

Fabio E. Marino (SBN 183825)
Fabio.Marino@wbd-us.com
WOMBLE BOND DICKINSON (US) LLP
1279 Oakmead Parkway
Sunnyvale, CA 94085
Tel: 408-720-3436

Steven M. Levitan (SBN 148716)
Steve.Levitan@wbd-us.com
Christian E. Mammen (SBN 188454)
Chris.Mammen@wbd-us.com
Carrie J. Richey (SBN 270825)
Carrie.Richey@wbd-us.com
Daniel M. Grigore (SBN 347602)
Daniel.Grigore@wbd-us.com
WOMBLE BOND DICKINSON (US) LLP
50 California Street, Ste. 2750
San Francisco, CA 94111
Tel: 415-765-6240

Attorneys for Plaintiff
iCHARTS LLC

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

iCHARTS LLC,

Plaintiff,

v.

TABLEAU SOFTWARE, LLC,

Defendant.

Case No.: 3:24-cv-03157-WHA

**DECLARATION OF JEFFREY MILLER,
PH.D. IN SUPPORT OF PLAINTIFF
iCHARTS' OPPOSITION TO
DEFENDANT TABLEAU'S MOTION
FOR JUDGMENT ON THE PLEADINGS
UNDER 35 U.S.C. SECTION 101**

Date: September 26, 2024
Time: 8:00 a.m.
Cttrm: 12 – 19th Floor
Judge: Honorable William Alsup

Complaint Filed: October 10, 2023
Trial Date: None

I, Jeffrey Miller, Ph.D., hereby declare and state the following:

I. INTRODUCTION

1. I have been retained by Womble Bond Dickinson (US) LLP (“WBD”) on behalf of iCharts LLC (“iCharts”) as an expert witness to provide consulting services in connection with this litigation. I am being compensated for my work on this matter at my usual consulting rate of \$500 per hour. My compensation is not dependent on my opinions or testimony or the outcome of this matter.

2. I am over the age of 18 years, and I have personal knowledge of the facts recited herein and could testify competently thereto.

3. I have been asked to provide this declaration concerning whether U.S. Patent Nos. 8,271,892 (“’892 Patent”); 8,520,000 (“’000 Patent”); and 9,712,595 (“’595 Patent”)(the “Asserted Patents”) claim patentable subject matter under 35 U.S.C. Section 101. In sum, it is my opinion that the Asserted Claims¹ of the Asserted Patents are directed to patentable subject matter, under the legal standards that have been explained to me. My analysis is set forth below.

II. QUALIFICATIONS

4. I am currently the Dean of Engineering and Computational Sciences and a Professor of Computer Science at Southern Utah University (SUU). I have served in this position since July 2022. In this role, I oversee the departments of Computer Science and Cybersecurity (with programs in Computer Science, Software Development, Information Technology, Cybersecurity, Artificial Intelligence and Machine Learning, and Financial Technology), Engineering and Technology (with programs in Civil Engineering, Mechanical Engineering, Construction Management, Electrical Engineering, and Engineering Technology), Mathematics (with programs in Data Science, Theoretical Mathematics, Actuarial Mathematics, and Mathematics Education), and Aviation (with programs in Fixed-Wing Pilot, Rotor-Wing Pilot, Aviation Maintenance Technician, and Aviation Administration and Leadership). These departments have over 60 full-time faculty, 1,500 major students, and 64 undergraduate and

¹ The asserted claims are claims 1-3, 5-16 of the ’892 Patent; claims 1, 3, 4 of the ’000 Patent; and claims 1-12 of the ’595 Patent (collectively, the “Asserted Claims”).

1 graduate degree and certificate programs.

2 5. I previously served as a Professor of Computer Science and Information
3 Technology Practice, and Department Chair of the Information Technology Program, in the
4 Viterbi School of Engineering at the University of Southern California in Los Angeles, where I
5 taught courses on programming, software development, design and construction of large software
6 systems, and analysis of algorithms.

7 6. As Department Chair of the Information Technology Program, I oversaw more than
8 50 professors and lecturers teaching over 75 different courses focused on artificial intelligence,
9 computer programming, applied analytics, cloud computing, computer and digital forensics, 3D
10 computer graphics and modeling, applied computer security, blockchain, connected devices,
11 computing education, enterprise information systems, mobile app development, video game
12 programming, design and management, web technologies and applications, and digital
13 entrepreneurship.

