UNITED STATES DISTRICT COURT WESTERN DISTRICT OF TEXAS WACO DIVISION

WSOU INVESTMENTS, LLC D/B/A BRAZOS LICENSING AND DEVELOPMENT,

No. 6:20-cv-00727

JURY TRIAL DEMANDED

Plaintiff,

v.

HEWLETT PACKARD ENTERPRISE COMPANY,

Defendant.

BRAZOS'S COMPLAINT AGAINST HPE FOR INFRINGEMENT OF U.S. PATENT NO. 7,444,832

Plaintiff WSOU Investments, LLC d/b/a Brazos Licensing and Development ("Brazos"), by and through its attorneys, files this Complaint for Patent Infringement against defendant Hewlett Packard Enterprise Company ("HPE") and alleges:

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. Brazos is a limited liability corporation organized and existing under the laws of Delaware, with its principal place of business at 606 Austin Avenue, Suite 6, Waco, Texas 76701.
- 3. On information and belief, HPE is a corporation organized and existing under the laws of Delaware, with a regular and established place of business located at 14231 Tandem Boulevard, Austin, Texas 78728. HPE may be served through its designated agent for service of process, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas, 75201.

JURISDICTION AND VENUE

- 4. This Court has jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).
- 5. This Court has specific and general personal jurisdiction over HPE pursuant to due process and/or the Texas Long Arm Statute because HPE has committed and continues to commit acts of patent infringement, including acts giving rise to this action, within the State of Texas and this Judicial District. The Court's exercise of jurisdiction over HPE would not offend traditional notions of fair play and substantial justice because HPE has established minimum contacts with the forum. For example, on information and belief, HPE has committed acts of infringement in this Judicial District, directly and/or through intermediaries, by, among other things, making, using, offering to sell, selling, and/or importing products and/or services that infringe the Asserted Patent, as alleged herein.
- 6. Upon information and belief, HPE has continuous and systematic business contacts with the State of Texas. HPE is registered to do business in the State of Texas, has offices and facilities in the State of Texas, and actively directs its activities to customers located in the State of Texas. HPE, directly and/or through affiliates and/or intermediaries, conducts its business extensively throughout Texas, by shipping, importing, manufacturing, distributing, offering for sale, selling, and/or advertising its products and services in the State of Texas and this Judicial District.
- 7. Venue is proper in this Court pursuant to 28 U.S.C. § 1400(b). HPE is registered to do business in Texas, and, upon information and belief, HPE has transacted business in this Judicial District, and has committed acts of direct and indirect infringement in this Judicial District by, among other things, importing, offering to sell, and selling products that infringe the

Asserted Patent. HPE has regular and established places of business in this Judicial District, as set forth below.

8. HPE maintains a regular and established place of business in this Judicial District, at least at 14231 Tandem Boulevard, Austin, Texas 78728:^{1,2}



- 9. Upon information and belief, HPE conducts business and serves customers from its regular and established place of business in Austin, Texas, in this District. Upon information and belief, HPE's Austin office is located on a 52-acre campus.³
- 10. In October 2019, it was reported that HPE signed a lease for a 27,326-square-foot-space in a 164,714-square-foot office building in North Austin at Paloma Ridge, located at 13620 FM 620 Austin, Texas, 78717.⁴

¹ See https://www.hpe.com/us/en/contact-hpe.html.

² See https://goo.gl/maps/mojArn1WxaHcHU8v8; see also https://goo.gl/maps/cBjm1De4gVPFMeam9.

³ See https://www2.colliers.com/en/properties/austin-continuum/USA-14231-tandem-boulevard-austin-tx-78728/usa1046778.

⁴ See https://communityimpact.com/local-news/austin/leander-cedar-park/coming-soon/2019/10/23/hewlett-packard-signs-lease-at-paloma-ridge-on-fm-620/.

