

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CASSIOPEIA IP LLC,

Plaintiff,

v.

TTE TECHNOLOGY, INC.,

Defendant.

C.A. No.

TRIAL BY JURY DEMANDED

COMPLAINT FOR INFRINGEMENT OF PATENT

COMES NOW, Cassiopeia IP LLC (“Cassiopeia” or “Plaintiff”), through the undersigned attorneys, and respectfully alleges, states, and prays as follows:

NATURE OF THE ACTION

1. This is an action for patent infringement under the Patent Laws of the United States, Title 35 United States Code (“U.S.C.”) to prevent and enjoin defendant TTE Technology, Inc. (hereinafter “Defendant”), from infringing and profiting, in an illegal and unauthorized manner and without authorization and/or of the consent from Cassiopeia, from U.S. Patent No. 7,322,046 (the “’046 patent”, attached hereto as Exhibit “A”) pursuant to 35 U.S.C. § 271, and to recover damages, attorney’s fees, and costs.

THE PARTIES

2. Plaintiff Cassiopeia is a Texas entity with its principal place of business at 6205 Coit Rd., Ste. 300-1017, Plano, Texas 75024.

3. Upon information and belief, Defendant is a corporation organized under the laws of Delaware, having a principal place of business at 101 West 103rd Street, Indianapolis, Indiana 46290. Upon information and belief, Defendant may be served with process at Business Filings Incorporated, 108 West 13th Street, Wilmington, Delaware 19801.

JURISDICTION AND VENUE

4. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because the action arises under the Patent Laws of the United States, 35 U.S.C. §§ 1 et seq.

5. This Court has personal jurisdiction over Defendant by virtue of its systematic and continuous contacts with this jurisdiction, including residing in Delaware, as well as because of the injury to Cassiopeia, and the cause of action Cassiopeia has risen, as alleged herein.

6. Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Delaware Long Arm Statute, *Del. Code. Ann. Tit. 3, § 3104*, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Delaware and in this judicial district.

7. Venue is proper in this judicial district pursuant to 28 U.S.C. § 1400(b) because Defendant resides in this District.

FACTUAL ALLEGATIONS

8. On January 22, 2008, the United States Patent and Trademark Office ("USPTO") duly and legally issued the '046 patent, entitled "Method and system for the secure use of a network service" after a full and fair examination. (Exhibit A).

9. Cassiopeia is presently the owner of the patent, having received all right, title and interest in and to the '046 patent from the previous assignee of record. Cassiopeia possesses all rights of recovery under the '046 patent, including the exclusive right to recover for past infringement.

10. The '046 patent contains two independent claims and five dependent claims. Defendant commercializes, inter alia, methods that perform all the steps recited in at least one claim of the '046 patent.

11. The invention claimed in the '046 patent comprises a method for secure use of a network service using a blackboard on which all usable services are entered.

12. The method allows a user to securely use services not previously listed on said blackboard.

13. The technology embodied by the '046 patent improved networks services at the time of the invention by providing a secure way to use network services that were not previously recognized on said network.


DEFENDANT'S PRODUCTS

14. Defendant offers products, such as the "TCL 50" CLASS 4-SERIES 4K UHD HDR ROKU SMART TV, Model 50S425" (the "Accused Instrumentality"), that enable secure use of a network service (e.g., casting via DIAL onto various applications on the TV) using a blackboard (e.g., a software/hardware component that stores all available devices and applications you can cast to) on which all usable services (e.g., DIAL casting/streaming devices and applications) are entered, as recited in the preamble of claim 1 of the '046 patent and as shown on Defendant's website¹. For example, the Accused Instrumentality supports casting from a smartphone via DIAL. As shown below, the Accused Instrumentality comes preloaded with Roku, which includes Netflix and YouTube applications that utilize DIAL for casting.

¹ <https://www.tclusa.com/products/home-theater/4-series/tcl-50-class-4-series-4k-uhd-hdr-roku-smart-tv-50s425>, last visited April 26, 2019.