14 7. Prior to joining the University of Southern California, I served as an Associate
15 Professor of Computer Science and Computer Systems Engineering at the University of Alaska
16 Anchorage, where I taught courses on electrical engineering, computer systems and design,
17 computer programming, systems administration, VLSI circuit design, computer networking, and
18 network security.

19 8. I earned a Bachelor of Science degree in Computer Engineering and Computer
20 Science, a Master of Science degree in Computer Science, and a Ph.D. degree in Computer Science
21 from the University of Southern California in 2002, 2002, and 2007, respectively.

22 9. Since 2002, I have conducted research on software and network architectures and
23 algorithms used in mobile and wireless communication, with a specific application in vehicular
24 networking and data gathering. My dissertation concerned real-time traffic data processing. It
25 focused on gathering traffic data in a distributed fashion over cellular links, with individual
26 vehicles transmitting speed—retrieved from a host vehicle computer system through the on-board
27 diagnostics port (“OBD-II” as required by federal regulation) — and location — as a
28 latitude/longitude pair determined by GPS to a central system, rather than gathering data through

1 expensive hardware embedded in roads at discrete locations. The system maintained in real-time
2 the fastest path of each vehicle from its current location to its destination.

3 10. I continued my work in vehicle tracking after receiving my Ph.D., specifically
4 gathering data from an OBD port in different host vehicles and transmitting it to a central server
5 over the cellular network. My research involved creating hardware devices that included a central
6 processing unit (CPU), GPS receiver, cellular transceiver, and OBD connector. I wrote firmware
7 to run on the CPU to retrieve data from the vehicle's electronic control unit through the OBD port,
8 to determine the location of the vehicle from the GPS receiver, and to transmit this data to a central
9 server over the cellular network. These devices were installed in over 100 vehicles of different
10 makes and models, including vehicles manufactured by Toyota, Honda, Mercedes, Ford, and
11 Subaru.

12 11. I developed the devices for gathering vehicular data and location as the Principal
13 Investigator (PI) on two grants provided by the United States Department of Transportation,
14 administered by the Alaska University Transportation Center. One of the grants specifically
15 consisted of designing, creating, and installing vehicle tracking devices in OBD ports in over 100
16 vehicles to gather location and diagnostic data from each vehicle, send this data to a central server,
17 and analyze the data to draw multiple conclusions. One application of this involved working with
18 the Municipality of Anchorage to identify the locations of vehicle slippage on the roads to aid in
19 dispatching sand trucks. The data was also used to determine the average speed of traffic on
20 roadways for routing vehicles along fastest and, in conjunction with snowplow and sand truck
21 location data, safest routes.

22 12. I have secured over \$8,200,000 for projects concerning Intelligent Transportation
23 Systems applications and Science, Technology, Engineering, and Mathematics (STEM) education
24 at the K12, undergraduate, and graduate levels.

25 13. As set forth in more detail in my CV, I have authored numerous publications,
26 including a book supplement, on vehicular technology, networking and security, and intelligent
27 transportation systems applications. Some publications include applications for determining
28 fastest paths of vehicles through tracking of distributed vehicles in a transportation network

1 utilizing OBD data, GPS receivers, and cellular transceivers. Other publications include
2 descriptions of devices used for tracking vehicles, including cars, snowplows, and heavy-duty
3 trucks. I have given many presentations, including several on all the topics described above.

4 14. I assisted in developing curricula in circuit design, software engineering, computer
5 networking, networking security, capstone classes in computer engineering and computer science
6 that revolve around custom projects for groups of students, and many others. These classes exist
7 in the Computer Science and Computer Engineering programs at California State University at
8 Los Angeles, the University of Southern California, the University of Alaska Anchorage, and
9 Southern Utah University. I am an inventor on U.S. Patent No. 9,715,369, "Vehicle accessory
10 engagement tracking," related to data collection from snowplows for use in intelligent
11 transportation applications.

