IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

EMERALD LAKE HILLS, LLC, *Plaintiff,* v. ARISTA NETWORKS, INC., *Defendant.*	Civil Action No. 1:24-cv-517 JURY TRIAL DEMANDED

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Emerald Lake Hills, LLC ("Emerald Lake Hills" or "Plaintiff"), for its Complaint against Defendant Arista Networks, Inc, (referred to herein as "Arista" or "Defendant"), alleges the following:

NATURE OF THE ACTION

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq*.

THE PARTIES

2. Plaintiff Emerald Lake Hills is a limited liability company organized under the laws of the State of California with a place of business at PO Box 620445, Woodside, CA 94062.

3. Upon information and belief, Arista is a corporation organized under the laws of the State of Delaware with a Research and Development office at The Terrace, Building II, Suite 420, 2700 Via Fortuna, Austin, TX 78746.[1] Upon information and belief, Arista sells, offers to sell, and/or uses products and services throughout the United States, including in this judicial district, and introduces infringing products and services into the stream of commerce knowing

[1] https://www.arista.com/en/company/contact-us (last accessed April 2, 2024).

that they would be sold and/or used in this judicial district and elsewhere in the United States. Arista has the right to do business in the State of Texas[2] and can be served via its registered agent, Corporation Service at 251 Little Falls Drive, Wilmington, DE 19808.[3]

JURISDICTION AND VENUE

4. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

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

6. This Court has personal jurisdiction over Arista under the laws of the State of Texas, due at least to its substantial business in Texas and in this judicial district, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; (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 the State of Texas; and (iii) recruiting Texas residents for employment inside or outside Texas[4].

7. Venue is proper in this judicial district under 28 U.S.C. § 1400(b). Arista has a regular and established place of business in this district at The Terrace, Building II, Suite 420, 2700 Via Fortuna, Austin, TX 78746.[5]

BACKGROUND

The Invention

[2] *See* TEXAS SECRETARY OF STATE, https://mycpa.cpa.state.tx.us/coa/ at Tax ID 12017511218 (last accessed April 2, 2024).
[3] *See* Delaware Department of State, https://icis.corp.delaware.gov/eCorp/EntitySearch/NameSearch.aspx at File Number 5073999 (last accessed April 2, 2024).
[4]https://www.linkedin.com/jobs/search/?currentJobId=3863116535&f_C=80069&geoId=92000000&keywords=Austin (last accessed April 2, 2024).
[5] https://www.arista.com/en/company/contact-us (last accessed April 2, 2024).

8. Daniel M. Cook is the inventor of U.S. Patent No. 11,636,413 ("the '413 patent"). A true and correct copy of the '413 patent is attached as Exhibit 1.

9. The '413 patent resulted from the pioneering efforts of Mr. Cook (hereinafter "the inventor") in the areas of networked data systems and autonomic discrete business activity management (DBAM) applications. These efforts resulted in the development of a method for autonomic DBAM, featuring a core engine linked to applications designed to profile, characterize and integrate discrete business activity from multiple entities transparently at the enterprise and service provider levels, enabling real-time access to synchronized data for unprecedented gains in business productivity. ('413 patent at 3:35-4:18.) At the time of these pioneering efforts, there did not exist widely implemented technology for synchronous integration and harmonization of discrete business intelligence from multiple entities.

10. The inventor conceived of the inventions claimed in the '413 patent as a way to enhance the efficiency, transparency, and innovation in managing business activities, responding to challenges in integration, synchronization, semi-autonomic and autonomic decision-making, user configuration, and specific areas of business operation across diverse networked domains. For example, the inventor developed a system that facilitates the secure integration of business intelligence confidentially and transparently across partner business networked domains, recognizing the increasing responsibility of third-party service providers for their customers' operating performance.

11. Further, the inventor developed a method for synchronously accessing and universally rendering prevailing business conditions in near and real-time across multiple networked domains, aiming for instantaneous management of business attributes and overcoming the challenges of scattered business intelligence across multiple different entities

and multiple different taxonomies. His novel DBAM engine and system provides continuous management of attribute characteristics in the configuration, ownership, time, and value domains, offering an innovative solution for more effective and continuous business management by managing attribute data seamlessly across partner business networked domains while ensuring harmonization of attribute data in near real time or real time. This enables specific business applications, such as Buy (products or services) on Demand, Zero Cash Cycle, Portfolio Business Activity Management, and Bid to Market, on a subscription or volume basis. The novel DBAM engine and system allows each networked domain to translate transient attribute data between domains, creating harmonized attribute data in real-time or near real-time to achieve a collective state between nodes in the network and provides a mechanism for translating harmonized data back to the context of each Web Service Network node.

Advantages Over the Prior Art

12. The patented invention disclosed and claimed in the ’413 patent, provides many advantages over the prior art, and in particular improved the operations of networked domains and web service networks. (*See* ’413 patent at cl. 1, 49:2-30.)