**TCL 50" CLASS 4-SERIES
4K UHD HDR ROKU
SMART TV - 50S425**

MODEL 50S425



SCREEN SIZE

43" \$279.99	49" \$339.99	50" \$549.99
55" \$379.99	65" \$599.99	75" \$1599.99

FEATURES

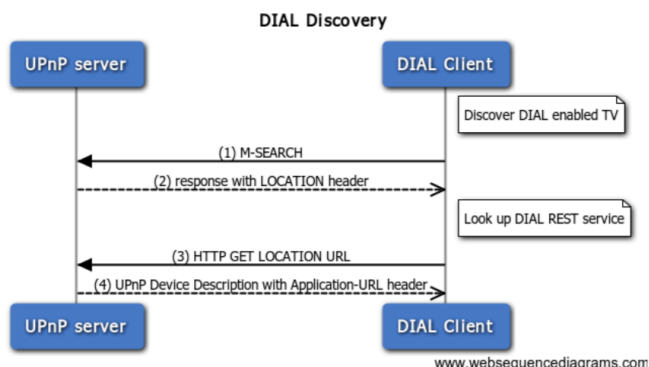
- 4K Ultra HD Resolution
- High Dynamic Range (HDR) Technology
- 4K Creative Pro upscaling engine
- 120Hz CMI effective refresh rate
- Dual-band Wi-Fi & Ethernet port
- Stream 500,000 movies & TV episodes across thousands of streaming channels
- Works with Alexa and Google Assistant
- Need help mounting your TV? TCL TV owners get special savings with code PlusForTCL at plus.com/TCL

15. As recited in the first step of claim 1, the Accused Instrumentality practices detecting a service (e.g., casting via DIAL) which has not yet been entered on the blackboard (e.g., the accused product's software component which comprises, among other things, the list of services). For example, a DIAL client (e.g. a smartphone) will send out an M-SEARCH to discover DIAL enabled TVs/servers. In response, the DIAL enabled TV will send a response with a location header that includes an HTTP URL that hold an UPnP description of the TV. The DIAL client (e.g. a smartphone) will then send an HTTP GET message to the HTTP URL in the location header. If the HTTP GET is sent to the correct HTTP URL originally provided by the DIAL enabled TV, the TV will send the DIAL client (e.g. a smartphone) a DIAL REST SERVICE URL that identifies the services (e.g. applications that can be used such as Netflix or YouTube) a client can utilize. The applications will be represented as resources identified by URLs known as Application resource URLs. As such, the DIAL REST SERVICE will then be added to a list of available services that was previously not discovered².

² <http://www.dial-multiscreen.org/dial-protocol-specification/DIAL-2ndScreenProtocol-1.7.1.pdf?attredirects=0&d=1>, last visited April 26, 2019.

5 DIAL Service Discovery

The DIAL Service Discovery protocol is based on SSDP (Simple Service Discovery Protocol) version 1.1 as defined in UPnP [1] and HTTP [2] and is illustrated in the following figure:



5.1 M-SEARCH request

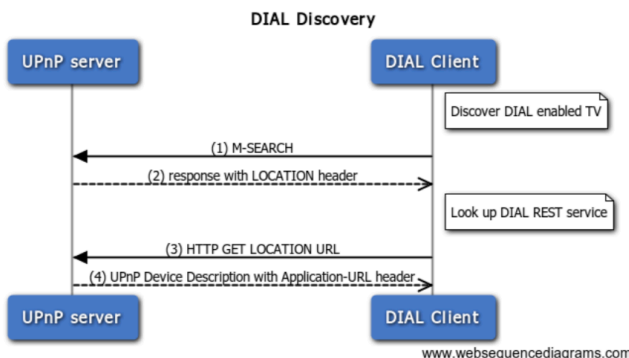
A DIAL client that wishes to discover DIAL servers SHALL send an M-SEARCH request as defined in Section 1.3.2 of [1] over UDP to the IPv4 multicast address 239.255.255.250 and UDP port 1900 including the Search Target header (ST) with the following value defined by this specification:

urn:dial-multiscreen-org:service:dial:1

16. As recited in the second step of claim 1, the Accused Instrumentality practices executing a first check to determine whether use of the service is allowed. For example, a DIAL client sends out an M-SEARCH that defines particular services that the client is looking for. A UPnP device will only respond to this request if they provide services that the client is searching for. This serves as a first check that ensures that the services provided by a DIAL server responding to the client can in fact be used by the client.