12 15. I am a Senior Member of the Institute of Electrical and Electronics Engineers
13 (IEEE) and the Association of Computing Machinery (ACM). I was the General Chair for the
14 IEEE 69th Vehicular Technology Conference in fall 2009, the IEEE 15th Intelligent
15 Transportation Systems Conference in fall 2012, and the IEEE 77th Vehicular Technology
16 Conference in fall 2013. I was also a Program Co-Chair and Technical Program Chair for the
17 IEEE 73rd Vehicular Technology Conference in fall 2011. I was on the IEEE Intelligent
18 Transportation Systems Society Board of Governors for the term from January 2009-December
19 2011 and January 2017-December 2019, and I was elected as Vice President for Administrative
20 Activities in the same society from January 2011-December 2012. I was also on the IEEE
21 Vehicular Technology Society Board of Governors for the term from September 2011 - December
22 2013. From October 2011-December 2013, I was the Editor-in-Chief of the IEEE ITS Magazine.
23 Within the IEEE Intelligent Transportation Systems Society ("ITSS"), I have been an Associate
24 Editor for the IEEE Transactions on Intelligent Transportation Systems. In 2010, I was the
25 treasurer for the Alaska section of the IEEE and was the chair of the section from January 2011-
26 December 2011. During my time as chair of the IEEE Alaska Section, the section won the 2011
27 Outstanding Section Award for the Region 6 Northwest Area. In addition to being a member of
28 the Intelligent Transportation Society of Alaska, I was also the president from January 2010-

1 December 2011.

2 16. A more detailed description of my qualifications, experience, publications, awards,
3 and patents is included in my Curriculum Vitae, provided as Ex. A.

4 **III. LEGAL STANDARDS**

5 17. In connection with this declaration, I have been asked to assume the following legal
6 principles about patentable subject matter under U.S. patent law.

7 18. An invention is generally patentable if it qualifies as a “new and useful process,
8 machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the Supreme Court
9 has identified a judicially-created exception, such that “[l]aws of nature, natural phenomena, and
10 abstract ideas are not patentable.” In applying this exception, a court “must distinguish between
11 patents that claim the building blocks of human ingenuity and those that integrate the building
12 blocks into something more.” The Supreme Court has cautioned, however, that “all inventions at
13 some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract
14 ideas,” meaning that merely embodying or using an abstract idea or law of nature does not *per se*
15 make a patent ineligible under Section 101. Making a determination of patent eligibility under
16 Section 101 is a question of law that may involve underlying questions of fact.

17 19. The Supreme Court has laid out a two-step test for patent eligibility: first, courts
18 must “determine whether the claims at issue are directed to a patent-ineligible concept,” such as
19 abstract ideas. If the patent is not “directed to” a patent-ineligible concept, that is the end of the
20 inquiry, and the patent is deemed patentable under Section 101.

21 20. If the patent is “directed to” an ineligible concept, the court must conduct a second
22 step in the analysis to determine whether the elements of the claim contain an “inventive concept
23 sufficient to transform the claimed abstract idea into a patent-eligible application.” This may
24 involve the claiming of “additional features.” Step two “is satisfied when the claim limitations
25 involve more than performance of well-understood, routine, [and] conventional activities
26 previously known to the industry.” This inquiry often involves questions of fact. If such an extra
27 element is present, the claim is patent-eligible under Section 101.
28

IV. ANALYSIS

A. Technical Inventions Claimed in the Asserted Patents

21. The Asserted Claims are directed to a specific implementation of a solution to a problem in the software arts. Charts have existed for hundreds, if not thousands, of years. Graphing mathematical equations, for example, are common academic applications. With an increase in the amount of data, additional charting visualizations became necessary. Newspapers publish charts to show inflation, housing prices, salaries, or average daily temperatures, to mention a few. One of the problems with charts published on paper is that they are unable to change as more data becomes available and an entirely new chart would need to be created. Thus, by their very nature, charts drawn on paper are static and not interactive.

22. The Internet exacerbated this problem because charts can be published on a web page and visited at different times. If a chart on a web page is visited the day it is published, the data may be up-to-date, but if the same chart is visited one year later, the chart's data is likely be outdated if it was not continually updated. The ability to visit a web page at different times created the problem of needing to update the data displayed in charts. If the chart is updated continually, revisiting a web page that contains the chart will provide more accurate data.

23. Further, at the time of the invention of the Asserted Patents, sharing of interactive charts over the Internet so that the charts remained interactive after being shared was not possible. Instead, charts were shared on the Internet as static images. That is, charts lost their interactivity and became static once they were shared over the Internet. This is because the software that created the charts initially had to be present to re-render the chart, so when the chart was shared to a different computer (e.g. a server) the only option was to put the chart in a universal format that could be viewed on the Internet, such as a jpeg or other image formats. Some systems would "mimic" interactivity by making a call to a server to re-render the chart (a technique known as "server-side re-rendering") and then send the re-rendered chart to the client. For example, if a user wanted to move a slider on the chart, the webpage would make a call to the server, which would send a new webpage to the client—containing a slightly different static image of the chart. Thus, no re-rendering occurred on the client side. The system only mimicked being interactive which

1 caused lag time on re-rendering the chart because it happened on the server.