13. One advantage of the patented invention is that it harnesses the virtual operational management of discrete attributes across multiple commercial entities to enhance business operating performance. (*See* ’413 patent at 1:8-20.)

14. Another advantage of the patented invention is that it utilizes Grid technology, network security, and autonomic computing to efficiently integrate disparate systems and data, while ensuring data security. (*See* ’413 patent at 3:11-22.)

15. Yet another advantage of the patented invention is that it addresses the problem of fragmentation of critical business data due to a division of labor and specialization in business

processes. (*See* '413 patent at 3:18-31.) The patented inventions allow integration of dissimilar systems and architectures typically requiring costly customization of software code, due to the use of grid-enabled technologies and protocols. (*See* '413 patent at 1:63-2:6; 27:3-18; 47:12-18.)

16. Yet another advantage of the patented invention is that it addresses the problem of data parallax by harmonizing data within distributed domains. Data parallax refers to the incongruence between two or more entities' translated attribute states for the same attribute at different time indexes. The patented inventions ensure that real-time or near real-time business attribute data remains synchronized across different entities and eliminate incongruences in attribute states examined at different time indexes. (*See* '413 patent at 3:35-56; 11:54-12:2; 12:51-13:11; 17:61-18:4; 22:63-23:11; Figs. 4, 12.)

17. Yet another advantage of the patented invention is that it provides a transparent and universal view of time-differentiated business attribute parameters, to allow for a comprehensive understanding of the business activities and enable informed decision-making. (*See* '413 patent at 5:17-34; 11:54-12:2.)

18. Yet another advantage of the patented invention is that it optimizes the management of distributed and often long-lived state in applications with the integration of stateful and stateless architectures, thereby reducing overhead associated with retrieving state on every request and allowing for more efficient processing and decision-making. (*See* '413 patent at 13:50-67; 15:5-29; 16:36-44; 23:12-60; 37:33-38:4; 49:2-30.)

19. Yet another advantage of the patented invention is that it builds upon the existing grid and cloud computing infrastructures while leveraging their protocols and services. This ensures interoperability between different administrative domains and enables seamless

scalability, allowing businesses to expand their operations without compromising efficiency or data integrity. (*See* '413 patent at 46:31-47:11; 47:20-53.)

20. Yet another advantage of the patented invention is that it supports autonomic business functions, enabling automated and self-managing operations based on the data derived from a universal business mosaic representing a synchronized combination of multiple entities' translated attribute states. (*See* '413 patent at Abstract; 3:35-56; 5:18-34; Fig. 16.)

21. Because of these significant advantages that can be achieved through the use of the patented invention, the '413 patent presents significant commercial value for companies like Arista.

Technological Innovation

22. The patented invention disclosed in the '413 patent resolves technical problems related to data parallax and the complexity associated with maintaining state in distributed systems. By harmonizing data within distributed domains and eliminating near/real-time data parallax, DBAM provides a transparent and universal view of business asset attributes. This approach helps organizations ensure that the business mosaic, which provides comprehensive quantified assessments of business attribute parameters, remains synchronized and accurate without the need for data reconciliation. DBAM also addresses the challenges of managing distributed and long-lived state in applications, allowing for efficient and seamless business management.

23. As the '413 patent explains, one of the limitations of the prior art as regards the Grid infrastructure was that it was not well suited to address the challenge of interoperability because resources could come from different domains with varying hardware and software configurations and platforms.

24. Moreover, security was a primary concern for the then-existing Grid infrastructure because resources were sourced from different domains with different security policies. Ensuring authentication, authorization, and policy negotiation and enforcement were ongoing issues across networked domains.

25. Further, the management of resources in the distributed Grid infrastructure was a challenge, particularly with respect to provisioning, configuration, monitoring, and management of both stateful resources and the resulting distributed computations.

26. Further, the then-existing Grid infrastructure could not efficiently handle the development of protocols and tools for discovering and handling of demands to other providers, monitoring and managing reservations, or arranging payment. These protocols and tools were needed to manage the underlying resources and facilitate the distribution and interoperability of the Grid facilities.

27. Further, distributed applications commonly required the controlled management of distributed and often long-lived state. Stateful OGSI architecture was developed to address this challenge, but it evolved to stateful Web services with the replacement of OGSI in favor of the Web Service Resource Framework (WSRF), eventually evolving within modern stateful and stateless web services coupled with programming abstractions across multiple networked domains, as described by the ’413 patent specification. (*See, e.g.*, ’413 patent at 1:39-47:61.)

28. The claims of the ’413 patent do not merely recite the performance of some well-known business practice from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the ’413 patent recite inventive concepts that are deeply rooted in technology, and overcome problems specifically arising out of how to achieve the

aforementioned goals of interoperability, security, resource management, and the development of protocols and tools to support the distributed nature of the then-existing Grid infrastructure.