5 DIAL Service Discovery

The DIAL Service Discovery protocol is based on SSDP (Simple Service Discovery Protocol) version 1.1 as defined in UPnP [1] and HTTP [2] and is illustrated in the following figure:



5.1 M-SEARCH request

A DIAL client that wishes to discover DIAL servers SHALL send an M-SEARCH request as defined in Section 1.3.2 of [1] over UDP to the IPv4 multicast address 239.255.255.250 and UDP port 1900 including the Search Target header (ST) with the following value defined by this specification:

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urn:dial-multiscreen-org:service:dial:1
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17. As recited in the third step of claim 1, the Accused Instrumentality practices entering the service in the blackboard only if it is determined that use of the service is allowed. For example, the system utilized by the Accused Instrumentality will only enter the service (e.g. access to a DIAL server and its services) in the blackboard (e.g., a software/hardware component that stores all available devices and applications you can cast to) only if it is determined that the use of the service is allowed (e.g. the server/service responding to a client request matches the service defined in the request).

18. As recited in the fourth step of claim 1, the Accused Instrumentality practices loading an interface driver (e.g., the Application Resource URL that identifies an application will be used by the client to send an HTTP GET request) related to the service on the blackboard (e.g. the client's receipt of a DIAL REST SERVICE URL that identifies the services that can be provided by a DIAL server/TV and which further contains Application Resource URLs). For example, a DIAL client (e.g. a smartphone) will send out an M-SEARCH to discover DIAL enabled TVs/servers. In response, the DIAL enabled TV will send a response with a location

header that includes an HTTP URL that holds an UPnP description of the TV. The DIAL client (e.g. a smartphone) will then send an HTTP GET message to the HTTP URL in the location header. If the HTTP GET is sent to the correct HTTP URL originally provided by the DIAL enabled TV, the TV will send the DIAL client (e.g. a smartphone) a DIAL REST SERVICE URL that identifies the services (e.g. applications that can be used such as Netflix or YouTube) a client can utilize. The applications will be represented as resources identified by URLs known as Application Resource URLs.

19. As recited in the fifth step of claim 1, the Accused Instrumentality practices extending the loaded interface driver (e.g., the Application Resource URL that identifies an application will be used by the client to send an HTTP GET request) on the blackboard (e.g., a software/hardware component that stores all available devices and applications you can cast to) with at least one security function (e.g., a check to determine that an HTTP GET request is valid and that the Application Name included in the request is recognized) to form a secured interface driver (e.g., upon validation that an HTTP GET request is valid and that an Application Name is recognized, the system will allow the client to load the desired application on the DIAL server/TV). For example, the Accused Instrumentality loads an interface driver by providing a DIAL REST Service that contains Application Resource URLs. The DIAL REST Service and its contained Application Resource URLs are considered an interface driver because they allow for the DIAL client to interface with the DIAL server/TV. The interface driver, in this case the DIAL REST Service and its contained Application Resource URLs, are extended with a security function when the Application Resource URL is further combined with an HTTP GET request which is then subject to a validation of the request itself and the Application Name it contains. If the validations

are successful, the DIAL server will execute the desired application (e.g. Netflix or YouTube) and send a confirmation of the execution.

20. As recited in the sixth step of claim 1, the Accused Instrumentality practices loading the secured interface driver (e.g. upon validation of an HTTP GET request and its contained Application Name, the DIAL server/TV will launch a desired application (e.g. Netflix or YouTube) that will then allow a DIAL client (e.g. a smartphone) to cast a program onto the application (e.g. the Netflix or YouTube application on a DIAL server/TV) using said client device) related to the service prior to the first use of the service. For example, the DIAL protocol outlines that an application, as it exists on a DIAL enabled TV, will be launched after the successful validation of an HTTP GET request and its contained Application Name. The TV version of the application must be launched before casting services can be used.

21. As recited in the seventh step of claim 1, the Accused Instrumentality practices executing a second check by a second security function prior to the use of the service to determine if use of the service is allowed by a user (e.g. before the application can be used on the DIAL server/TV, the user must be logged into their account on the DIAL server/TV's version of the application as well).

22. The elements described in paragraphs 14-21 are covered by at least claim 1 of the '046 patent. Thus, Defendant's use of the Accused Instrumentality is enabled by the method described in the '046 patent.

COUNT I
(DIRECT INFRINGEMENT OF THE '046 PATENT)

23. Plaintiff realleges and incorporates by reference the allegations set forth in paragraphs 1 to 22.

24. Defendant has, prior to launching the Accused Instrumentality in the United States, performed internal testing with said Accused Product.