2 **1. '595 Patent**

3 24. Tableau contends that claim 1 of the '595 Patent does not provide an inventive
4 solution to a problem with interactive charts. I disagree. As explained above, charts that were
5 embedded into a web site at the time of the '595 Patent were not continually updated but were
6 typically presented as static images. If an update were to be made to the chart, a new image would
7 be created and placed on the site. As data was updated, the chart was not automatically updated.
8 Further, interactive charts could not be shared over the Internet. Charts lost their interactivity and
9 became static once they were shared over the Internet.

10 25. Independent claim 1 of the '595 Patent, as well as the asserted dependent claims,
11 recite concrete limitations and cover a specific implementation of creating, and sharing interactive
12 charts. The first half of claim 1 of the '595 Patent is directed to creating the interactive chart in a
13 specific way. The system claims a memory that stores a chart template and a processor that
14 generates a user interface on a website. Within this user interface, the interactive chart is created
15 using a chart template and chart data. As explained in the specification, an interactive chart has
16 interactive features that allow a user to interact with the chart. The second half of the claim is
17 directed to how the interactive chart is shared and how it retains its interactivity. The interactive
18 chart is shared with a second application but still utilizes the data, which could be updated in real-
19 time. For example, the template and data for a chart are hosted on server 1, but the chart can be
20 shared with a different application by connecting that application with server 1. The application
21 does not need to know all the details about how to render the chart, what data is being displayed,
22 or how the user can interact with it, but all this is automated through the template and data that is
23 accessible over the Internet (e.g. from server 1 or another data source). In response to the
24 generation of the interactive chart, the network interface transmits the interactive chart to the
25 second website without the execution of the instructions stored in the memory of server 1 to
26 generate the user interface on the first website. The second website receives an input from the
27 second user and updates the chart after receiving the input. Thus, even after the interactive chart is
28 shared, the interactive chart can be updated if a new interactive chart is generated in the user

1 interface on the first website. This was not possible prior to the invention. Dependent claim 4
2 depends from claim 1 and additionally recites that the interactive chart retains one or more
3 interactive features when displayed via the second website. Dependent claim 5 further claims
4 specific interactive features (“at least one of a Zoom feature, a data mouse-over pop-up window,
5 a data hide feature, a data share feature, an audio feature, a video feature, an animation feature,
6 and a drill-down feature, or a data gliding feature”) of the interactive chart. Independent claim 7
7 of the ’595 Patent likewise recites concrete steps for creating and sharing interactive charts.
8 Independent method claim 7 includes steps involving all of the same structures as the system
9 claims—user interface, first website, second website, chart template, chart data, an interactive
10 chart, second website, and a network interface to transfer the interactive chart to a second website
11 for display.

12 26. Tableau also contends that the Asserted Claims are the same as updating a chart by
13 hand that would “require no more than paper, a pencil, and an eraser by a second person who
14 received the chart embedded in a letter, for example.” Mot. at 16. I disagree. If a chart that was
15 written with pencil on paper were to be updated, the chart would typically need to be erased and
16 drawn completely from scratch. The values on the axes may change, the type of chart may change,
17 and the data displayed would be different. A chart drawn on paper may not even be displaying all
18 the raw data that was used to generate the chart. For example, the average home prices in different
19 zip codes could be displayed on a chart, and as more data is included, without having all the raw
20 data, a person would not be able to determine how the chart would have to be updated. Was the
21 average data in a specific zip code determined from 10 home prices or 10,000 home prices? Merely
22 looking at a chart drawn on paper does not show the raw data and does not give a user the ability
23 to drill down into the data to even figure that out.

24 27. A chart sent by someone in the mail is not an “interactive chart” because a person
25 is not able to drill down into the data. A user is unable to zoom into specific parts of the chart to
26 learn more about what data is being displayed. Nor would this information be available if the chart
27 was received in the mail. An interactive chart allows a user to find out more about the data that
28 was used to generate the chart, and a chart shown on paper does not allow that. The recipient would

1 not be able to change the view of the chart with the chart as it would an interactive chart. An
2 interactive chart could be changed from a bar chart to a line graph, for example, but a chart that is
3 drawn on paper may not be able to be converted without knowing more about the raw data used to
4 generate the chart and re-drawn from scratch. The chart received in the mail is static – the user
5 cannot interact with it.