29. In addition, the claims of the ’413 patent recite inventive concepts that improve the functioning of the Grid infrastructure, a networked or standalone slave compute and storage facility. The inventions of the ’413 patent are based on the Grid protocols, specifically the Open Grid Service Architecture (OGSA) and the Globus Standard, which provide standardized foundations for managing compute and storage resources securely and autonomously, regardless of their location and entity ownership. The grid infrastructure enables the synchronization and management of distributed applications, which can include standard services, customized grid services, or additional programming abstractions.

30. Specifically, the claims of the ’413 patent improves the Grid infrastructure by facilitating interoperability, enhancing security, enabling efficient resource management, supporting scalability and elasticity, and providing mechanisms for distributed state management. These enhancements contribute to the overall effectiveness and reliability of a system that provides continuous management of attribute characteristics in the configuration, ownership, time, and value domains, offering an innovative solution for more effective and continuous business management by managing attribute data seamlessly across partner business networked domains while ensuring harmonization of attribute data in near real time or real time, when compared to a system based on the then-existing Grid infrastructure.

31. Moreover, the claims of the ’413 patent recite inventive concepts that are not merely routine or conventional use of computers, the Internet, or e-commerce. Instead, the patented invention disclosed in the ’413 patent provides a new and novel solution to specific problems related to scalability, resource optimization, interoperability, security, customer

experience, and data analytics capabilities of e-commerce systems. These improvements contribute to the growth, operational efficiency, and competitiveness of e-commerce businesses in the digital marketplace.

32. And finally, the patented invention disclosed in the ’413 patent does not preempt all the ways that the grid infrastructure may be used to improve e-commerce or other online services, nor does the ’413 patent preempt any other well-known or prior art technology.

33. Accordingly, the claims in the ’413 patent recite a combination of elements sufficient to ensure that the claim in substance and in practice amounts to significantly more than a patent-ineligible abstract idea.

COUNT I – INFRINGEMENT OF U.S. PATENT NO. 11,636,413

34. The allegations set forth in the foregoing paragraphs 1 through 33 are incorporated into this First Claim for Relief.

35. On April 25, 2023, the ’413 patent was duly and legally issued by the United States Patent and Trademark Office under the title “Autonomic Discrete Business Activity Management Method.”

36. Emerald Lake Hills is the assignee and owner of the right, title and interest in and to the ’413 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

37. Upon information and belief, Arista has and continues to directly infringe one or more claims of the ’413 patent by selling, offering to sell, making, using (including but not limited to testing), and/or providing and causing to be used products, including, but not limited to, the Arista Extensible Operating System (“EOS”), Arista CloudEOS, Arista CloudVision, Arista NetDB, and Arista NDR (the “Accused Instrumentalities”). On information and belief,

Arista also offers infringing products and services through Amazon Web Services ("AWS")[6], including infringing products and services utilizing AWS architecture such as Arista CloudEOS[7] and Arista NDR, which Arista makes and uses, including through internal testing.

38. Exemplary infringement analyses showing infringement of claim 1 of the '413 patent are set forth in Exhibit 2. These infringement analyses are necessarily preliminary, as they are provided in advance of any discovery provided by Arista with respect to the Accused Instrumentalities. Emerald Lake Hills reserves all rights to amend, supplement and modify these preliminary infringement analyses. Nothing in the attached charts should be construed as any express or implied contention or admission regarding the construction of any term or phrase of the claims of the '413 patent.

39. The Accused Instrumentalities infringed and continue to infringe at least claim 1 of the '413 patent during the pendency of the '413 patent.

40. Emerald Lake Hills has been harmed by Arista's infringing activities.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Emerald Lake Hills demands a trial by jury on all issues triable as such.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Emerald Lake Hills demands judgment for itself and against Arista as follows:

A. An adjudication that Arista has infringed the '413 patent;

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[6] https://aws.amazon.com/marketplace/seller-profile?id=c416f7e2-75e3-4f9a-9c65-2e1bfd49bbe0 (last accessed April 2, 2024).

[7] https://blogs.arista.com/blog/aws-cloud-wan (last accessed April 2, 2024); *see also* https://aws.amazon.com/blogs/networking-and-content-delivery/build-global-sd-wans-with-aws-cloud-wan-tunnel-less-connect/ (last accessed April 2, 2024).

B. An award of damages to be paid by Arista adequate to compensate Emerald Lake Hills for Arista's past infringement of the '413 patent, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Emerald Lake Hills's reasonable attorneys' fees and treble damages under 35 U.S.C. § 284; and

D. An award to Emerald Lake Hills of such further relief at law or in equity as the Court deems just and proper.

Dated: May 15, 2024

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