25. In violation of 35 U.S.C. § 271, Defendant is now, and has been directly infringing the '046 patent.

26. Defendant has had knowledge of infringement of the '046 patent at least as of the service of the present complaint.

27. Defendant has directly infringed and continues to directly infringe at least claim 1 of the '046 patent by using, at least through internal testing, the Accused Instrumentality without authority in the United States, and will continue to do so unless enjoined by this Court. As a direct and proximate result of Defendant's direct infringement of the '046 patent, Plaintiff has been and continues to be damaged.

28. By engaging in the conduct described herein, Defendant has injured Cassiopeia and is thus liable for infringement of the '046 patent, pursuant to 35 U.S.C. § 271.

29. Defendant has committed these acts of infringement without license or authorization.

30. As a result of Defendant's infringement of the '046 patent, Cassiopeia has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs.

31. Cassiopeia will continue to suffer damages in the future unless Defendant's infringing activities are enjoined by this Court. As such, Cassiopeia is entitled to compensation for any continuing and/or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement.

COUNT II
(INDIRECT INFRINGEMENT OF THE '046 PATENT)

32. Plaintiff realleges and incorporates by reference the allegations set forth in paragraphs 1 to 31.

33. In violation of 35 U.S.C. § 271, Defendant is now, and has been indirectly infringing the '046 patent.

34. Defendant has had knowledge of infringement of the '046 patent at least as of the service of the present complaint.

35. Defendant has indirectly infringed and continues to indirectly infringe at least claim 1 of the '046 patent by actively inducing its respective customers, users, and/or licensees to directly infringe by using the Accused product. Defendant engaged or will have engaged in such inducement having knowledge of the '046 patent. Furthermore, Defendant knew or should have known that its action would induce direct infringement by others and intended that its actions would induce direct infringement by others. For example, Defendant sells, offers to sell and advertises the Accused Instrumentality through websites or digital distribution platforms that are available in Delaware, specifically intending that its customers use it in an infringing manner. For example, at least through instruction manuals or customer support services related to the Accused Instrumentality, Defendant instructs its customers to directly infringe the '046 patent specifically intending that its customers use the Accused Instrumentality. Furthermore, Defendant's customers' use of the Accused Instrumentality is facilitated by the invention described in the '046 patent. As a direct and proximate result of Defendant's indirect infringement by inducement of the '046 patent, Plaintiff has been and continues to be damaged.

36. By engaging in the conduct described herein, Defendant has injured Cassiopeia and is thus liable for infringement of the '046 patent, pursuant to 35 U.S.C. § 271.

37. Defendant has committed these acts of infringement without license or authorization.

38. As a result of Defendant's infringement of the '046 patent, Cassiopeia has suffered monetary damages and is entitled to a monetary judgment in an amount adequate to compensate for Defendant's past infringement, together with interests and costs. Cassiopeia will continue to suffer damages in the future unless Defendant's infringing activities are enjoined by this Court. As such, Cassiopeia is entitled to compensation for any continuing and/or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement.

DEMAND FOR JURY TRIAL

39. Cassiopeia demands a trial by jury of any and all causes of action.

PRAYER FOR RELIEF

WHEREFORE, Cassiopeia prays for the following relief:

- a. That Defendant be adjudged to have directly infringed the Patents-In-Suit either literally or under the doctrine of equivalents;
- b. An accounting of all infringing sales including, but not limited to, those sales not presented at trial;
- c. That Defendant, its officers, directors, agents, servants, employees, attorneys, affiliates, divisions, branches, parents, and those persons in active concert or participation with any of them, be permanently restrained and enjoined from directly infringing the Patent-In-Suit;
- d. An award of damages pursuant to 35 U.S.C. § 284 sufficient to compensate Cassiopeia for the Defendant's past infringement and any continuing or future infringement up until the date that Defendant is finally and permanently enjoined from further infringement, including compensatory damages;

e. An assessment of pre-judgment and post-judgment interest and costs against Defendant, together with an award of such interest and costs, in accordance with 35 U.S.C. § 284; and

f. That Cassiopeia have such other and further relief as this Court may deem just and proper.

Dated: April 30, 2019

Respectfully Submitted,

DEVLIN LAW FIRM LLC

/s/ Timothy Devlin

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