6 28. Because of the interactive nature of the chart embedded in the webpage using the
7 inventions of the Asserted Patents, the interactive charts can be subsequently updated on the
8 webpage automatically. The next time the user would view the chart, the chart could be entirely
9 different or updated with new data. A chart that one received in the mail is not capable of
10 automatically updating over time. As the specification explains, “[w]hen the data for the interactive
11 chart is updated in the online portal, the chart on the web page is automatically updated. For
12 example, the data on the webpage can be updated using a new [F]lash file. If embed code has been
13 implemented in a web page, the web page fetches the new [F]lash file from the server and displays
14 it.” ’595 Patent, 15:51-57. Further, “[i]f a chart is updated with new data, the [F]lash file gets
15 recreated and stored. The next time the web page where an interactive chart has been embedded
16 (that is where the embed code that fetches the chart has been implemented) is refreshed, the
17 updated chart is displayed. In one embodiment, the page may be refreshed automatically for a
18 semi-live stream of data or the data may be stored separate from the [F]lash file, the separate data
19 file fetched dynamically for real time feeds.” *Id.* at 8:45-59.

20 29. Tableau contends that the ’595 Patent specification “confirms” that preexisting
21 interactive charts that can be embedded, such as those by Google, were well-understood, routine,
22 and conventional before the alleged invention date. *See* ’595 Patent at 1:26–42. However, this
23 portion of the specification discusses some of the shortcomings of prior art: The interactivity of
24 the chart based on the patent does not require fetching additional data from the server, but the
25 object that is rendered on the client can be redrawn without making additional requests of the
26 server. Additionally, “when the charts are copied into other documents (e.g., Microsoft Word
27 documents, PDFs, etc.), the charts are no longer interactive.” ’595 Patent, 1:47-49. “In addition,
28 other users cannot access the data associated with the interactive chart or copy the interactive chart

1 for their own use. *Id.* 1:49-51. Since the data does not have to be retrieved again, the chart is able
2 to be accessed offline in different locations and shared on a second website. The charts can still be
3 rendered with different views, and the user can drill-down into the data to find more granular
4 information than would be available through static charts.

5 30. Importantly, the Google charts are not transmitted to a second website as recited in
6 the claim language and do not have the necessary code to rerender the chart once it is transferred
7 to a second website. Thus, reference to a Google spreadsheet does not address the key features of
8 the '595 Patent.

9 31. Tableau contends that because the interactive chart can be written using commercial
10 software, such as Adobe Flash and Adobe Flex, the solution offered by the Asserted Patents is
11 well-known and conventional existing technology. Mot. at 12. The patent merely states that the
12 interactive chart could be written in Adobe Flash or Adobe Flex, but those are merely the software
13 development kits (SDKs) that could be used to program the generation of the interactive chart. The
14 SDK or language is not relevant to the functionality, though the SDK and languages are being used
15 as programming tools to generate something different than previously existed. In other words, the
16 new functionality covered by the claim limitations were not present in Adobe Flex and would have
17 required an extensive amount of software development by the inventors; thus, making the
18 invention non-conventional and novel.

19 32. The '595 Patent makes reference to Adobe Flash or Adobe Flex, but the '595 Patent
20 is not claiming the invention of either of those technologies. When sharing the interactive charts,
21 the use of Adobe Flash or Adobe Flex is merely a design choice by the programmer and not a
22 requirement of the claims. The interactive chart can be viewed in different applications, such as
23 on a web site, and the same functionality will exist in each application, allowing the user to change
24 the view or interact with the chart. This is a novel invention in the patent since the chart will not
25 be static when shared in different applications but will still provide the user with interaction and
26 drill-down capabilities into the data that was used to generate the chart.

27 33. The functionality enabled through Adobe Flash or Adobe Flex does not render
28 every application that uses those SDKs unpatentable. If that were true, every book ever written

1 would be conventional since the words used in them exist in a dictionary. The dictionary is merely
2 providing the words that could be used, and coupled with the rules of grammar, this enables every
3 book to be written. The content of the book and the arrangement of the words in the book are
4 unique though. Adobe Flash and Adobe Flex act similarly to a dictionary, providing the potential
5 functionality. The way that functionality is then put together in an application will be unique.

6 34. A computer programming language is similar to a natural language, providing the
7 language and grammar rules. Computer languages are typically more strict than natural
8 languages in that they will not allow a program to run if the grammar rules are not followed. For
9 example, if a language requires a semi-colon at the end of every line, and a line in the program
10 does not contain a semi-colon, the program may not compile to a language that the computer can
11 execute, and therefore, the program will not run. With natural languages, punctuation is not
12 typically enforced as strictly.

