations in paragraphs 1-33 as if fully set forth herein. Defendants have infringed, contributorily infringed, and/or induced infringement of one or more claims of the '171 Patent by making, using, selling, offering for sale, or importing into the United States, or by intending that others make, use, import into, offer for sale, or sell in the United States, products and/or methods covered by one or more claims of the '171 Patent including, but not limited to, the Accused Products.

52. Upon information and belief, Defendants' products and services that infringe one or more claims of the '171 Patent include at least the Home Depot mobile application and infrastructure (including Store Mode and Curbside Pickup features) and mobile devices used by Defendants' employees (including the hdPhone operating system and device). The products listed are exemplary, and Plaintiff will be able to provide a more comprehensive list after discovery. Upon information and belief, Defendants also infringe one or more claims of the '171 Patent through their use of geofencing or location information in their advertising or content delivery efforts or their own applications it develops.

53. For example, upon information and belief, one or more Accused Products infringe at least claim 43 of the '171 Patent. Defendants make, use, sell, offer for sale, import, export,

supply, or distribute within the United States one or more of the Accused Products and thus directly infringe one or more claims of the ’171 Patent.

54. Defendants indirectly infringe one or more claims of the ’171 Patent as provided by 35 U.S.C. § 271(b) by inducing infringement by others, such as manufacturers, resellers, and end-user customers in this District and throughout the United States. For example, direct infringement is the result of activities performed by manufacturers, resellers, or operators/carriers of mobile devices which use one or more of the Accused Products, who, upon information and belief, perform each step of the claimed invention as directed by Defendants. Upon information and belief, Defendants’ customers, including in this District, also use the claimed invention when they use Defendants accused products. Defendants received actual notice of the ’171 Patent at least as early as the filing of this Complaint.

55. Defendants contributorily infringe one or more claims of the ’171 Patent as provided by 35 U.S.C. § 271(c) contributing to the infringement by others, such as manufacturers, resellers, and end-user customers in this District and throughout the United States.

56. Defendants provide products comprising a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory, computer readable medium including instructions executable by at least one processor to cause performance of sending, to a content delivery platform: a request to have an identifier, being associated with a selected geographic area of interest, delivered to a computer program on a mobile device after it has been determined, by at least use of location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected

geographic area of interest, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

57. Defendants provide products comprising a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory, computer readable medium including instructions executable by at least one processor to cause performance of sending, to a content delivery platform: geographic reservation data to have the selected geographic area of interest reserved for delivery of the identifier to the computer program, wherein the geographic reservation data comprises a geometric construct used to establish at least one perimeter as a boundary for the selected geographic area of interest, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

58. Defendants provide products comprising a non-transitory computer readable medium for creating and offloading location awareness, said non-transitory, computer readable medium including instructions executable by at least one processor to cause performance of receiving, via the computer program, the identifier delivered by the content delivery platform after it has been determined, by at least use of the location information representing at least one physical geographic location of the mobile device, that the mobile device has at least entered the selected geographic area of interest, including as demonstrated in *Example Images 1.1-1.12, supra* at paragraph 39.

59. By engaging in the conduct described herein, Defendants have injured Plaintiff and are thus liable for infringement of one or more claims of the ’171 Patent, pursuant to 35 U.S.C. § 271. Defendants have committed these acts of infringement without license or authorization. To

the extent any element is not found literally, upon information and belief, it is satisfied by the doctrine of equivalents.

60. As a result of Defendants' infringement of one or more claims of the '171 Patent, Plaintiff has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendants' past infringement, together with interests and costs. In addition, Defendants' infringement is causing irreparable harm and monetary damage to Plaintiff and will continue to do so unless and until Defendants are enjoined by the Court.

DEMAND FOR JURY TRIAL

61. Plaintiff hereby demands a trial by jury on all claims so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court enter judgment in its favor and grant the following relief:

A. Adjudge that Defendants infringe one or more claims of the Asserted Patents;

B. Adjudge that the claims of the Asserted Patents are valid and enforceable;

C. Award Plaintiff damages in an amount adequate to compensate Plaintiff for Defendants' infringement of one or more claims of the Asserted Patents, but in no event less than a reasonable royalty under 35 U.S.C. § 284;

D. Award enhanced damages pursuant to 35 U.S.C. § 284;

E. Award Plaintiff pre-judgment and post-judgment interest to the full extent allowed under the law, as well as Plaintiff's costs;

F. Enter an order finding that this is an exceptional case and awarding Plaintiff its reasonable attorneys' fees pursuant to 35 U.S.C. § 285;

G. Enter a permanent injunction against all Defendants' products found to infringe the Asserted Patents;

H. Award, in lieu of an injunction, a compulsory forward royalty;

I. Order an accounting of damages; and

J. Award such other relief, including equitable relief, as the Court may deem appropriate and just under the circumstances.

DATED: August 22, 2024

Respectfully submitted,

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