- 11. Upon information and belief, HPE owns at least two properties in Austin, Texas, in this District.⁵
- 12. HPE maintains additional regular and established places of business in the State of Texas, nearby to this District, including at 11445 Compaq Center West Drive Houston, Texas, 77070, and 6080 Tennyson Parkway, Suite 400, Plano, Texas 75024.6
- 13. HPE's website states that HPE is "a global edge-to-cloud Platform-as-a-Service company . . . that helps customers connect, protect, analyze, and act on all [of the customer's] data and applications wherever they live" Upon information and belief, HPE designs, manufactures, uses, imports into the United States, sells, and/or offers for sale in the United States products that infringe the Asserted Patent, directly and or through intermediaries, as alleged herein. HPE markets, sells, and/or offers to sell its products and services, including those accused herein of infringement, to actual and potential customers and end-users located in Texas and in this District, as alleged herein.
- 14. HPE's website permits customers to configure and customize HPE products, including the HPE HSR6800 Router Series, HPE A880 Router Series, and the HPE 5820X Switch Series, and request prices quote from HPE on the configured products. HPE's website also permits users to purchase HPE products directly from HPE's website.

⁵ See http://propaccess.traviscad.org/clientdb/SearchResults.aspx (printout attached as Exhibit B).

⁶ See https://www.hpe.com/us/en/contact-hpe.html.

⁷ See https://www.hpe.com/us/en/about.html.

⁸ See, e.g., https://h22174.www2.hpe.com/SimplifiedConfig/Welcome (printout attached as Exhibit C).

⁹ *See, e.g.*, https://buy.hpe.com/us/en/networking/routers/c/4172265; https://buy.hpe.com/us/en/networking/networking-switches/c/c001013.

- 15. Upon information and belief, HPE offers trainings and/or certifications to HPE partners, customers, and HPE employees including, *inter alia*, trainings and certifications regarding the sales and/or service of HPE products. For example, HPE offers an HPE Certification to HPE employees, customers, and partners that teaches how to "design, implement, and configure complex data center solutions based on the HPE FlexNetwork Architecture." ¹⁰
- 16. As of August 2020, HPE advertised at least fifteen public job postings for positions at HPE's Austin, Texas office.¹¹

COUNT I Infringement of U.S. Patent No. 7,443,832

- 17. Brazos re-alleges and incorporates by reference the preceding paragraphs 1–16 of this Complaint.
- 18. On October 28, 2008, the U.S. Patent & Trademark Office duly and legally issued U.S. Patent No. 7,443,832 (the "'832 Patent"), entitled "Device for Determining Switching Paths in a Label Switched Communication Network in the Presence of Selection Attributes." A true and correct copy of the '832 Patent is attached as Exhibit A to this Complaint.
- 19. Brazos is the owner of all rights, title, and interest in and to the '832 Patent, including the right to assert all causes of action arising under the '832 Patent and the right to any remedies for the infringement of the '832 Patent.
- 20. HPE makes, uses, sells, offers for sale, imports, and/or distributes in the United States, including within this Judicial District, routers and switches that support MPLS services and transmit data through label switch paths in a network of label switched routers, including,

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¹⁰ See https://certification-learning.hpe.com/TR/datacard/Course/00908176.

¹¹ See https://www.linkedin.com/jobs/search?keywords=Hewlett%20Packard%20Enterprise&location=Austin%2C%20Texas%2C%20United%20States (printout attached as Exhibit D).

but not limited to, the HPE HSR6800 Router Series, ¹² HPE A880 Router Series, ¹³ and the HPE 5820X Switch Series ¹⁴ (collectively, the "Accused Products").

- 21. The Accused Products "are built with a multi-core distributed processing architecture that scales up to 420 Mbps forwarding and up to 2 Tbps switch capacity. They deliver robust routing (MPLS, IPv4, IPv6, dynamic routing, nested QoS), security (stateful firewall, IPSec/Dynamic VPN, DoS protection, NAT), full Layer 2 switching, traffic analysis capabilities, and high-density 10GbE (and 40/100GbE-ready) WAN interface options, all integrated in a single powerful routing platform."¹⁵
- Each of the Accused Products is a device for determining labeled data stream switch path(s) in a label switched communication network comprising a multiplicity of label switched routers (LSR), each stream being associated with a chosen forwarding equivalence class and with a chosen set of service data. The Accused Products establish label-switched paths (LSPs) for a stream associated with a Forwarding Equivalence Class in a network of LSRs. They store the correspondences between sets of service data and information data representing the chosen criteria and a descriptive structure containing information data representative of the state of utilization and of a topology of the network.
- 23. The Accused Products receive a path set-up request containing a set of service data associated with the stream and to determine criteria stored in the corresponding relationship to the set of service data. They deduce an ideal solution from performances of possible paths on

¹² See https://buy.hpe.com/us/en/networking/routers/modular-ethernet-routers/6800-router-products/hpe-flexnetwork-hsr6800-router-series/p/5365643; see also https://support.hpe.com/hpesc/public/docDisplay?docId=c04111425.