13 35. The specification describes a specific implementation of creating an “interactive
14 chart” as a Flash object. As shown in FIGS. 3-7, “an exemplary interactive chart 300 according to
15 embodiments” is “a [F]lash file that contains code that a) renders the chart, b) obtains input from
16 the user as per his desired action on this chart (i.e., interactivity), and c) rerenders the chart using
17 the input as parameters. The chart data is stored within the flash file.” ’595 Patent, 8:35-44.

18 36. The system creates and stores the Flash files in a web portal. *Id.* 8:45-46. The
19 interactive charts that are downloaded are self-contained Flash files that can exist independent of
20 the web portal. *Id.* at 8:60-63. The system also includes an interactive chart sharer 208 or a sharing
21 module. *Id.* at 8:7-14. The interactive chart generator 204 and the interactive chart sharer 208 are
22 functionally connected to the user interface 212. *Id.* at 8:7-14.

23 37. The generated interactive chart can be published on an external webpage 228 as an
24 interactive chart. *Id.* at 8:20-22. As shown in FIG. 2, the external website accesses the sharing
25 module to retrieve the interactive chart. *Id.* at FIG. 2. If a chart is embedded into a web-site, a
26 retrieve code is embedded into that sites’ HTML code that fetches the Flash file from the server in
27 the sharing module when the web page of that site is requested by a user. *Id.* at 8:45-49.

28 38. If a chart is updated with new data, the Flash file gets recreated and stored in the

1 sharing module. The next time the web page where an interactive chart has been embedded (that
 2 is where the embed code that fetches the chart has been implemented) is refreshed, the updated
 3 chart is displayed. *Id.* at 8:52-56.

4 39. Also, because chart data is stored within the Flash file along with all of the code
 5 necessary to render and rerender the interactive chart, the interactive chart is interactive after it has
 6 been published. “That is, the chart 300 has interactive features that allow a user to interact with
 7 the chart to, for example, modify or change their view of the chart, learn more about the chart data,
 8 and the like.” *Id.* at 9:25-28.

9 2. '892 Patent

10 40. Tableau makes similar arguments with regard to claim 1 of the '892 Patent as it did
 11 for claim 1 of the '595 Patent.

12 41. Like claim 1 of the '892 Patent, independent claim 1 of the '892 Patent recites
 13 specific limitations and cover a specific implementation of creating, sharing, and embedding
 14 interactive charts. The '892 Patent is directed to creating the interactive chart in a specific way.
 15 The system claims a computer system with a “data module”, a “chart template module,” a
 16 “generation module,” and a “sharing module” that are specific structures with specific
 17 functionality. '892 Patent at c1. 1. The generation module has a generation interface configured to
 18 allow the user to create the interactive chart using a chart template stored in the “chart template
 19 module” and data stored in the “data module.” *Id.* Claims 2 and 3 recite further limitations of the
 20 generation interface that allow the user to drag and drop data using a “chart pane” and a “data
 21 pane” to allow the generation module to automatically generate the interactive chart “from the data
 22 stored in the data module when the user interface receives an indication that the user has dropped
 23 the data into the chart pane.” *Id.* at cls. 2, 3.

24 42. The “sharing module” of the claim is directed to how the interactive chart is shared
 25 and how it retains its interactivity. The sharing module enables the user to publish the interactive
 26 chart as a “self-contained and independent electronic document.” *Id.* at cl. 1. The “self-contained
 27 and independent interactive chart” is capable of rendering in absence of the generation interface
 28 and the chart template module, and being re-rendered using user input as a parameter. *Id.* This

1 allows the “self-contained and independent interactive chart” to retain its interactivity when it is
2 shared. This means that subsequent users could interact with the interactive chart and it would be
3 “rerender[ed] using the input as a parameter.” *Id.* at cl. 1. This was not possible prior to the
4 invention. *Id.*

5 43. While not asserted, dependent claim 4 further claims that the “interactive chart
6 comprises a [F]lash object,” further explaining that the “independent chart” is a self-contained
7 structure. *Id.* at cl. 1. Dependent claim 5 additionally recites that the interactive chart retains one
8 or more interactive features and dependent claim 6 further claims specific interactive features of
9 the interactive chart. *Id.* at cls. 5, 6.

10 44. Independent claim 10 of the ’892 Patent likewise recites concrete steps for creating,
11 sharing and embedding interactive charts. Independent method claim 10 requires utilizing all of
12 the same structures as the system claims—a generation interface with a data pane and chart pain,
13 chart template module, drag and drop feature, publishing or embedding the interactive chart “as a
14 self-contained and independent electronic document” that is capable of rendering in absence of the
15 generation interface and the chart template module, and being re-rendered using user input as a
16 parameter. *Id.* at cl. 10.

17 45. Tableau argues claim 1 of the ’892 Patent’s modules “are conventional steps at a
18 high level of generality that fail to provide an interactive solution to a problem with interactive
19 charts.” Mot. at 17. However, the claimed computer system is not how ‘conventional’ systems
20 operated at the time of the invention. *Id.* at 1:19-44. Prior to the invention of the ’892 Patent,
21 systems could not create an interactive chart as a self-contained document for it to be shared over
22 the Internet. Charts lost their interactivity once they were shared. The claims of the ’892 Patent are
23 directed to a specific solution with specific elements and structures that published interactive charts
24 on the Internet. The “self-contained and independent interactive chart” could “obtain input from a
25 user” and “rerender the chart using the input as a parameter.” *Id.* at cl. 1.

26 46. Tableau repeats its arguments of conventionality with regard to claim 1 of the ’892
27 Patent. As I explained above, the inventions of the asserted claims are not well-known, routine,
28 and conventional activity at the time of the invention. *See* ¶¶29-39, 51-55, herein.

1 **3. '000 Patent**

2 47. Tableau makes similar arguments with regard to claim 1 of the '000 Patent as it did
3 for claim 1 of the '595 Patent and claim 1 of the '000 Patent.

4 48. Like claim 1 of the '892 Patent and claim 1 of the '595 patent, independent claim
5 1 of the '000 Patent recites specific limitations and covers a specific implementation of creating
6 and sharing interactive charts. Claim 1 includes similar steps of creating an interactive chart
7 using a generation interface that is configured to allow a user to drag and drop an interactive
8 chart from a plurality of charts into a chart box folder. The chart box folder “is connected to the
9 chart box.” '000 Patent at cl. 1. Claim 1 further recites that the “chart box” is a “web widget.” *Id.*
10 The claim further provides that “the selection is made by dragging and dropping the at least one
11 interactive chart from the plurality of charts into a chart box folder connected to the chart box
12 such that retrieve code for data feed displays the at least one interactive chart on the first
13 website.” *Id.* The claims further require that “the at least one interactive chart is automatically
14 displayed on the second website using a data feed from the first website to the second website
15 upon the dragging and dropping selection.” *Id.* Claim 1 further requires that the “interactive
16 chart” when displayed on the second website in the absence of the generation interface, enables a
17 user to a) render the chart, b) obtain input from a user and c) rerender the chart using the input
18 thereby enabling the interactive chart to retain interactivity.” *Id.*

19 49. Thus, the '000 builds on the '595 Patent and '892 Patent and allows a user to embed
20 a chart box into a website for displaying interactive charts. The method uses “data feed” to
21 automatically display the interactive chart on the second website. *Id.* at cl. 1. On the server-side,
22 the generation interface allows the user to drag and drop an interactive chart into a chart box folder.
23 The chart box folder corresponds to the chart box embedded in the second webpage. *Id.*

24 50. Tableau argues claim 1 of the '000 Patent fails to recite interactive concept for the
25 same reasons as the claims above. Tableau essentially picks the claim apart and argues that each
26 element is “well-understood, routine, and conventional.” However, as explained elsewhere sharing
27 interactive charts over the Internet so the chart would retain its interactivity was not known at the
28 time the invention, and certainly neither were the structures and components claimed in claim 1

1 well-understood or conventional at the time of the invention. To the contrary, the Asserted Patents
2 provide a specific solution for creating and sharing interactive charts. Prior art systems operated
3 entirely different manner than the computerized methods claimed in the Asserted Patents. For
4 example, a programmer could hardcode interactive charts within the website itself. This meant that
5 the interactive chart could not be automatically updated or shared as the claimed invention allows.
6 A programmer would have to reprogram the interactive chart every time, and by its very nature
7 this is not a computerized system of creating and sharing interactive charts. Prior art systems could
8 also mimic sharing an interactive chart by requiring a server-call every single time the user
9 interacted with the charts. In reality, the chart was a static chart that was not capable of rerendering
10 without calling to the server that created the chart.

11 **B. File History**

12 51. I understand that Tableau also relies on Examiner statements from the file histories
13 of the iCharts Patents.