¹³ See https://support.hpe.com/hpesc/public/docDisplay?docId=c03146700.

¹⁴ See https://support.hpe.com/hpesc/public/docDisplay?docId=c02680203.

¹⁵ See https://h50146.www5.hpe.com/products/networking/datasheet/HP_HSR6800_Router_Series_J.pdf.

at least one of criteria. The Accused Products deduce an interest value to the paths considering the ideal solution and classifying the possible paths based on the respective interest value. The Accused Products further select a path from the possible paths and then switching the stream of data to the selected path.

24. Each of the Accused Products is a device for determining labeled data stream switchpath(s) in a label switched communication network comprising a multiplicity of label switched routers (LSR), each stream being associated with a chosen forwarding equivalence class and with a chosen set of service data, which device comprises: a memory means for storing a table of correspondences between sets of service data and information data representative of at least two chosen criteria and a descriptive structure containing information data representative of a state of utilization and of a topology of the network, and a processing means for: a) receiving a path set-up request containing a set of service data associated with a stream to be switched, and for determining in said table at least two criteria stored in corresponding relationship to said set of service data associated with the stream; b) ensuring the connectivity of said multiplicity of label switched routers, on the basis of information data stored in said descriptive structure; c) calculating from among said label switch routers possible paths between a departure node and a destination node taking account of at least one of said two criteria that have been determined and then deducing an ideal solution from performances of said possible paths on at least one of said criteria; d) assigning each possible path an interest value taking account of said ideal solution and then classifying said possible paths taking account of their respective interest values; and, e) selecting a path from among said classified possible paths and then associating with said stream to be switched to a label representative of said selected path so that said labeled stream is switched via said path to the destination node.

25. Each of the Accused Products acts as a device for determining labeled data stream switch path(s) in a label switched communication network comprising a multiplicity of label switched routers (LSR), each stream being associated with a chosen forwarding equivalence class and with a chosen set of service data. HPE's Accused Products provide a feature of configuring MPLS. ¹⁶ Data transmission in MPLS occurs by the establishment of Label Switched Paths (LSPs) through multiple Label Switched Routers (LSRs) as shown in Figure A below. ¹⁷ The Accused Products provide a feature of configuring Constraint-Based Label Switched Paths (CR-LSPs) that is used to determine an LSP in a network of LSRs. The LSP is calculated taking into consideration a set of service data and is associated with a Forwarding Equivalent Class (FEC). ¹⁸

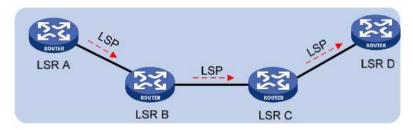


Figure A

26. Each of the Accused Products includes a memory means, which stores a table of correspondences between sets of service data and information data representative of at least two chosen criteria and a descriptive structure containing information data representative of a state of utilization and of a topology of the network. The Traffic Engineering ("TE") Database ("TEDB") is formed by collecting TE attributes of all the links. ¹⁹ TE attributes include the information data

¹⁶ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 9.

¹⁷ See https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643 at 2.

¹⁸ See https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643 at 48.

¹⁹ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 47.

representative of the chosen criteria of the link.²⁰ The association of links with the attributes (*i.e.*, service data and the information data representative of the chosen criteria) is stored in TEDB. CR-LSPs are established taking the routing information into consideration, where the routing information corresponds to the topology of the network.²¹ The data stored in TEBD contains information related to the topology of the network, such as working conditions and available links.²²

27. Each of the Accused Products includes a processing means for receiving a path set-up request containing a set of service data associated with a stream to be switched, and for determining in said table at least two criteria stored in corresponding relationship to said set of service data associated with the stream. The Accused Products provide a feature of Dynamic CR-LSP establishment. Dynamic CR-LSP is established taking into consideration the service data (*i.e.*, the QoS parameters) associated with the traffic. The Dynamic CR-LSP calculates the path based on the constraints stored in TEDB, and MPLS TE uses the Constraint-based Shortest Path First (CSPF) algorithm to calculate the shortest, constraint-compliant path to the tunnel destination.²³ Dynamic CR-LSP optimization calculates for paths that traffic trunks traverse, which sets up a path if an alternative better path is found. The path set-up request is sent for the new route to set up and replace the old route.²⁴ CSPF prunes TE constraint-incompliant links from the TEDB. TE constraints that are considered by CSPF to calculate the path include the

²⁰ *Id*.

²¹ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 48.

²² See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 78 (configuring the failed link timer).

²³ See https://techhub.hpe.com/eginfolib/networking/docs/switches/7500/5200-1944a_mpls_cg/content/495507539.htm at 1; see also https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643 at 54–56.

²⁴ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 49.

service data (*i.e.*, QoS parameters, etc.) and the criteria (*i.e.*, bandwidth, affinity, setup and holding priorities, explicit path, etc.).²⁵

28. The processing means of the Accused Products ensures the connectivity of said multiplicity of label switched routers, on the basis of information data stored in the descriptive structure. The Accused Products provide a feature of configuring a failed link timer. ²⁶ The state of the link is maintained in the database (*i.e.*, stored in TEDB). The information is used to ensure the connectivity of the multiplicity of LSRs. *See* Figure B below.

Configuring the failed link timer

A CSPF failed link timer starts once a link goes down. If IGP removes or modifies the link before the timer expires, CSPF updates information about the link in TEDB and stops the timer. If IGP does not remove or modify the link before the timer expires, the state of the link in TEDB changes to up.

To configure failed link timer:

Step		Command	Remarks
1.	Enter system view.	system-view	N/A
2.	Enter MPLS view.	mpls	N/A
3.	Configure the CSPF failed link timer.	mpls te cspf timer failed-link timer-interval	Optional. The default is 10 seconds.

Figure B

29. The processing means of the Accused Products calculates the possible paths between a departure node and a destination node from among the label switched routers, taking account of at least one of said two criteria that have been determined and then deducing an ideal solution from performances of said possible paths on at least one of said criteria. Dynamic CR-LSP calculates possible paths among LSRs from a departure node to a destination node taking into consideration TE attributes that include criteria such as bandwidth, affinity, setup and

²⁵ See https://techhub.hpe.com/eginfolib/networking/docs/switches/7500/5200-1944a_mpls_cg/content/495507539.htm at 1; see also https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643 at 54–56.

²⁶ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 78.

holding priority, explicit path, etc.²⁷ The possible paths are calculated by CSPF first pruning the TE constraint-incompliant links from the TEDB.²⁸ The shortest path among the determined paths is identified and a route is set up between a departure node and a destination node.²⁹ The CSPF algorithm calculates the shortest path taking into account the constraints (*i.e.*, attributes of TE).³⁰ CSPF deduces an ideal solution based on the constraints (*i.e.*, the criteria).³¹ The ideal solution of the CSPF might contain multiple paths with the same metric as shown in Figure C below.³²

Configuring the tie breaker in CSPF

CSPF only calculates the shortest path to the end of a tunnel. If multiple paths are present with the same metric, only one of them is selected. Tie-breaking methods, in the descending order of selection priority, include: selecting a path with the lowest bandwidth usage ratio (the used bandwidth to the maximum reservable link bandwidth), selecting a path with the highest bandwidth usage ratio (the used bandwidth to the maximum reserved link bandwidth), and selecting a path randomly.

To configure the CSPF tie-breaking method:

Step		Command	Remarks	
1.	Enter system view.	system-view	N/A	
2.	Enter MPLS view.	mpls	N/A	

Figure C

- 30. The processing means of the Accused Products assigns each possible path an interest value taking account of the ideal solution and then classifying the possible paths taking account their respective interest values.³³
- 31. The processing means of the Accused Products selects a path from among the classified possible paths and then associates with the stream to be switched to a label

²⁷ See https://techhub.hpe.com/eginfolib/networking/docs/switches/7500/5200-1944a_mpls_cg/content/495507539.htm at 1; see also https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643.

²⁸ *Id*.

²⁹ *Id*.

³⁰ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 71.

³¹ *Id*.

³² *Id*.