14 52. Tableau relies on part of the prosecution history for the related '892 Patent. Ex. 9
15 at 4–6 and Ex. 10 at 6–8 to the McHale Declaration. Tableau contends that Ex. 9 “confirms that
16 using chart templates and chart data to generate an interactive chart also predated the supposed
17 invention” because the claims were rejected based on prior art teachings. Mot. p. 12. McHale Ex.
18 9 at 4–6 (rejecting claim based on prior art teaching these limitations). Tableau further argues that
19 the Applicant traversed the rejection by adding elements as shown in Ex. 10 at 6–8.

20 53. Tableau makes a similar argument regarding the file history of the '000 Patent. See
21 Mot. at 13 (citing Ex. 12 at 10). The Waldorf '582 patent does not disclose interactive charts in
22 the same manner as the '000 Patent. Specifically, the '000 Patent teaches publishing or an
23 interactive chart that is able to be incorporated in different applications with updated data and
24 different views while allowing interactivity with the user. The Waldorf '582 patent discusses
25 updating the data in an interactive chart in the same application in which it was created, but it does
26 not disclose the updated data being reflected in different applications. Thus, the Waldorf '582
27 patent simply discloses a tool for creating a chart on a computer but does not disclose sending that
28 chart to another computer and the user subsequently interacting with the interactive chart. This

1 confirms my understanding that the Asserted Patents are directed at solving specific problems in
2 the pre-existing technology as discussed above.

3 **C. Wikipedia Pages**

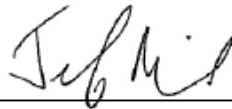
4 54. Tableau also relies on two Wikipedia pages to argue that “applying Flash to a chart
5 was well-understood, routine, and conventional activity. Mot. at 13 (citing to Exs. 13 at 3 and 14).
6 I disagree; neither of these Wikipedia pages establish that the claims of the iCharts Patents cover
7 well-understood, routine and conventional activity. Exhibit 13 is the Wikipedia page for “Adobe
8 Flex” as of September 5, 2008. An overview, the release history, the different versions, and some
9 other specifics about Adobe Flex are included in the exhibit. The motion states, “The disclosed
10 “Adobe Flex” article confirms that charts and graphs were available as add-ons to the Adobe Flex
11 Software.” Mot. at 13. Although Adobe Flex supported charts and graphs, the ’595 Patent is not
12 merely stating that the invention is the creation of a chart or graph in Adobe Flex. The real-time
13 user interactivity of the chart, updating of data in real-time, and publishing and sharing the chart
14 are some of the functionalities included in the patent. Adobe Flex is one platform that the inventors
15 utilized to create the interactive charts, but prior to the invention Adobe Flex did not provide any
16 way for a user to publish an interactive chart over the Internet. In other words, the new functionality
17 covered by the claim limitations were not present in Adobe Flex and would have required an
18 extensive amount of software development by the inventors; thus, making the invention non-
19 conventional and novel. Exhibit 14 is the Wikipedia page titled “Flash charting software list” from
20 July 18, 2008. Four top-level bullet points are included in the exhibit – Get data from XML
21 (intended for non flash application and developers, client side renderings), SWF file as output
22 (single time output or server side rendering), Natural Flash Components Libraries (intended for
23 use into Flash or Flex applications), Online service. There are sub-bullets that provide references
24 to other web pages under each of the top-level bullets. The motion states, “And the disclosed “Flash
25 Charting Software List” article listed preexisting charting software for Flash.” Mot at 13. Nothing
26 in Exhibit 14 provides any information on how the charts can be interactive, how the data displayed
27 in a chart can be updated in real-time, or how the chart can be shared with different applications
28 while retaining the views and data sources. In fact, even the references that are included within

1 Exhibit 14 do not provide that information because the mere inclusion of charts in Adobe Flash
2 did not implement the unique functionality claimed in the Asserted Patents. Adobe Flash merely
3 had functionality that allowed the creation of charts and graphs, but that is where the canned
4 functionality of Adobe Flash ended. The inventors of the Asserted Patents utilized these tools in
5 unique ways to create computerized methods and systems for creating and sharing interactive
6 charts over the Internet.

7 55. In addition, it is my understanding that iCharts is asserting that the Asserted Patents
8 were conceived and reduced to practice in early 2007 and has produced documents as part of its
9 disclosures under the Patent Local Rules to evidence these dates. As a result, the Wikipedia pages
10 cited by Tableau in its Motion would not be reflective of the state of the art at the time of the
11 invention of the Asserted Patents.

12
13 I declare under penalty of perjury under the laws of the United States of America that the
14 foregoing is true and correct.

15 Executed on August 22, 2024, 2024 at Cedar City, Utah.

16
17 
18 _____
Jeffrey Miller, Ph.D.