³³ *Id*.

representative of the selected path so that the labeled stream is switched via said path to the destination node. CSPF calculates the shortest path between the departure node and a destination node. When multiple paths are present with the same metric a tie-breaking method is used and based on the interest values the paths are classified.³⁴ A path from the classified paths is selected and the services (*i.e.*, the stream) are switched to the new path.³⁵ After the path is determined, a label distribution protocol (LDP) advertises labels and reserve the resources on each node along the calculated path and the stream is switched via the path to the destination node.³⁶

- 32. In view of the preceding paragraphs 21–31, each and every element of at least claim 1 of the '832 Patent is found in the Accused Products.
- 33. HPE continues to directly infringe at least one claim of the '832 Patent, literally or under the doctrine of equivalents, by making, using, selling, offering for sale, importing, and/or distributing the Accused Products in the United States, including within this Judicial District, without the authority of Brazos. HPE's infringing use of the Accused Products includes its internal use and testing of the Accused Products.
- 34. HPE has received notice and actual or constructive knowledge of the '832 Patent since at least the date of service of this Complaint.
- 35. Since at least the date of service of this Complaint, through its actions, HPE has actively induced product makers, distributors, retailers, and/or end users of the Accused Products to infringe the '832 Patent throughout the United States, including within this Judicial District, by, among other things, advertising and promoting the use of the Accused Products in various

³⁴ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 71.

³⁵ See https://support.hpe.com/hpsc/doc/public/display?docId=c04093643 at 49.

³⁶ See https://techhub.hpe.com/eginfolib/networking/docs/switches/7500/5200-1944a_mpls_cg/content/495507539.htm at 1; see also https://support.hpe.com/hpesc/public/docDisplay?docId=c04093643 at 54–56.

websites, including providing and disseminating product descriptions, operating manuals, and other instructions on how to implement and configure the Accused Products. Examples of such advertising, promoting, and/or instructing include the documents at:

- https://support.hpe.com/hpesc/public/km/search#q=MPLS;
- https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-c03732751;
- https://support.hpe.com/hpesc/public/docDisplay?docId=emr na-c02676689; and
- https://support.hpe.com/hpesc/public/docDisplay?docId=emr_na-c02647480.

HPE was and is aware that the normal and customary use by end users of the Accused Products infringes the '832 patent. HPE's inducement is ongoing.

- 36. Since at least the date of service of this Complaint, through its actions, HPE has contributed to the infringement of the '832 Patent by having others sell, offer for sale, or use the Accused Products throughout the United States, including within this Judicial District, with knowledge that the Accused Products infringe the '832 Patent. The Accused Products have special features that are especially made or adapted for infringing the '832 Patent and have no substantial non-infringing use. For example, in view of the preceding paragraphs, the Accused Products contain functionality which is material to at least claim 1 of the '832 Patent.
- 37. The special features include MPLS services and transmission of data through label switched paths in a network of label switched routers in a manner that infringes the '832 Patent.
- 38. The special features constitute a material part of the invention of one or more claims of the '832 Patent and are not staple articles of commerce suitable for substantial non-infringing uses.
- 39. Brazos has suffered damages as a result of HPE's direct and indirect infringement of the '832 Patent in an amount adequate to compensate for HPE's infringement, but in no event

less than a reasonable royalty for the use made of the invention by HPE, together with interest and costs as fixed by the Court.

JURY DEMAND

Brazos hereby demands a jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Brazos respectfully requests that the Court:

- (a) enter judgment that HPE infringes one or more claims of the '832 Patent literally and/or under the doctrine of equivalents;
- (b) enter judgment that HPE has inducted infringement and continues to induce infringement of one or more claims of the '832 Patent;
- (c) enter judgment that HPE has contributed to and continues to contribute to the infringement of one or more claims of the '832 Patent;
- (d) award Brazos damages, to be paid by HPE in an amount adequate to compensate Brazos for such damages, together with pre-judgment and post-judgment interest for the infringement by HPE of the '832 Patent through the date such judgment is entered in accordance with 35 U.S.C. § 284, and increase such award by up to three times the amount found or assessed in accordance with 35 U.S.C. § 284;
 - (e) declare this case exceptional pursuant to 35 U.S.C. § 285; and
- (f) award Brazos its costs, disbursements, attorneys' fees, and such further and additional relief as is deemed appropriate by this Court.

Respectfully submitted,

Dated: August 12, 2020

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